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TRANSMITTAL

TO	Mr. Chris Brummer	DATE	5/31/16
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ADDRESS	201 S. Jackson Street, Suite 600	JOB NO.	21-1-22055-007
PROJECT	PACIFIC PARK PHASE II ENVIRONMENTAL SITE ASSESSMENT FOR THE PACIFIC RIGHT BANK LEVEE		

THE FOLLOWING ITEMS ARE TRANSMITTED:

DATE	NO. COPIES	DESCRIPTION
MAY 2016	1	Electronic copy of the Phase II Environmental Site Assessment Pacific Right Bank Levee Setback Project

- ☐ Per your request ☐ For your approval ☐ For your information ☒ For your files
☐ For your review ☐ For your action ☐ Return with comments ☐ Other

Comments:

Chris,

Enclosed is the electronic copy of the Phase II Environmental Site Assessment for the Pacific Right Bank Levee Setback Project.

If you have any questions or require anything further, please don't hesitate to contact me at 206-695-6704.

Thank you for allowing Shannon & Wilson to assist with this project.

Regards,

-Ed

By: Ed Ptak

c: _____

Title: Environmental Scientist

**Phase II Environmental Site Assessment
Pacific Right Bank Levee Setback Project
Pacific, Washington**

May 31, 2016



Excellence. Innovation. Service. Value.
Since 1954.

Submitted To:
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21-1-22055-007

EXECUTIVE SUMMARY

Shannon & Wilson, Inc. (S&W) has completed a Phase II Environmental Site Assessment (ESA) for the proposed Pacific Right Bank Levee Setback Project (Site) located at 600 3rd Avenue SE in the city of Pacific, Washington. The assessment was conducted for the King County River and Floodplain Management Section, Water and Land Resources Division in support of the Pacific Right Bank Levee Setback Project.

The Site is approximately 43 acres and is located in a residential area along the right (western) bank of the White River in Pacific, Washington, at 600 3rd Avenue SE. The Site is owned by King County and is leased to the City of Pacific for use as a park that is closed for flood control from about October to March.

The objective of this Phase II ESA was to evaluate the recognized environmental conditions (RECs) identified during the Phase I ESA (S&W, 2015a). Field activities were performed as described in the Phase II ESA Work Plan (S&W, 2015b) dated June 2015.

The Phase II ESA tasks include soil sampling and analysis from 28 geoprobes (GP-1-15 through GP-22-15 and MW-1-15 through MW-6-15) and test pit explorations (TP-1-15 through TP-4-15), and groundwater sampling and analysis from three geoprobes (GP-12-15, GP-13-15, and GP-21-15) and six monitoring wells (MW-1-15 through MW-6-15). Geoprobe and monitoring well locations were chosen based on the review of historical records of the Site and through an evaluation of historical aerial photographs.

Shallow and deep soil samples were collected from each geoprobe location. Soil samples collected from the geoprobes and test pits were analyzed for petroleum hydrocarbons (gasoline, diesel, and oil ranges); total Resource Conservation and Recovery Act (RCRA)-8 metals; volatile organic compounds (VOCs); semi-volatile organic compounds (SVOCs); polynuclear aromatic hydrocarbons (PAHs); herbicides; and pesticides. Follow-up analyses based on initial soil sampling results included polychlorinated biphenyls (PCBs) and toxicity characterization leachate procedure.

Groundwater samples collected from the geoprobes and monitoring wells were analyzed for petroleum hydrocarbons (gasoline, diesel, and oil ranges), total and dissolved priority pollutant metals, VOCs, SVOCs, and PAHs.

A total of 64 soil samples were analyzed during the Phase II ESA work. Thirty-four (34) percent of the soil samples, or 22 of the 64 samples analyzed, detected chemicals in excess of the Model Toxics Control Act (MTCA) cleanup criteria (Ecology, 2013). The contaminants detected in the

analyzed shallow and deep samples include gas, diesel, and lube oil-range petroleum hydrocarbons, PAHs, metals and low concentrations of herbicides and pesticides. The majority of the cleanup criteria exceedances were SVOCs and, in particular, PAHs. Exceedances of the PAHs cleanup criteria were present in both shallow and deep samples. Metals were also identified in excess of the cleanup criteria. The majority of the cleanup criteria exceedances for metals were identified in the analyzed shallow samples. Petroleum hydrocarbons were also detected in excess of the MTCA cleanup criteria in two samples: one in the northern and one in the southern portions of the Site. Low concentrations of herbicides and pesticides were also identified in the northern and southern portions of the Site.

A total of 13 groundwater samples were analyzed for the Phase II ESA work. Contaminants that were detected include lube oil-range petroleum hydrocarbons and metals. Of these detections, total and dissolved arsenic and total cadmium and lead were in excess of the MTCA cleanup criteria.

Based on the results of the soil samples collected during the Phase II ESA investigative fieldwork, contaminated soils will likely be encountered during excavation activities for the levee setback project. Contaminated soils will need to be handled and disposed of in compliance with state, federal, and local regulations pertaining to worker health and safety, environmental protection, and landfill treatment and disposal. Characterization for soil disposal was estimated based on the results of the soil samples analyzed and the comparison of those results to the correlating regulatory cleanup criteria. Soil volumes for disposal purposes were estimated based on a grid system overlay for soil sample locations. The estimated total volume of soil contained within the grids is 336,000 cubic yards with 156,000 estimated in the shallow zone and 180,000 estimated in the deep zone. Of the total estimated soil volume, 30 percent (%) is clean and can be disposed of at an inert or Non-RCRA landfill, 24% is Category II/III and will require disposal at an inert facility or RCRA Subtitle D landfill, 42% is Problem Waste and will require disposal at an RCRA Subtitle D landfill, and 2% is considered Dangerous Waste and will require disposal at an RCRA Subtitle C landfill.

Under the strictest interpretation of Washington Administrative Code 173-340, the Site could be viewed as having a reportable release. However, the Site was closed prior to 1972 and at the time, was under jurisdiction of the Public Health - Seattle and King County and not subject to monitoring requirements, provided that it does not pose a threat to human health and/or the environment. Although contaminants were identified in soil in excess of the regulatory cleanup criteria, these contaminants appear to be confined to the landfill and do not appear to pose a threat to the public given the current land use. Groundwater contamination appears to be largely an artifact of the probe sampling approach, which usually results in more turbid samples and is

not likely an indication of the presence of a plume. The groundwater contaminant identified in excess of the MTCA cleanup criterion is dissolved arsenic, which is likely a function of the redox conditions associated with the landfill. Elevated concentrations of naturally occurring arsenic are also common in organic-rich soils, which manifest similar redox conditions to a landfill.

In the effort to evaluate potential off-site impacts, we recommend off-site sediment and pore water sampling along the adjacent White River and in the wetland to the south of the Site. Consideration should also be given to sampling groundwater during the wet season to determine if the current results are representative of the site or if the increase in groundwater elevation increases the potential contaminant loading to groundwater. We also recommend groundwater sampling of the on-site monitoring wells throughout the year to evaluate seasonal influences on groundwater chemistry and to further evaluate seasonal groundwater flow direction.

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**PHASE II ENVIRONMENTAL SITE ASSESSMENT
PACIFIC RIGHT BANK LEVEE SETBACK PROJECT
PACIFIC, WASHINGTON**

1.0 INTRODUCTION

Shannon & Wilson, Inc. (S&W) has completed a Phase II Environmental Site Assessment (ESA) for the Pacific Park property (Site) located along the west (right) bank of the Lower White River in the City of Pacific, Washington (Figure 1). This Phase II ESA was prepared in accordance with our scope of work for environmental services dated September 11, 2015. Authorization to proceed was received on September 28, 2015, in the form of the signed Amendment 2 to the Professional Services Agreement under the King County Contract No. E00201E10, Work Order E00201-11.

1.1 Purpose of Phase II Environmental Site Assessment (ESA)

The purpose of this Phase II ESA was to evaluate the recognized environmental conditions (RECs) identified during the Phase I ESA (S&W, 2015a). It was also intended to help guide the decision-making process for the design and construction of the proposed Pacific Right Bank Levee Setback project. This Phase II ESA provides disposal characterization assistance through the identification of contaminated soil and groundwater.

1.2 Scope of Services

The scope of services included the following tasks:

- Preparation of a Phase II Work Plan.
- Advancement of 22 geoprobe explorations (GP-1-15 through GP-22-15) to document subsurface materials and to collect soil and groundwater samples for chemical analysis.
- Advancement of six geoprobe explorations (MW-1-15 through MW-6-15) to install monitoring wells and to collect groundwater samples for chemical analysis.
- Completion of four test pit explorations (TP-1-15 through TP-4-15) to observe and document subsurface conditions and materials.
- Analysis of up to two soil samples from each geoprobe exploration.
- Well development of six monitoring wells (MW-1-15 through MW-6-15).
- Sampling of groundwater from each monitoring well (MW-1-15 through MW-6-15) for chemical analysis.

- Sampling of groundwater from three geoprobe explorations for chemical analysis (GP-12-15, GP-13-15, and GP-21-15).
- Preparation of this Phase II ESA report.

2.0 PREVIOUS STUDIES

2.1 Abandoned Landfill in King County, 1985

An Abandoned Landfill Study was conducted by the Seattle-King County Health Department in 1985 on 20 sites in King County to determine if there were any public health problems associated with these sites (Seattle King County Department of Health, 1985). The study involved research of geographical and historical data to help guide sampling efforts at the abandoned dumpsites. The sampling efforts consisted of a survey screening of methane and non-specific organics/inorganics and water quality parameters of conductivity, dissolved oxygen, pH, turbidity, and temperature. In the event the initial screening survey revealed any environmental issues, funds would be allocated for additional work.

In October 1984, fifteen boreholes were advanced at the Pacific City Park and methane and non-specific trace gas concentrations were recorded. Water quality measurements were recorded at a sample location along the southeast perimeter of the site on the right bank of the White River. According to the report, low concentrations of methane were observed throughout the Site with the highest being 0.4 percent. Non-specific trace gas levels were also low with the exception of 5.6 parts per million in one location. A water sample tested for water quality parameters was determined to not be indicative of leachate.

The report indicated that a refuse dump was located in the area of the present-day Pacific City Park according to maps dated as early as 1921 and possibly in 1914. There was no information regarding the use or type of waste disposed in available records. The report indicates that individuals who remember the operation of the dumpsite recall that it was 10 to 12 feet deep. The toe of the fill bordered the river and most of the refuse was burned.

2.2 Geotechnical Evaluation Report

A geotechnical evaluation of the adjoining parcel to the northeast of the subject property in support of a proposed new mobile home was conducted in 2008 (E3RA, 2008). Three test pits were excavated on the site to a maximum depth of 10.5 feet. Test pit logs of the subsurface reveal the presence of fill material mixed with solid waste consisting of pieces of concrete, wood, shards of glass and china, and bits of metal debris to an approximate depth of 5 feet below ground surface (bgs).

2.3 Memorandum for Stormwater Quality Sampling Results from the Pacific Right Bank Wetland

In 2010 and 2011, King County collected stormwater samples from locations within the vicinity of the Pacific City Park (King County, 2015). The purpose of the stormwater sampling was to determine if the quality of stormwater entering the wetland to the south posed a concern for aquatic life and to determine if the water quality of the wetland indicated an impact from the subject property. Baseline and storm event surface water samples were collected at three separate locations. The sample to characterize stormwater entering the wetland was collected at the western boundary of the park, within the vicinity of the driveway for the apartments at the end of 4th Avenue SE. The samples collected to characterize the wetland were located in the wetland, south of the Site. In addition, field parameters were also collected consisting of dissolved oxygen, pH, water temperature, turbidity, and conductivity.

Stormwater samples were analyzed under U.S. Environmental Protection Agency (EPA) method 8270D for semi-volatile organic compounds (SVOCs); EPA method 8260C for volatile organic compounds (VOCs); EPA method 200.8 for metals; EPA method 351.2 for Kjeldahl nitrogen, phosphorous, and orthophosphate phosphorus; and EPA method 8151A for chlorinated herbicides. Samples had detections of nitrogen, various metals, SVOCs, and VOCs.

2.4 Phase I Environmental Site Assessment (ESA) Results

S&W conducted a Phase I ESA in May of 2015 for the Pacific City Park Site (S&W, 2015a). The following recognized environmental conditions (RECs) have been identified in connection with the Site:

- **Indiscriminate Dumping:** According to the review of historical records, previous reports, and historic aerial photographs, the Site was previously used as a dumpsite prior to it being the current Pacific City Park. It is likely that indiscriminate dumping occurred on the property, as no records have been located that document dumpsite activities.
- **Undocumented Fill:** Based on the comparison between historical survey data and historical aerial photographs for the Site and current elevations and ground conditions, it is likely that portions of the Site were filled after it was converted to a park. There are no available records documenting the placement or source of this fill.
- **Use of Pesticides/Herbicides:** According to the review of early maps and documents prior to development, the adjacent properties contained orchards and were used primarily for agriculture. It is likely that surface water runoff impacted by the use of pesticides and/or herbicides drained to low-lying areas on the northern portion of the Site, potentially impacting soil and/or groundwater.

- **Potential Presence of Treated Wood:** A review of a series of historical photos revealed the use of wood for structures associated with riverbank stabilization and river channelization efforts conducted during the early 1900s. There is the potential that the wood used for these efforts was treated. In addition to the wood used for riverbank stabilization, there is the potential that treated wood was also used in the construction of the former Northern Pacific Railroad Bridge that was located approximately 1,500 feet upstream to the northeast of the subject property. There is the potential for treated wood to be present on the Site from dumping activities related to bank stabilization and the railroad.

2.5 Cultural Resources Literature Review, 2014

In May 2014, a cultural resources literature review for the proposed Pacific Right Bank Levee Setback Project was conducted by Environmental Science Associates (Environmental Science Associates, 2014). This review was conducted to identify the presence of properties, and structures with potential cultural resources significance within the project area. Based on the review of cultural and environmental documents, there is a high potential for subsurface precontact archaeological resources to be encountered within the project area. The literature review also revealed the very high potential for historic archaeological resources to be present within the project area. The existing White River Right Bank Levee and associated revetment are aboveground historic properties. There is the potential for cultural resources associated with the construction of the levee and revetment to be present. The buried remains of the abandoned landfill and archaeological resources related to agriculture are also expected to be present within the project area.

2.6 Pacific Park Archaeological Memo, November 2015 Draft

Based on the high potential for cultural resources and the very high potential for historic archaeological resources to be present within the project area, Environmental Science Associates conducted archaeological monitoring on September 23, 2015, during the Phase II Environmental Site Assessment field exploration test pits (Environmental Science Associates, 2015). These explorations were conducted for the purpose of documenting environmental conditions and identifying the presence and extent of potential refuse material. Refuse material associated with the abandoned Pacific City dumpsite was encountered and recorded as a historic archaeological site (45-KI-1258). Environmental Science Associates conducted supplemental historic background research related to the Pacific City dumpsite. According to the evaluation of potential eligibility under the federal criteria, Environmental Science Associates recommended archaeological site 45-KI-1258 not eligible for inclusion on the National Register of Historic Places.

3.0 BACKGROUND

3.1 Site Description

The Site is 43 acres and is located in a residential area along the right bank of the White River in Pacific, Washington, at 600 3rd Avenue SE. The Site is currently a park that is closed for flood protection purposes from about October to March.

The Site is approximately 2,000 feet north of the King/Pierce County line. The property is relatively flat. Contours on the U.S. Geological Survey (USGS) topographic map (Auburn Quadrangle) indicate that the ground surface elevation is approximately 79 to 87 feet (NAVD88).

3.2 Site History

King County has owned the property since 1921. Historical records and maps indicate that the subject property was used as a dumpsite as early as the 1920s or possibly earlier. The site was closed for use as a city dump in 1965 and it stayed abandoned until the early 1970s. King County leased the subject property to the City of Pacific for use as a park that was opened and dedicated in 1972.

The subject property is located in an area that has historically been agricultural and has historically been, and is still, prone to frequent flooding by the White River. According to historical photos and maps, flood-control measures were taken that included the construction of a concrete revetment and the rechanneling of the former Stuck River.

4.0 GEOLOGIC AND HYDROGEOLOGIC SETTING

This section describes the general geologic setting of the site vicinity and discusses the subsurface conditions. The geologic and hydrogeologic summaries below are based on a review of previous explorations logs and S&W's environmental explorations conducted at the Site.

4.1 Geologic Setting

Geologists generally agree that the Puget Lowland area has been subjected to six or more major glaciations during the Pleistocene Epoch (2 million years to about 10,000 years ago). The ice sheet of each glaciation overrode and compacted (overconsolidated) underlying soils to a very dense or hard state. During the most recent ice coverage of the central Puget Lowland (Vashon Stade of Fraser Glaciation), the thickness of ice is estimated to have been about 3,000 feet at the Site. The last ice covering the Site receded about 13,500 years ago, leaving a landscape sculpted

into a series of north-trending ridges and valleys. These deep valleys were partially or completely filled with recessional glacial deposits and recent Holocene deposits. As the last ice sheet retreated, sea level changed as a result of isostatic readjustment of the land and rising water levels from the melting of ice worldwide. During the last recession, sea level was considerably lower than the present sea level and did not reach equilibrium at present levels until about 5,000 years ago.

Subsequent to glaciation, a series of lahars and mudflows associated with volcanism from Mt. Rainier occurred which contributed to the deposition of sediments in the White River valley. The most significant of these volcanic events was the Osceola mudflow that diverted the White River and initiated the deposition of the White River alluvial fan. During the Sumerland age volcanism approximately 2,500 years ago, the White and Green Rivers extended 20 miles north to Elliott Bay. During a large flood that occurred in 1906, the White River was re-diverted to the south and avulsed to the Stuck River.

The Geologic Map of the Auburn 1:24,000 Quadrangle (Mullineaux, 1965) maps the site as artificial fill (af) with the surrounding area as alluvium (Qaw). The map indicates that the alluvium consists of mostly gravel and sand deposits of the White River and bolder cobble and pebble-cobble gravel and sand in the White River valley.

The USGS topographic map (Auburn Quadrangle) indicates that the general topography of the White River valley slopes toward the south or southwest. The U.S. Department of Agriculture Soil Conservation Service, "Soil Survey of King County Area Washington," (1973) indicates that the predominant soil at the site is map as follows:

- Oridia silt loam with surface slopes less than 2 percent consisting of silt loam to a depth of approximately 42 inches with an underlying layer of silty clay loam. Oridia silt loam has very slow infiltration rates with a high water table.
- Mixed alluvial land with surface slopes less than 2 percent consisting of a variety of alluvial soils from sand and gravelly sand to silty clay loam. Mixed alluvial land soil is well drained and has generally low infiltration rates with a high water table.
- Puyallup fine sandy loam with surface slopes less than 2 percent consisting of fine sandy and very fine sandy loam to approximately 34 inches, with an underlying layer of medium sand, loamy sand, and sand.

A geotechnical evaluation was conducted on the adjoining northeast residential parcel (E3RA, 2008). Test pits were performed as part of the geotechnical evaluation to characterize the subsurface. Test pit logs from this report reveal the upper 1 to 5 feet bgs being roadway ballast consisting of cobbles with some sand and gravel. Bits of inert trash consisting of shards

of glass and china, and bits of metal debris were mixed in with the ballast and fill. Underlying the fill material from approximately 5 to 8 feet bgs was alluvium consisting of loose, moist to wet gravelly sand with some silt was encountered. Underlying the sandy alluvium was gravelly alluvium with trace silt was encountered. According to the report, rapid groundwater flow was observed at 9 to 9.5 feet bgs in two of the three test pits.

4.2 Site Geology

Soil classifications during the environmental explorations were based on field observations alone. Geotechnical analyses of soils were not conducted for this Site. Soil descriptions are presented in the exploration geoprobe and test pit logs in Appendix A.

Fill material was encountered in each of the geoprobe explorations across the Site. Fill material was identified based on soil with a disturbed appearance and from the presence of unnatural debris such as glass shards and bottles, brick, cement, organics, wood, paper, rubber, and ceramic. Fill consisted of gravelly silt, silty sand, and sandy gravel to gravelly sand. Based on observations from the geoprobes and test pit explorations, fill is generally 2 to 12 feet thick across the Site, with fill being thicker in the central/south central portion of the Site.

The fill is underlain by alluvial overbank deposits consisting mostly of poorly graded sand with gravel to sandy gravel interbedded with backwater lacustrine deposits consisting of silt with organics and interbeds of silty sand. Alluvium and lacustrine deposits were encountered from 2 to 12 feet bgs. Large cobbles to small boulders were not observed in the geoprobe explorations due to sampler size limitations, but were encountered in the test pit explorations. Fill material and alluvial deposits were loose, causing caving and collapse that limited excavation depths in some of the test pits. Loose soils and refuse debris limited the recovery of the geoprobe core samples at some locations.

4.3 Hydrogeologic Setting

The Site is located on the right bank of the White River. Lidar indicates low-flow water surface of the White River ranging from 76 to 82 feet (NAVD88).

Information regarding groundwater depth and flow data was obtained from several sources. Logs of registered wells within approximately one-half mile of the site were obtained from the Washington State Department of Ecology (Ecology) web page (Ecology, 2015). Well logs indicate that groundwater in the site vicinity has been encountered in wells between 5 and 7 feet bgs. According to the geotechnical subsurface investigations conducted on the northeast

adjacent parcel, rapid groundwater flow was observed at 9 to 9.5 feet below surface during test pit excavation activity (E3RA, 2008).

According to the a regional groundwater piezometric surface map contained in the, “Occurrence and Quality of Ground Water in Southwestern King County, Washington,” USGS Water-Resources Investigations Report 92-4098 (Woodward and others, 1995) groundwater flow direction in general, is south-to-southeasterly toward the White River.

The Water-Supply Bulletin No. 28, “Geology and Ground-Water Resources of Southwestern King County, Washington,” (Luzier, 1969) indicates a general groundwater flow direction towards the south-southeast with groundwater elevation within the vicinity of the site at 75 to 80 feet (NAVD88).

According to a report conducted by S&W (2014) for a site located approximately 2,000 feet to the southeast and on the left bank of the White River, groundwater flow direction has a fluctuation that is affected by river stage. Groundwater flow direction changes from a southerly direction in the dry season to a southeasterly direction in the wet season. Based on the proximity of the study area to the subject property, it is likely that similar groundwater conditions exist at the subject property.

Based on the data reviewed, it appears that the depth to groundwater is approximately 5 to 9.5 feet bgs in the vicinity of the site, and that groundwater flow direction is toward the south or southeast. On a local scale, the depth to groundwater and flow direction may vary from the regional depth to groundwater and flow direction based on river stage and seasonal groundwater fluctuations.

4.4 Site Hydrogeology

Groundwater was encountered in each of the geoprobe and test pit explorations with the exception of the southernmost test pit and geoprobe GP-22-15 that was advanced to characterize the soil mounds in the southern portion of the site. Groundwater depths ranged from 4 to 9 feet bgs. In general, groundwater was encountered between 4 and 6 feet bgs, with deeper groundwater depths encountered in areas of higher relief, such as explorations located on the existing levee and in terraced fill areas in the southern portion of the Site.

Groundwater observed in test pits was rapid flowing, causing caving and collapse that limited the excavation with the exception of the southernmost test pit. Soils with generally high-permeability were observed in the test pits, which facilitated a rapid movement of groundwater into the excavation.

5.0 FIELD EXPLORATIONS

S&W developed a Phase II ESA Work Plan (S&W, 2015b) that outlines soil and groundwater sampling protocols for geoprobes and monitoring wells to investigate RECs identified in the Phase I ESA. The results of the geoprobe soil and groundwater samples, and monitoring well samples are summarized below. A summary of the field explorations and analytical testing are presented in Table 1.

5.1 Locations Rationale

S&W observed the completion of 28 geoprobes, the installation of 6 monitoring wells in those geoprobes, and the excavation of 4 test pits (Figure 2). Exploration locations were selected based on the review of historical records of the Site and through an evaluation of historic aerial photographs. Areas where dumping likely occurred, as revealed on historic aerial photographs, were targeted for geoprobe and test pit explorations (Figure 3). Exploration locations were also selected in the effort to obtain a general site-wide characterization of environmental conditions.

5.2 Sampling Activities

Soil and groundwater samples were collected to address RECs identified in the Phase I ESA, to generally characterize site-wide environmental conditions, and to assist with planning for potential handling and disposal. Prior to conducting the field explorations, pre-sampling preparation work was completed as outlined in the Work Plan. Soil and groundwater samples were collected in general accordance with the Work Plan.

Environmental Services Northwest, under subcontract to S&W, completed geoprobes GP-1-15 through GP-11-15 on September 17, 2015; GP-12-15 and monitoring wells MW-1-15, MW-2-15, and MW-3-15 on September 18, 2015; GP-13-15 through GP-21-15 on September 21, 2015; and GP-22-15 and monitoring wells MW-4-15, MW-5-15, and MW-6-15 on September 22, 2015. Kelly's Excavating Inc., under subcontract to S&W, completed test pits TP-1-15 through TP-4-15 on September 23, 2015. Monitoring wells MW-1-15 through MW-6-15 were sampled on October 5 and 6, 2015. An S&W field representative was joined by a King County representative to observe the geoprobes, monitoring well installations, and test pit excavations. A King County representative was also onsite to observe S&W conduct the groundwater sampling of the monitoring wells that occurred on October 5 and 6, 2015.

A total of 64 soil and 13 groundwater samples were collected from the environmental explorations in general accordance with our Work Plan. Of the 64 soil samples, 62 were collected from the geoprobe explorations, and two were collected from the test pits excavations.

Of the 13 groundwater samples, 7 were from collected from temporary geoprobe wells and 6 were collected from the monitoring wells.

5.2.1 Geoprobe Soil Sampling

Two soil samples were collected from each geoprobe. In general, one soil sample was collected from the upper 0 to 5 feet bgs or at the groundwater interface, and a second sample was collected in the lower 10 to 15 feet bgs. Select samples were collected below the 0 to 5 feet groundwater interface zone based on field observations indicating the presence of refuse material and/or indications of contamination. Geoprobes were advanced to a target depth of 15 feet bgs with the exception of GP-3-15, where poor recovery warranted advancement to 19 feet bgs. Soil samples were collected in general accordance with the Work Plan.

5.2.2 Geoprobe Groundwater Sampling

A total of three groundwater samples were collected from the geoprobes, and four were collected from the monitoring wells. Groundwater samples were collected from a temporary screen installed in the open hole once the targeted depth was reached in the geoprobe. Additional groundwater samples were collected from the permanent monitoring wells at a later date that is discussed below. Groundwater was encountered in each of the geoprobes advanced at the Site, with the exception of GP-22-15 that was used to characterize the above-ground debris mounds in the southern portion of the Site.

5.2.3 Monitoring Well Groundwater Sampling

Groundwater samples were collected from each of the six monitoring wells after well development had occurred. The groundwater samples were collected in general accordance with the Work Plan.

5.2.4 Pressure Transducers

Pressure transducers were installed in MW-1-15, MW-3-15, MW-4-15, MW-5-15, and MW-6-15. A barologger was installed after well development in one of the wells to account for atmospheric pressure compensation and was removed during the groundwater sampling event. Pressure transducers were installed for King County to record future groundwater elevations and to evaluate seasonal groundwater elevations and flow direction. Groundwater elevations are presented in Figure 7 and reflect data from October 2 through 6, 2015.

5.3 Investigation-derived Waste (IDW)

IDW generated during sampling included soil cuttings, decontamination fluids, purge water, used personal protection equipment (PPE), and disposable sampling equipment. Soil cuttings, decontamination fluids, and purge water were contained in labeled Washington State Department of Transportation-approved drums temporarily stored on the northeast corner of the site on the outside of the flood control barrier. PPE and disposable sampling equipment were placed in a plastic bag and disposed as solid waste. Offsite disposal of drums generated from September 2015 activities are pending.

6.0 ANALYTICAL METHODS

Samples were submitted to Fremont Analytical, Inc. in Seattle, Washington, for chemical analysis. Soil and groundwater samples were tested for analytical methods in accordance with the Work Plan. Based on initial results, follow-up analyses on initial soil samples were completed in accordance with the Work Plan.

Soil samples were tested using the following analytical methods:

- Gasoline by Washington State Northwest Total Petroleum Hydrocarbon – Gasoline Range Method (NWTPH-Gx).
- Diesel and oil by Washington State Northwest Total Petroleum Hydrocarbon – Diesel-Range Extended Method (NWTPH-Dx).
 - Follow-up analysis for polychlorinated biphenyls (PCBs) by EPA Method 8082 were conducted based on oil-range petroleum hydrocarbons detections in the soil samples.
- Polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270D-Selective Ion Monitor (SIM).
- VOCs by EPA Method 8260C.
- Resource Conservation and Recovery Act (RCRA) 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) by EPA Method 6000/7000 series.
 - Follow-up analysis for metal leachability waste characterization using the Toxicity Characteristic Leachate Procedure (TCLP) by EPA Method 1311/6010B was conducted for metals detections in soil samples with concentrations in excess of the Dangerous Waste Screening Level (i.e., the concentrations exceeds 20 times the Washington State Designation Criteria, Washington Administrative Code (WAC) Chapter 173-303).
- SVOCs by EPA Method 8270/SIM.

- Herbicides by EPA Method 8151A.
- Pesticides by EPA Method 8081B.

Groundwater samples were tested using the following analytical methods:

- Gasoline-range petroleum hydrocarbons using Method NWTPH-Gx.
- Diesel- and oil-range petroleum hydrocarbons using Method NWTPH-Dx with silica gel cleanup.
- Total and dissolved Priority Pollutant metals by EPA Method 6000/7000 series.
- VOCs by EPA Method 8260C.
- PAHs by EPA Method 8310.0.

7.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

Laboratory QA/QC procedures included analyzing surrogate recoveries, method blanks, laboratory control sample recoveries, matrix spike recoveries, and duplicates. Trip blanks were submitted with groundwater samples intended for VOC testing. Equipment and/or field blanks were not specified for this project.

None of the analyzed parameters, with the exception of silver, were detected in their respective method blanks. In some cases, relative percent difference limits were high due to suspected sample inhomogeneity but the method was in control based on the laboratory control sample results. Several parameters had surrogate, duplicate, and matrix spike recoveries that fell outside of laboratory control limits.

Field duplicate samples for soil were collected from geoprobes GP-5-15, GP-8-15, GP-14-15, GP-14-17, GP-22-15, and MW-6-15 (ten percent of the total number of soil samples). A field duplicate for groundwater was collected from monitoring well MW-3-15 (14 percent of the total number of groundwater samples). In general, the soil duplicates showed good reproducibility with the exception of the sample from GP-17-15 and MW-6-15 for lube oil-range petroleum hydrocarbons. Due to the inherent variability in contaminants associated with the dumpsite debris, it is not unreasonable to observe poor reproducibility. The groundwater duplicate sample showed good reproducibility.

Based on our review of the QA/QC data and associated issues, the data are acceptable.

8.0 PHYSICAL CONDITIONS

In general, refuse debris was encountered at the shallowest in geoprobe exploration GP-8-15 at 1.5 feet and at the deepest in geoprobe exploration GP-4-15 at 8 feet bgs. The zone of refuse debris that was encountered in the test pits ranged from 1.8 to 6 feet bgs. Given the nature of the poor recovery observed at the site, which is common with the geoprobe sample methodology, the test pit excavations are a more reliable source for estimates of refuse debris thickness at the Site. Refuse debris consisted of glass shards and bottles, brick and wood fragments, cement, organics, newspaper, burnt debris, rubber, ceramic plates, tea/coffee cups, personal items (shoe soles), and general household refuse. The thickness of the fill material in which the refuse debris was encountered generally ranges from about 4 to 10 feet.

In general, the thinnest portion of the cover is approximately 1.5 feet and the thickest portion is approximately 8 feet as identified through the geoprobes and test pit explorations. Cover material consisted of silty sand with gravel to sandy silt with gravel with scattered organics.

9.0 ANALYTICAL RESULTS

A summary of detected analytical soil results are presented in Table 2. A summary of detected analytical groundwater results are presented in Tables 3 and 4. A toxicity equivalency factor (TEF) analysis of the individual carcinogenic polynuclear aromatic hydrocarbons (cPAHs) constituents in soil is presented in Table 5. The TEF method is used to adjust the concentrations of individual cPAHs such that they are relative in toxicity to benzo(a)pyrene, which is the most carcinogenic of the PAHs. The individual cPAH concentrations are then summed for comparison with the MTCA Method A cleanup criterion for benzo(a)pyrene. Soil and groundwater results are also compared to the MTCA Method A cleanup criterion for the analytes where applicable. Analytical data for shallow and deep soil and groundwater samples are presented in Figures 4 and 5. Analytical laboratory reports are contained in Appendix B.

9.1 Soil Results

Analytical results for soil samples collected from the geoprobes and monitoring wells are summarized below. The analytical results are presented in Table 2 and displayed in Figure 4.

- Diesel-range petroleum hydrocarbons were detected in 1 of 64 samples analyzed. Sample GP-16-15:8.0 had a detection of 72 milligrams per kilogram (mg/kg), which is below the MTCA Method A cleanup criterion of 2,000 mg/kg.
- Gasoline-range petroleum hydrocarbons were detected in 1 of the 64 samples analyzed. Sample GP-21-15:4.0 had a detection of 3.7 mg/kg, which is below the MTCA Method A cleanup criterion of 2,000 mg/kg.

- Lube oil-range petroleum hydrocarbons were detected in 19 of 64 samples analyzed. The sample collected from GP-10-15:4.5 had a detection of 3,840 mg/kg and the sample from MW-6-15:DUP had a detection of 4,080 mg/kg, both of which exceeded the MTCA Method A cleanup criterion of 2,000 mg/kg.
- Arsenic was detected in each of the 64 samples analyzed. Of these detections, samples GP-3-15:12.5, GP-6-15:7.5, and GP-10-15:4.5 exceeded the MTCA Method A cleanup criterion of 20 mg/kg.
- Barium was detected in 64 of the 64 samples analyzed. Sample detections ranged from 15 to 631 mg/kg. Cleanup criteria for this analyte has not been established.
- Cadmium was detected in 20 of the 64 samples analyzed. Sample detections ranged from 0.19 to 37 mg/kg. Of these detections, samples GP-3-15:12.5, GP-6-15:7.5, GP-10-15:4.5, GP-17-15:DUP, and MW-5-15:5.0 exceeded the MTCA Method A cleanup criterion of 2 mg/kg.
- Chromium was detected in 64 of 64 samples analyzed. Sample detections ranged from 9.6 to 314 mg/kg. The detections are below the MTCA Method A cleanup criterion of 2,000 mg/kg.
- Lead was detected in 64 of the 64 samples analyzed. Sample detections ranged from 1.2 to 3,320 mg/kg. Of these detections, samples GP-3-15:12.5, GP-6-15:7.5, GP-8-15:5.0, GP-10-15:4.5, GP-13-15:4.5, GP-16-15:8.0, and TP-3-15:6.0 exceeded the MTCA cleanup criterion of 250 mg/kg.
- Mercury was detected in 4 of 64 samples analyzed. Sample detections ranged from 0.38 to 9.1 mg/kg. Of these detections, samples GP-6-15:7.5 and GP-7-15:5.0 exceeded the MTCA Method A cleanup criterion of 2 mg/kg.
- Selenium was detected in 63 of 64 samples analyzed. Sample detections ranged from 0.66 to 3.2 mg/kg. A cleanup criterion for this analyte has not been established.
- Silver was detected in 8 of 64 samples analyzed. Sample detections ranged from 0.12 to 2.6 mg/kg. A cleanup criterion for this analyte has not been established.
- Follow-up analyses for metal leachability waste characterization using TCLP was performed on samples with concentrations of arsenic, cadmium, lead, and mercury that exceeded the Dangerous Waste Screening Levels of 100 mg/kg for arsenic and lead, 20 mg/kg for cadmium, and 4 mg/kg for mercury. Of these analyses, cadmium and lead were detected leachable with sample GP-16-15:8.0 for lead being characterized as Dangerous Waste with a concentration of 13 milligrams per liter (mg/L).
- VOCs (tetrachloroethene and methylene chloride) were detected at low concentrations in 3 of 64 samples analyzed. Trichloroethene was detected at low levels in two of the four samples analyzed. Toluene, m,p-Xylene, and p-Isopropyltoluene were detected at low levels in 1 of the 64 samples analyzed. Of these detections, no VOCs exceeded the MTCA Method A cleanup criterion, where established.

- SVOCs were detected in 52 of 64 samples analyzed. Of the detected parameters, only naphthalenes and cPAHs have established cleanup criteria. Naphthalene detections are below the MTCA cleanup criterion of 5 mg/kg. Based on the TEF evaluation for cPAHs (Table 2), 18 of the 51 detections exceeded the MTCA Method A cleanup criterion of 0.1 mg/kg.
- PCBs were analyzed in 14 of the 64 samples based on initial petroleum hydrocarbon concentrations. Of the 14 samples analyzed, 2 were detected. The detections are below the MTCA Method A cleanup criterion of 1 mg/kg.
- Herbicides were detected in 9 of the 64 samples analyzed and pesticides were detected in 3 of the 64 samples analyzed. Cleanup criteria for these analytes have not been established.

9.2 Groundwater Results

Groundwater analytical results from samples collected from the geoprobes and monitoring wells are summarized below. The analytical results are presented in Tables 3 and 4 and displayed in Figure 5.

- Lube oil-range petroleum hydrocarbons were detected in 1 of the 14 samples analyzed. The sample from GP-21-15:GW had a detections of 171 micrograms per liter (µg/L). Gasoline- and diesel-range hydrocarbons were not detected in the samples analyzed.
- Total antimony was detected in 6 of the 14 samples analyzed. Sample detections ranged from 0.21 to 0.41 µg/L. Dissolved antimony was detected in 6 of the 14 samples analyzed. Sample detections ranged from 0.33 to 0.78 µg/L. A cleanup criterion for this analyte has not been established.
- Total arsenic was detected in each of the 14 samples analyzed. Sample detections ranged from 1.1 to 21 µg/L. Of these detections, 8 exceed the MTCA Method A cleanup criteria of 5 µg/L. Dissolved arsenic was detected in 11 of the 14 samples analyzed. Sample detections ranged from 1.2 to 9.8 µg/L. Of these 11 detections, 2 exceed the MTCA Method A cleanup criterion of 5 µg/L.
- Total chromium was detected in 13 of the 14 samples analyzed. Sample detections ranged from 0.52 to 22 µg/L. Dissolved chromium was detected in 7 of the 14 samples analyzed. Sample detections ranged from 0.97 to 1.6 µg/L. Total and dissolved chromium were detected below the MTCA Method A cleanup criteria of 50 µg/L.
- Total beryllium was detected in 5 of the 14 samples analyzed. Sample detections ranged from 0.20 to 0.98 µg/L. Dissolved beryllium was not detected in the samples analyzed. A cleanup criterion for this analyte has not been established.
- Total cadmium was detected in 6 of the 14 samples analyzed. Sample detections ranged from 0.20 to 5.3 µg/L. Dissolved cadmium was not detected in the samples

analyzed. One of these detections exceeds the MTCA Method A cleanup criterion of 5 µg/L.

- Total copper was detected in 13 of the 14 samples analyzed. Sample detections ranged from 0.83 to 94 µg/L. Dissolved copper was detected in 8 of the 14 samples analyzed. Sample detections ranged from 0.66 to 13 µg/L. The cleanup criterion for this analyte has not been established.
- Total lead was detected in 9 of the 14 samples analyzed. Sample detections ranged from 1.1 to 65 µg/L. Of these 9 detections, 3 exceed the cleanup criterion of 15 µg/L. Dissolved lead was not detected in the samples analyzed.
- Total nickel was detected in 13 of the 14 samples analyzed. Sample detections ranged from 0.76 to 19 µg/L. Dissolved nickel was detected in 13 of the 14 samples analyzed. Sample detections ranged from 0.57 to 4.1 µg/L. A cleanup criterion for this analyte has not been established.
- Total selenium was detected in 7 of the 14 samples analyzed. Sample detections ranged from 1.1 to 5.8 µg/L. Dissolved selenium was detected in 4 of the 14 samples analyzed. Sample detections ranged from 1.1 to 1.8 µg/L. A cleanup criterion for this analyte has not been established.
- Total silver was not detected in the samples analyzed. Dissolved silver was detected in 2 of the 14 samples analyzed. A cleanup criterion for this analyte has not been established.
- Total zinc was detected in 13 of the 14 samples analyzed. Sample detections ranged from 2.7 to 1200 µg/L. Dissolved zinc was detected in 10 of the 14 samples analyzed. Sample detections ranged from 4.3 to 87 µg/L. A cleanup criterion for this analyte has not been established.
- VOCs were detected at low levels in 2 of 14 samples analyzed. Chlorobenzene was detected at 5.7 µg/L in sample MW-4-15:GW and chloromethane was detected at 2 µg/L in sample GP-12-15:GW. Cleanup criteria have not been established for these analytes.

10.0 CONCLUSIONS

This Phase II ESA investigation has revealed contaminants in soil and groundwater in excess of the MTCA regulatory cleanup criterion. These contaminants appear to be confined to the landfill and do not appear to pose a threat to the public based on the current land use. An effort needs to be made to ensure that the public continue to be protected from contaminated soil and groundwater by implementing an operations and maintenance plan that would limit ground disturbance to less than one foot bgs. In the event ground disturbance or excavation work will occur, a plan needs to be in place to outline the handling and disposal of contaminated soil in compliance with federal, state, and local regulations pertaining to worker health and safety, environmental protection, and landfill treatment and disposal. The plan should also include a

site-specific Health and Safety Plan describing monitoring requirements and the use of personal protective equipment for worker protection.

10.1 Soil

Lube oil-range petroleum hydrocarbons are present in the soil at concentrations below the MTCA Method A cleanup criteria with the exception of sample GP-10-15:4.5 and MW-6-15:DUP. Of these two MTCA Method A cleanup criteria exceedances, indications of contamination that include soil staining and hydrocarbon odors were observed at GP-10-15. The majority of detections for petroleum hydrocarbons were present in shallow samples within the groundwater interface (from 3 to 8 feet bgs). Based on the low solubility of heavy range petroleum hydrocarbons and the lower density as compared to water, it is expected that these contaminants would occur at the groundwater interface. Lube oil was detected in samples within relative close proximity to one another in the northeast, central baseball field, and southern portions of the Site. Other detections appear to be random in nature and likely associated with isolated pockets of historical surface spills and leakage from containers dumped at the Site.

In general, VOCs were detected in low concentrations in corresponding samples where petroleum hydrocarbons were also detected. VOCs were detected below MTCA Method A cleanup criteria where established. Tetrachloroethene and trichloroethene were detected in GP-10-15:4.5 and MW-1-15:6.0 above the MTCA Method A cleanup criteria, and tetrachloroethene was detected in GP-7-15:5.0 at concentrations below the MTCA Method A cleanup criteria. These contaminants are commonly associated with solvents and are likely present due to the disposal of automotive related containers such as engine degreasers.

SVOCs are present in the soil at concentrations above and below the MTCA Method A cleanup criteria, where established. Of these SVOCs detected, PAHs appear to be the most common occurring. The occurrence of PAHs across the Site is to be expected based on the fact that refuse debris was burned at the Site and PAHs are commonly associated with burnt debris. PAHs are also associated with treated wood, and it is possible that treated wood was disposed of at the Site. Detections below and above the cleanup criteria for PAHs appear to occur in as many deep as shallow samples.

Metals were detected in each of the samples analyzed, which is a common occurrence, as certain metals are naturally occurring. Arsenic, cadmium, lead, and mercury were detected above the MTCA Method A cleanup criteria. Of these exceedances, lead appears to be the most frequently occurring. TCLP analyses revealed the detection of cadmium in sample GP-6-15:7.5. TCLP lead was detected in samples GP-3-15:12.5, GP-6-15:7.5, GP-10-15:4.5, and GP-16-15:8.0 with

the concentration in sample GP-16-15:8.0 exceeding the Dangerous Waste criterion of 5 mg/L. It is likely that the occurrence of elevated lead at the Site is associated with refuse debris containing lead-based paint and/or other household contaminants. Elevated concentrations of arsenic are common in a reducing environment associated with organic soils that are present at the Site.

The most uniformly identified contaminant at the Site is SVOCs, in particular PAHs. PAHs were found to be the contaminant where the most MTCA Method A cleanup criteria exceedances at the Site were identified. These exceedances were identified in as many shallow as deep samples analyzed. The second most uniformly identified contaminant at the Site is metals. The majority of MTCA cleanup criteria exceedances for metals were identified in shallow soil samples. In general, metals contamination was identified in the shallow samples analyzed. The two exceedances of MTCA cleanup criteria for petroleum hydrocarbons were encountered in the shallow samples analyzed in the northern and southern portions of the Site. In general, low concentrations of herbicides and pesticides appear to be present in the northern and central portions of the site, with the exception of detections at MW-6-15. MTCA cleanup criteria have not been established for herbicides and pesticides.

A total of 64 soil samples were analyzed during the Phase II ESA work. Thirty-four (34) percent of the total soil samples, or 22 of the 64 samples analyzed, were detected in excess of the MTCA cleanup criteria (Ecology, 2013).

10.2 Groundwater

Arsenic, cadmium, and lead are the contaminants that were detected in the groundwater samples in excess of the MTCA Method A cleanup criteria. Arsenic was detected in excess of the cleanup criteria in the total and dissolved analyses in six samples and lead was detected in excess of the cleanup criteria in the total analyses for three samples. It is common that elevated concentrations of metals tend to occur in the total analyses versus the dissolved analyses due to the lack of turbidity, as the dissolved samples are laboratory filtered. In samples of high turbidity, metals that adhere to soil particles elevate concentrations. Elevated metal concentrations associated with high turbidity is also a common occurrence with groundwater samples collected from geoprobe explorations as compared to monitoring wells. In general, metals concentrations at the Site are higher in the samples collected from the geoprobes.

VOCs were not detected in the groundwater samples analyzed with the exception of chloromethane and chlorobenzene, which were detected in GP-12-15 and MW-4-15, respectively. MTCA Method A cleanup criteria have not been established for these analytes.

Lube oil-range petroleum hydrocarbons were detected below the MTCA Method A cleanup criteria in the groundwater sample collected from geoprobe GP-21-15. Lube oil-range petroleum hydrocarbons were also detected below the cleanup criteria in the shallow soil sample from this same geoprobe.

SVOCs, herbicides, and pesticides were not detected in the groundwater samples analyzed.

11.0 DISPOSAL CHARACTERIZATION

11.1 Soil

Characterization for soil disposal is based on the results of the soil samples analyzed and the comparison of those results to the correlating regulatory cleanup criteria. A site-wide grid was generated in GIS (geographic information systems) using the Thiessen-polygon method, where perpendicular lines equidistant from each geoprobe sampling point were drawn and extrapolated. Boundaries of grid cells were manually adjusted along the perimeter of the site to account for the lack of geoprobe explorations at the perimeter. Estimated soil volumes for each disposal option are based on the dimensions of each grid cell and the depth at which the sample was collected. In general, shallow soil volumes are estimated from samples collected from 0-10 feet bgs and deep soil volumes are estimated from 10-15 feet bgs. Total soil volumes are estimates and are based on the results of the samples analyzed within each disposal characterization grid and do not represent a site-wide characterization of environmental conditions. Due to the variability of contaminants associated with the refuse debris, concentrations of contaminants will likely change within relative close proximity to the location of the sample collected. A map showing a grid-wide representation of the disposal characterization of contaminated soils is presented in Figure 6. A summary of the disposal characterization of contaminated soils is presented in Table 6.

The following section describes soil disposal options that are based on the levels of contamination encountered during the Phase II investigative work. Based on the results of the samples collected during the Phase II ESA investigative fieldwork, contaminated soils will likely be encountered during excavation activities for the levee setback project. Contaminated soils need to be handled and disposed of in compliance with state, federal, and local regulations pertaining to worker health and safety, environmental protection, and landfill treatment and disposal. Contaminated soils identified during the Phase II fieldwork fall into the following categories:

- **Clean:** Soil containing no detectable petroleum hydrocarbons, VOCs, PAHs, or PCBs, and no metals at levels exceeding the MTCA Method A cleanup criteria. (Ecology, 2013)

- **Category II/III Impacted:** Soil containing detectable levels of petroleum hydrocarbons, VOCs, PCBs, PAHs, and/or metals that are below the MTCA Method A cleanup levels, or a pH below 6.5 or above 8.5.
- **Problem Waste:** Soil containing one or more contaminant(s) at concentrations exceeding the MTCA Method A cleanup levels and wood waste, consisting of timbers, sawdust, or other abundant organics.
- **Dangerous Waste:** This category includes a wide range of contaminant-, source-, and concentration-specific criteria designated in WAC 173-303-070 through 173-303-100. For the project area, the most likely types of Dangerous Waste that could be encountered would be soil that leaches lead at greater than 5 mg/L or that contains spent solvents such as trichloroethene (TCE) and tetrachloroethylene (PCE) from a known source such as a dry cleaner or from a non-defined source that leaches TCE or PCE above 0.7 mg/L, respectively (except those considered “Contained-out” wastes as described below).

11.2 Soil Quantities

The estimated total volume of soil contained within the grids and calculated for disposal purposes is 336,000 cubic yards with 156,000 from shallow excavation and 180,000 from deep excavation. The table below summarizes the estimated soil volumes for disposal characterization. In general, shallow soil volumes are estimated from samples collected from 0 to 10 feet bgs and deep soil volumes are estimated from 10-15 feet bgs. A more detailed summary of the disposal characterization is listed in Table 6.

Disposal Characterization	Estimated Soil Volume (yd ³)		Percentage of Total Estimated Volume	
	Shallow	Deep	Shallow	Deep
Petroleum hydrocarbons, PAHs, and SVOCs not detected - Clean	25,000	76,000	7	23
Petroleum hydrocarbons, PAHs, metals, or SVOCs detected below MTCA Method A - Category II/III	59,000	23,000	17	7
Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA Method A - Problem Waste	63,000	81,000	18	24
Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA Method A - Dangerous Waste	9,000	0	2	0
Estimated Total Soil Volume (yd ³)	156,000	180,000	336,000	

Notes:

Soil volumes are based on limited sampling described herein and are subject to change.

MTCA = Model Toxics Control Act (Ecology, 2013)

PAHs = Polyaromatic Hydrocarbons

SVOCs = Semi-volatile Organic Compounds

yd³ = cubic yards

11.3 Soil Disposal Options

11.3.1 Option 1 – Inert Landfill

Inert landfill facilities can accept “Clean” and “Category II” soil with low concentrations of petroleum hydrocarbons. These facilities can also accept material that consists of less than 5 to 15 percent non-native organic debris/wood waste with the wood waste being less than or equal

to one cubic foot in size. The level of concentrations of petroleum hydrocarbons in soil that an inert landfill facility can accept is based on the landfill's permit requirements.

11.3.2 Option 2 – Subtitle D Landfill

Soil characterized as Problem Waste and Category II/III may be disposed of at an RCRA Subtitle D landfill, such as Rabanco's Roosevelt Landfill in eastern Washington or Chemical Waste Management's Columbia Ridge Landfill in Arlington, Oregon. Under this option, the contaminated soil and debris would be trucked to a local transfer station where it would be loaded into rail cars for shipment to landfill. The range of acceptable concentrations at a Subtitle D Landfill is specific for each contaminant. In general, these facilities accept Category 2/3 soil contaminated at concentrations greater than the levels established for land reclamation facilities, but below the "Dangerous Waste" criteria.

11.3.3 Option 3 – Subtitle C Landfill (for Dangerous Waste)

"Dangerous Waste" require disposal at a Subtitle C landfill permitted to accept hazardous materials (such as that operated by Waste Management in Arlington, Oregon), treatment by bioremediation, with subsequent disposal at a Subtitle C landfill, or incineration at a licensed facility.

11.4 Estimated Soil Disposal Costs

The following table presents estimated disposal costs per ton to dispose the different waste types at the required facilities. The costs are the tipping fees at the facility and do not including excavation and transportation costs. Estimated unit weights for dry and saturated soils would need to be applied to convert the disposal volumes reported above into tons before calculating disposal costs at a particular facility.

Disposal Facility	Accepted Waste Class	Facility Location	Facility Acceptance Criteria	Disposal Cost per Ton*
Republic	Non-RCRA Waste "Clean" Category II and Category III	Seattle, Washington	No Limitations	\$45.00
Waste Management (RCRA Subtitle D Landfill)	Non-RCRA Waste Category II/III	Seattle – Washington Street Transfer Station	Up to 10% Construction Debris/Truck	\$44.20
sChemical Waste Management (RCRA Subtitle C Landfill)	Problem & Dangerous Waste (Ecology, 1995)	Arlington, Oregon	Up to 10% Construction Debris/Truck	\$100 +
CEMEX (Inert Landfill)	"Clean" Category II (Inert Waste)	Everett, Washington	Up to 15% Wood Waste/Truck	\$31.50
	Category III			\$43.75
Reserve Silica Inert Landfill	"Clean" Category II (Inert Waste)	Black Diamond, Washington	Up to 5% Wood Waste/Truck	\$15.00

Notes:

% = percent

* Tipping fees in 2015 dollars; does not include transportation.

Ecology = Washington State Department of Ecology

RCRA = Resource Conservation and Recovery Act

11.5 Groundwater Disposal Options

Concentrations of arsenic, cadmium, and lead were detected above the MTCA Method A cleanup criteria in the groundwater samples collected from the geoprobe explorations and the monitoring wells. Lube oil-range petroleum hydrocarbons were detected below the cleanup criteria in one of the geoprobe explorations. Based on the results of the groundwater sampling and the overall shallow depth of groundwater at the Site, it is likely that contaminated groundwater will be encountered during excavation activities for the levee setback project.

Depending upon whether or not the Site will be dewatered for construction, disposal options may vary based on the anticipated volume of water and what is cost effective. It is likely that large volumes of water will be anticipated due the site being hydraulically connected to the adjacent White River. The least cost effective method for groundwater disposal is to containerize onsite and haul off-site to an RCRA Subtitle D disposal facility. Based on the contaminants identified however, treatment and disposal to sanitary sewer or storm is likely a more cost effective method. Water quality permit requirements will have to be met for discharge to both the sanitary sewer and storm. The contaminants identified in excess of the MTCA cleanup criteria are metals

that can be treated by settlement through a baffled Baker tank and a series of in-line bag filters. A final groundwater polishing step consisting of in-line carbon vessels could also be implemented to treat the identified lube oil-range petroleum hydrocarbons. Depending upon the volume, disposal options could include discharge to sanitary sewer or storm drain. If a large volume is anticipated, discharge to sanitary sewer may not be feasible as there will likely be limitations of volume discharge. Discharge to storm drain may be feasible for larger volumes of water if the water quality permit requirements for surface water are met.

12.0 RECOMMENDATIONS

Based on the review of the soil and groundwater data collected during the Phase II ESA, we offer the following recommendations:

- Include in the Contract Language for any Site work, a General Special Provision/Special Provisions indicating the possibility of encountering soil and groundwater contamination and develop requirements associated with handling/disposal/management and health and safety. Require the contractor to develop submittals demonstrating an understanding of site conditions and regulatory requirements.
- Include this Phase II ESA as a reference document to the design documents for any Site work. Include contingency funds in construction cost estimates to manage unexpected conditions that may be observed during construction.
- Given the historical land use of the site and the nature of the contaminants encountered during this Phase II ESA, assume soil generated during construction will require offsite disposal at a permitted facility.
- Generate an Operations and Maintenance Plan for the Site that limits ground disturbance to less than 1 foot, as outlined in the Conclusions section, 10.0.
- Under the strictest interpretation of WAC 173-340, the Site could be viewed as having a reportable release. However, the Site was closed prior to 1972 and it is under jurisdiction of the King County Health Department and not subject to monitoring requirements provided that it does not pose a threat to human health and/or the environment. Although contaminants were identified in soil and groundwater in excess of the regulatory cleanup criteria were encountered, these contaminants appear to be confined to the landfill and do not appear to pose a threat to human health or the environment. Groundwater contamination appears to be largely an artifact of the sampling approach and not an indication of a plume. Overall, Site investigations to date have found the presence of contamination within the landfill cell and do not appear to pose a threat to the public given the current land use. Based on data collected during the Phase II ESA, we do not believe notification to Ecology is warranted at this time. However, notification may be required based on

the opinion of the King County Health Department and/or the results of future off-site sampling of sediment and pore water.

- In an effort to evaluate off-site impact for potential regulatory agency notification, we recommend collecting eight total sediment and pore water samples along the adjacent river bank and in the wetland to the south of the Site. Consideration should be given to sampling off-site groundwater during the wet season to evaluate if the increase in groundwater elevation increases the potential contaminant loading to groundwater.
- We recommend groundwater sampling of the on-site monitoring wells throughout the year to evaluate the seasonal effects on groundwater chemistry and groundwater flow direction to further assist with future project planning.

Based on the results of the Phase II ESA, it is likely that contaminated soil and/or groundwater will be encountered during excavation activities at the Site. Contaminated soils need to be handled and disposed of in compliance with federal, state, and local regulations pertaining to worker health and safety, environmental protection, and landfill treatment and disposal. A site-specific Health and Safety Plan describing monitoring requirements and the use of personal protective equipment is recommended. During excavation activities, soil will need to be screened for indications of contamination by trained environmental personnel. Soil screening involves the use of a photoionization detector and visual and olfactory observations of the soil.

During excavation activities, additional soil samples will need to be collected for disposal characterization. The total number of soil samples that will need to be collected is based on the volume of excavated material as outlined in Table 6.9 of the Guidance for Remediation of Petroleum Contaminated Sites (Ecology, 2011). This document also provides guidance for the reuse of petroleum-contaminated soil that may be an option for Site soils.

13.0 LIMITATIONS

Within the limitations of scope, schedule, and budget, S&W has prepared this report in a professional manner, using the level of skill and care normally exercised for similar projects under similar conditions by reputable and competent environmental consultants currently practicing in this area.

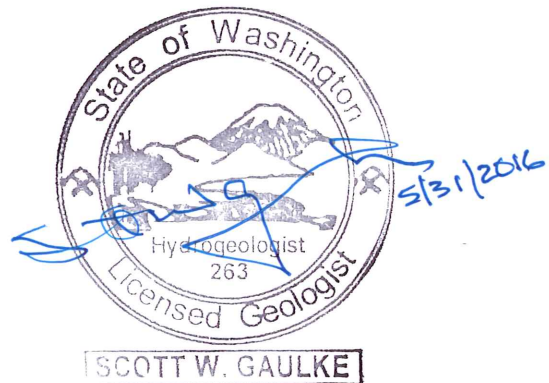
The scope of services was intended to address only those environmental concerns with significant potential to result in contamination of the Site. The sampling effort was considered limited in extent and served as a screening effort only. It was not intended to define the lateral or vertical extent of soil and/or groundwater contamination.

The data presented in this report are based on limited research and sampling at the site and should be considered representative at the time of our observations. Other areas of contamination that were not obvious during our site work could be present at the site. S&W is not responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time the report was prepared. We also note that the facts and conditions referenced in this report may change over time, and that the conclusions and recommendations set forth here are applicable to the facts and conditions as described only at the time of this report. S&W believe that the conclusions stated here are factual; but no guarantee is made or implied.

This report was prepared for the exclusive use of King County, and their representatives, and in no way guarantees that any agency or its staff will reach the same conclusions as S&W. To help you and others in understanding the limitations of our report, S&W has prepared Appendix C, "Important Information About Your Environmental Site Assessment/Evaluation Report."

SHANNON & WILSON, INC.

Edwin V. Ptak
Environmental Scientist



Scott W. Gaulke, PE, LHG
Vice President

EVP:SWG/evp

14.0 REFERENCES

- E3RA, 2008, Geotechnical report, proposed new mobile home 714 3rd Place, Pacific, Washington: Report prepared by E3RA, Inc., Tacoma, Washington, T08089, for Paula Wiech, 712 3rd Place, Pacific, Wash., June 5.
- Environmental Science Associates, 2014, Pacific right bank levee setback project, lower White River, King & Pierce Counties, Washington – literature review: Report prepared by Environmental Science Associates, Seattle, Wash., for King County Water and Land Resources Division, River and Floodplain Management Section, Seattle, Wash., May.
- Environmental Science Associates, 2015, Pacific City Landfill archaeological site (45-KI-1258) – National Register of Historic Places recommendation: Memorandum from Environmental Science Associates, Seattle, Wash., to King County Water and Land Resources Division, Seattle, Wash., November 16.
- King County Water and Land Resources Division (King County), 2015, Stormwater quality sampling results from the Pacific right bank wetland: Memorandum from S. McCarthy and S. Bilir to C. Brummer, 9 p., February 18.
- Luzier, J. E., 1969, Geology and ground-water resources of southwestern King County, Washington: Washington State Department of Water Resources Bulletin 28, 260 p., 3 plates.
- Mullineaux, D.R., 1965, Geologic map of the Auburn quadrangle, King and Pierce Counties, Washington: U.S. Geological Survey, Geologic Quadrangle Map GQ-406, scale 1:24000.
- Seattle-King County Department of Public Health, 1985, Abandoned landfill study in King County: Report prepared by Seattle-King County Department of Public Health, April 30.
- Shannon & Wilson, Inc. (S&W), 2014, Groundwater impact study for the Countyline Levee Setback Project King County River and Flood Management Section King County, Washington: Prepared by Shannon & Wilson, Inc., Seattle, Wash., 21-1-21859-018, for King County, May 30.
- Shannon & Wilson, Inc. (S&W), 2015a, Phase I Environmental Site Assessment Pacific Park site, Pacific, Washington: Report prepared by Shannon & Wilson, Inc., Seattle, Wash., 21-1-22055-002, for King County Water and Land Resources Division, May 11.
- Shannon & Wilson, Inc. (S&W), 2015b, Phase II Work Plan Pacific Park Investigation for the Pacific Right Bank Levee Setback Project, Pacific, Washington: Report prepared by Shannon & Wilson, Inc., Seattle, Wash., 21-1-22055-003, for King County Water and Land Resources Division, June 22.
- U.S. Department of Agriculture, Soil Conservation Service, “Soil Survey King County Area, Washington NO. 16,” 1973.

Washington State Department of Ecology (Ecology), 1995, Dangerous waste regulations, chapter 173-303 Washington Administrative Code (WAC): Olympia, Wash., Washington State Department of Ecology, Publication No. 92-91, November.

Washington State Department of Ecology (Ecology), 2011, Guidance for remediation of petroleum contaminated sites: Olympia, Wash., Washington State Department of Ecology, Publication No. 10-09-057, September.

Washington State Department of Ecology (Ecology), 2013, Model toxics control act regulation and statute: MTCA cleanup regulation, chapter 173-340 WAC; model toxics control act, chapter 70.105D RCW; uniform environmental covenants act, chapter 64.70 RCW (rev.): Olympia, Wash., Washington Dept. of Ecology, Publication no. 94.06, 324 p., available: <https://fortress.wa.gov/ecy/publications/summarypages/9406.html>.

Washington State Department of Ecology, 2015, Washington State well log viewer: Available: <https://fortress.wa.gov/ecy/waterresources/map/WCLWebMap/default.aspx>, accessed 9/17/2016.

Woodward, D.G., Packard, F.A., Dion, N.P., and Sumioka, S.S., 1995, Occurrence and quality of groundwater in southwestern King County, Washington: U.S. Geological Survey Water-Resources Investigations Report 92-4098, 69 p., 4 plates.

TABLE 1
EXPLORATION SUMMARY

Geoprobe ID	Sample Date	Exploration Depth (feet)	Depth to Water During Drilling (feet)	Sample Designation	Matrix	Sample Depth (feet)	Analyses	Follow-up Analyses	TCLP
GP-1-15	9/17/15	15	5	GP-1-15:5.0	Soil	5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	--	--
				GP-1-15:13.0		13			
GP-2-15	9/17/15	15	5	GP-2-15:4.5	Soil	4.5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticies, Herbicides	--	--
				GP-2-15:14.0		14			
GP-3-15	9/17/15	20	9	GP-3-15:9.0	Soil	9	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticies, Herbicides	--	--
				GP-2-15:12.5		12.5		PCBs	chromium, lead
GP-4-15	9/17/15	15	4	GP-4-15:5.0	Soil	5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticies, Herbicides	--	--
				GP-4-15:13.0		13			
GP-5-15	9/17/15	15	4.5	GP-5-15:5.0	Soil	5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticies, Herbicides	--	--
				GP-5-15:13.0		13		--	--
				GP-5-15:DUP		13		--	--
GP-6-15	9/17/15	15	6	GP-6-15:7.5	Soil	7.5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticies, Herbicides	PCBs	cadmium, chromium, lead, mercury
				GP-6-15:14.0		14		--	--
GP-7-15	9/17/15	15	7	GP-7-15:5.0	Soil	5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticies, Herbicides	--	--
				GP-7-15:14.0		14			
GP-8-15	9/17/15	15	4.5	GP-8-15:5.0	Soil	5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticies, Herbicides	PCBs	--
				GP-8-15:14.5		14.5		--	
				GP-8-15:DUP		14.5			
GP-9-15	9/17/15	15	4.5	GP-9-15:5.0	Soil	5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticies, Herbicides	--	--
				GP-9-15:12.5		12.5			
GP-10-15	9/17/15	15	4.5	GP-10-15:4.5	Soil	4.5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticies, Herbicides	PCBs	chromium, lead
				GP-10-15:13.0		13		--	--
GP-11-15	9/17/15	15	5	GP-11-15:4.5	Soil	4.5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticies, Herbicides	PCBs	--
				GP-11-15:12.5		12.5		--	
GP-12-15	9/18/2015	15	5	GP-12-15:4.0	Soil	4	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticies, Herbicides	--	--
				GP-12-15:13.5		13.5			
				GP-12-15:GW	Groundwater	12 - 15	Gx, Dx, VOCs, PAHs SVOCs, Metals (total & dissloved)		
GP-13-15	9/21/15	15	8	GP-13-15:4.5	Soil	4.5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticies, Herbicides	PCBs	lead
				GP-13-15:13.5		12.5		--	--
				GP-13-15:GW	Groundwater	12 - 15	Gx, Dx, VOCs, PAHs SVOCs, Metals (total & dissloved)	--	--
GP-14-15	9/21/2015	15	6	GP-14-15:3.5	Soil	3.5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticies, Herbicides	--	--
				GP-14-15:13.5		13.5			
				GP-14-15:DUP		13.5			
GP-15-15	9/21/15	15	7	GP-15-15:6.0	Soil	6	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticies, Herbicides	--	--
				GP-15-15:14.0		14			

TABLE 1
EXPLORATION SUMMARY

Geoprobe ID	Sample Date	Exploration Depth (feet)	Depth to Water During Drilling (feet)	Sample Designation	Matrix	Sample Depth (feet)	Analyses	Follow-up Analyses	TCLP
GP-16-15	9/21/15	15	8	GP-16-15:8.0	Soil	8	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	PCBs	lead
				GP-16-15:13.5		13.5		--	--
GP-17-15	9/21/15	15	5	GP-17-15:7.0	Soil	7	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	--	--
				GP-17-15:14.5		14.5		--	--
				GP-17-15:DUP		7		PCBs	cadmium
GP-18-15	9/21/15	15	8.5	GP-18-15:3.0	Soil	3	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	PCBs	--
				GP-18-15:14.0		14		--	
GP-19-15	9/21/15	15	8	GP-19-15:5.0	Soil	5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	--	--
				GP-19-15:14.5		14.5			
GP-20-15	9/21/15	15	6	GP-20-15:5.5	Soil	5.5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	PCBs	--
				GP-20-15:14.0		14		--	
GP-21-15	9/21/15	15	6	GP-21-15:4.0	Soil	4	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	PCBs	--
				GP-21-15:14.0		14		--	
				GP-21-15:GW	Groundwater	12 - 15	Gx, Dx, VOCs, PAHs SVOCs, Metals (total & dissloved)	--	
GP-22-15	9/22/15	5	*	GP-22-15:1.5	Soil	1.5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	--	--
				GP-22-15:3.0		3			
				GP-22-15:1.5		1.5			
MW-1-15	9/18/15	15	6.5	MW-1-15:6.0	Soil	6	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	--	--
	MW-1-15:12.0			12					
	10/6/15			GP-21-15:GW	Groundwater	12 - 15	Gx, Dx, VOCs, PAHs SVOCs, Metals (total & dissloved)	--	--
MW-2-15	9/18/15	15	6	MW-2-15:3.0	Soil	3	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	--	--
				MW-2-15:13.0		13			
MW-3-15	9/18/15	15	5	MW-3-15:6.5	Soil	6.5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	--	--
	MW-3-15:15.0			15					
	10/6/15			MW-3-15:GW	Groundwater	12 - 15	Gx, Dx, VOCs, PAHs SVOCs, Metals (total & dissloved)	--	--
MW-4-15	9/22/15	15	5.5	MW-4-15:6.0	Soil	6	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	--	--
	MW-4-15:14.5			14.5					
	10/6/15			MW-4-15:GW	Groundwater	12 - 15	Gx, Dx, VOCs, PAHs SVOCs, Metals (total & dissloved)	--	--
MW-5-15	9/22/15	15	5	MW-5-15:5.0	Soil	5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	--	--
	MW-5-15:12.5			12.5					
	10/5/15			MW-5-15:GW	Groundwater	12 - 15	Gx, Dx, VOCs, PAHs SVOCs, Metals (total & dissloved)	--	--

TABLE 1
EXPLORATION SUMMARY

Geoprobe ID	Sample Date	Exploration Depth (feet)	Depth to Water During Drilling (feet)	Sample Designation	Matrix	Sample Depth (feet)	Analyses	Follow-up Analyses	TCLP
MW-6-15	9/22/15	15	5	MW-6-15:5.5	Soil	5.5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	--	--
				MW-6-15:14.0		14			
				MW-6-15:DUP		5.5			
	10/5/15			MW-6-15:GW	Groundwater	12 - 15	Gx, Dx, VOCs, PAHs SVOCs, Metals (total & dissloved)	--	--
				MW-6-15:GW	Groundwater	12 - 15	Gx, Dx, VOCs, PAHs SVOCs, Metals (total & dissloved)	--	--
TP-1-15:5.5	9/23/15	6.3	5	TP-1-15:5.5	Soil	5.5	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	--	--
TP-3-15:6.0	9/23/15	6.8	5.2	TP-3-15:6.0	Soil	6	Gx, Dx, VOCs, PAHs SVOCs, Metals, Pesticides, Herbicides	--	--

Notes:

-- = not applicable

Dx = analysis for diesel- and oil-range hydrocarbons by method Northwest Total Petroleum Hydrocarbon-Diesel

Gx = analysis for gasoline-range hydrocarbons by method Northwest Total Petroleum Hydrocarbon-Gasoline

ID = identification

Metals = analysis for metals by U.S. Environmental Protection Agency (EPA) methods 6000/7000/200 series

PAHs = analysis for polycyclic aromatic hydrocarbons by EPA method 8270D Selective Ion Monitoring

PCBs = analysis for polychlorinated biphenyls by EPA method 8082A

SVOCs = analysis for semi-volatile organic compounds by EPA method 8270D Selective Ion Monitoring

TCLP = analysis for Toxicity Characteristic Leaching Procedure compounds by EPA method 1311/6010C

VOCs = analysis for volatile organic compounds by EPA method 8260B

TABLE 2
SUMMARY OF PROJECT ANALYTICAL SOIL TESTING DATA

Exploration Name	GP-1-15		GP-2-15		GP-3-15		GP-4-15		GP-5-15			GP-6-15		GP-7-15		GP-8-15			MTCA Method A Unrestricted Land Use (mg/Kg)	Dangerous Waste Criteria (mg/L)
Sample Number	GP-1-15:5.0	GP-1-15:13.5	GP-2-15:4.5	GP-2-15:14.0	GP-3-15:9.0	GP-3-15:12.5	GP-4-15:5.0	GP-4-15:13.0	GP-5-15:5.0	GP-5-15:13.0	GP-5-15:DUP	GP-6-15:7.5	GP-6-15:14.0	GP-7-15:5.0	GP-7-15:14.0	GP-8-15:5.0	GP-8-15:14.5	GP-8-15:DUP		
Sample Depth (feet)	5.0	13.5	4.5	14.0	9.0	12.5	5.0	13.0	5.0	13.0	5.0	7.5	14.0	5.0	14.0	5.0	14.5	5.0		
Analyte																				
Petroleum Hydrocarbons (mg/kg)																				
Lube Oil	57 U	63 U	75	53 U	61 U	275	182	63 U	59 U	58 U	55 U	217	56 U	48 U	56 U	119	62 U	62 U	2,000	*
Detected Volatile Organic Compounds (mg/kg)																				
Tetrachloroethene	0.012 U	0.014 U	0.013 U	0.013 U	0.013 U	0.032 U	0.012 U	0.014 U	0.017 U	0.013 U	0.014 U	0.022 U	0.013 U	0.023	0.015 U	0.012 U	0.015 U	0.013 U	0.05	*
Resource Conservation and Recovery Act (RCRA) 8 Metals (mg/kg)																				
Arsenic	1.7	1.4	3.1	2.9	3.4	102	3.8	1.4	7.6	2.3	4.0	50	2.2	6.1	2.4	12	5.9	3.3	20	*
Barium	23	15	38	21	24	154	36	17	85	23	19	631	23	148	17	224	50	36	*	*
Cadmium	0.17 U	0.18 U	0.25	0.20 U	0.20 U	3.8	0.20	0.21 U	1.4	0.19 U	0.18 U	37	0.19 U	0.79	0.18 U	0.71	0.20 U	0.20 U	2	*
Chromium	9.8	13	18	17	11	143	12	11	20	12	14	115	9.7	23	9.59	17	20	15	2,000	*
Lead	1.3	1.2	22	1.4	22	2780	19	1.3	45	1.9	2.0	2180	1.5	63	1.5	370	3.2	2.1	250	*
Mercury	0.29 U	0.30 U	0.23 U	0.29 U	0.30 U	0.55	0.28 U	0.32 U	0.30 U	0.28 U	0.27 U	9.1	0.30 U	2.5	0.28 U	0.29 U	0.30 U	0.29 U	2	*
Selenium	1.2	1.3	1.5	1.2	1.1	1.2	1.5	1.1	1.6	1.1	1.4	1.7	1.1	1.3	1.1	1.9	1.5	1.0	*	*
Silver	0.087 U	0.091 U	0.084 U	0.098 U	0.10 U	2.5	0.093 U	0.11 U	0.12	0.095 U	0.092 U	2.6	0.096 U	0.14	0.09 U	0.14	0.10 U	0.10 U	*	
TCLP (mg/L)																				
Arsenic	NA	NA	NA	NA	NA	0.10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	*	5
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21	NA	NA	NA	NA	NA	NA	*	5
Chromium	NA	NA	NA	NA	NA	0.10 U	NA	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	*	5
Lead	NA	NA	NA	NA	NA	0.72	NA	NA	NA	NA	NA	0.70	NA	NA	NA	0.20 U	NA	NA	*	5
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0020 U	NA	NA	NA	NA	NA	NA	*	5
Semi-volatile Organic Compounds and Polynuclear Aromatic Hydrocarbons (PAHs) (mg/kg)																				
Pentachlorophenol	0.11 U	0.13 U	0.20	0.12 U	0.12 U	0.20 U	0.11 U	0.12 U	0.11 U	0.12 U	0.11 U	0.17 U	0.122 U	0.103 U	0.12 U	0.12 U	0.14 U	0.13 U	*	*
Dibutyl phthalate	0.11 U	0.13 U	0.13	0.12 U	0.12 U	0.20 U	0.12	0.12 U	0.28	0.12 U	0.11 U	0.17	0.122 U	0.103 U	0.12 U	0.13	0.14 U	0.13 U	*	*
Anthracene	0.089 U	0.10 U	0.091	0.093 U	0.095 U	0.16 U	0.091 U	0.096 U	0.091 U	0.094 U	0.090 U	0.14 U	0.097 U	0.083 U	0.092 U	0.095 U	0.11 U	0.10 U	*	*
Fluoranthene	0.089 U	0.10 U	0.13	0.093 U	0.095 U	0.16 U	0.091 U	0.096 U	0.091 U	0.094 U	0.090 U	0.15	0.097 U	0.083 U	0.092 U	0.11	0.11 U	0.10 U	*	*
Pyrene	0.089 U	0.10 U	0.16	0.093 U	0.095 U	0.16 U	0.091 U	0.096 U	0.091 U	0.094 U	0.090 U	0.29	0.097 U	0.083 U	0.092 U	0.11	0.11 U	0.10 U	*	*
Benz[a]anthracene	0.089 U	0.10 U	0.14	0.093 U	0.11	0.19	0.12	0.11	0.13	0.11	0.10	0.62	0.097 U	0.11	0.092 U	0.13	0.11 U	0.10 U	*	*
Chrysene	0.089 U	0.10 U	0.086 U	0.093 U	0.095 U	0.16 U	0.091 U	0.096 U	0.091 U	0.094 U	0.090 U	0.25	0.097 U	0.083 U	0.092 U	0.095 U	0.11 U	0.10 U	*	*
Benzo(b)fluoranthene	0.089 U	0.10 U	0.086 U	0.093 U	0.095 U	0.16 U	0.091 U	0.096 U	0.091 U	0.094 U	0.090 U	0.51	0.097 U	0.083 U	0.092 U	0.095 U	0.11 U	0.10 U	*	*
Benzo(k)fluoranthene	0.089 U	0.10 U	0.086 U	0.093 U	0.095 U	0.16 U	0.091 U	0.096 U	0.091 U	0.094 U	0.090 U	0.19	0.097 U	0.083 U	0.092 U	0.095 U	0.11 U	0.10 U	*	*
Benzo(ghi)perylene	0.089 U	0.10 U	0.086 U	0.093 U	0.095 U	0.16 U	0.091 U	0.096 U	0.091 U	0.094 U	0.090 U	1.2	0.097 U	0.083 U	0.092 U	0.095 U	0.11 U	0.10 U	*	*
Benzo(a)pyrene	0.089 U	0.10 U	0.086 U	0.093 U	0.095 U	0.28	0.091 U	0.096 U	0.091 U	0.094 U	0.090 U	0.93	0.097 U	0.083 U	0.092 U	0.095 U	0.55	0.23	0.1	*
TEF-adjusted cPAHs (see Table 3)	0.08 U	0.091 U	0.087	0.084 U	0.092	0.36	0.089	0.093	0.091	0.091	0.087	1.1	0.088 U	0.082	0.083 U	0.094	0.60	0.27	0.1	*
Polychlorinated Biphenyls (PCBs) (mg/kg)																				
PCB-aroclor 1016	NA	NA	NA	NA	NA	0.20 U	NA	NA	NA	NA	NA	0.17 U	NA	NA	NA	0.11 U	NA	NA	1	*
PCB-aroclor 1221	NA	NA	NA	NA	NA	0.20 U	NA	NA	NA	NA	NA	0.17 U	NA	NA	NA	0.11 U	NA	NA		*
PCB-aroclor 1232	NA	NA	NA	NA	NA	0.20 U	NA	NA	NA	NA	NA	0.17 U	NA	NA	NA	0.11 U	NA	NA		*
PCB-aroclor 1242	NA	NA	NA	NA	NA	0.20 U	NA	NA	NA	NA	NA	0.17 U	NA	NA	NA	0.11 U	NA	NA		*
PCB-aroclor 1248	NA	NA	NA	NA	NA	0.20 U	NA	NA	NA	NA	NA	0.17 U	NA	NA	NA	0.11 U	NA	NA		*
PCB-aroclor 1254	NA	NA	NA	NA	NA	0.20 U	NA	NA	NA	NA	NA	0.17 U	NA	NA	NA	0.11 U	NA	NA		*
PCB-aroclor 1260	NA	NA	NA	NA	NA	0.20 U	NA	NA	NA	NA	NA	0.17 U	NA	NA	NA	0.11 U	NA	NA		*
Total PCBs	NA	NA	NA	NA	NA	0.20 U	NA	NA	NA	NA	NA	0.17 U	NA	NA	NA	0.11 U	NA	NA		*
Detected Herbicides (µg/kg)																				
Chloramben	24 U	25 U	23	24 U	24 U	41 U	25	26 U	24	24 U	23 U	34 U	24 U	21 U	23 U	26	27 U	25 U	*	*

Notes: see page 4 of 4

TABLE 2
SUMMARY OF PROJECT ANALYTICAL SOIL TESTING DATA

Geoprobe Name	GP-9-15		GP-10-15		GP-11-15		GP-12-15		GP-13-15		GP-14-15			GP-15-15		GP-16-15		MTCA Method A Unrestricted Land Use (mg/Kg)	Dangerous Waste Criteria (mg/L)
Sample Number	GP-9-15:5.0	GP-9-15:12.5	GP-10-15:4.5	GP-10-15:13.0	GP-11-15:4.5	GP-11-15:14.5	GP-12-15:4.0	GP-12-15:13.5	GP-13-15:4.5	GP-13-15:13.5	GP-14-15:3.5	GP-14-15:13.5	GP-14-15:DUP	GP-15-15:6.0	GP-15-15:14.0	GP-16-15:8.0	GP-16-15:13.5		
Sample Depth (feet)	5.0	12.5	4.5	13.0	4.5	14.5	4.0	13.5	4.5	13.5	3.5	13.5	3.5	6.0	14.0	8.0	13.5		
Analyte																			
Petroleum Hydrocarbons (mg/kg)																			
Diesel	25 U	25 U	27 U	24 U	21 U	36 U	23 U	25 U	22 U	27 U	20 U	34 U	27 U	25 U	26 U	72	25 U	2,000	*
Lube Oil	62 U	63 U	3840	60 U	103	91 U	58 U	63 U	462	68 U	50 U	86 U	66 U	64 U	65 U	427	63 U	2,000	*
Detected Volatile Organic Compounds (mg/kg)																			
Trichloroethene	0.012 U	0.013 U	0.066	0.014 U	0.011 U	0.027 U	0.012 U	0.013 U	0.013 U	0.016 U	0.014 U	0.025 U	0.016 U	0.018 U	0.015 U	0.019 U	0.016 U	0.03	*
Toluene	0.012 U	0.013 U	0.019 U	0.014 U	0.011 U	0.027 U	0.012 U	0.013 U	0.013 U	0.016 U	0.014 U	0.025 U	0.016 U	0.018 U	0.015 U	0.022	0.016 U	7	*
m, p-Xylene	0.012 U	0.013 U	0.019 U	0.014 U	0.011 U	0.027 U	0.012 U	0.013 U	0.013 U	0.016 U	0.014 U	0.025 U	0.016 U	0.018 U	0.015 U	0.029	0.016 U	9	*
Tetrachloroethene	0.012 U	0.013 U	0.18	0.014 U	0.011 U	0.027 U	0.012 U	0.013 U	0.013 U	0.016 U	0.014 U	0.025 U	0.016 U	0.018 U	0.015 U	0.019 U	0.016 U	0.05	*
Resource Conservation and Recovery Act (RCRA) 8 Metals (mg/kg)																			
Arsenic	1.9	2.7	39.7	1.2	2.5	3.0	2.8	1.2	3.4	3.3	2.9	7.7	4.6	2.5	1.7	18.5	1.8	20	*
Barium	29	59	232	31	33	72	27	18	40	73	36	95	103	42	32	78	26	*	*
Cadmium	0.18 U	0.22 U	8.3	0.19 U	0.16 U	0.28 U	0.20 U	0.20 U	0.19	0.22 U	0.19	0.30 U	0.24 U	0.39	0.21 U	1.9	0.198 U	2	*
Chromium	18	21	314	14	14	22	13	14	19	24	13	23	32	18	12	57	13	2,000	*
Lead	8.3	3.6	3320	2.06	40	4.3	3.5	1.3	424	4.3	20	5.2	6.2	15	1.6	552	2.2	250	*
Mercury	0.28 U	0.30 U	0.31 U	0.30 U	0.25 U	0.45 U	0.29 U	0.31 U	0.26 U	0.33 U	0.28 U	0.46 U	0.31 U	0.33 U	0.30 U	0.42 U	0.29 U	2	*
Selenium	0.74	1.7	0.96	1.0	0.80	1.4	1.4	0.89	0.99	2.1	0.96	3.2	2.5	0.66	0.83	0.63 U	0.89	*	*
Silver	0.091 U	0.109 U	1.99	0.093 U	0.080 U	0.14 U	0.10 U	0.099 U	0.091 U	0.11 U	0.093 U	0.15 U	0.12 U	0.12 U	0.11 U	0.18	0.10 U	*	*
TCLP (mg/L)																			
Cadmium	NA	NA	0.10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	*	5
Lead	NA	NA	1.8	NA	NA	NA	NA	NA	0.20 U	NA	NA	NA	NA	NA	NA	13	NA	*	5
Semi-volatile Organic Compounds and Polynuclear Aromatic Hydrocarbons (PAHs) (mg/kg)																			
Naphthalene	0.095 U	0.11 U	4.4	0.10 U	0.085 U	0.14 U	0.095 U	0.10 U	0.087 U	0.000024 U	0.000021 U	0.000037 U	0.11 U	0.000027 U	0.000022 U	0.13 U	0.097 U	5	*
2-Methylnaphthalene	0.095 U	0.11 U	3.1	0.10 U	0.085 U	0.14 U	0.095 U	0.10 U	0.087 U	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.13 U	0.097 U	*	*
1-Methylnaphthalene	0.095 U	0.11 U	6.1	0.10 U	0.085 U	0.14 U	0.095 U	0.10 U	0.087 U	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.13 U	0.097 U	*	*
Acenaphthylene	0.095 U	0.11 U	0.13	0.10 U	0.085 U	0.14 U	0.095 U	0.10 U	0.087 U	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.13 U	0.097 U	*	*
Acenaphthene	0.095 U	0.11 U	29.2	0.10 U	0.085 U	0.14 U	0.095 U	0.10 U	0.087 U	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.13 U	0.097 U	*	*
Bis(2-Ethylhexyl) Phthalate	0.119 U	0.14 U	1.6	0.13 U	0.106 U	0.18 U	0.12 U	0.12 U	0.17	0.14 U	0.12	0.25	0.14 U	0.15	0.13 U	2.5	0.12 U	*	*
Dibutyl phthalate	0.119 U	0.14 U	0.18	0.13 U	0.106 U	0.18 U	0.12 U	0.12 U	0.11 U	0.14 U	0.12 U	0.18 U	0.14 U	0.15 U	0.13 U	0.17 U	0.19	*	*
Butyl benzyl phthalate	0.119 U	0.14 U	0.14 U	0.13 U	0.106 U	0.18 U	0.12 U	0.12 U	0.11 U	0.14 U	0.12 U	0.18 U	0.14 U	0.15 U	0.13 U	0.17	0.12 U	*	*
p-Cresol	0.119 U	0.14 U	0.20	0.13 U	0.106 U	0.18 U	0.12 U	0.12 U	0.11 U	0.14 U	0.12 U	0.18 U	0.14 U	0.15 U	0.13 U	0.17 U	0.12 U	*	*
4-Nitrophenol	0.595 U	0.68 U	1.4	0.63 U	0.528 U	0.90 U	0.59 U	0.62 U	0.034 U	0.041 U	0.58 U	0.055 U	0.71 U	0.73 U	0.04 U	0.83 U	0.61 U	*	*
Fluorene	0.095 U	0.11 U	37.5	0.10 U	0.085 U	0.14 U	0.095 U	0.10 U	0.087 U	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.13 U	0.097 U	*	*
Phenanthrene	0.095 U	0.11 U	317	0.10 U	0.085 U	0.14 U	0.095 U	0.10 U	0.087 U	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.13 U	0.097 U	*	*
Anthracene	0.095 U	0.11 U	106	0.10 U	0.085 U	0.14 U	0.095 U	0.10 U	0.087 U	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.13 U	0.097 U	*	*
Fluoranthene	0.095 U	0.11 U	365	0.11	0.085 U	0.19	0.095 U	0.10 U	0.14	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.15	0.097 U	*	*
Pyrene	0.095 U	0.11 U	345	0.10 U	0.085 U	0.19	0.095 U	0.10 U	0.13	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.19	0.097 U	*	*
Benz[a]anthracene	0.11	0.12	164	0.10 U	0.11	0.20	0.095 U	0.10 U	0.13	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.21	0.097 U	*	*
Chrysene	0.095 U	0.11 U	193	0.10 U	0.085 U	0.14 U	0.095 U	0.10 U	0.087 U	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.13 U	0.097 U	*	*
Benzo(b)fluoranthene	0.095 U	0.11 U	186	0.10 U	0.085 U	0.14 U	0.095 U	0.10 U	0.23	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.13 U	0.097 U	*	*
Benzo(k)fluoranthene	0.095 U	0.11 U	28	0.10 U	0.085 U	0.14 U	0.095 U	0.10 U	0.087 U	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.13 U	0.097 U	*	*
Indeno(1,2,3-cd)pyrene	0.095 U	0.11 U	62	0.10 U	0.085 U	0.14 U	0.095 U	0.10 U	0.087 U	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.13 U	0.097 U	*	*
Dibenzo(a,h)anthracene	0.095 U	0.11 U	53	0.10 U	0.085 U	0.14 U	0.095 U	0.10 U	0.087 U	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.13 U	0.097 U	*	*
Benzo(ghi)perylene	0.095 U	0.11 U	57	0.10 U	0.085 U	0.14 U	0.095 U	0.10 U	0.087 U	0.11 U	0.092 U	0.15 U	0.11 U	0.12 U	0.11 U	0.13 U	0.097 U	*	*
Benzo(a)pyrene	0.095 U	0.24	91	0.213	0.085 U	0.59	0.095 U	0.10 U	0.087 U	0.45	0.092 U	0.64	0.54	0.12 U	0.11 U	0.13 U	0.097 U	0.1	*
TEF-adjusted cPAHs (see Table F-3)	0.092	0.25	213	0.25	0.083	0.66	0.86 U	0.090 U	0.10	0.48	0.083 U	0.64	0.58	0.10 U	0.10 U	0.13	0.088 U	0.1	*
Polychlorinated Biphenyls (PCBs) (mg/kg)																			
PCB-aroclor 1016	NA	NA	0.13 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.40	NA	1	*
PCB-aroclor 1221	NA	NA	0.13 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.17 U	NA		
PCB-aroclor 1232	NA	NA	0.13 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.17 U	NA		
PCB-aroclor 1242	NA	NA	0.13 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.17 U	NA		
PCB-aroclor 1248	NA	NA	0.13 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.17 U	NA		
PCB-aroclor 1254	NA	NA	0.13 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.17 U	NA		
PCB-aroclor 1260	NA	NA	0.13 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.17 U	NA		
Total PCBs	NA	NA	0.13 U	NA	0.11 U	NA	NA	NA	0.11 U	NA	NA	NA	NA	NA	NA	0.42	NA		
Detected Pesticides (mg/kg)																			
Endosulfan Sulfate	0.024 U	0.027 U	0.026 U	0.024 U	0.060	0.038 U	0.024 U	0.024 U	0.021 U	0.027 U	0.021 U	0.034 U	0.027 U	0.027 U	0.025 U	0.029 U	0.025 U	*	*
Endosulfan II	0.024 U	0.027 U	0.026 U	0.024 U	0.056	0.038 U	0.024 U	0.024 U	0.021 U	0.027 U	0.021 U	0.034 U	0.027 U	0.027 U	0.025 U	0.029 U	0.025 U	*	*
Methoxychlor	0.059 U	0.066 U	0.065 U	0.060 U	0.13	0.094 U	0.060 U	0.059 U	0.053 U	0.067 U	0.053 U	0.085 U	0.066 U	0.069 U	0.062 U	0.073 U	0.062 U	*	*

Notes: see page 4 of 4

TABLE 2
SUMMARY OF PROJECT ANALYTICAL SOIL TESTING DATA

Geoprobe Name	GP-17-15			GP-18-15		GP-19-15		GP-20-15		GP-21-15		GP-22-15			MW-1-15		MW-2-15		MTCA Method A Unrestricted Land Use (mg/Kg)	Dangerous Waste Criteria (mg/L)
Sample Number	GP-17-15:7.0	GP-17-15:14.5	GP-17-15:DUP	GP-18-15:3.0	GP-18-15:14.0	GP-19-15:5.0	GP-19-15:14.5	GP-20-15:5.5	GP-20-15:14.0	GP-21-15:4.0	GP-21-15:14.0	GP-22-15:1.5	GP-22-15:3.0	GP-22-15:DUP	MW-1-15:6.0	MW-1-15:12.0	MW-2-15:3.0	MW-2-15:13.0		
Sample Depth (feet)	7.0	14.5	11.0	3.0	14.0	5.0	14.5	5.5	14.0	4.0	14.0	1.5	3.0	3.0	6.0	12.0	3.0	6.0		
Analyte																				
Petroleum Hydrocarbons (mg/kg)																				
Gasoline	4.2 U	3.9 U	3.8 U	3.5 U	3.7 U	3.1 U	4.7 U	3.3 U	3.6 U	3.7	4.0 U	3.5 U	3.6 U	2.7 U	2.7 U	3.3 U	3.3 U	5.5 U	100	*
Lube Oil	70	51 U	401	302	59 U	52 U	62 U	285	52 U	728	55 U	53 U	51 U	48 U	60 U	60 U	137	95 U	2,000	*
Detected Volatile Organic Compounds (mg/kg)																				
Methylene Chloride	0.017 U	0.016 U	0.015 U	0.014 U	0.015 U	0.012 U	0.020	0.013 U	0.015	0.014	0.016 U	0.014 U	0.014 U	0.011 U	0.011 U	0.013 U	0.013 U	0.022 U	*	*
p-Isopropyltoluene	0.017 U	0.016 U	0.015 U	0.014 U	0.015 U	0.012 U	0.019 U	0.013 U	0.014 U	0.13	0.016 U	0.014 U	0.014 U	0.011 U	0.011 U	0.013 U	0.013 U	0.022 U	*	*
Tetrachloroethene	0.017 U	0.016 U	0.015 U	0.014 U	0.015 U	0.012 U	0.019 U	0.013 U	0.014 U	0.013 U	0.016 U	0.014 U	0.014 U	0.011 U	0.23	0.013 U	0.013 U	0.022 U	0.050	*
Trichloroethene	0.017 U	0.016 U	0.015 U	0.014 U	0.015 U	0.012 U	0.019 U	0.013 U	0.014 U	0.013 U	0.016 U	0.014 U	0.014 U	0.011 U	0.012	0.013 U	0.013 U	0.022 U	0.030	*
Resource Conservation and Recovery Act (RCRA) 8 Metals (mg/kg)																				
Arsenic	8.7	2.0	5.7	5.2	5.6	3.5	2.7	4.0	1.9	2.6	2.8	3.8	3.8	4.0	3.7	2.7	3.1	8.1	20	*
Barium	52	22	38	47	25	44	38	32	21	40	27	46	44	44	31	20	28	74	*	*
Cadmium	0.36	0.19 U	3.2	0.32	0.18 U	0.18 U	0.20 U	0.17 U	0.18 U	0.23	0.20 U	0.17 U	0.19 U	0.18 U	0.44	0.20 U	0.17 U	0.28 U	2	*
Chromium	16	12	19	18	56	22	17	19	11	22	14	18	19	19	17	14	15	22	2,000	*
Lead	49	2.6	39	60	5.7	5.4	2.2	19.6	2.3	18	3.4	5.1	4.1	5.5	41.1	3.4	23	4.9	250	*
Mercury	0.31 U	0.26 U	0.29 U	0.24 U	0.26 U	0.24 U	0.28 U	0.27 U	0.27 U	0.25 U	0.28 U	0.38	0.25 U	0.25 U	0.26 U	0.28 U	0.24 U	0.44 U	2	*
Selenium	1.5	0.99	1.5	1.1	0.90	1.1	0.86	1.2	0.9	0.85	0.78	1.7	1.6	1.8	1.1	1.0	0.89	2.35	*	*
Silver	0.117 U	0.095 U	0.102 U	0.091 U	0.090 U	0.088 U	0.099 U	0.085 U	0.092 U	0.095 U	0.099 U	0.084 U	0.097 U	0.091 U	0.094 U	0.10 U	0.084 U	0.14 U	*	*
TCCLP (mg/L)																				
Cadmium	NA	NA	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	*	5
Semi-volatile Organic Compounds and Polynuclear Aromatic Hydrocarbons (PAHs) (mg/kg)																				
Bis(2-Ethylhexyl) Phthalate	0.14 U	0.11 U	1.09	0.11 U	0.38	0.11 U	0.13 U	0.21	0.12 U	2.76	0.12 U	0.11 U	0.12 U	0.11 U	0.12 U	0.12 U	0.12	0.33	*	*
Di-N-Octyl Phthalate	0.14 U	0.11 U	0.12 U	0.17	0.12 U	0.11 U	0.13 U	0.11 U	0.12 U	0.114 U	0.12 U	0.11 U	0.12 U	0.11 U	0.12 U	0.12 U	0.11 U	0.19 U	*	*
Butyl benzyl phthalate	0.14 U	0.11 U	0.12 U	0.11 U	0.12 U	0.27	0.13 U	0.11 U	0.12 U	0.18	0.12 U	0.11 U	0.12 U	0.11 U	0.12 U	0.12 U	0.11 U	0.19 U	*	*
Phenol	0.28 U	0.23 U	0.25 U	0.21 U	0.24 U	0.22 U	0.26 U	0.21 U	0.23 U	0.57	0.23 U	0.22 U	0.23 U	0.226 U	0.236 U	0.25 U	0.228 U	0.38 U	*	*
Phenanthrene	0.11 U	0.091 U	0.10 U	0.085 U	0.095 U	0.086 U	0.10 U	0.085 U	0.092 U	0.11	0.13	0.086 U	0.092 U	0.090 U	0.094 U	0.098 U	0.091 U	0.15 U	*	*
Anthracene	0.11 U	0.091 U	0.10 U	0.085 U	0.095 U	0.086 U	0.10 U	0.085 U	0.092 U	0.13	0.15	0.086 U	0.092 U	0.090 U	0.094 U	0.098 U	0.091 U	0.15 U	*	*
Fluoranthene	0.11 U	0.091 U	0.13	0.11	0.095 U	0.086 U	0.10 U	0.096	0.092 U	0.25	0.13	0.086 U	0.092 U	0.090 U	0.094 U	0.098 U	0.16	0.15 U	*	*
Dibutyl phthalate	0.19	0.14	0.66	0.107 U	0.12 U	0.13	0.13 U	0.11 U	0.12 U	0.13	0.14	0.12	0.14	0.14	0.12 U	0.12 U	0.11 U	0.19 U	*	*
Pyrene	0.13	0.091 U	0.14	0.12	0.095 U	0.086 U	0.10 U	0.090	0.092 U	0.23	0.11	0.086 U	0.092 U	0.090 U	0.094 U	0.098 U	0.15	0.15 U	*	*
Benzo[a]anthracene	0.19	0.091 U	0.10 U	0.16	0.095 U	0.086 U	0.10 U	0.13	0.092 U	0.16	0.12	0.086 U	0.092 U	0.090 U	0.13	0.098 U	0.14	0.15 U	*	*
Chrysene	0.11 U	0.091 U	0.10 U	0.095	0.095 U	0.086 U	0.10 U	0.085 U	0.092 U	0.23	0.092 U	0.086 U	0.092 U	0.090 U	0.094 U	0.098 U	0.091 U	0.15 U	*	*
Benzo(b)fluoranthene	0.11 U	0.091 U	0.10 U	0.085 U	0.19	0.17	0.10 U	0.085 U	0.092 U	0.091 U	0.092 U	0.086 U	0.092 U	0.090 U	0.094 U	0.098 U	0.26	0.15 U	*	*
Benzo(k)fluoranthene	0.11 U	0.091 U	0.10 U	0.085 U	0.095 U	0.086 U	0.10 U	0.085 U	0.092 U	0.091 U	0.092 U	0.086 U	0.092 U	0.090 U	0.094 U	0.098 U	0.11	0.15 U	*	*
Benzo(ghi)perylene	0.11 U	0.091 U	0.10 U	0.085 U	0.095 U	0.086 U	0.10 U	0.085 U	0.092 U	0.18	0.092 U	0.086 U	0.092 U	0.090 U	0.094 U	0.098 U	0.091 U	0.15 U	*	*
Benzo(a)pyrene	0.11 U	0.091 U	0.10 U	0.085 U	0.17	0.086 U	0.28	0.085 U	0.092 U	0.091 U	0.092 U	0.086 U	0.092 U	0.090 U	0.094 U	0.098 U	0.091 U	0.52	0.1	*
TEF-adjusted cPAHs (see Table F-3)	0.10	0.082 U	0.090 U	0.089	0.54	0.091	0.32	0.086	0.083 U	0.096	0.091	0.078 U	0.083 U	0.081 U	0.093	0.089 U	0.10	0.58	0.1	*
Polychlorinated Biphenyls (PCBs) (mg/kg)																				
PCB-aroclor 1016	NA	NA	0.12 U	0.11 U	NA	NA	NA	0.10 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	1	*
PCB-aroclor 1221	NA	NA	0.12 U	0.11 U	NA	NA	NA	0.10 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA		*
PCB-aroclor 1232	NA	NA	0.12 U	0.11 U	NA	NA	NA	0.10 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA		*
PCB-aroclor 1242	NA	NA	0.12 U	0.11 U	NA	NA	NA	0.10 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA		*
PCB-aroclor 1248	NA	NA	0.12 U	0.11 U	NA	NA	NA	0.10 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA		*
PCB-aroclor 1254	NA	NA	0.12 U	0.11 U	NA	NA	NA	0.10 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA		*
PCB-aroclor 1260	NA	NA	0.12 U	0.11 U	NA	NA	NA	0.10 U	NA	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA		*
PCBs Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		*

Notes: see page 4 of 4

TABLE 2
SUMMARY OF PROJECT ANALYTICAL SOIL TESTING DATA

Geoprobe Name	MW-3-15		MW-4-15		MW-5-15		MW-6-15			TP-1-15	TP-3-15	MTCA Method A Unrestricted Land Use (mg/Kg)	Dangerous Waste Criteria (mg/L)
Sample Number	MW-3-15:6.5	MW-3-15:15.0	MW-4-15:6.0	MW-4-15:14.5	MW-5-15:5.0	MW-5-15:12.5	MW-6-15:5.5	MW-6-15:DUP	MW-6-15:14.0	TP-1-15:5.5	TP-3-15:6.0		
Sample Depth (feet)	6.5	15.0	6.0	14.5	5.0	12.5	5.5	5.5	14.0	5.5	6.0		
Analyte													
Petroleum Hydrocarbons (mg/kg)													
Diesel	23 U	26 U	22 U	29 U	24 U	24 U	20 U	20 U	20 U	27 U	24 U	2,000	*
Lube Oil	59 U	64 U	1250	74 U	61 U	61 U	50 U	4080	51 U	895	267	2,000	*
Resource Conservation and Recovery Act (RCRA) 8 Metals (mg/Kg)													
Arsenic	3.8	1.6	4	4.5	4.6	2.2	3.5	3.3	3.9	5.2	17	20	*
Barium	17	27	45	80	98	30	39	29	28	78	315	*	*
Cadmium	0.21 U	0.23 U	0.19 U	0.25 U	5.4	0.19 U	0.17 U	0.19 U	0.17 U	0.61	1.4	2	*
Chromium	12	12	26	21	24	15	18	12	13	22	30	2,000	*
Lead	1.3	1.5	19	3.8	56	7.7	12	14	2.0	88	364	250	*
Mercury	0.30 U	0.32 U	0.28 U	0.34 U	0.27 U	0.28 U	0.27 U	0.29 U	0.28 U	0.35 U	0.30 U	2	*
Selenium	0.86	0.98	1.2	2.5	1.6	1.3	1.5	1.1	1.4	1.0	1.2	*	*
Silver	0.10 U	0.11 U	0.094 U	0.13 U	0.092 U	0.094 U	0.087 U	0.095 U	0.087 U	0.20	0.47	*	*
TCPLP (mg/L)													
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.50 U	*	5
Semi-volatile Organic Compounds and Polynuclear Aromatic Hydrocarbons (PAHs) (mg/kg)													
2-Methylnaphthalene	0.099 U	0.11 U	0.16	0.12 U	0.096 U	0.097 U	0.089 U	0.095 U	0.094 U	0.11 U	0.098 U	*	*
1-Methylnaphthalene	0.099 U	0.11 U	0.18	0.12 U	0.096 U	0.097 U	0.089 U	0.095 U	0.094 U	0.11 U	0.098 U	*	*
Acenaphthene	0.099 U	0.11 U	0.093	0.12 U	0.096 U	0.097 U	0.089 U	0.095 U	0.094 U	0.11 U	0.098 U	*	*
Fluorene	0.099 U	0.11 U	0.18	0.12 U	0.096 U	0.097 U	0.089 U	0.095 U	0.094 U	0.11 U	0.098 U	*	*
Phenanthrene	0.099 U	0.11 U	0.82	0.12 U	0.096 U	0.097 U	0.089 U	0.095 U	0.094 U	0.11 U	0.098 U	*	*
4-Nitrophenol	0.618 U	0.67 U	0.80	0.0445 U	0.036 U	0.038 U	0.553 U	0.594 U	0.588 U	0.041	0.049	*	*
Dibutyl phthalate	0.12 U	0.14 U	0.14	0.15 U	0.14	0.15	0.13	0.16	0.14	0.31	0.14	*	*
Anthracene	0.099 U	0.11 U	0.84	0.12 U	0.096 U	0.097 U	0.089 U	0.095 U	0.094 U	0.11 U	0.098 U	*	*
Fluoranthene	0.099 U	0.11 U	0.47	0.12 U	0.096 U	0.097 U	0.089 U	0.11	0.094 U	0.11 U	0.15	*	*
Pyrene	0.099 U	0.11 U	0.72	0.12 U	0.096 U	0.097 U	0.089 U	0.095 U	0.094 U	0.11 U	0.14	*	*
Benz[a]anthracene	0.099 U	0.11 U	0.33	0.12 U	0.13	0.097 U	0.089 U	0.095 U	0.094 U	0.16	0.098 U	*	*
Chrysene	0.099 U	0.11 U	0.30	0.12 U	0.096 U	0.097 U	0.089 U	0.095 U	0.094 U	0.11 U	0.098 U	*	*
Benzo(b)fluoranthene	0.099 U	0.11 U	0.35	0.12 U	0.096 U	0.097 U	0.089 U	0.095 U	0.094 U	0.11 U	0.22	*	*
Benzo(a)pyrene	0.099 U	0.11 U	0.20	0.27	0.17	0.097 U	0.089 U	0.095 U	0.094 U	110 U	0.098 U	0.1	*
TEF-adjusted cPAHs (see Table 3)	0.089 U	0.098 U	0.28	0.27	0.18	0.087 U	0.080 U	0.085 U	0.086 U	0.10	0.099	0.1	*
Polychlorinated Biphenyls (PCBs) (mg/kg)													
PCB-aroclor 1016	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.13 U	0.12 U	1	*
PCB-aroclor 1221	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.13 U	0.12 U		*
PCB-aroclor 1232	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.13 U	0.12 U		*
PCB-aroclor 1242	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.13 U	0.12 U		*
PCB-aroclor 1248	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.13 U	0.12 U		*
PCB-aroclor 1254	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.13 U	0.23		*
PCB-aroclor 1260	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.13 U	0.12 U		*
Total PCBs	NA	NA	NA	NA	NA	NA	NA	0.11 U	NA	0.13 U	0.23	*	
Detected Herbicides (mg/kg)													
2,4-DB	0.031 U	0.034 U	0.028 U	0.037 U	0.030 U	0.032 U	0.027 U	0.022	0.019	0.024	0.015 U	*	*
Chloramben	0.025 U	0.027 U	0.022 U	0.030 U	0.024 U	0.025 U	0.022 U	0.029	0.021	0.077	0.11	*	*
Picloram	0.063 U	0.068 U	0.056 U	0.074 U	0.061 U	0.063 U	0.054 U	0.040	0.028	0.045	0.032	*	*
2,4,5-T	0.063 U	0.068 U	0.056 U	0.074 U	0.061 U	0.063 U	0.054 U	0.071	0.028 U	0.034 U	0.031 U	*	*
Silvex	0.025 U	0.027 U	0.022 U	0.030 U	0.024 U	0.025 U	0.022 U	0.038	0.011 U	0.014 U	0.012 U	*	*
4-Nitrophenol	0.62 U	0.67 U	0.80	0.045 U	0.036 U	0.038 U	0.55 U	0.59 U	0.59 U	0.041	0.049	*	*
Dinoseb	0.038 U	0.041 U	0.034 U	0.045 U	0.036 U	0.038 U	0.033 U	0.049	0.017 U	0.042	0.019 U	*	*
Bentazon	0.044 U	0.048 U	0.039 U	0.052 U	0.043 U	0.044 U	0.038 U	0.021 U	0.020 U	0.025	0.022 U	*	*
Chlorthal-dimethyl	0.038 U	0.041 U	0.034 U	0.045 U	0.036 U	0.038 U	0.033 U	0.018 U	0.017 U	0.020	0.019	*	*
Dalapon	0.25 U	0.27 U	0.22 U	0.30 U	0.24 U	0.25 U	0.22 U	0.12 U	0.11 U	118	42	*	*
Detected Pesticides (mg/kg)													
Methoxychlor	0.059 U	0.063 U	0.049 U	0.28	0.058 U	0.060 U	0.056 U	0.058 U	0.053 U	0.059 U	0.058 U	*	*
4,4'-DDD	0.024 U	0.025 U	0.020 U	0.030 U	0.023 U	0.024 U	0.022 U	0.023 U	0.021 U	0.024 U	0.14	*	*
4,4'-DDE	0.024 U	0.025 U	0.020 U	0.030 U	0.023 U	0.024 U	0.022 U	0.023 U	0.021 U	0.024 U	0.036	*	*
cis-Chlordane	0.012 U	0.013 U	0.0098 U	0.015 U	0.012 U	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U	0.021	*	*
Endosulfan I	0.012 U	0.013 U	0.0098 U	0.015 U	0.012 U	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U	0.022	*	*
Endosulfan II	0.024 U	0.025 U	0.020 U	0.030 U	0.023 U	0.024 U	0.022 U	0.023 U	0.021 U	0.024 U	0.14	*	*
gamma-Chlordane	0.012 U	0.013 U	0.0098 U	0.015 U	0.012 U	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U	0.015	*	*
Methoxychlor	0.059 U	0.063 U	0.049 U	0.28	0.058 U	0.060 U	0.056 U	0.058 U	0.053 U	0.059 U	0.058 U	*	*

Notes:

* = no Model Toxics Control Act (MTCA) Method A values have not been established for this analyte

Criteria for gasoline-range petroleum in soil are 30 milligrams per kilogram (mg/kg) when benzene is present and 100 mg/kg when benzene is not present.

Bold values indicate a detection.

Shaded values indicate a MTCA Method A exceedance.

CPAHs = carcinogenic polynuclear aromatic hydrocarbons

NA = Not Applicable

TEF = toxicity equivalence factor

U = the analyte was not detected above the laboratory reporting limit shown

µg/kg = microgram per kilogram

µg/L = microgram per liter

TABLE 3
SUMMARY OF ANALYTICAL GROUNDWATER RESULTS FROM
GEOPROBE EXPLORATIONS

Exploration Name	GP-12-15	GP-13-15	GP-21-15	MW-2-15	MW-3-15	MW-5-15	MW-6-15	MTCA Method A Cleanup Levels (µg/L)
Sample Number	GP-12-15:GW	GP-13-15:GW	GP-21-15:GW	MW-2-15:GW	MW-3-15:GW	MW-5-15:GW	MW-6-15:GW	
Date Sampled	9/18/2015	9/21/2015	9/21/2015	9/18/2015	9/18/2015	9/22/2015	9/22/2015	
Sample Delivery Group	1509270	1509300	1509300	1509270	1509270	1509311	1509311	
Analyte								
Petroleum Hydrocarbons (µg/L)								
Gasoline	50 U	50 U	50 U	50 U	50 U	50 U	50 U	800/1,000
Diesel	50 U	50 U	50 U	50 U	50 U	50 U	50 U	500
Lube Oil	100 U	100 U	171	100 U	100 U	100 U	100 U	500
Detected Volatile Organic Compounds (µg/L)								
Chloromethane	2.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	*
Total Priority Pollutant Metals (µg/L)								
Antimony	0.20 U	0.20 U	0.20	0.29	0.41	0.30	0.20 U	*
Arsenic	21	3.5	14	7.9	11	5.9	11	5
Beryllium	0.51	0.20 U	0.35	0.20 U	0.98	0.34	0.53	*
Cadmium	0.75	0.20 U	0.26	0.20 U	0.46	5.3	3.7	5
Chromium	22	19	11	5.0	5.3	7.7	11	50
Copper	94	20	15	25	19	6.3	13	*
Lead	8.2	11	8.3	5.2	30	65	44	15
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	2
Nickel	10	8.9	8.9	6.0	6.9	19	9.3	*
Selenium	5.8	1.6	1.5	1.9	2.7	1.0 U	2.9	*
Silver	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	*
Thallium	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	*
Zinc	29	17	32	19.9	128	1200	1010	*
Dissolved Priority Pollutant Metals (µg/L)								
Antimony	0.51 E	0.20 U	0.20 U	0.73 E	0.62 E	0.47	0.78	*
Arsenic	2.7	1.0 U	4.0	2.2	3.9	1.0 U	3.4	5
Beryllium	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	*
Cadmium	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	5
Chromium	0.97	0.50 U	1.3	1.2	0.50 U	0.50 U	0.50 U	50
Copper	12	0.66	1.2	13	4.0	1.1	2.3	*
Lead	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	15
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	2
Nickel	1.6	1.1	2.0	4.1	3.2	2.5	1.5	*
Selenium	1.6	1.1	1.0 U	1.0 U	1.4	1.0 U	1.0 U	*
Silver	0.80	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.23	*
Thallium	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	*
Zinc	4.3	1.5 U	7.5	11	19	5.8	25	*

Notes:

* = no criteria established for this analyte

Criteria for gasoline-range petroleum in soil are 800 micrograms per liter (µg/L) when benzene is present and 1,000 µg/L when benzene is not present.

Bold values indicate a detection

Shaded values indicate a Model Toxics Control Act Method A exceedance.

E = the value was above the quantitative range

MTCA = Model Toxics Control Act

U = the analyte was not detected above the laboratory reporting limit shown

TABLE 4
SUMMARY OF ANALYTICAL GROUNDWATER RESULTS FROM
MONITORING WELLS

Exploration Name	MW-1-15	MW-2-15	MW-3-15		MW-4-15	MW-5-15	MW-6-15	MTCA Method A Cleanup Levels (µg/L)
Sample Number	MW-1-15:GW	MW-2-15:GW	MW-3-15:GW	MW-3-15:GW:DUP	MW-4-15:GW	MW-5-15:GW	MW-6-15:GW	
Date Sampled	10/6/2015	10/5/2015	10/6/2015	10/6/2015	10/5/2015	10/5/2015	10/5/2015	
Analyte								
Petroleum Hydrocarbons (µg/L)								
Gasoline	50 U	50 U	50 U	50 U	50 U	50 U	50 U	800/1,000
Diesel	50 U	50 U	50 U	50 U	50 U	50 U	50 U	500
Lube Oil	100 U	100 U	100 U	100 U	100 U	100 U	100 U	500
Detected Volatile Organic Compounds (µg/L)								
Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	5.7	1.0 U	1.0 U	*
Total Priority Pollutant Metals (µg/L)								
Antimony	0.20 U	0.20 U	0.24	0.22	0.21	0.20 U	0.20 U	*
Arsenic	1.1	5.7	3.7	4.1	13	1.4	2	5
Beryllium	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20	*
Cadmium	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.2	5
Chromium	0.50 U	2.3	2.8	2.3	2.7	0.52	0.74	50
Copper	1.2	2.2	0.88	1.2	0.83	0.50 U	1.2	*
Lead	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.5	15
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	2
Nickel	4.5	3.3	1.7	1.1	0.89	0.50 U	0.76	*
Selenium	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	*
Silver	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	*
Thallium	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	*
Zinc	96	4.6	56	57.7	2.7	1.5 U	8.0	*
Dissolved Priority Pollutant Metals (µg/L)								
Antimony	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.33	*
Arsenic	1.2	5.1	3.8	4.8	9.8	1.0 U	2.1	5
Beryllium	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	*
Cadmium	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	5
Chromium	0.50 U	1.6	1.5	1.3	1.5	0.50 U	0.50 U	50
Copper	0.50 U	1.0	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	*
Lead	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	15
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	2
Nickel	3.8	2.8	0.90	0.96	0.50 U	0.57	0.63	*
Selenium	1.0 U	1.0 U	1.0 U	1.8	1.0 U	1.0 U	1.0 U	*
Silver	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	*
Thallium	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	*
Zinc	87	3.5	55	56	1.5 U	1.5 U	1.5 U	*

Notes:

* = no criteria established for this analyte

Criteria for gasoline-range petroleum in soil are 800 µg/L when benzene is present and 1,000 µg/L when benzene is not present.

Bold values indicate a detection

Shaded values indicate a Model Toxic Control Act (MTCA) Method A exceedance.

µg/L = micrograms per liter

U = the analyte was not detected above the laboratory reporting limit shown

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-1-15:5.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.089	0.1	0.004425
Chrysene	ND	0.089	0.01	0.0004425
Benzo(b)fluoranthene	ND	0.089	0.1	0.004425
Benzo(k)fluoranthene	ND	0.089	0.1	0.004425
Benzo(a)pyrene	ND	0.089	1	0.04425
Indeno(1,2,3-c,d)pyrene	ND	0.089	0.1	0.004425
Dibenzo(a,h)anthracene	ND	0.089	0.4	0.0177
Sum2				0.080
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-1-15:13.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.10	0.1	0.00505
Chrysene	ND	0.10	0.01	0.000505
Benzo(b)fluoranthene	ND	0.10	0.1	0.00505
Benzo(k)fluoranthene	ND	0.10	0.1	0.00505
Benzo(a)pyrene	ND	0.10	1	0.0505
Indeno(1,2,3-c,d)pyrene	ND	0.10	0.1	0.00505
Dibenzo(a,h)anthracene	ND	0.10	0.4	0.0202
Sum2				0.0914
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-2-15:4.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.137	0.086	0.1	0.0137
Chrysene	ND	0.086	0.01	0.00043
Benzo(b)fluoranthene	ND	0.086	0.1	0.0043
Benzo(k)fluoranthene	ND	0.086	0.1	0.0043
Benzo(a)pyrene	ND	0.086	1	0.043
Indeno(1,2,3-c,d)pyrene	ND	0.086	0.1	0.0043
Dibenzo(a,h)anthracene	ND	0.086	0.4	0.0172
Sum2				0.0872
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-2-14.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.093	0.1	0.004625
Chrysene	ND	0.093	0.01	0.0004625
Benzo(b)fluoranthene	ND	0.093	0.1	0.004625
Benzo(k)fluoranthene	ND	0.093	0.1	0.004625
Benzo(a)pyrene	ND	0.093	1	0.04625
Indeno(1,2,3-c,d)pyrene	ND	0.093	0.1	0.004625
Dibenzo(a,h)anthracene	ND	0.093	0.4	0.0185
Sum2				0.084
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-3-15:9.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.108	0.095	0.1	0.0108
Chrysene	ND	0.095	0.01	0.0004755
Benzo(b)fluoranthene	ND	0.095	0.1	0.004755
Benzo(k)fluoranthene	ND	0.095	0.1	0.004755
Benzo(a)pyrene	ND	0.095	1	0.04755
Indeno(1,2,3-c,d)pyrene	ND	0.095	0.1	0.004755
Dibenzo(a,h)anthracene	ND	0.095	0.4	0.0190
Sum2				0.092
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-3-15:12.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.192	0.156	0.1	0.0192
Chrysene	ND	0.156	0.01	0.00078
Benzo(b)fluoranthene	ND	0.156	0.1	0.0078
Benzo(k)fluoranthene	ND	0.156	0.1	0.0078
Benzo(a)pyrene	0.284	0.156	1	0.284
Indeno(1,2,3-c,d)pyrene	ND	0.156	0.1	0.0078
Dibenzo(a,h)anthracene	ND	0.156	0.4	0.0312
Sum2				0.36
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-4-15:5.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.115	0.0905	0.1	0.0115
Chrysene	ND	0.0905	0.01	0.0004525
Benzo(b)fluoranthene	ND	0.0905	0.1	0.004525
Benzo(k)fluoranthene	ND	0.0905	0.1	0.004525
Benzo(a)pyrene	ND	0.0905	1	0.04525
Indeno(1,2,3-c,d)pyrene	ND	0.0905	0.1	0.004525
Dibenzo(a,h)anthracene	ND	0.0905	0.4	0.0181
Sum2				0.089
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-4-15:13.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.109	0.096	0.1	0.0109
Chrysene	ND	0.096	0.01	0.000482
Benzo(b)fluoranthene	ND	0.096	0.1	0.00482
Benzo(k)fluoranthene	ND	0.096	0.1	0.00482
Benzo(a)pyrene	ND	0.096	1	0.0482
Indeno(1,2,3-c,d)pyrene	ND	0.096	0.1	0.00482
Dibenzo(a,h)anthracene	ND	0.096	0.4	0.0193
Sum2				0.093
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-5-15:5.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.129	0.0913	0.1	0.0129
Chrysene	ND	0.0913	0.01	0.0004565
Benzo(b)fluoranthene	ND	0.0913	0.1	0.004565
Benzo(k)fluoranthene	ND	0.0913	0.1	0.004565
Benzo(a)pyrene	ND	0.0913	1	0.04565
Indeno(1,2,3-c,d)pyrene	ND	0.0913	0.1	0.004565
Dibenzo(a,h)anthracene	ND	0.0913	0.4	0.0183
Sum2				0.091
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-5-15:13.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.106	0.0937	0.1	0.0106
Chrysene	ND	0.0937	0.01	0.0004685
Benzo(b)fluoranthene	ND	0.0937	0.1	0.004685
Benzo(k)fluoranthene	ND	0.0937	0.1	0.004685
Benzo(a)pyrene	ND	0.0937	1	0.04685
Indeno(1,2,3-c,d)pyrene	ND	0.0937	0.1	0.004685
Dibenzo(a,h)anthracene	ND	0.0937	0.4	0.01874
Sum2				0.091
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-5-15:DUP

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.10	0.090	0.1	0.01
Chrysene	ND	0.09	0.01	0.00045
Benzo(b)fluoranthene	ND	0.09	0.1	0.0045
Benzo(k)fluoranthene	ND	0.09	0.1	0.0045
Benzo(a)pyrene	ND	0.09	1	0.045
Indeno(1,2,3-c,d)pyrene	ND	0.09	0.1	0.0045
Dibenzo(a,h)anthracene	ND	0.09	0.4	0.018
Sum2				0.087
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-6-15:7.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.619	0.1350	0.1	0.0619
Chrysene	0.246	0.1350	0.01	0.00246
Benzo(b)fluoranthene	0.508	0.1350	0.1	0.0508
Benzo(k)fluoranthene	0.186	0.1350	0.1	0.0186
Benzo(a)pyrene	0.927	0.1350	1	0.927
Indeno(1,2,3-c,d)pyrene	ND	0.1350	0.1	0.00675
Dibenzo(a,h)anthracene	ND	0.1350	0.4	0.027
Sum2				1.09
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-6-15:14.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.0972	0.1	0.00486
Chrysene	ND	0.0972	0.01	0.000486
Benzo(b)fluoranthene	ND	0.0972	0.1	0.00486
Benzo(k)fluoranthene	ND	0.0972	0.1	0.00486
Benzo(a)pyrene	ND	0.0972	1	0.0486
Indeno(1,2,3-c,d)pyrene	ND	0.0972	0.1	0.00486
Dibenzo(a,h)anthracene	ND	0.0972	0.4	0.01944
Sum2				0.0880
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-7-15:5.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.108	0.0827	0.1	0.0108
Chrysene	ND	0.0827	0.01	0.0004135
Benzo(b)fluoranthene	ND	0.0827	0.1	0.004135
Benzo(k)fluoranthene	ND	0.0827	0.1	0.004135
Benzo(a)pyrene	ND	0.0827	1	0.04135
Indeno(1,2,3-c,d)pyrene	ND	0.0827	0.1	0.004135
Dibenzo(a,h)anthracene	ND	0.0827	0.4	0.01654
Sum2				0.082
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-7-15:14.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.0921	0.1	0.004605
Chrysene	ND	0.0921	0.01	0.0004605
Benzo(b)fluoranthene	ND	0.0921	0.1	0.004605
Benzo(k)fluoranthene	ND	0.0921	0.1	0.004605
Benzo(a)pyrene	ND	0.0921	1	0.04605
Indeno(1,2,3-c,d)pyrene	ND	0.0921	0.1	0.004605
Dibenzo(a,h)anthracene	ND	0.0921	0.4	0.01842
Sum2				0.083
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-8-15:5.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.128	0.0950	0.1	0.0128
Chrysene	ND	0.0950	0.01	0.000475
Benzo(b)fluoranthene	ND	0.0950	0.1	0.00475
Benzo(k)fluoranthene	ND	0.0950	0.1	0.00475
Benzo(a)pyrene	ND	0.0950	1	0.0475
Indeno(1,2,3-c,d)pyrene	ND	0.0950	0.1	0.00475
Dibenzo(a,h)anthracene	ND	0.0950	0.4	0.019
Sum2				0.094
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-8-15:14.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.109	0.1	0.00545
Chrysene	ND	0.109	0.01	0.000545
Benzo(b)fluoranthene	ND	0.109	0.1	0.00545
Benzo(k)fluoranthene	ND	0.109	0.1	0.00545
Benzo(a)pyrene	0.552	0.109	1	0.552
Indeno(1,2,3-c,d)pyrene	ND	0.109	0.1	0.00545
Dibenzo(a,h)anthracene	ND	0.109	0.4	0.0218
Sum2				0.60
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-8-15:DUP

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.1030	0.1	0.00515
Chrysene	ND	0.1030	0.01	0.000515
Benzo(b)fluoranthene	ND	0.1030	0.1	0.00515
Benzo(k)fluoranthene	ND	0.1030	0.1	0.00515
Benzo(a)pyrene	0.232	0.1030	1	0.232
Indeno(1,2,3-c,d)pyrene	ND	0.1030	0.1	0.00515
Dibenzo(a,h)anthracene	ND	0.1030	0.4	0.0206
Sum2				0.27
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-9-15:5.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.108	0.0952	0.1	0.0108
Chrysene	ND	0.0952	0.01	0.000476
Benzo(b)fluoranthene	ND	0.0952	0.1	0.00476
Benzo(k)fluoranthene	ND	0.0952	0.1	0.00476
Benzo(a)pyrene	ND	0.0952	1	0.0476
Indeno(1,2,3-c,d)pyrene	ND	0.0952	0.1	0.00476
Dibenzo(a,h)anthracene	ND	0.0952	0.4	0.01904
Sum2				0.092
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-9-15:12.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.122	0.0097	0.1	0.0122
Chrysene	ND	0.0097	0.01	0.0000485
Benzo(b)fluoranthene	ND	0.0097	0.1	0.000485
Benzo(k)fluoranthene	ND	0.0097	0.1	0.000485
Benzo(a)pyrene	0.236	0.0097	1	0.236
Indeno(1,2,3-c,d)pyrene	ND	0.0097	0.1	0.000485
Dibenzo(a,h)anthracene	ND	0.0097	0.4	0.00194
Sum2				0.25
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-10-15:4.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	28	0.11	0.1	2.84
Chrysene	53	0.11	0.01	0.525
Benzo(b)fluoranthene	62	0.11	0.1	6.15
Benzo(k)fluoranthene	164	11	0.1	16.4
Benzo(a)pyrene	91	11	1	90.9
Indeno(1,2,3-c,d)pyrene	186	11	0.1	18.6
Dibenzo(a,h)anthracene	193	11	0.4	77.2
Sum2				213
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-10-15:13.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.101	0.1	0.00505
Chrysene	ND	0.101	0.01	0.000505
Benzo(b)fluoranthene	ND	0.101	0.1	0.00505
Benzo(k)fluoranthene	ND	0.101	0.1	0.00505
Benzo(a)pyrene	0.213	0.101	1	0.213
Indeno(1,2,3-c,d)pyrene	ND	0.101	0.1	0.00505
Dibenzo(a,h)anthracene	ND	0.101	0.4	0.0202
Sum2				0.25
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-11-15:4.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.105	0.0845	0.1	0.0105
Chrysene	ND	0.0845	0.01	0.0004225
Benzo(b)fluoranthene	ND	0.0845	0.1	0.004225
Benzo(k)fluoranthene	ND	0.0845	0.1	0.004225
Benzo(a)pyrene	ND	0.0845	1	0.04225
Indeno(1,2,3-c,d)pyrene	ND	0.0845	0.1	0.004225
Dibenzo(a,h)anthracene	ND	0.0845	0.4	0.0169
Sum2				0.083
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-11-15:14.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.197	0.144	0.1	0.0197
Chrysene	ND	0.144	0.01	0.00072
Benzo(b)fluoranthene	ND	0.144	0.1	0.0072
Benzo(k)fluoranthene	ND	0.144	0.1	0.0072
Benzo(a)pyrene	0.591	0.144	1	0.591
Indeno(1,2,3-c,d)pyrene	ND	0.144	0.1	0.0072
Dibenzo(a,h)anthracene	ND	0.144	0.4	0.0288
Sum2				0.66
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-12-15:4.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.0948	0.1	0.00474
Chrysene	ND	0.0948	0.01	0.000474
Benzo(b)fluoranthene	ND	0.0948	0.1	0.00474
Benzo(k)fluoranthene	ND	0.0948	0.1	0.00474
Benzo(a)pyrene	ND	0.0948	1	0.0474
Indeno(1,2,3-c,d)pyrene	ND	0.0948	0.1	0.00474
Dibenzo(a,h)anthracene	ND	0.0948	0.4	0.01896
Sum2				0.086
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-12-15:13.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.0996	0.1	0.00498
Chrysene	ND	0.0996	0.01	0.000498
Benzo(b)fluoranthene	ND	0.0996	0.1	0.00498
Benzo(k)fluoranthene	ND	0.0996	0.1	0.00498
Benzo(a)pyrene	ND	0.0996	1	0.0498
Indeno(1,2,3-c,d)pyrene	ND	0.0996	0.1	0.00498
Dibenzo(a,h)anthracene	ND	0.0996	0.4	0.01992
Sum2				0.090
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-13-15:4.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.131	0.0873	0.1	0.0131
Chrysene	ND	0.0873	0.01	0.0004365
Benzo(b)fluoranthene	0.232	0.0873	0.1	0.0232
Benzo(k)fluoranthene	ND	0.0873	0.1	0.004365
Benzo(a)pyrene	ND	0.0873	1	0.04365
Indeno(1,2,3-c,d)pyrene	ND	0.0873	0.1	0.004365
Dibenzo(a,h)anthracene	ND	0.0873	0.4	0.01746
Sum2				0.11
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-13-15:13.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.0873	0.1	0.004365
Chrysene	ND	0.0873	0.01	0.0004365
Benzo(b)fluoranthene	ND	0.0873	0.1	0.004365
Benzo(k)fluoranthene	ND	0.0873	0.1	0.004365
Benzo(a)pyrene	0.445	0.0873	1	0.445
Indeno(1,2,3-c,d)pyrene	ND	0.0873	0.1	0.004365
Dibenzo(a,h)anthracene	ND	0.0873	0.4	0.01746
Sum2				0.48
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-14-15:3.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.0922	0.1	0.00461
Chrysene	ND	0.0922	0.01	0.000461
Benzo(b)fluoranthene	ND	0.0922	0.1	0.00461
Benzo(k)fluoranthene	ND	0.0922	0.1	0.00461
Benzo(a)pyrene	ND	0.0922	1	0.0461
Indeno(1,2,3-c,d)pyrene	ND	0.0922	0.1	0.00461
Dibenzo(a,h)anthracene	ND	0.0922	0.4	0.01844
Sum2				0.083
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-14-15:13.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.0094	0.1	0.00047
Chrysene	ND	0.0094	0.01	0.000047
Benzo(b)fluoranthene	ND	0.0094	0.1	0.00047
Benzo(k)fluoranthene	ND	0.0094	0.1	0.00047
Benzo(a)pyrene	0.639	0.0094	1	0.639
Indeno(1,2,3-c,d)pyrene	ND	0.0094	0.1	0.00047
Dibenzo(a,h)anthracene	ND	0.0094	0.4	0.00188
Sum2				0.64
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-14-15:DUP

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.11	0.1	0.0055
Chrysene	ND	0.11	0.01	0.00055
Benzo(b)fluoranthene	ND	0.11	0.1	0.0055
Benzo(k)fluoranthene	ND	0.11	0.1	0.0055
Benzo(a)pyrene	0.535	0.11	1	0.535
Indeno(1,2,3-c,d)pyrene	ND	0.11	0.1	0.0055
Dibenzo(a,h)anthracene	ND	0.11	0.4	0.022
Sum2				0.58
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-15-15:6.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.117	0.1	0.00585
Chrysene	ND	0.117	0.01	0.000585
Benzo(b)fluoranthene	ND	0.117	0.1	0.00585
Benzo(k)fluoranthene	ND	0.117	0.1	0.00585
Benzo(a)pyrene	ND	0.117	1	0.0585
Indeno(1,2,3-c,d)pyrene	ND	0.117	0.1	0.00585
Dibenzo(a,h)anthracene	ND	0.117	0.4	0.0234
Sum2				0.11
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-15-15:14.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.108	0.1	0.0054
Chrysene	ND	0.108	0.01	0.00054
Benzo(b)fluoranthene	ND	0.108	0.1	0.0054
Benzo(k)fluoranthene	ND	0.108	0.1	0.0054
Benzo(a)pyrene	ND	0.108	1	0.054
Indeno(1,2,3-c,d)pyrene	ND	0.108	0.1	0.0054
Dibenzo(a,h)anthracene	ND	0.108	0.4	0.0216
Sum2				0.098
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-16-15:8.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.206	0.1330	0.1	0.0206
Chrysene	ND	0.1330	0.01	0.000665
Benzo(b)fluoranthene	ND	0.1330	0.1	0.00665
Benzo(k)fluoranthene	ND	0.1330	0.1	0.00665
Benzo(a)pyrene	ND	0.1330	1	0.0665
Indeno(1,2,3-c,d)pyrene	ND	0.1330	0.1	0.00665
Dibenzo(a,h)anthracene	ND	0.1330	0.4	0.0266
Sum2				0.13
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-16-15:13.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.0967	0.1	0.004835
Chrysene	ND	0.0967	0.01	0.0004835
Benzo(b)fluoranthene	ND	0.0967	0.1	0.004835
Benzo(k)fluoranthene	ND	0.0967	0.1	0.004835
Benzo(a)pyrene	ND	0.0967	1	0.04835
Indeno(1,2,3-c,d)pyrene	ND	0.0967	0.1	0.004835
Dibenzo(a,h)anthracene	ND	0.0967	0.4	0.01934
Sum2				0.088
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-17-15:7.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.194	0.111	0.1	0.0194
Chrysene	ND	0.111	0.01	0.000555
Benzo(b)fluoranthene	ND	0.111	0.1	0.00555
Benzo(k)fluoranthene	ND	0.111	0.1	0.00555
Benzo(a)pyrene	ND	0.111	1	0.0555
Indeno(1,2,3-c,d)pyrene	ND	0.111	0.1	0.00555
Dibenzo(a,h)anthracene	ND	0.111	0.4	0.0222
Sum2				0.11
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-17-15:14.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.091	0.1	0.00453
Chrysene	ND	0.091	0.01	0.000453
Benzo(b)fluoranthene	ND	0.091	0.1	0.00453
Benzo(k)fluoranthene	ND	0.091	0.1	0.00453
Benzo(a)pyrene	ND	0.091	1	0.0453
Indeno(1,2,3-c,d)pyrene	ND	0.091	0.1	0.00453
Dibenzo(a,h)anthracene	ND	0.091	0.4	0.01812
Sum2				0.082
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-17-15:DUP

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.10	0.1	0.00498
Chrysene	ND	0.10	0.01	0.000498
Benzo(b)fluoranthene	ND	0.10	0.1	0.00498
Benzo(k)fluoranthene	ND	0.10	0.1	0.00498
Benzo(a)pyrene	ND	0.10	1	0.0498
Indeno(1,2,3-c,d)pyrene	ND	0.10	0.1	0.00498
Dibenzo(a,h)anthracene	ND	0.10	0.4	0.01992
Sum2				0.090
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-18-15:3.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.157	0.085	0.1	0.0157
Chrysene	0.0954	0.085	0.01	0.000954
Benzo(b)fluoranthene	ND	0.085	0.1	0.004265
Benzo(k)fluoranthene	ND	0.085	0.1	0.004265
Benzo(a)pyrene	ND	0.085	1	0.04265
Indeno(1,2,3-c,d)pyrene	ND	0.085	0.1	0.004265
Dibenzo(a,h)anthracene	ND	0.085	0.4	0.01706
Sum2				0.089
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-18-15:14.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.35	0.0087	0.1	0.035
Chrysene	0.61	0.0087	0.01	0.0061
Benzo(b)fluoranthene	0.75	0.0087	0.1	0.075
Benzo(k)fluoranthene	0.30	0.0087	0.1	0.03
Benzo(a)pyrene	0.34	0.0087	1	0.34
Indeno(1,2,3-c,d)pyrene	0.21	0.0087	0.1	0.021
Dibenzo(a,h)anthracene	0.089	0.0087	0.4	0.0356
Sum2				0.54
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-19-15:5.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.086	0.1	0.004315
Chrysene	ND	0.086	0.01	0.0004315
Benzo(b)fluoranthene	0.168	0.086	0.1	0.0168
Benzo(k)fluoranthene	ND	0.086	0.1	0.004315
Benzo(a)pyrene	ND	0.086	1	0.04315
Indeno(1,2,3-c,d)pyrene	ND	0.086	0.1	0.004315
Dibenzo(a,h)anthracene	ND	0.086	0.4	0.01726
Sum2				0.091
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-19-15:14.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.10	0.1	0.0051
Chrysene	ND	0.10	0.01	0.00051
Benzo(b)fluoranthene	ND	0.10	0.1	0.0051
Benzo(k)fluoranthene	ND	0.10	0.1	0.0051
Benzo(a)pyrene	0.276	0.10	1	0.276
Indeno(1,2,3-c,d)pyrene	ND	0.10	0.1	0.0051
Dibenzo(a,h)anthracene	ND	0.10	0.4	0.0204
Sum2				0.32
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-20-15:5.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.134	0.085	0.1	0.0134
Chrysene	ND	0.085	0.01	0.0004235
Benzo(b)fluoranthene	ND	0.085	0.1	0.004235
Benzo(k)fluoranthene	ND	0.085	0.1	0.004235
Benzo(a)pyrene	ND	0.085	1	0.04235
Indeno(1,2,3-c,d)pyrene	ND	0.085	0.1	0.004235
Dibenzo(a,h)anthracene	ND	0.085	0.4	0.01694
Sum2				0.086
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-20-15:14.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.092	0.1	0.004605
Chrysene	ND	0.092	0.01	0.0004605
Benzo(b)fluoranthene	ND	0.092	0.1	0.004605
Benzo(k)fluoranthene	ND	0.092	0.1	0.004605
Benzo(a)pyrene	ND	0.092	1	0.04605
Indeno(1,2,3-c,d)pyrene	ND	0.092	0.1	0.004605
Dibenzo(a,h)anthracene	ND	0.092	0.4	0.01842
Sum2				0.083
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-21-15:4.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.157	0.091	0.1	0.0157
Chrysene	0.225	0.091	0.01	0.002250
Benzo(b)fluoranthene	ND	0.091	0.1	0.004565
Benzo(k)fluoranthene	ND	0.091	0.1	0.004565
Benzo(a)pyrene	ND	0.091	1	0.04565
Indeno(1,2,3-c,d)pyrene	ND	0.091	0.1	0.004565
Dibenzo(a,h)anthracene	ND	0.091	0.4	0.01826
Sum2				0.096
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-21-15:14.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.121	0.092	0.1	0.0121
Chrysene	ND	0.092	0.01	0.000460
Benzo(b)fluoranthene	ND	0.092	0.1	0.0046
Benzo(k)fluoranthene	ND	0.092	0.1	0.0046
Benzo(a)pyrene	ND	0.092	1	0.046
Indeno(1,2,3-c,d)pyrene	ND	0.092	0.1	0.0046
Dibenzo(a,h)anthracene	ND	0.092	0.4	0.0184
Sum2				0.091
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-22-15:1.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.086	0.1	0.0043
Chrysene	ND	0.086	0.01	0.000430
Benzo(b)fluoranthene	ND	0.086	0.1	0.0043
Benzo(k)fluoranthene	ND	0.086	0.1	0.0043
Benzo(a)pyrene	ND	0.086	1	0.043
Indeno(1,2,3-c,d)pyrene	ND	0.086	0.1	0.0043
Dibenzo(a,h)anthracene	ND	0.086	0.4	0.0172
Sum2				0.078
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-22-15:3.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.092	0.1	0.0046
Chrysene	ND	0.092	0.01	0.000460
Benzo(b)fluoranthene	ND	0.092	0.1	0.0046
Benzo(k)fluoranthene	ND	0.092	0.1	0.0046
Benzo(a)pyrene	ND	0.092	1	0.046
Indeno(1,2,3-c,d)pyrene	ND	0.092	0.1	0.0046
Dibenzo(a,h)anthracene	ND	0.092	0.4	0.0184
Sum2				0.083
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE GP-22-15:DUP

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.090	0.1	0.0045
Chrysene	ND	0.090	0.01	0.000450
Benzo(b)fluoranthene	ND	0.090	0.1	0.0045
Benzo(k)fluoranthene	ND	0.090	0.1	0.0045
Benzo(a)pyrene	ND	0.090	1	0.045
Indeno(1,2,3-c,d)pyrene	ND	0.090	0.1	0.0045
Dibenzo(a,h)anthracene	ND	0.090	0.4	0.018
Sum2				0.081
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE MW-1-15:6.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.13	0.094	0.1	0.0125
Chrysene	ND	0.094	0.01	0.000472
Benzo(b)fluoranthene	ND	0.094	0.1	0.00472
Benzo(k)fluoranthene	ND	0.094	0.1	0.00472
Benzo(a)pyrene	ND	0.094	1	0.0472
Indeno(1,2,3-c,d)pyrene	ND	0.094	0.1	0.00472
Dibenzo(a,h)anthracene	ND	0.094	0.4	0.01888
Sum2				0.093
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE MW-1-15:12.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.098	0.1	0.0049
Chrysene	ND	0.098	0.01	0.000490
Benzo(b)fluoranthene	ND	0.098	0.1	0.0049
Benzo(k)fluoranthene	ND	0.098	0.1	0.0049
Benzo(a)pyrene	ND	0.098	1	0.049
Indeno(1,2,3-c,d)pyrene	ND	0.098	0.1	0.0049
Dibenzo(a,h)anthracene	ND	0.098	0.4	0.0196
Sum2				0.089
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE MW-2-15:3.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.091	0.091	0.1	0.00913
Chrysene	ND	0.091	0.01	0.000457
Benzo(b)fluoranthene	0.091	0.091	0.1	0.00913
Benzo(k)fluoranthene	0.091	0.091	0.1	0.00913
Benzo(a)pyrene	ND	0.091	1	0.04565
Indeno(1,2,3-c,d)pyrene	ND	0.091	0.1	0.004565
Dibenzo(a,h)anthracene	ND	0.091	0.4	0.01826
Sum2				0.10
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE MW-2-15:13.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.15	0.1	0.0076
Chrysene	ND	0.15	0.01	0.000760
Benzo(b)fluoranthene	ND	0.15	0.1	0.0076
Benzo(k)fluoranthene	ND	0.15	0.1	0.0076
Benzo(a)pyrene	0.52	0.15	1	0.516
Indeno(1,2,3-c,d)pyrene	ND	0.15	0.1	0.0076
Dibenzo(a,h)anthracene	ND	0.15	0.4	0.0304
Sum2				0.58
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE MW-3-15:6.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.099	0.1	0.00494
Chrysene	ND	0.099	0.01	0.000494
Benzo(b)fluoranthene	ND	0.099	0.1	0.00494
Benzo(k)fluoranthene	ND	0.099	0.1	0.00494
Benzo(a)pyrene	ND	0.099	1	0.0494
Indeno(1,2,3-c,d)pyrene	ND	0.099	0.1	0.00494
Dibenzo(a,h)anthracene	ND	0.099	0.4	0.01976
Sum2				0.089
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE MW-3-15:15.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.108	0.1	0.0054
Chrysene	ND	0.108	0.01	0.000540
Benzo(b)fluoranthene	ND	0.108	0.1	0.0054
Benzo(k)fluoranthene	ND	0.108	0.1	0.0054
Benzo(a)pyrene	ND	0.108	1	0.054
Indeno(1,2,3-c,d)pyrene	ND	0.108	0.1	0.0054
Dibenzo(a,h)anthracene	ND	0.108	0.4	0.0216
Sum2				0.098
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE MW-4-15:6.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.33	0.0077	0.1	0.0327
Chrysene	0.30	0.0077	0.01	0.002950
Benzo(b)fluoranthene	0.35	0.0077	0.1	0.0349
Benzo(k)fluoranthene	ND	0.0077	0.1	0.000385
Benzo(a)pyrene	0.20	0.0077	1	0.203
Indeno(1,2,3-c,d)pyrene	ND	0.0077	0.1	0.000385
Dibenzo(a,h)anthracene	ND	0.0077	0.4	0.00154
Sum2				0.28
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

ADJUSTED TEF CONCENTRATION FOR SAMPLE MW-4-15:14.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.012	0.1	0.0006
Chrysene	ND	0.012	0.01	0.000060
Benzo(b)fluoranthene	ND	0.012	0.1	0.0006
Benzo(k)fluoranthene	ND	0.012	0.1	0.0006
Benzo(a)pyrene	0.27	0.012	1	0.266
Indeno(1,2,3-c,d)pyrene	ND	0.012	0.1	0.0006
Dibenzo(a,h)anthracene	ND	0.012	0.4	0.0024
Sum2				0.27
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.0

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE MW-5-15:5.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.125	0.0075	0.1	0.0125
Chrysene	ND	0.0075	0.01	0.000375
Benzo(b)fluoranthene	ND	0.0075	0.1	0.000375
Benzo(k)fluoranthene	ND	0.0075	0.1	0.000375
Benzo(a)pyrene	0.169	0.0075	1	0.169
Indeno(1,2,3-c,d)pyrene	ND	0.0075	0.1	0.000375
Dibenzo(a,h)anthracene	ND	0.0075	0.4	0.0015
Sum2				0.18
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.00

ADJUSTED TEF CONCENTRATION FOR SAMPLE MW-5-15:12.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.097	0.1	0.00483
Chrysene	ND	0.097	0.01	0.000483
Benzo(b)fluoranthene	ND	0.097	0.1	0.00483
Benzo(k)fluoranthene	ND	0.097	0.1	0.00483
Benzo(a)pyrene	ND	0.097	1	0.0483
Indeno(1,2,3-c,d)pyrene	ND	0.097	0.1	0.00483
Dibenzo(a,h)anthracene	ND	0.097	0.4	0.0193
Sum2				0.087
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.00

ADJUSTED TEF CONCENTRATION FOR SAMPLE MW-6-15:5.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.089	0.1	0.004425
Chrysene	ND	0.089	0.01	0.0004425
Benzo(b)fluoranthene	ND	0.089	0.1	0.004425
Benzo(k)fluoranthene	ND	0.089	0.1	0.004425
Benzo(a)pyrene	ND	0.089	1	0.04425
Indeno(1,2,3-c,d)pyrene	ND	0.089	0.1	0.004425
Dibenzo(a,h)anthracene	ND	0.089	0.4	0.0177
Sum2				0.080
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.00

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE MW-6-15:14.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.0940	0.1	0.0047
Chrysene	ND	0.0940	0.01	0.00047
Benzo(b)fluoranthene	ND	0.0940	0.1	0.0047
Benzo(k)fluoranthene	ND	0.0940	0.1	0.0047
Benzo(a)pyrene	ND	0.0940	1	0.047
Indeno(1,2,3-c,d)pyrene	ND	0.0940	0.1	0.0047
Dibenzo(a,h)anthracene	ND	0.0940	0.4	0.0188
Sum2				0.085
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.00

ADJUSTED TEF CONCENTRATION FOR SAMPLE MW-6-15:DUP

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	ND	0.095	0.1	0.00475
Chrysene	ND	0.095	0.01	0.000475
Benzo(b)fluoranthene	ND	0.095	0.1	0.00475
Benzo(k)fluoranthene	ND	0.095	0.1	0.00475
Benzo(a)pyrene	ND	0.095	1	0.0475
Indeno(1,2,3-c,d)pyrene	ND	0.095	0.1	0.00475
Dibenzo(a,h)anthracene	ND	0.095	0.4	0.0190
Sum2				0.086
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.00

ADJUSTED TEF CONCENTRATION FOR SAMPLE TP-1-15:5.5

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration1 (mg/kg)
Benzo(a)anthracene	0.110	0.110	0.1	0.011
Chrysene	ND	0.110	0.01	0.00055
Benzo(b)fluoranthene	ND	0.110	0.1	0.0055
Benzo(k)fluoranthene	ND	0.110	0.1	0.0055
Benzo(a)pyrene	ND	0.110	1	0.055
Indeno(1,2,3-c,d)pyrene	ND	0.110	0.1	0.0055
Dibenzo(a,h)anthracene	ND	0.110	0.4	0.0220
Sum2				0.11
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.00

TABLE 5
SUMMARY OF ADJUSTED TOXICITY EQUIVALENCE
FACTOR CONCENTRATIONS

ADJUSTED TEF CONCENTRATION FOR SAMPLE TP-3-15:6.0

Soil

Analyte	Sample Result (mg/kg)	Method Detection Limit (mg/kg)	Toxic Equivalency Factor	Adjusted Concentration ¹ (mg/kg)
Benzo(a)anthracene	ND	0.097	0.1	0.00485
Chrysene	ND	0.097	0.01	0.000485
Benzo(b)fluoranthene	0.022	0.097	0.1	0.00215
Benzo(k)fluoranthene	ND	0.097	0.1	0.00485
Benzo(a)pyrene	ND	0.097	1	0.0485
Indeno(1,2,3-c,d)pyrene	0.184	0.097	0.1	0.0184
Dibenzo(a,h)anthracene	ND	0.097	0.4	0.0194
Sum2				0.099
MTCA Method A Cleanup Level for Unrestricted Land Use				0.10
MTCA Method A Cleanup Level for Industrial Land Use				2.00

Notes:

¹ Calculated as the detected concentration times the toxicity equivalence factor (TEF), or as half the method detection limit (if analyte is not detected) times the TEF.

² Sum of the TEF for each carcinogenic polynuclear aromatic hydrocarbon (cPAH).

Shaded values indicate a Model Toxics Control Act (MTCA) Method A exceedance.

Bold values indicated a detection.

mg/kg = milligrams per kilogram

ND = not detected

TABLE 6
DISPOSAL CHARACTERIZATION SUMMARY

Sample Grid	Characterization Depth Range (feet)		Environmental Characterization		Disposal Characterization		Estimated Soil Volume (yds ³)	
	Shallow	Deep	Shallow	Deep	Shallow	Deep	Shallow	Deep
GP-1-15	0-15		Petroleum hydrocarbons, PAHs, and SVOCs not detected		Clean - Inert Landfill		9357	9357
GP-2-15	0-5	5-15	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected below MTCA.	Petroleum hydrocarbons, PAHs, or SVOCs not detected.	Category II/III Impacted	Clean - Inert Landfill	4850	9700
GP-3-15	0-10	10-15	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected below MTCA.	Petroleum hydrocarbons, PAHs, metals or SVOCs detected above MTCA.	Category II/III Impacted	Problem Waste	6420	3210
GP-4-15	0-15		Petroleum hydrocarbons, PAHs, metals, or SVOCs detected below MTCA.	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected below MTCA.	Category II/III Impacted		4327	4327
GP-5-15	0-15		Petroleum hydrocarbons, PAHs, metals, or SVOCs detected below MTCA.	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected below MTCA.	Category II/III Impacted		7280	7280
GP-6-15	0-10	10-15	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.	Petroleum hydrocarbons, PAHs, or SVOCs detected below MTCA.	Problem Waste	Clean - Inert Landfill	9867	4933
GP-7-15	0-5	5-15	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected below MTCA.	Problem Waste	Clean - Inert Landfill	4637	9474
GP-8-15	0-15		Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.	Problem Waste		6570	6570
GP-9-15	0-5	5-15	Petroleum hydrocarbons, PAHs, metals or SVOCs detected below MTCA.	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.	Category II/III Impacted	Problem Waste	4524	9050
GP-10-15	0-15		Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.	Problem Waste		5035	5035
GP-11-15	0-5	5-15	Petroleum hydrocarbons, PAHs, metals or SVOCs detected below MTCA.	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.	Category II/III Impacted	Problem Waste	3467	6934
GP-12-15	0-15		Petroleum hydrocarbons, PAHs, and SVOCs not detected		Clean - Inert Landfill		3163	3163
GP-13-15	0-16		Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.		Problem Waste		5727	5727
GP-14-15	0-5	5-15	Petroleum hydrocarbons, PAHs, metals or SVOCs detected below MTCA.	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.	Category II/III Impacted	Problem Waste	5218	10437
GP-15-15	0-15		Petroleum hydrocarbons, PAHs, and SVOCs not detected		Clean - Inert Landfill		4361	4361
GP-16-15	0-10	10-15	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA and Dangerous Waste Criteria.	Petroleum hydrocarbons, PAHs, metals or SVOCs detected below MTCA.	Dangerous Waste	Category II/III Impacted	8742	4370
GP-17-15	0-10	10-15	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.	Petroleum hydrocarbons, PAHs, metals or SVOCs detected below MTCA.	Problem Waste	Category II/III Impacted	5663	2832
GP-18-15	0-5	5-15	Petroleum hydrocarbons, PAHs, metals or SVOCs detected below MTCA.	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.	Category II/III Impacted	Problem Waste	3517	7035
GP-19-15	0-5	5-15	Petroleum hydrocarbons, PAHs, metals or SVOCs detected below MTCA.	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.	Category II/III Impacted	Problem Waste	3052	6105
GP-20-15	0-5	5-15	Petroleum hydrocarbons, PAHs, metals or SVOCs detected below MTCA.	Petroleum hydrocarbons, PAHs, and SVOCs not detected	Category II/III Impacted	Clean - Inert Landfill	3037	6074
GP-21-15	0-15		Petroleum hydrocarbons, PAHs, metals or SVOCs detected below MTCA.		Category II/III Impacted		3988	3988
GP-22-15	0-5		Petroleum hydrocarbons, PAHs, and SVOCs not detected		Clean - Inert Landfill		461	461

TABLE 6
DISPOSAL CHARACTERIZATION SUMMARY

Sample Grid	Characterization Depth Range (feet)		Environmental Characterization		Disposal Characterization		Estimated Soil Volume (yds ³)	
	Shallow	Deep	Shallow	Deep	Shallow	Deep	Shallow	Deep
MW-1-15	0-10	10-15	Petroleum hydrocarbons, PAHs, metals or SVOCs detected below MTCA.	Petroleum hydrocarbons, PAHs, and SVOCs not detected	Category II/III Impacted	Clean - Inert Landfill	7815	3907
MW-2-15	0-5	5-15	Petroleum hydrocarbons, PAHs, metals or SVOCs detected below MTCA.	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.	Category II/III Impacted	Problem Waste	1616	3232
MW-3-15	0-15		Petroleum hydrocarbons, PAHs, and SVOCs not detected		Clean - Inert Landfill		7884	8784
MW-4-15	0-15		Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.		Problem Waste		6137	6137
MW-5-15	0-5	5-15	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.	Petroleum hydrocarbons, PAHs, and SVOCs not detected	Problem Waste	Clean - Inert Landfill	5134	10268
MW-6-15	0-5	5-15	Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.	Petroleum hydrocarbons, PAHs, and SVOCs not detected	Problem Waste	Clean - Inert Landfill	3082	6164
TP-1-15	0-10		Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.		Problem Waste		1663	1663
TP-2-15	*		Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.		Problem Waste		2460	2460
TP-3-15	0-11		Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.		Problem Waste		3186	3186
TP-4-15	*		Petroleum hydrocarbons, PAHs, metals, or SVOCs detected above MTCA.		Problem Waste		4044	4044

Notes:

Soil volumes are estimates and are based on limited sampling described herein and are subject to change.

* = not sampled

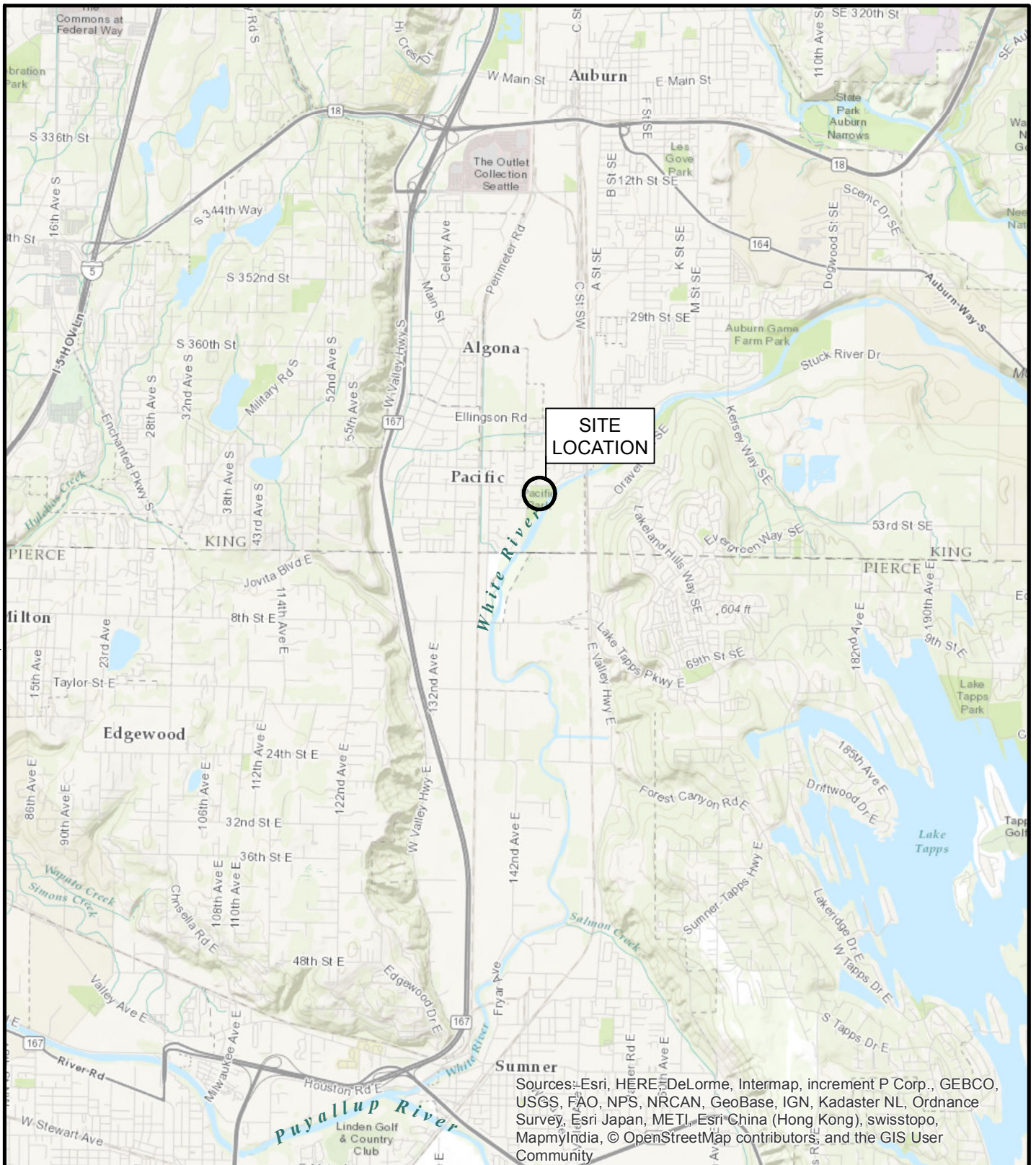
MTCA = Model Toxics Control Act

PAHs = Polyaromatic Hydrocarbons

SVOCs = Semi-volatile Organic Carbons

VOCs = volatile organic compounds

yds³ = cubic yards



Pacific Right Bank Levee Setback Project
Phase II ESA
Pacific, Washington

SITE LOCATION

May 2016

21-1-22055-007

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FIG. 1



LEGEND

- ✕ Test Pits
- + Geoprobes
- + Monitoring Wells



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Phase II ESA
Pacific, Washington

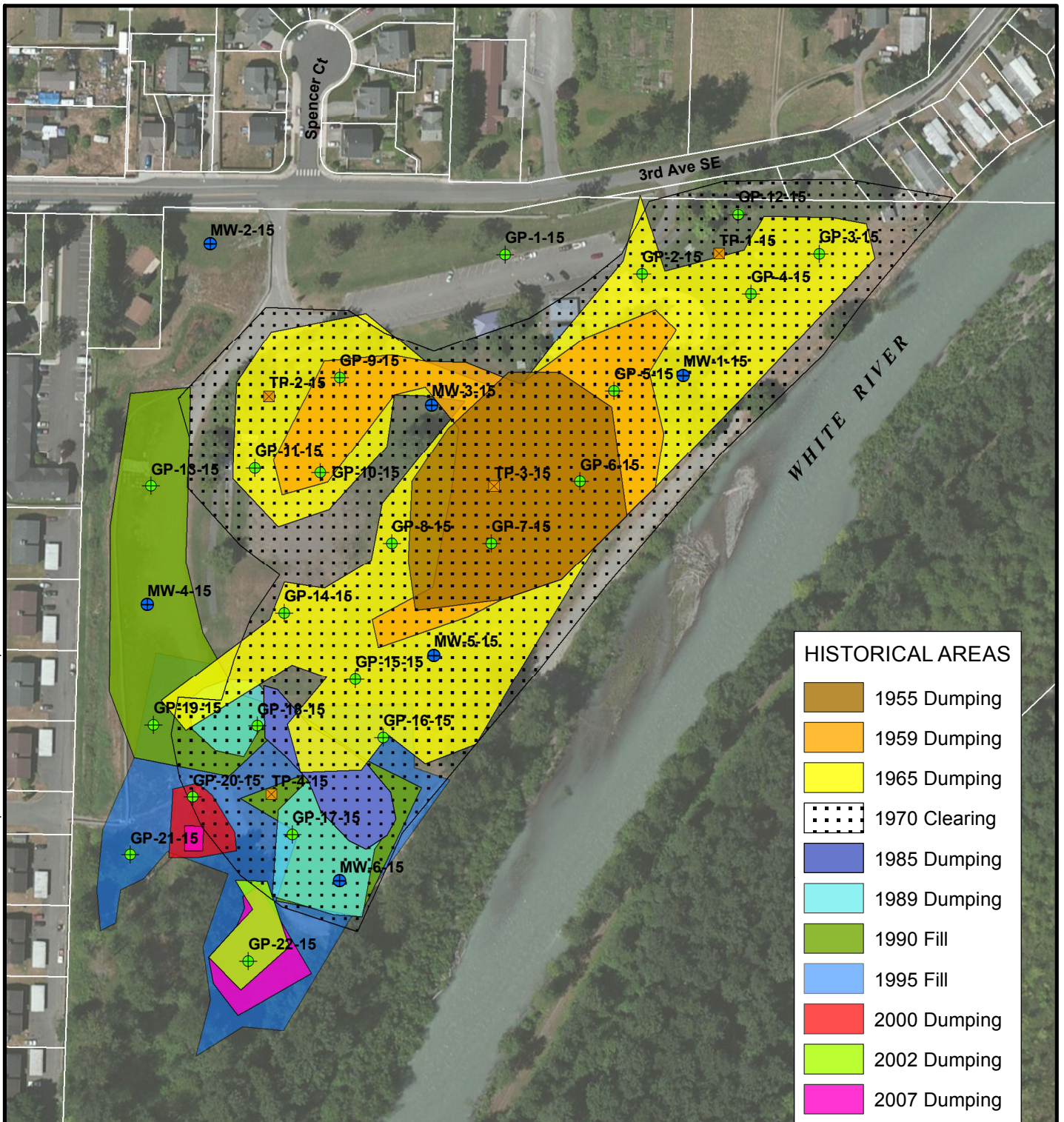
SITE AND EXPLORATION PLAN

May 2016

21-1-22055-007

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FIG. 2



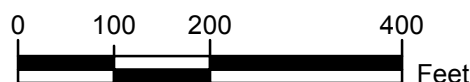
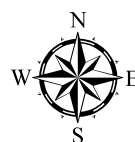
HISTORICAL AREAS	
	1955 Dumping
	1959 Dumping
	1965 Dumping
	1970 Clearing
	1985 Dumping
	1989 Dumping
	1990 Fill
	1995 Fill
	2000 Dumping
	2002 Dumping
	2007 Dumping

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- Test Pits
- Geoprobes
- Monitoring Wells

Historical areas are based on a review of historical aerial photos conducted by King County. Historical areas are preliminary and subject to change.



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Pacific, Washington

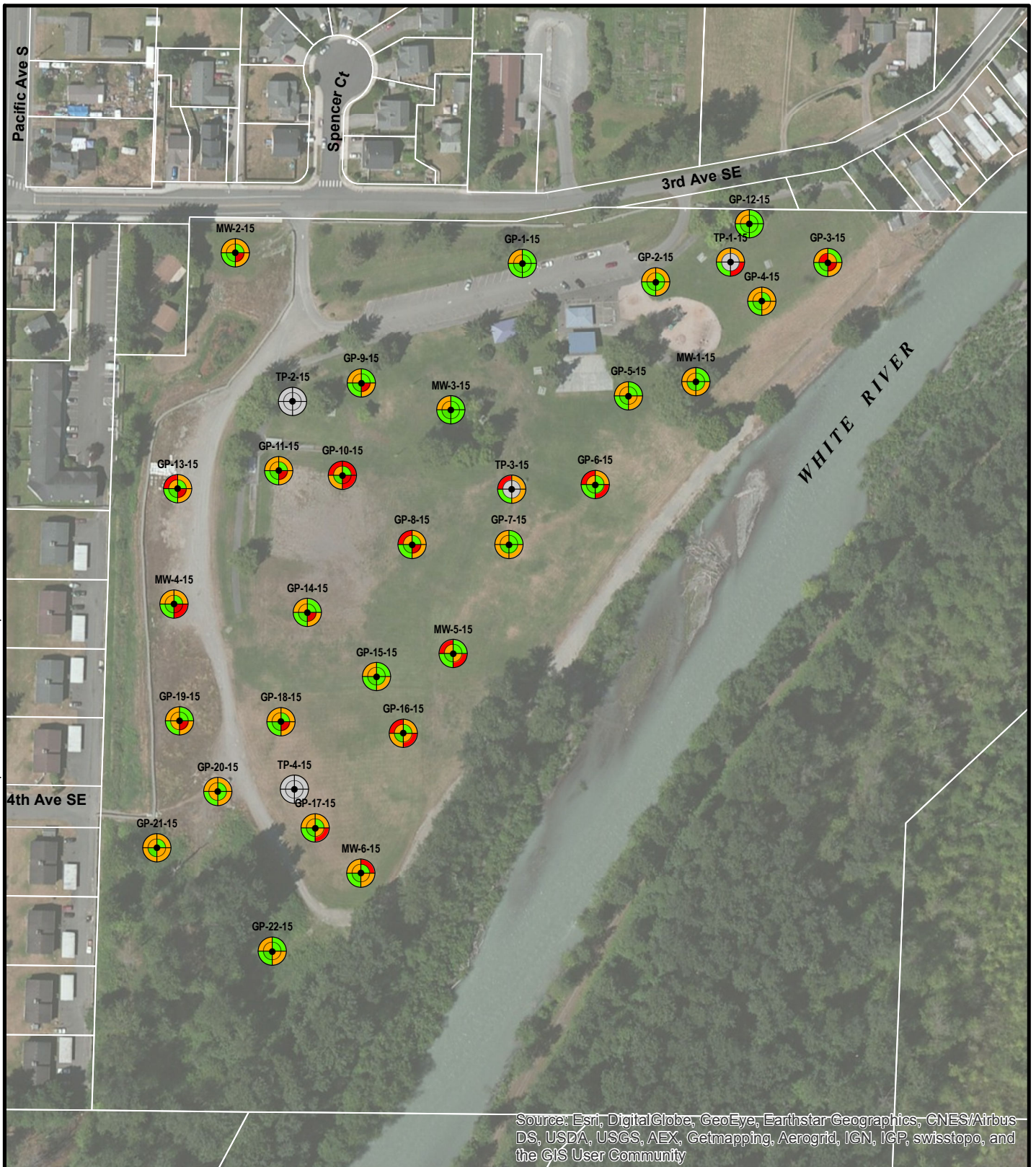
HISTORICAL AERIAL OVERLAY

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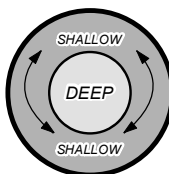
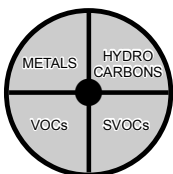
FIG. 3



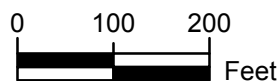
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Not Detected Above MTCA For Metals



- NOTES:
1. SVOCs = semivolatile organic compounds
 2. VOCs = volatile organic compounds
 3. MTCA = model toxics control act



Pacific Right Bank Levee Setback Project
Phase II ESA
Pacific, Washington

CONTAMINATED SOIL MAP

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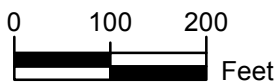
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FIG. 4



NOTES:

1. The groundwater metals results shown reflect dissolved concentrations.
2. SVOCs = semivolatile organic compounds
3. VOCs = volatile organic compounds
4. MTCA = model toxics control act



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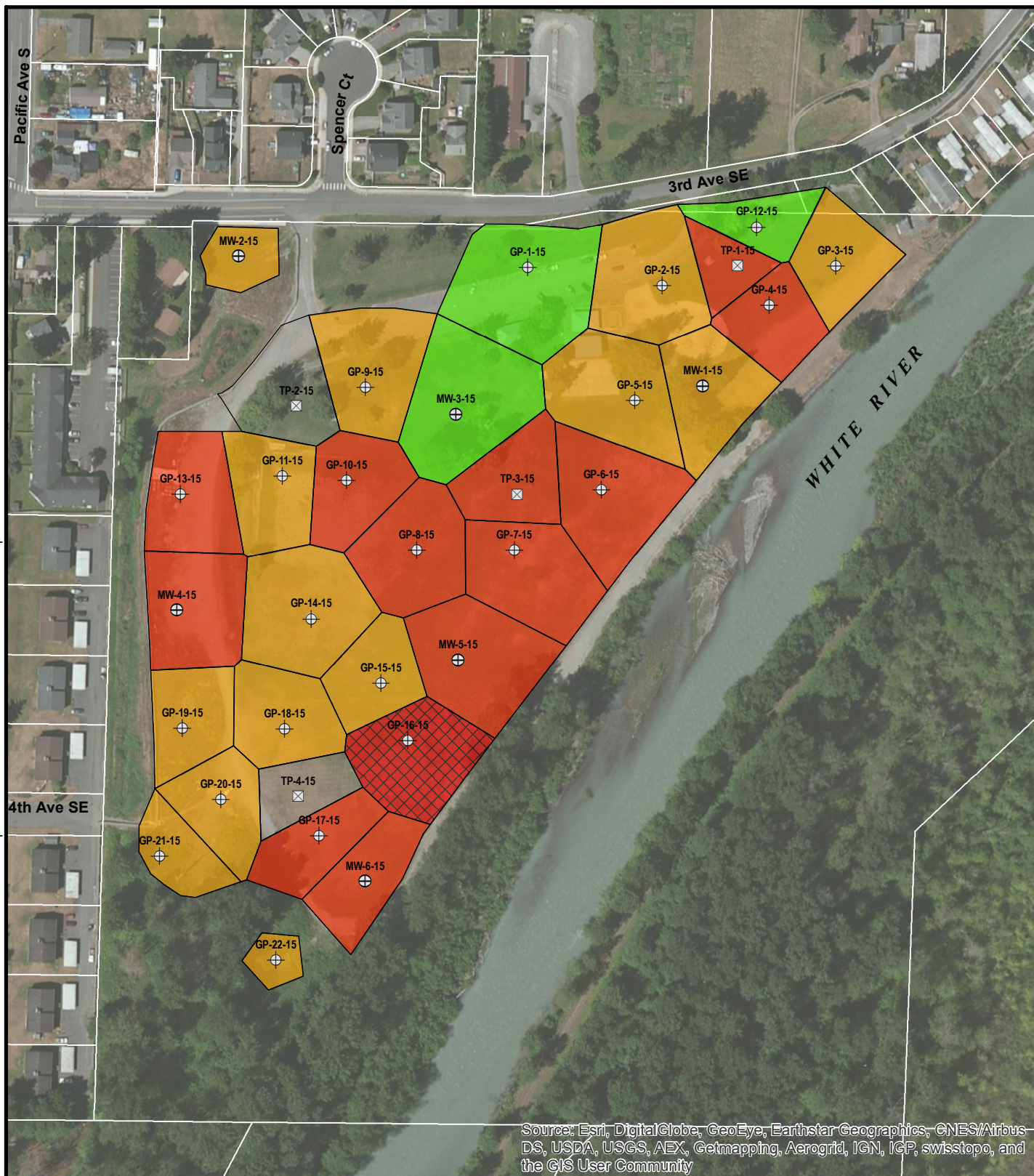
**CONTAMINATED
GROUNDWATER MAP**

May 2016

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FIG. 5



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Shallow Soil Characterization

- Clean Waste
- Category II/III Impacted Waste
- Problem Waste
- Dangerous Waste

- Test Pits
- Geoprobe
- Monitoring Wells



0 100 200
Feet

Note: Total soil volumes are estimates and are based on the results of the samples analyzed within each disposal characterization grid and do not represent a site-wide characterization of environmental conditions.

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Pacific, Washington

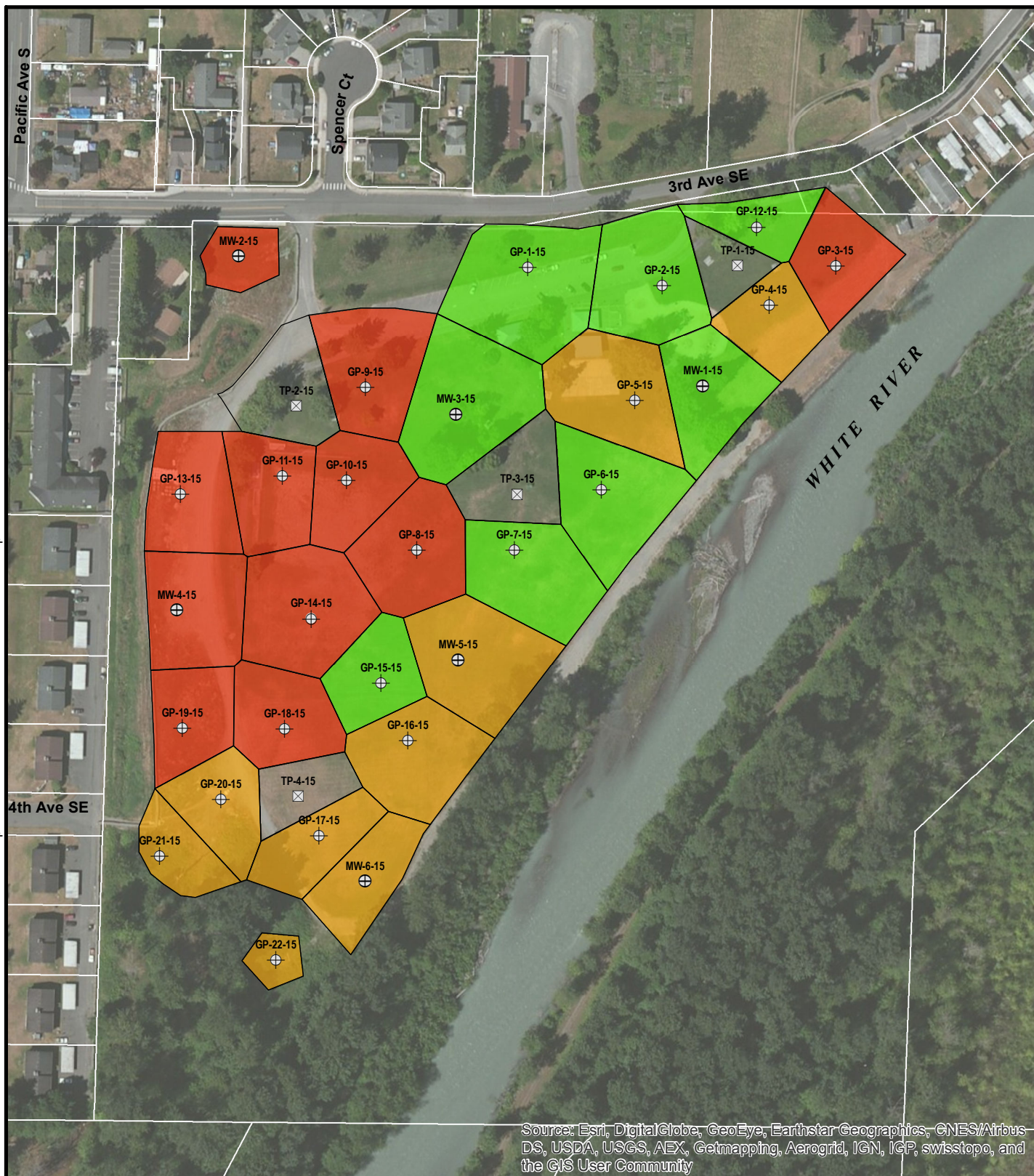
SOIL DISPOSAL CHARACTERIZATION

May 2016

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FIG. 6
Sheet 1 of 2



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Deep Soil Characterization

- Clean Waste
- Category II/III Impacted Waste
- Problem Waste

- ✕ Test Pits
- ⊕ Geoprobos
- ⊗ Monitoring Wells



0 100 200
Feet

Note: Total soil volumes are estimates and are based on the results of the samples analyzed within each disposal characterization grid and do not represent a site-wide characterization of environmental conditions.

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Pacific, Washington

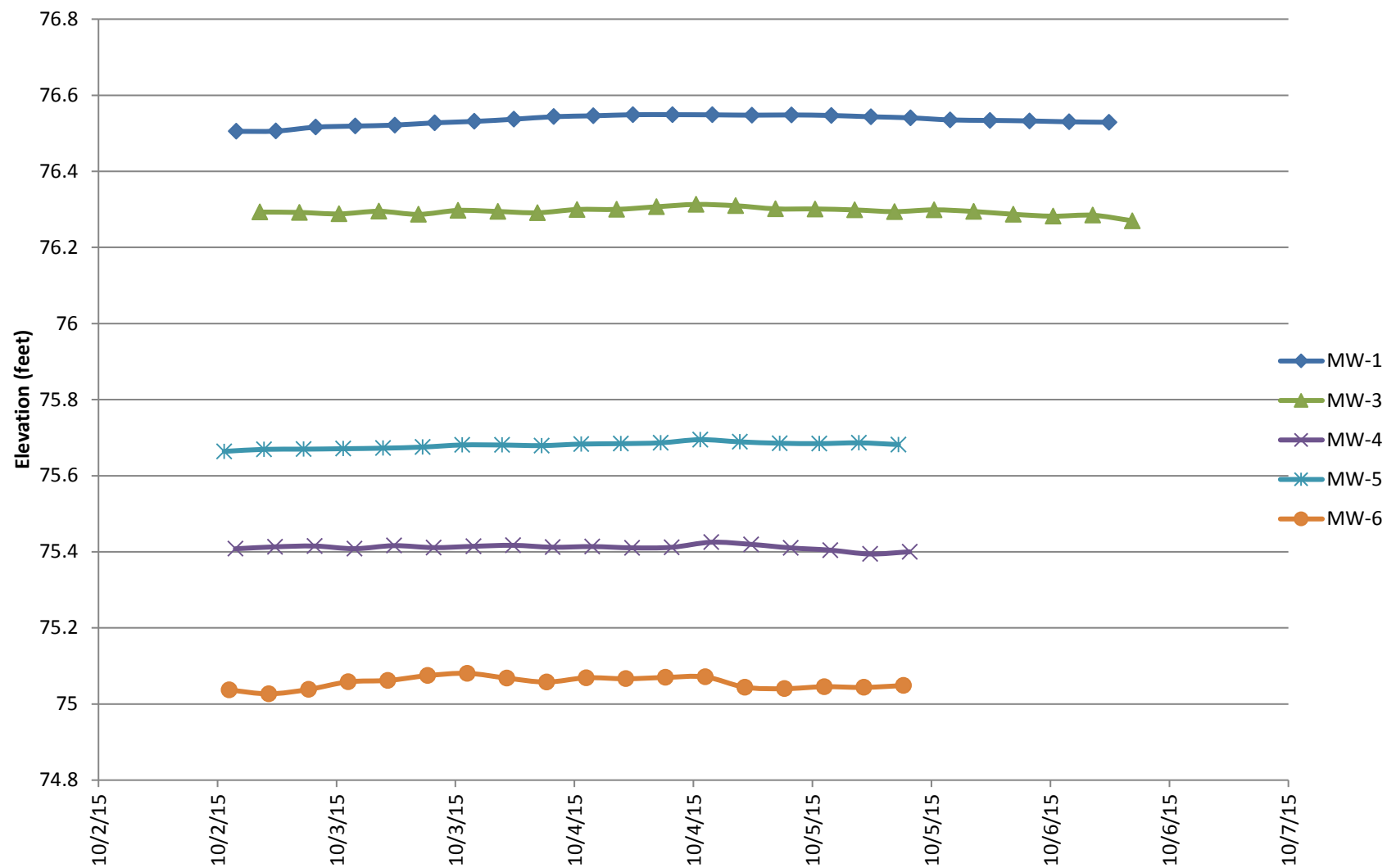
SOIL DISPOSAL CHARACTERIZATION

May 2016

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FIG. 6
Sheet 2 of 2



NOTES

1. Groundwater plot generated October, 2015.

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Pacific, Washington

GROUNDWATER LEVELS

May 2016

21-1-22055-007

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Figure 7

APPENDIX A
TEST PIT AND EXPLORATION LOGS

APPENDIX A**TEST PIT AND EXPLORATION LOGS****TABLE OF CONTENTS**

A-1	Soil Description and Log Key (3 sheets)
A-2	Log of Test Pit TP-1-15
A-3	Log of Test Pit TP-2-15
A-4	Log of Test Pit TP-3-15
A-5	Log of Test Pit TP-4-15
A-6	Log of Geoprobe GP-1-15
A-7	Log of Geoprobe GP-2-15
A-8	Log of Geoprobe GP-3-15
A-9	Log of Geoprobe GP-4-15
A-10	Log of Geoprobe GP-5-15
A-11	Log of Geoprobe GP-6-15
A-12	Log of Geoprobe GP-7-15
A-13	Log of Geoprobe GP-8-15
A-14	Log of Geoprobe GP-9-15
A-15	Log of Geoprobe GP-10-15
A-16	Log of Geoprobe GP-11-15
A-17	Log of Geoprobe GP-12-15
A-18	Log of Geoprobe GP-13-15
A-19	Log of Geoprobe GP-14-15
A-20	Log of Geoprobe GP-15-15
A-21	Log of Geoprobe GP-16-15
A-22	Log of Geoprobe GP-17-15
A-23	Log of Geoprobe GP-18-15
A-24	Log of Geoprobe GP-19-15
A-25	Log of Geoprobe GP-20-15
A-26	Log of Geoprobe GP-21-15
A-27	Log of Geoprobe GP-22-15
A-28	Log of Monitoring Well MW-1-15
A-29	Log of Monitoring Well MW-2-15
A-30	Log of Monitoring Well MW-3-15
A-31	Log of Monitoring Well MW-4-15
A-32	Log of Monitoring Well MW-5-15
A-33	Log of Monitoring Well MW-6-15

Shannon & Wilson, Inc. (S&W), uses a soil identification system modified from the Unified Soil Classification System (USCS). Elements of the USCS and other definitions are provided on this and the following pages. Soil descriptions are based on visual-manual procedures (ASTM D2488) and laboratory testing procedures (ASTM D2487), if performed.

S&W INORGANIC SOIL CONSTITUENT DEFINITIONS

CONSTITUENT ²	FINE-GRAINED SOILS (50% or more fines) ¹	COARSE-GRAINED SOILS (less than 50% fines) ¹
Major	Silt, Lean Clay, Elastic Silt,³ or Fat Clay³	Sand or Gravel⁴
Modifying (Secondary) Precedes major constituent	30% or more coarse-grained: Sandy or Gravelly⁴	More than 12% fine-grained: Silty or Clayey³
Minor Follows major constituent	15% to 30% coarse-grained: with Sand or with Gravel⁴ 30% or more total coarse-grained and lesser coarse-grained constituent is 15% or more: with Sand or with Gravel⁵	5% to 12% fine-grained: with Silt or with Clay³ 15% or more of a second coarse-grained constituent: with Sand or with Gravel⁵

¹All percentages are by weight of total specimen passing a 3-inch sieve.

²The order of terms is: *Modifying Major with Minor*.

³Determined based on behavior.

⁴Determined based on which constituent comprises a larger percentage.

⁵Whichever is the lesser constituent.

MOISTURE CONTENT TERMS

Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, from below water table

STANDARD PENETRATION TEST (SPT) SPECIFICATIONS

Hammer:	140 pounds with a 30-inch free fall. Rope on 6- to 10-inch-diam. cathead 2-1/4 rope turns, > 100 rpm
	NOTE: If automatic hammers are used, blow counts shown on boring logs should be adjusted to account for efficiency of hammer.
Sampler:	10 to 30 inches long Shoe I.D. = 1.375 inches Barrel I.D. = 1.5 inches Barrel O.D. = 2 inches
N-Value:	Sum blow counts for second and third 6-inch increments. Refusal: 50 blows for 6 inches or less; 10 blows for 0 inches.
	NOTE: Penetration resistances (N-values) shown on boring logs are as recorded in the field and have not been corrected for hammer efficiency, overburden, or other factors.

PARTICLE SIZE DEFINITIONS

DESCRIPTION	SIEVE NUMBER AND/OR APPROXIMATE SIZE
FINES	< #200 (0.075 mm = 0.003 in.)
SAND Fine Medium Coarse	#200 to #40 (0.075 to 0.4 mm; 0.003 to 0.02 in.) #40 to #10 (0.4 to 2 mm; 0.02 to 0.08 in.) #10 to #4 (2 to 4.75 mm; 0.08 to 0.187 in.)
GRAVEL Fine Coarse	#4 to 3/4 in. (4.75 to 19 mm; 0.187 to 0.75 in.) 3/4 to 3 in. (19 to 76 mm)
COBBLES	3 to 12 in. (76 to 305 mm)
BOULDERS	> 12 in. (305 mm)

RELATIVE DENSITY / CONSISTENCY

COHESIONLESS SOILS		COHESIVE SOILS	
N, SPT, BLOWS/FT.	RELATIVE DENSITY	N, SPT, BLOWS/FT.	RELATIVE CONSISTENCY
< 4	Very loose	< 2	Very soft
4 - 10	Loose	2 - 4	Soft
10 - 30	Medium dense	4 - 8	Medium stiff
30 - 50	Dense	8 - 15	Stiff
> 50	Very dense	15 - 30	Very stiff
		> 30	Hard

WELL AND BACKFILL SYMBOLS

	Bentonite Cement Grout		Surface Cement Seal
	Bentonite Grout		Asphalt or Cap
	Bentonite Chips		Slough
	Silica Sand		Inclinometer or Non-perforated Casing
	Perforated or Screened Casing		Vibrating Wire Piezometer

PERCENTAGES TERMS^{1,2}

Trace	< 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

¹Gravel, sand, and fines estimated by mass. Other constituents, such as organics, cobbles, and boulders, estimated by volume.

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Phase II ESA
Pacific Park Levee Setback Project
Pacific, Washington

SOIL DESCRIPTION AND LOG KEY

May 2016

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FIG. A-1
Sheet 1 of 3

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)
(Modified From USACE Tech Memo 3-357, ASTM D2487, and ASTM D2488)

MAJOR DIVISIONS			GROUP/GRAPHIC SYMBOL	TYPICAL IDENTIFICATIONS
COARSE-GRAINED SOILS (more than 50% retained on No. 200 sieve)	Gravels (more than 50% of coarse fraction retained on No. 4 sieve)	Gravel (less than 5% fines)	GW	Well-Graded Gravel; Well-Graded Gravel with Sand
			GP	Poorly Graded Gravel; Poorly Graded Gravel with Sand
		Silty or Clayey Gravel (more than 12% fines)	GM	Silty Gravel; Silty Gravel with Sand
			GC	Clayey Gravel; Clayey Gravel with Sand
	Sands (50% or more of coarse fraction passes the No. 4 sieve)	Sand (less than 5% fines)	SW	Well-Graded Sand; Well-Graded Sand with Gravel
			SP	Poorly Graded Sand; Poorly Graded Sand with Gravel
		Silty or Clayey Sand (more than 12% fines)	SM	Silty Sand; Silty Sand with Gravel
			SC	Clayey Sand; Clayey Sand with Gravel
FINE-GRAINED SOILS (50% or more passes the No. 200 sieve)	Silts and Clays (liquid limit less than 50)	Inorganic	ML	Silt; Silt with Sand or Gravel; Sandy or Gravelly Silt
			CL	Lean Clay; Lean Clay with Sand or Gravel; Sandy or Gravelly Lean Clay
		Organic	OL	Organic Silt or Clay; Organic Silt or Clay with Sand or Gravel; Sandy or Gravelly Organic Silt or Clay
	Silts and Clays (liquid limit 50 or more)	Inorganic	MH	Elastic Silt; Elastic Silt with Sand or Gravel; Sandy or Gravelly Elastic Silt
			CH	Fat Clay; Fat Clay with Sand or Gravel; Sandy or Gravelly Fat Clay
		Organic	OH	Organic Silt or Clay; Organic Silt or Clay with Sand or Gravel; Sandy or Gravelly Organic Silt or Clay
HIGHLY-ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor		PT	Peat or other highly organic soils (see ASTM D4427)

NOTE: No. 4 size = 4.75 mm = 0.187 in.; No. 200 size = 0.075 mm = 0.003 in.

NOTES

1. Dual symbols (symbols separated by a hyphen, i.e., SP-SM, Sand with Silt) are used for soils with between 5% and 12% fines or when the liquid limit and plasticity index values plot in the CL-ML area of the plasticity chart. Graphics shown on the logs for these soil types are a combination of the two graphic symbols (e.g., SP and SM).
2. Borderline symbols (symbols separated by a slash, i.e., CL/ML, Lean Clay to Silt; SP-SM/SM, Sand with Silt to Silty Sand) indicate that the soil properties are close to the defining boundary between two groups.

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**SOIL DESCRIPTION
AND LOG KEY**

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FIG. A-1
Sheet 2 of 3

GRADATION TERMS

Poorly Graded	Narrow range of grain sizes present or, within the range of grain sizes present, one or more sizes are missing (Gap Graded). Meets criteria in ASTM D2487, if tested.
Well-Graded	Full range and even distribution of grain sizes present. Meets criteria in ASTM D2487, if tested.

CEMENTATION TERMS¹

Weak	Crumbles or breaks with handling or slight finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

PLASTICITY²

DESCRIPTION	VISUAL-MANUAL CRITERIA	APPROX. PLASTICITY INDEX RANGE
Nonplastic	A 1/8-in. thread cannot be rolled at any water content.	< 4
Low	A thread can barely be rolled and a lump cannot be formed when drier than the plastic limit.	4 to 10
Medium	A thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. A lump crumbles when drier than the plastic limit.	10 to 20
High	It takes considerable time rolling and kneading to reach the plastic limit. A thread can be rerolled several times after reaching the plastic limit. A lump can be formed without crumbling when drier than the plastic limit.	> 20

ADDITIONAL TERMS

Mottled	Irregular patches of different colors.
Bioturbated	Soil disturbance or mixing by plants or animals.
Diamict	Nonsorted sediment; sand and gravel in silt and/or clay matrix.
Cuttings	Material brought to surface by drilling.
Slough	Material that caved from sides of borehole.
Sheared	Disturbed texture, mix of strengths.

PARTICLE ANGULARITY AND SHAPE TERMS¹

Angular	Sharp edges and unpolished planar surfaces.
Subangular	Similar to angular, but with rounded edges.
Subrounded	Nearly planar sides with well-rounded edges.
Rounded	Smoothly curved sides with no edges.
Flat	Width/thickness ratio > 3.
Elongated	Length/width ratio > 3.

ACRONYMS AND ABBREVIATIONS

ATD	At Time of Drilling
Diam.	Diameter
Elev.	Elevation
ft.	Feet
FeO	Iron Oxide
gal.	Gallons
Horiz.	Horizontal
HSA	Hollow Stem Auger
I.D.	Inside Diameter
in.	Inches
lbs.	Pounds
MgO	Magnesium Oxide
mm	Millimeter
MnO	Manganese Oxide
NA	Not Applicable or Not Available
NP	Nonplastic
O.D.	Outside Diameter
OW	Observation Well
pcf	Pounds per Cubic Foot
PID	Photo-Ionization Detector
PMT	Pressuremeter Test
ppm	Parts per Million
psi	Pounds per Square Inch
PVC	Polyvinyl Chloride
rpm	Rotations per Minute
SPT	Standard Penetration Test
USCS	Unified Soil Classification System
q _u	Unconfined Compressive Strength
VWP	Vibrating Wire Piezometer
Vert.	Vertical
WOH	Weight of Hammer
WOR	Weight of Rods
Wt.	Weight

STRUCTURE TERMS¹

Interbedded	Alternating layers of varying material or color with layers at least 1/4-inch thick; singular: bed.
Laminated	Alternating layers of varying material or color with layers less than 1/4-inch thick; singular: lamination.
Fissured	Breaks along definite planes or fractures with little resistance.
Slickensided	Fracture planes appear polished or glossy; sometimes striated.
Blocky	Cohesive soil that can be broken down into small angular lumps that resist further breakdown.
Lensed	Inclusion of small pockets of different soils, such as small lenses of sand scattered through a mass of clay.
Homogeneous	Same color and appearance throughout.

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FIG. A-1
Sheet 3 of 3

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JOB NO: 21-1-22055-007 DATE: 09-23-2015 LOCATION: See Site and Exploration Plan

LOG OF TEST PIT TP-1-15

PROJECT: Pacific Park Right Bank Levee Setback

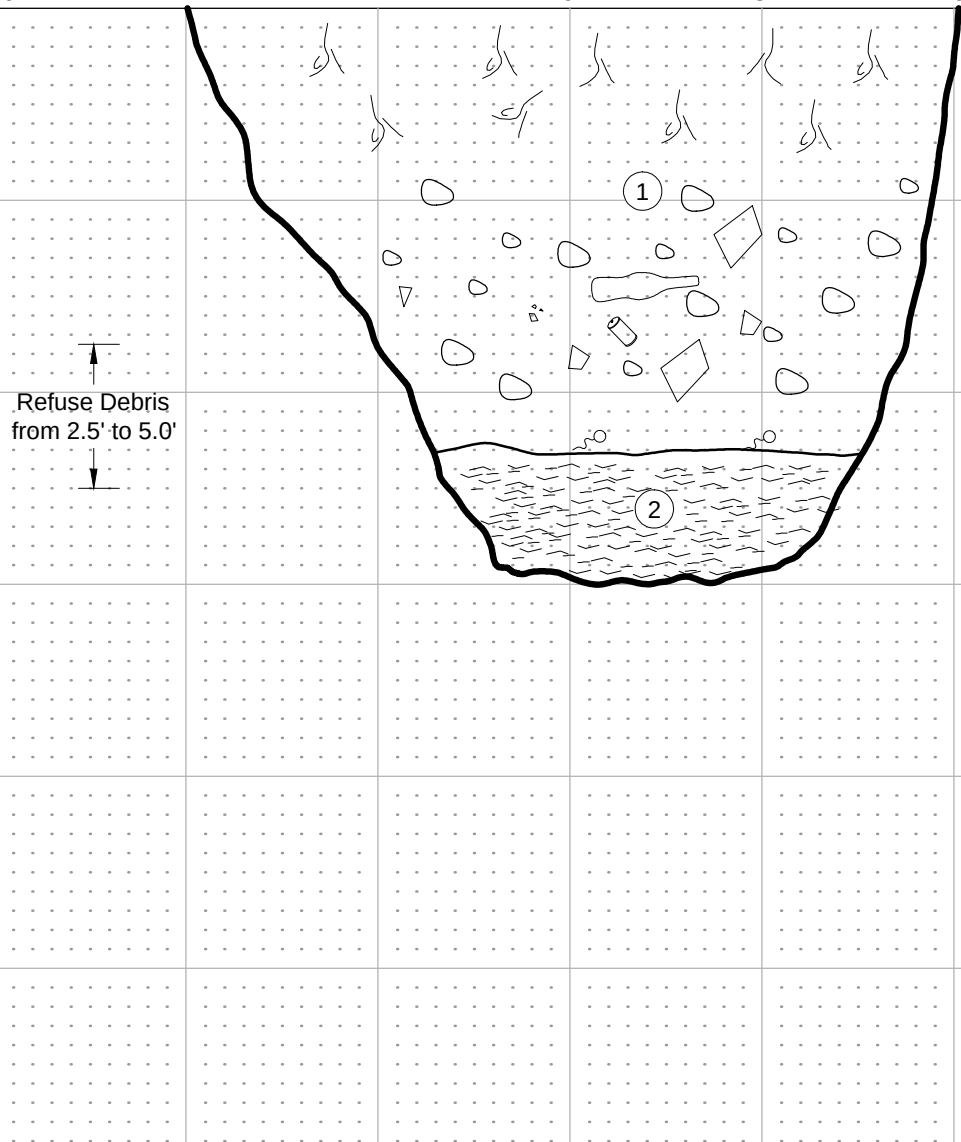
SOIL DESCRIPTION	Ground Water	% Water Content	Samples	Depth, Ft.	Sketch of <u>West</u> Pit Side	Surface Elevation:					
					Horizontal Distance in Feet						
					0	2	4	6	8	10	12
① Brown, <i>Gravelly Silt with Sand</i> (ML); moist; scattered organics in the upper 1.0 ft; round to subround gravel; trash at 2.5 to 5.0 ft consisting of glass bottles intact and broken; plastic; metal debris, water in pit had a sheen. Fill (Hf) ② Dark gray, <i>Silty Sand with Gravel</i> (SM); wet. Alluvium (Ha) NOTES 1. Environmental sample TP-1-15:5.5 collected at 0900 9-23-2015. 2. Water and caving at 5.0 feet. 			TP-1-15:5.5	0							
				2							
				4							
				6							
				8							
				10							
				12							

FIG. A-2

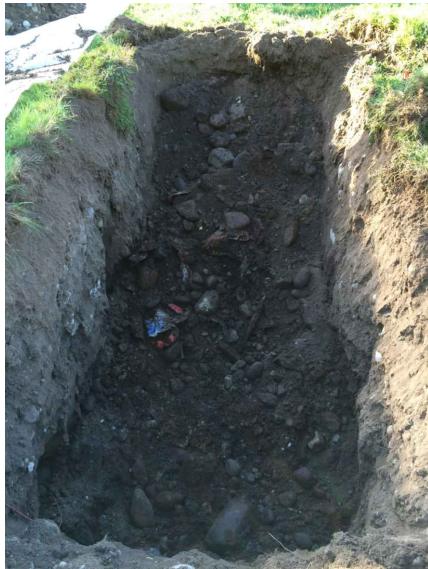


FIG. A-2

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LOG OF TEST PIT TP-2-15

JOB NO: 21-1-22055-007 DATE: 09-23-2015 LOCATION: See Site and Exploration Plan

PROJECT: Pacific Park Right Bank Levee Setback

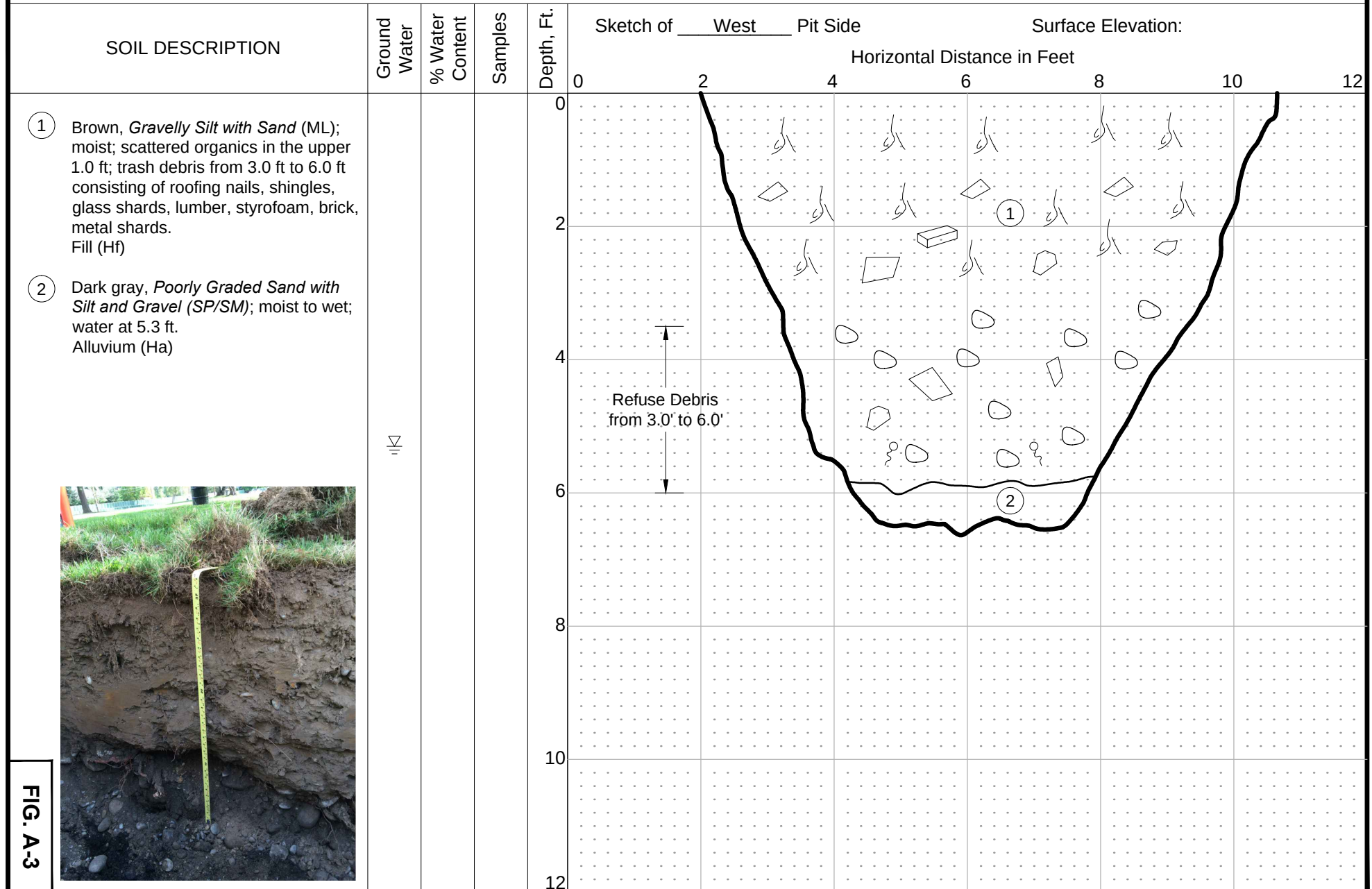


FIG. A-3

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JOB NO: 21-1-22055-007 DATE: 09-23-2015 LOCATION: See Site and Exploration Plan

LOG OF TEST PIT TP-3-15

PROJECT: Pacific Park Right Bank Levee Setback

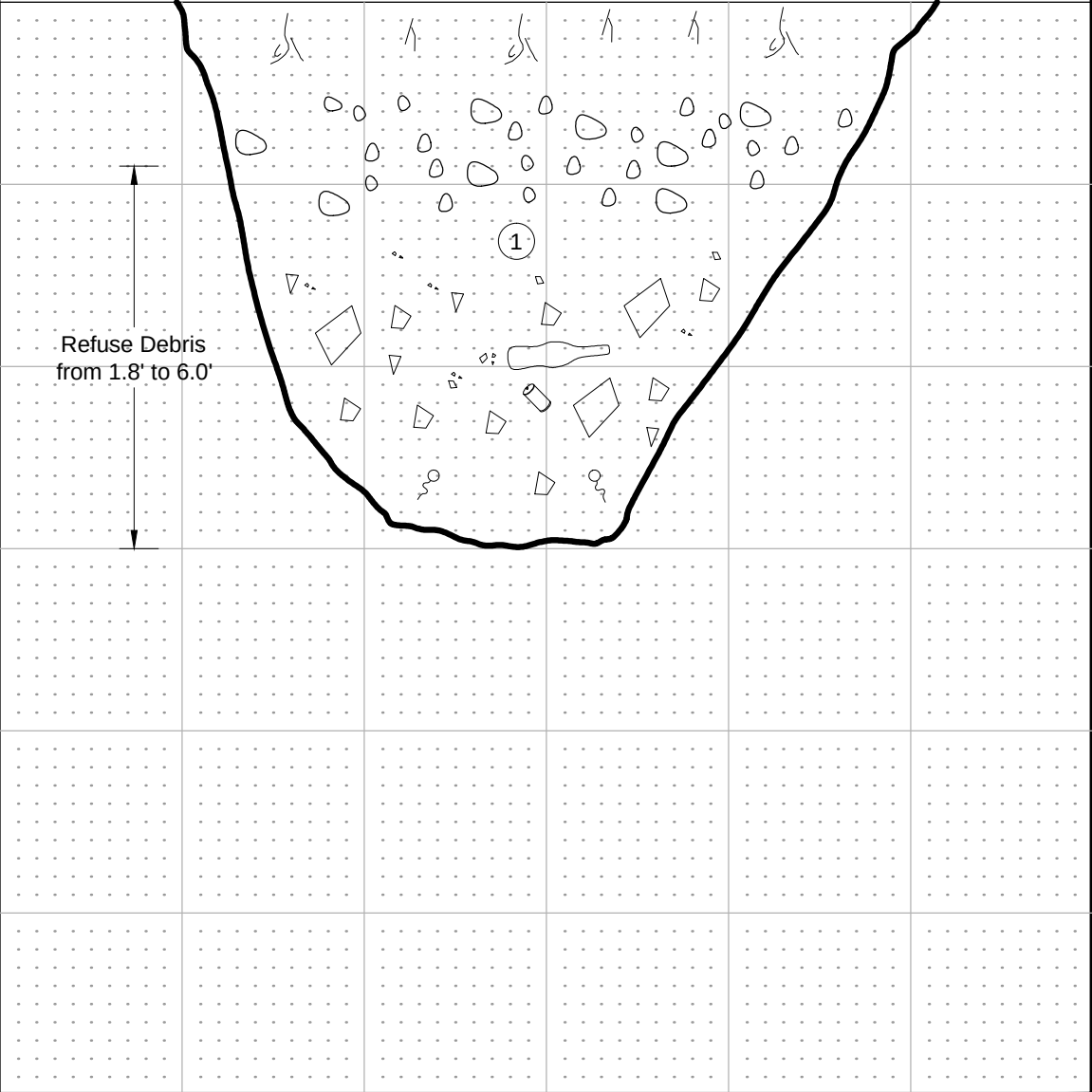
SOIL DESCRIPTION	Ground Water	% Water Content	Samples	Depth, Ft.	Sketch of <u>West</u> Pit Side Surface Elevation: Horizontal Distance in Feet
① Brown, <i>Sandy Silt to Silty Sand with Gravel</i> (ML/SM); moist; round to subround gravel; trash from 1.8 ft to 6.0 ft consisting of concrete, wood, china bowls, ceramic plates, tea/coffee cups, burned wood, glass bottles; iron oxide staining in the upper 3.0 ft. Fill (Hf) <u>NOTE</u> Environmental sample TP-3-15:6.0 collected at 1130 9-23-2015.				0	
				12	



FIG. A-4

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JOB NO: 21-1-22055-007 DATE: 09-23-2015 LOCATION: See Site and Exploration Plan

LOG OF TEST PIT TP-4-15

PROJECT: Pacific Park Right Bank Levee Setback

SOIL DESCRIPTION		Ground Water	% Water Content	Samples	Depth, Ft.	Sketch of <u>North</u> Pit Side	Surface Elevation:				
						Horizontal Distance in Feet					
① Brown, <i>Poorly Graded Sand with Silt and Gravel (SP/SM)</i>; moist; scattered organics in the upper 1.0 ft; small boulder at 5.0 ft. Fill (Hf)	② Dark gray; <i>Silty Sand with Gravel</i>; moist. Alluvium (Ha)	None Observed			0	2	4	6	8	10	12
					0						
					2						
					4						
					6						
					8						
					10						
					12						

FIG. A-5



FIG. A-5

LOG OF GEOPROBE

Date Started	9/17/15	Location	N: 99,648 E: 1,291,982	Ground Elevation:	Approx. 80.4 feet
Date Completed	9/17/15			Typical Run Length	5 feet
Total Depth (ft)	15.0	Drilling Company:	ESN Northwest	Hole Diameter:	3 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
		Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.						
	1	Brown Sandy SILT with Gravel (ML); moist Fill (Hf)			0			
5	2	Gray, Poorly Graded SAND with Silt and Gravel (SP-SM); wet; medium to coarse sand; round to subround gravel; Alluvium (Ha).	4.0		0	During Drilling	GP-1-15:5.0	5
10	3				0			10
15		BOTTOM OF GEOPROBE COMPLETED 9/17/2015	15.0				GP-1-15:13.5	15

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level ATD

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Pacific, Washington

LOG OF GEOPROBE GP-1-15

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FIG. A-6

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16

LOG OF GEOPROBE

Date Started 9/17/15	Location N: 99,618 E: 1,292,183	Ground Elevation: Approx. 81.3 feet
Date Completed 9/17/15		Typical Run Length 5 feet
Total Depth (ft) 15.0	Drilling Company: ESN Northwest	Hole Diameter: 3 inches

Depth (ft)	Probe Run	Soil Description <i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
1	1	Brown SILT with Sand and Gravel (ML); moist; organics Fill (Hf).	2.0		0			
5	2	Dark gray, Poorly Graded SAND with SILT and Gravel (SP-SM); wet; medium to coarse sand; subround to round gravel; Alluvium (Ha).			0		GP-2-15:4.5	5
10	3				0			10
15			15.0				GP-2-15:14.0	15
		BOTTOM OF GEOPROBE COMPLETED 9/17/2015						

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level ATD

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Pacific Right Bank Levee Setback Project
Pacific, Washington

LOG OF GEOPROBE GP-2-15

May 2016

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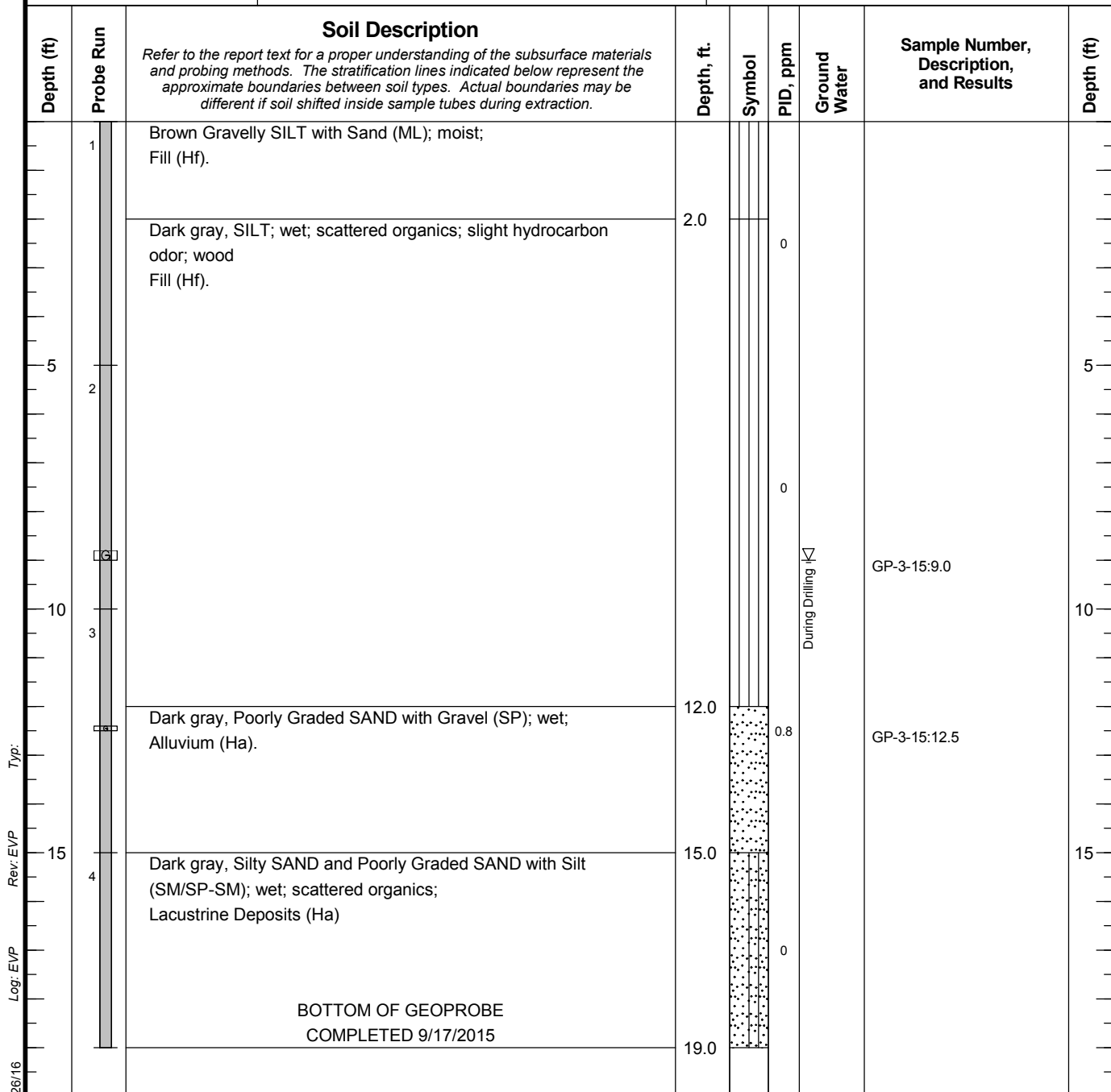
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FIG. A-7

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started	9/17/15	Location	N: 99,646 E: 1,292,424	Ground Elevation:	Approx. 80.5 feet
Date Completed	9/17/15			Typical Run Length	5 feet
Total Depth (ft)	20.0	Drilling Company:	ESN Northwest	Hole Diameter:	3 inches



NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level ATD

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Pacific, Washington

LOG OF GEOPROBE GP-3-15

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FIG. A-8

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16

LOG OF GEOPROBE

Date Started 9/17/15	Location N: 99,587 E: 1,292,323	Ground Elevation: Approx. 80.6 feet
Date Completed 9/17/15		Typical Run Length 5 feet
Total Depth (ft) 15.0	Drilling Company: ESN Northwest	Hole Diameter: 3 inches

Depth (ft)	Probe Run	Soil Description <i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
1	1	Brown, Silty SAND (SM); moist; iron oxide staining; silt clasts; wood at 2 feet; Fill (Hf)			0			
5	2				0		GP-4-15:5.0	5
		Dark gray, Silty SAND with Gravel (SM); wet; refuse debris shards of glass, wood, newspaper, plastic fragments; Fill (Hf)	8.0		0			
10	3	Dark gray, Silty SAND (SM); wet; Alluvium (Ha)	10.0		0			10
					0		GP-4-15:13.0	
15		BOTTOM OF GEOPROBE COMPLETED 9/21/2015	15.0					15

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level ATD

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LOG OF GEOPROBE GP-4-15

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FIG. A-9

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started	9/17/15	Location	N: 99,449 E: 1,292,135	Ground Elevation:	Approx. 81.8 feet
Date Completed	9/17/15			Typical Run Length	5 feet
Total Depth (ft)	15.0	Drilling Company:	ESN Northwest	Hole Diameter:	3 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	1	Brown SILT with Gravel (ML); moist; scattered organics; Fill (Hf)						
		Brown, Poorly Graded SAND with Gravel (SP); wet; Fill (Hf)	2.0		0			
5	2				0		GP-5-15:5.0	5
		Dark brown, Organic to Peaty SILT (OH); wet; Lacustrine Deposits (Hl)	8.0		0			
		Dark gray, Poorly Graded SAND with Gravel; wet; medium to coarse sand; round to subrounded gravel; Alluvium (Ha)	9.0		0			
10	3				0		GP-5-15:13.0	10
					0			
15			15.0					15
		BOTTOM OF GEOPROBE COMPLETED 9/17/2015						

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level ATD

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LOG OF GEOPROBE GP-5-15

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FIG. A-10

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16

LOG OF GEOPROBE

Date Started 9/17/15	Location N: 99,318 E: 1,292,095	Ground Elevation: Approx. 81.8 feet
Date Completed 9/17/15		Typical Run Length 5 feet
Total Depth (ft) 15.0	Drilling Company: ESN Northwest	Hole Diameter: 3 inches

Depth (ft)	Probe Run	Soil Description <i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
1	1	Brown, Gravelly SILT (ML); moist Fill (Hf)			0			
5	2	Dark gray SILT with Sand and Gravel (ML); wet; refuse debris shards of ceramic, plastic and metal; Fill (Hf)	6.0		0	During Drilling	GP-6-7.5	5
10	3	Dark gray, Poorly Graded SAND with Silt and Gravel (SP-SM); wet; medium to coarse sand; round to subround gravel; Alluvium (Ha)	10.0		0		GP-6-15:14.0	10
15		BOTTOM OF GEOPROBE COMPLETED 9/17/2015	15.0					15

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level ATD

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LOG OF GEOPROBE GP-6-15

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FIG. A-11

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started	9/17/15	Location	N: 99,229 E: 1,291,969	Ground Elevation:	Approx. 82.1 feet
Date Completed	9/17/15			Typical Run Length	5 feet
Total Depth (ft)	15.0	Drilling Company:	ESN Northwest	Hole Diameter:	3 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
		<i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>						
1	1	Brown, Gravelly SILT (ML); moist; shards of glass; scattered organics; Fill (HF)			0			
5	2						GP-7-15:5.0	5
		Dark gray, Poorly Graded GRAVEL with Sand (GP); wet; shards of glass, wood, brick, ceramic; Fill (Hf)	7.0		0	During Drilling		
10	3							10
		Dark gray, Poorly Graded SAND with Gravel (SP); wet; medium to coarse sand; round to subround gravel; Alluvium (Ha)	10.0		0			
15							GP-7-15:14.0	15
		BOTTOM OF GEOPROBE COMPLETED 9/17/2015	15.0					

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level

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Pacific Right Bank Levee Setback Project
Pacific, Washington

LOG OF GEOPROBE GP-7-15

May 2016

21-1-22055-007

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FIG. A-12

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16

LOG OF GEOPROBE

Date Started 9/17/15	Location N: 99,239 E: 1,291,825	Ground Elevation: Approx. 80.6 feet
Date Completed 9/17/15		Typical Run Length 5 feet
Total Depth (ft) 15.0	Drilling Company: ESN Northwest	Hole Diameter: 3 inches

Depth (ft)	Probe Run	Soil Description <i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
1	1	Brown Silty SAND to Sandy SILT with Gravel (SM-ML); moist; broken concrete at 1.5 feet; Fill (Hf)			0			
5	2	Dark gray, Poorly Graded SAND with Gravel and Silt (SP-SM); wet; medium to coarse sand; round to subround gravel; wood at 7 feet; Alluvium (Ha)	5.0				GP-8-15:5.0	5
7.0		Brown, Organic SILT to Peaty SILT (OH); wet; Lacustrine Deposits (HI)	7.0		0			
12.0	3	Dark gray, Silty SAND (SM); wet; scattered organics; Alluvium (Ha)	12.0		0			
15.0		BOTTOM OF GEOPROBE COMPLETED 9/17/2015	15.0				GP-8-15:DUP GP-8-15:14.5	15

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Run No.
 Ground Water Level ATD

Phase II ESA
Pacific Right Bank Levee Setback Project
Pacific, Washington

LOG OF GEOPROBE GP-8-15

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FIG. A-13

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started 9/17/15	Location N: 99,464 E: 1,291,737	Ground Elevation: Approx. 80.1 feet
Date Completed 9/17/15		Typical Run Length 5 feet
Total Depth (ft) 15.0	Drilling Company: ESN Northwest	Hole Diameter: 3 inches

Depth (ft)	Probe Run	Soil Description <i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
1	1	Brown SILT with Gravel (ML); moist; scattered organics; Fill (Hf)	1.0		0			
		Dark gray, Poorly Graded GRAVEL with Silt and Sand (GP-GM); moist; Fill (Hf)						
5	2	Dark gray, Poorly Graded SAND with Gravel (SP); wet; Fill (Hf)	5.0		0		GP-8-15:5.0	5
10	3	Dark gray, Sandy SILT (ML); wet; scattered organics; Lacustrine Deposits (HI)	11.0		0.3		GP-8-15:12.5	10
15		BOTTOM OF GEOPROBE COMPLETED 9/17/2015	15.0					15

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level

Phase II ESA
Pacific Right Bank Levee Setback Project
Pacific, Washington

LOG OF GEOPROBE GP-9-15

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FIG. A-14

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16

LOG OF GEOPROBE

Date Started	9/17/15	Location	N: 99,353 E: 1,291,730	Ground Elevation:	Approx. 80.2 feet
Date Completed	9/17/15			Typical Run Length	5 feet
Total Depth (ft)	15.0	Drilling Company:	ESN Northwest	Hole Diameter:	3 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
	1	Brown SILT with Gravel (ML); moist; Fill (Hf)			0.6			
		Dark gray, Poorly Graded SAND with Gravel and Silt (SP-SM); wet; dark staining and slight odor at 4.7 feet; Fill (Hf)	3.0				GP-10-15:4.5	5
	2	Gray, Sandy GRAVEL (GP); wet; subangular to angular gravel; Fill (Hf)	6.0		0			
		Brown and gray, Silty SAND and Organic SILT to Peaty SILT (SM/OH); wet; Lacustrine (HI)	8.0					
	3	Dark gray, Silty SAND (SM); wet; fine to medium sand; Alluvium (Ha)	14.0		0		GP-10-15:13.0	15
		BOTTOM OF GEOPROBE COMPLETED 9/21/2015	15.0					

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Run No.
 Ground Water Level ATD

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Pacific, Washington

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FIG. A-15

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started 9/17/15	Location N: 99,355 E: 1,291,635	Ground Elevation: Approx. 80.6 feet
Date Completed 9/17/15		Typical Run Length 5 feet
Total Depth (ft) 15.0	Drilling Company: ESN Northwest	Hole Diameter: 3 inches

Depth (ft)	Probe Run	Soil Description <i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
1	1	Brown, Silty SAND with Gravel (SM); moist; fine to medium sand; subangular to angular gravel; Fill (Hf)			0.1			
5	2	Dark gray, Poorly Graded GRAVEL with Sand (GP); wet; round to subround gravel; Fill (Hf)	5.0		0.2	During Drilling	GP-11-15:4.5	5
11	3	Dark gray, Elastic SILT with Sand (MH); wet; scattered organics; Lacustrine Deposits (HI)	11.0		0			11
15		BOTTOM OF GEOPROBE COMPLETED 9/17/2015	15.0				GP-11-15:14.5	15

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level ATD

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FIG. A-16

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started 9/18/15	Location N: 99,695 E: 1,292,302	Ground Elevation: Approx. 81.3 feet
Date Completed 9/18/15		Typical Run Length 5 feet
Total Depth (ft) 15.0	Drilling Company: ESN Northwest	Hole Diameter: 3 inches

Depth (ft)	Probe Run	Soil Description <i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
1	1	Brown SILT with Sand and Gravel (ML); moist; subrounded to subangular gravel; Fill (Hf)			0.1			
5	2	Dark gray, Silty SAND with Gravel (SM); wet; fine to medium sand; round to subround gravel; less gravelly with depth; Alluvium (Ha)	5.0		0.2	During Drilling	GP-12-15:4.5	5
10	3				0			10
15		BOTTOM OF GEOPROBE COMPLETED 9/17/2015	15.0				GP-12-15:14.5	15

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Run No.
 Ground Water Level ATD

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FIG. A-17

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started	9/21/15	Location	N: 99,327 E: 1,291,486	Ground Elevation:	Approx. 80.7 feet
Date Completed	9/21/15			Typical Run Length	5 feet
Total Depth (ft)	15.0	Drilling Company:	ESN Northwest	Hole Diameter:	3 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
		Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.						
	1	Brown and gray, Gravelly SAND with Silt to Gravelly SILT with SAND (SM-ML); moist; subangular to subrounded gravel; Fill (HF)			0			
5	2						GP-13-15:4.5	5
		Dark gray, Silty SAND with Gravel (SM); wet; fine to medium sand; Alluvium (Ha).	8.0		0	During Drilling		
10	3							
		Brown, SILT (ML); wet; scattered organics; Lacustrine Deposits (HI).	12.0		0		GP-13-15:13.5	
15			15.0					15
		BOTTOM OF GEOPROBE COMPLETED 9/21/2015						

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level ATD

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FIG. A-18

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started 9/21/15	Location N: 99,143 E: 1,291,672	Ground Elevation: Approx. 80.0 feet
Date Completed 9/21/15		Typical Run Length 5 feet
Total Depth (ft) 15.0	Drilling Company: ESN Northwest	Hole Diameter: 3 inches

Depth (ft)	Probe Run	Soil Description <i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
1	1	Brown, Gravelly SILT with SAND (ML); moist; scattered organics; Fill (Hf).			0			
5	2	Dark gray, Silty SAND with Gravel (SM); wet; refuse debris, glass shards, paper, rubber, and wood at 7-8 feet; organic layer at 8-8.5 feet; Fill (Hf).	6.0		0.6	During Drilling	GP-14-15:3.5	5
10	3	Brown, SILT (ML); wet; scattered organics; organic layer at 12 feet; interbed of silty sand at 14-14.3 feet; Lacustrine Deposits (HI).	8.5					10
15		BOTTOM OF GEOPROBE COMPLETED 9/21/2015	15.0				GP-14-15:13.5 GP-14-15:DUP	15

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level ATD

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FIG. A-19

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started 9/21/15	Location N: 99,048 E: 1,291,775	Ground Elevation: Approx. 81.5 feet
Date Completed 9/21/15		Typical Run Length 5 feet
Total Depth (ft) 15.0	Drilling Company: ESN Northwest	Hole Diameter: 3 inches

Depth (ft)	Probe Run	Soil Description <i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
1	1	Brown, SILT with Gravel and Sand (ML); moist; subangular to subrounded gravel; Fill (Hf).			0			
5	2	Dark gray, Silty SAND with Gravel (SM) to Sandy SILT with Gravel (ML); wet; refuse debris fragments of wood and ceramic; Fill (Hf).	4.5		0.1	During Drilling	GP-15-15:6.0	5
10	3	Dark gray, Well Graded SAND with Silt (SW-SM); wet; gravel zone at 9-10 feet; Alluvium (Ha)	9.0		0			10
15		BOTTOM OF GEOPROBE COMPLETED 9/21/2015	15.0				GP-15-15:14.0	15

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level ATD

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Pacific, Washington

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FIG. A-20

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started 9/21/15	Location N: 98,967 E: 1,291,819	Ground Elevation: Approx. 83.1 feet
Date Completed 9/21/15		Typical Run Length 5 feet
Total Depth (ft) 15.0	Drilling Company: ESN Northwest	Hole Diameter: 3 inches

Depth (ft)	Probe Run	Soil Description <i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
1	1	Brown, Gravelly SILT (ML); moist; refuse debris rubber and glass shards from 7-9 feet; Fill (Hf).			0			
5	2				0			5
10	3	Dark gray, Silty SAND with Gravel (SM); wet; Alluvium (Ha).	9.0		0	During Drilling	GP-16-15:8.0	10
15			15.0		0		GP-16-15:13.5	15
		BOTTOM OF GEOPROBE COMPLETED 9/21/2015						

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level

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FIG. A-21

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16

LOG OF GEOPROBE

Date Started 9/21/15	Location N: 98,829 E: 1,291,689	Ground Elevation: Approx. 83.9 feet
Date Completed 9/21/15		Typical Run Length 5 feet
Total Depth (ft) 15.0	Drilling Company: ESN Northwest	Hole Diameter: 3 inches

Depth (ft)	Probe Run	Soil Description <i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
1	1	Brown, SILT with Gravel (ML); moist; subangular to subrounded gravel; Fill (HF).			0			
5	2							5
			7.0		0		GP-17-15:7.0 GP-17-15:DUP	
10	3	Dark gray, Silty SAND with Gravel (SM); gravel zone from 12 to 13 feet; Alluvium (Ha).			0.2			10
15			15.0				GP-17-15:14.5	15
		BOTTOM OF GEOPROBE COMPLETED 9/21/2015						

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Run No.
 Ground Water Level ATD

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FIG. A-22

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started	9/21/15	Location	N: 98,989 E: 1,291,630	Ground Elevation:	Approx. 83.8 feet
Date Completed	9/21/15			Typical Run Length	5 feet
Total Depth (ft)	15.0	Drilling Company:	ESN Northwest	Hole Diameter:	3 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
		Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.						
1	1	Brown, SILT with Gravel (ML); moist; subangular to subrounded gravel; wood at 7-8 feet; Fill (HF).			0.3		GP-18-15:3.0	
5	2				0.4			5
8.0		Dark gray, Poorly Graded SAND with Gravel (SP); wet; medium to coarse sand; subrounded to round gravel; Alluvium (Ha).	8.0					
10	3				0		GP-18-15:14.0	10
15		BOTTOM OF GEOPROBE COMPLETED 9/21/2015	15.0					15

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level

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FIG. A-23

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16

LOG OF GEOPROBE

Date Started 9/21/15	Location N: 98,986 E: 1,291,488	Ground Elevation: Approx. 82.9 feet
Date Completed 9/21/15		Typical Run Length 5 feet
Total Depth (ft) 15.0	Drilling Company: ESN Northwest	Hole Diameter: 3 inches

Depth (ft)	Probe Run	Soil Description <i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
1	1	Brown, Silty SAND with Gravel to Sandy SILT with Gravel (SM-ML); moist Fill (Hf).			0.2			
5	2				0		GP-19-15:5.0	5
10	3	Gray, Gravelly SAND (SP); wet; medium to coarse sand; round to subrounded gravel; Alluvium (Ha).	10.0					10
		Brown SILT (ML); wet; scattered organics; Lacustrine Deposits (Hl)	12.0		0.2			
		Gray, Silty SAND with Gravel (SP); wet; Alluvium (Ha).	13.0					
15		BOTTOM OF GEOPROBE COMPLETED 9/21/2015	15.0				GP-19-15:14.5	15

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level ATD

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FIG. A-24

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started	9/21/15	Location	N: 98,883 E: 1,291,544	Ground Elevation:	Approx. 83.9 feet
Date Completed	9/21/15			Typical Run Length	5 feet
Total Depth (ft)	15.0	Drilling Company:	ESN Northwest	Hole Diameter:	3 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
		<i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>						
1	1	Brown, Silty SAND with Gravel to Sandy SILT with Gravel (SM-ML); moist; subangular to subrounded gravel; Fill (Hf).			0.2			
5	2							
		Gray, Silty SAND with Gravel (SM); wet; Alluvium (Ha)	6.0		0	During Drilling	GP-20-15:5.5	5
10	3				0.1			10
15			15.0				GP-20-15:14.0	15
		BOTTOM OF GEOPROBE COMPLETED 9/21/2015						

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level ATD

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LOG OF GEOPROBE GP-20-15

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FIG. A-25

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16

LOG OF GEOPROBE

Date Started	9/21/15	Location	N: 98,758 E: 1,291,513	Ground Elevation:	Approx. 83.7 feet
Date Completed	9/21/15			Typical Run Length	5 feet
Total Depth (ft)	15.0	Drilling Company:	ESN Northwest	Hole Diameter:	3 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
		<i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>						
1	1	Brown, Silty SAND with Gravel to Sandy SILT with Gravel (SM-ML); moist; subangular to subrounded gravel; wood an organics from 2-3 feet; Fill (Hf).			0.4			
5	2	Gray, Poorly Graded SAND with Gravel (SP); wet; Alluvium (Ha)	6.0		0	During Drilling	GP-21-15:4.0	5
10	3				0.1			
15		BOTTOM OF GEOPROBE COMPLETED 9/21/2015	15.0				GP-21-15:14.0	15

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Ground Water Level

Phase II ESA

Pacific Right Bank Levee Setback Project
Pacific, Washington

LOG OF GEOPROBE GP-21-15

May 2016

21-1-22055-007

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. A-26

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16

LOG OF GEOPROBE

Date Started 9/22/15	Location N: 98,648 E: 1,291,631	Ground Elevation: Approx. 83.1 feet
Date Completed 9/22/15		Typical Run Length 5 feet
Total Depth (ft) 5.0	Drilling Company: ESN Northwest	Hole Diameter: 3 inches

Depth (ft)	Probe Run	Soil Description <i>Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.</i>	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
1	1	Brown and gray, Gravelly SILT (ML); moist; subangular to angular; fill mound material			0		GP-22-15:1.5	
2	2	Fill (Hf)			0			
		BOTTOM OF GEOPROBE COMPLETED 9/22/2015	3.0				GP-22-15:3.0	
5								5
10								10
15								15

NOTES

1. In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
2. Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
3. Refer to KEY for definitions and explanation of symbols.
4. CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

-  2" Plastic Tube - No Soil Recovery
 2" Plastic Tube with Soil Recovery
 Run No.

Phase II ESA

Pacific Right Bank Levee Setback Project
Pacific, Washington

LOG OF GEOPROBE GP-22-15

May 2016

21-1-22055-007

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FIG. A-27

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started	9/18/15	Location	N: 99,454 E: 1,292,242	Ground Elevation:	Approx. 83.2 feet
Date Completed	9/18/15			Typical Run Length	5 feet
Total Depth (ft)	15.0	Drilling Company:	ESN Northwest	Hole Diameter:	3 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
		Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.						
1	1	Brown SILT with Sand and Gravel (ML); moist; Fill (Hf).						
3.0		Dark gray, Silty SAND with Gravel (SM); wet; iron oxide staining at 6 feet; Fill (Hf).	3.0		0			
5	2						MW-1-15:6.0	5
10	3							10
12.0		Dark gray, Well Graded GRAVEL with Sand (GW); wet; coarse sand; round to subround gravel; Alluvium (Ha).	12.0		0		MW-1-15:12.0	
15.0		BOTTOM OF GEOPROBE COMPLETED 9/18/2015	15.0					15

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

3	2" Plastic Tube - No Soil Recovery		Piezometer Screen and Sand Filter
	2" Plastic Tube with Soil Recovery		Bentonite-Cement Grout
	Run No.		Bentonite Chips/Pellets
	Ground Water Level ATD		Bentonite Grout
	Ground Water Level in Well		

Phase II ESA

Pacific Right Bank Levee Setback Project
Pacific, Washington

LOG OF GEOPROBE MW-1-15

May 2016

21-1-22055-007

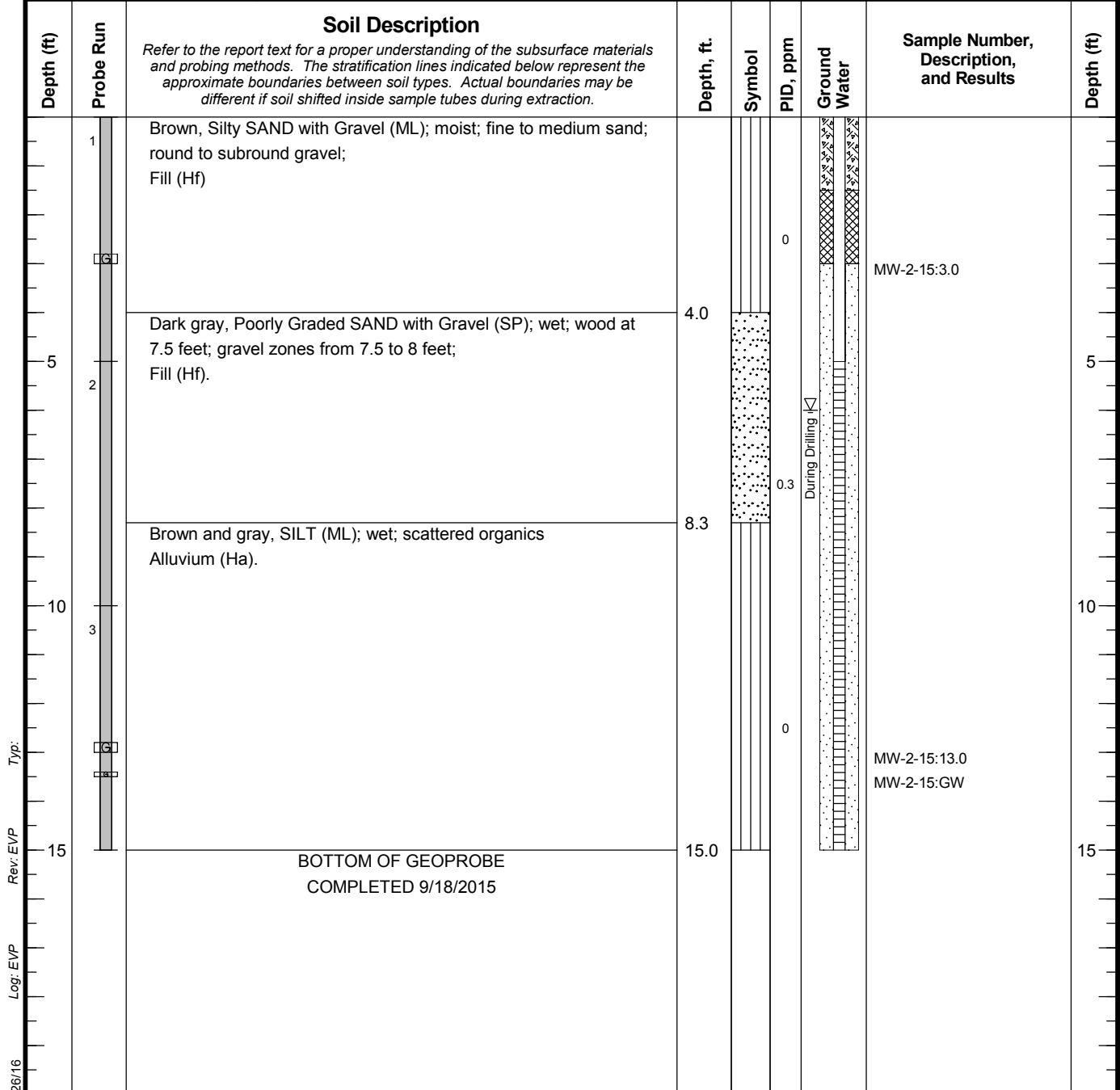
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FIG. A-28

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16

LOG OF GEOPROBE

Date Started	9/18/15	Location	N: 99,651 E: 1,291,567	Ground Elevation:	Approx. 79.9 feet
Date Completed	9/18/15			Typical Run Length	5 feet
Total Depth (ft)	15.0	Drilling Company:	ESN Northwest	Hole Diameter:	3 inches



NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

	2" Plastic Tube - No Soil Recovery		Piezometer Screen and Sand Filter
	2" Plastic Tube with Soil Recovery		Bentonite-Cement Grout
	Ground Water Level ATD		Bentonite Chips/Pellets
	Ground Water Level in Well		Bentonite Grout

Phase II ESA
Pacific Right Bank Levee Setback Project
Pacific, Washington

LOG OF GEOPROBE MW-2-15

May 2016

21-1-22055-007

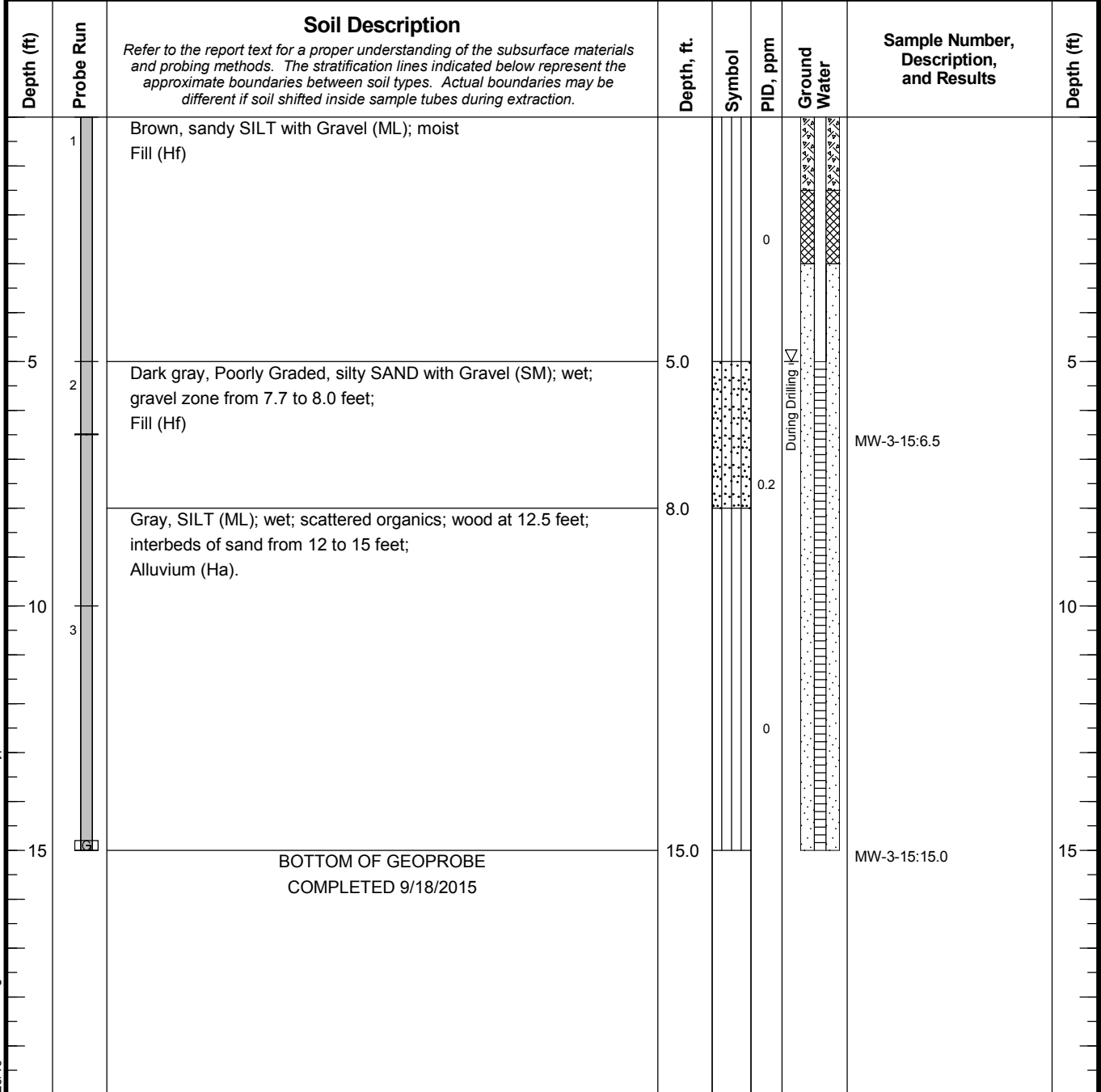
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FIG. A-29

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started 9/18/15	Location N: 99,428 E: 1,291,867	Ground Elevation: Approx. 80.3 feet
Date Completed 9/18/15		Typical Run Length 5 feet
Total Depth (ft) 15.0	Drilling Company: ESN Northwest	Hole Diameter: 3 inches



NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

	2" Plastic Tube - No Soil Recovery		Piezometer Screen and Sand Filter
	2" Plastic Tube with Soil Recovery		Bentonite-Cement Grout
	Ground Water Level ATD		Bentonite Chips/Pellets
	Ground Water Level in Well		Bentonite Grout

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Pacific, Washington

LOG OF GEOPROBE MW-3-15

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21-1-22055-007

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FIG. A-30

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started	9/22/15	Location	N: 99,166 E: 1,291,488	Ground Elevation:	Approx. 80.1 feet
Date Completed	9/22/15			Typical Run Length	5 feet
Total Depth (ft)	15.0	Drilling Company:	ESN Northwest	Hole Diameter:	3 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
1	1	Dark brown, SILT with Sand and Gravel (ML); wet; wood at 5-7 feet; Fill (Hf)			0.2			
5	2							5
10	3	Dark gray, Poorly Graded, SAND with Gravel (SP); wet; medium to coarse sand; subrounded to subangular gravel; Fill (Hf)	8.0		0		MW-4-15:6.0	10
15		Brown, SILT (ML); wet; scattered organics; Alluvium (Ha).	12.0		0			15
		BOTTOM OF GEOPROBE COMPLETED 9/22/2015	15.0				MW-4-15:14.5	

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

	2" Plastic Tube - No Soil Recovery		Piezometer Screen and Sand Filter
	2" Plastic Tube with Soil Recovery		Bentonite-Cement Grout
	Ground Water Level ATD		Bentonite Chips/Pellets
	Ground Water Level in Well		Bentonite Grout

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Pacific, Washington

LOG OF GEOPROBE MW-4-15

May 2016

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FIG. A-31

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started	9/22/15	Location	N: 99,048 E: 1,291,888	Ground Elevation:	Approx. 81.4 feet
Date Completed	9/22/15			Typical Run Length	5 feet
Total Depth (ft)	15.0	Drilling Company:	ESN Northwest	Hole Diameter:	3 inches

Depth (ft)	Probe Run	Soil Description	Depth, ft.	Symbol	PID, ppm	Ground Water	Sample Number, Description, and Results	Depth (ft)
		Refer to the report text for a proper understanding of the subsurface materials and probing methods. The stratification lines indicated below represent the approximate boundaries between soil types. Actual boundaries may be different if soil shifted inside sample tubes during extraction.						
1	1	Brown, Gravelly SILT; (ML); moist; subangular to angular gravel; Fill (Hf)			0			
5	2				0.2		MW-5-15:5.0	5
10	3	Dark gray, Poorly Graded, SAND with Gravel (SP); wet; medium to coarse sand; subrounded to subangular gravel; Alluvium (Ha)	10.0		0.3		MW-5-15:GW	10
15			15.0				MW-5-15:12.5	15
		BOTTOM OF GEOPROBE COMPLETED 9/22/2015						

NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

	2" Plastic Tube - No Soil Recovery		Piezometer Screen and Sand Filter
	2" Plastic Tube with Soil Recovery		Bentonite-Cement Grout
	Ground Water Level ATD		Bentonite Chips/Pellets
	Ground Water Level in Well		Bentonite Grout

Phase II ESA

Pacific Right Bank Levee Setback Project
Pacific, Washington

LOG OF GEOPROBE MW-5-15

May 2016

21-1-22055-007

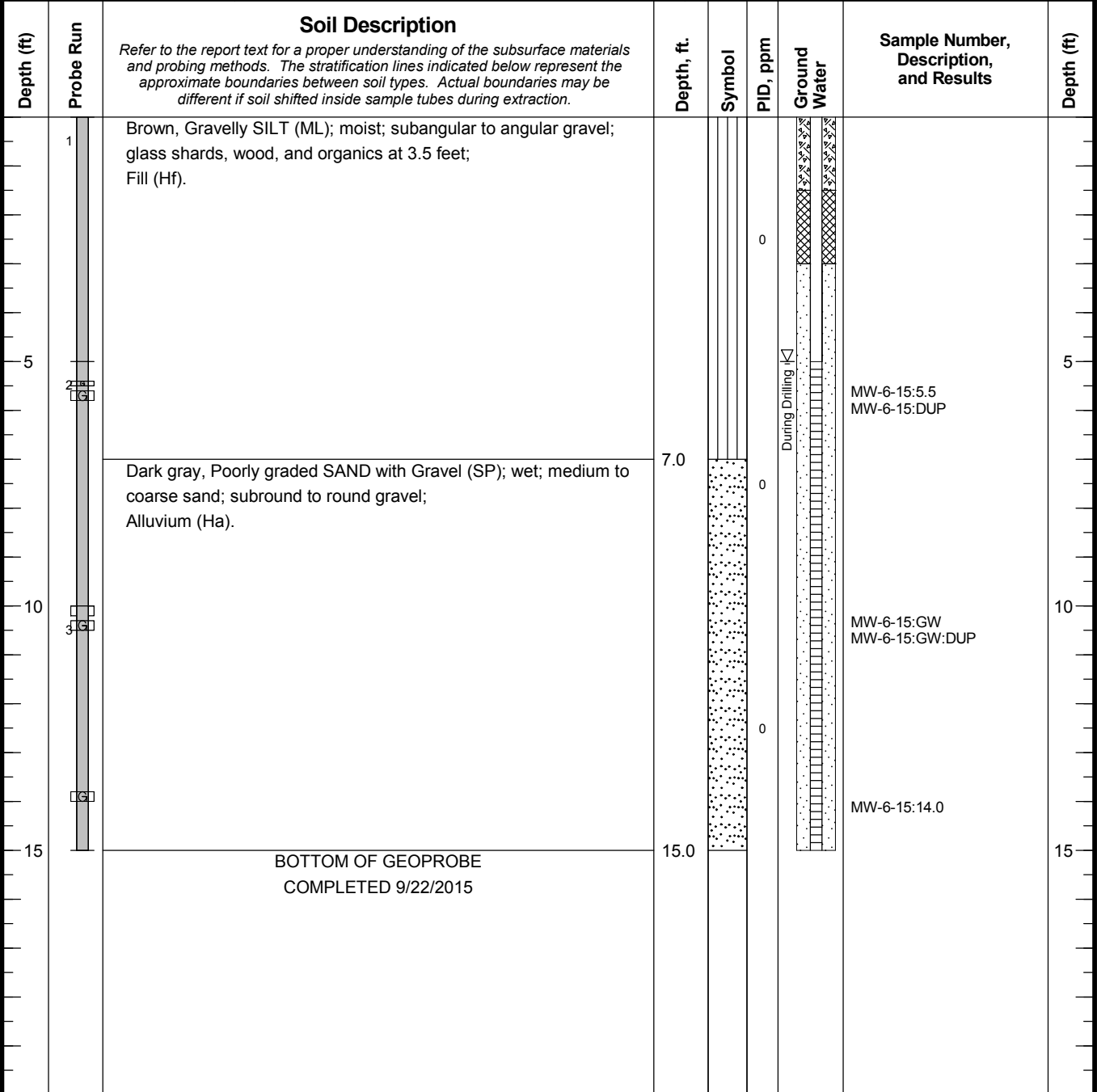
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FIG. A-32

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

LOG OF GEOPROBE

Date Started	9/22/15	Location	N: 98,763 E: 1,291,757	Ground Elevation:	Approx. 83.8 feet
Date Completed	9/22/15			Typical Run Length	5 feet
Total Depth (ft)	15.0	Drilling Company:	ESN Northwest	Hole Diameter:	3 inches



NOTES

- In some cases where recovery was low in the upper part of the run, the soil sample may have slid down in the tube prior to removal from the ground.
- Groundwater level, if indicated above, was estimated during probing and should be considered approximate.
- Refer to KEY for definitions and explanation of symbols.
- CT = corrosion test sample; TR = thermal resistivity sample; EN = environmental sample; GE = geotechnical sample; AR = archeological sample.

LEGEND

	2" Plastic Tube - No Soil Recovery		Piezometer Screen and Sand Filter
	2" Plastic Tube with Soil Recovery		Bentonite-Cement Grout
	Ground Water Level ATD		Bentonite Chips/Pellets
	Ground Water Level in Well		Bentonite Grout

Phase II ESA

Pacific Right Bank Levee Setback Project
Pacific, Washington

LOG OF GEOPROBE MW-6-15

May 2016

21-1-22055-007

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FIG. A-33

GEOPROBE WELL 21-22055.GPJ 21-20447.GPJ 5/26/16
Typ: Rev: EVP Log: EVP

APPENDIX B

FREMONT ANALYTICAL, INC. LABORATORY REPORTS



3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Shannon & Wilson

Ed Ptak
400 N. 34th Street, Suite 100
Seattle, WA 98103

RE: Pacific Park
Lab ID: 1509270

October 03, 2015

Attention Ed Ptak:

Fremont Analytical, Inc. received 36 sample(s) on 9/18/2015 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Dissolved Mercury by EPA Method 245.1
Dissolved Metals by EPA Method 200.8
Gasoline by NWTPH-Gx
Herbicides by EPA Method 8151A
Mercury by EPA Method 245.1
Mercury by EPA Method 7471
Organochlorine Pesticides by EPA Method 8081
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)
Sample Moisture (Percent Moisture)
Semi-Volatile Organic Compounds by EPA Method 8270
Total Metals by EPA Method 200.8
Total Metals by EPA Method 6020
Volatile Organic Compounds by EPA Method 8260

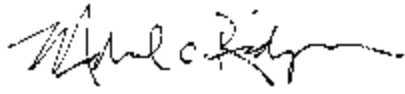
This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Ridgeway". The signature is fluid and cursive, with a prominent initial "M" and a long, sweeping underline.

Mike Ridgeway
President

CLIENT: Shannon & Wilson
Project: Pacific Park
Lab Order: 1509270

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1509270-001	GP-1-15:5.0	09/17/2015 9:40 AM	09/18/2015 5:55 PM
1509270-002	GP-1-15:13.5	09/17/2015 9:45 AM	09/18/2015 5:55 PM
1509270-003	GP-2-15:4.5	09/17/2015 10:10 AM	09/18/2015 5:55 PM
1509270-004	GP-2-15:14.0	09/17/2015 10:20 AM	09/18/2015 5:55 PM
1509270-005	GP-3-15:9.0	09/17/2015 11:10 AM	09/18/2015 5:55 PM
1509270-006	GP-3-15:12.5	09/17/2015 11:00 AM	09/18/2015 5:55 PM
1509270-007	GP-4-15:5.0	09/17/2015 11:30 AM	09/18/2015 5:55 PM
1509270-008	GP-4-15:13.0	09/17/2015 11:40 AM	09/18/2015 5:55 PM
1509270-009	GP-5-15:5.0	09/17/2015 12:15 PM	09/18/2015 5:55 PM
1509270-010	GP-5-15:13.0	09/17/2015 12:25 PM	09/18/2015 5:55 PM
1509270-011	GP-5-15:DUP	09/17/2015 11:55 AM	09/18/2015 5:55 PM
1509270-012	GP-6-15:7.5	09/17/2015 12:50 PM	09/18/2015 5:55 PM
1509270-013	GP-6-15:14.0	09/17/2015 1:05 PM	09/18/2015 5:55 PM
1509270-014	GP-7-15:5.0	09/17/2015 1:55 PM	09/18/2015 5:55 PM
1509270-015	GP-7-15:14.0	09/17/2015 1:40 PM	09/18/2015 5:55 PM
1509270-016	GP-8-15:5.0	09/17/2015 2:05 PM	09/18/2015 5:55 PM
1509270-017	GP-8-15:14.5	09/17/2015 2:10 PM	09/18/2015 5:55 PM
1509270-018	GP-8-15:DUP	09/17/2015 1:06 PM	09/18/2015 5:55 PM
1509270-019	GP-9-15:5.0	09/17/2015 2:45 PM	09/18/2015 5:55 PM
1509270-020	GP-9-15:12.5	09/17/2015 2:50 PM	09/18/2015 5:55 PM
1509270-021	GP-10-15:4.5	09/17/2015 3:10 PM	09/18/2015 5:55 PM
1509270-022	GP-10-15:13.0	09/17/2015 3:20 PM	09/18/2015 5:55 PM
1509270-023	GP-11-15:4.5	09/17/2015 3:45 PM	09/18/2015 5:55 PM
1509270-024	GP-11-15:14.5	09/17/2015 3:50 PM	09/18/2015 5:55 PM
1509270-025	GP-12-15:4.0	09/18/2015 8:50 AM	09/18/2015 5:55 PM
1509270-026	GP-12-15:13.5	09/18/2015 8:55 AM	09/18/2015 5:55 PM
1509270-027	GP-12-15:GW	09/18/2015 9:15 AM	09/18/2015 5:55 PM
1509270-028	MW-1-15:6.0	09/18/2015 10:05 AM	09/18/2015 5:55 PM
1509270-029	MW-1-15:12.0	09/18/2015 10:10 AM	09/18/2015 5:55 PM
1509270-030	MW-2-15:3.0	09/18/2015 12:05 PM	09/18/2015 5:55 PM
1509270-031	MW-2-15:13.0	09/18/2015 12:15 PM	09/18/2015 5:55 PM
1509270-032	MW-2-15:GW	09/18/2015 12:20 PM	09/18/2015 5:55 PM
1509270-033	MW-3-15:6.5	09/18/2015 1:55 PM	09/18/2015 5:55 PM
1509270-034	MW-3-15:15.0	09/18/2015 2:05 PM	09/18/2015 5:55 PM
1509270-035	MW-3-15:GW	09/18/2015 2:55 PM	09/18/2015 5:55 PM
1509270-036	Trip Blank	09/10/2015 9:10 AM	09/18/2015 5:55 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: Shannon & Wilson**Project:** Pacific Park

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below LOQ
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509270-001

Matrix: Soil

Client Sample ID: GP-1-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
----------	--------	----	------	-------	----	---------------

Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	41.2		µg/Kg-dry	1	9/29/2015 7:47:00 PM
2,4-D	ND	35.3		µg/Kg-dry	1	9/29/2015 7:47:00 PM
2,4-DP	ND	29.4		µg/Kg-dry	1	9/29/2015 7:47:00 PM
2,4,5-TP (Silvex)	ND	23.5		µg/Kg-dry	1	9/29/2015 7:47:00 PM
2,4,5-T	ND	58.9		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Dinoseb	ND	35.3		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Dalapon	ND	235		µg/Kg-dry	1	9/29/2015 7:47:00 PM
2,4-DB	ND	29.4		µg/Kg-dry	1	9/29/2015 7:47:00 PM
MCPP	ND	5,180		µg/Kg-dry	1	9/29/2015 7:47:00 PM
MCPA	ND	330		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Picloram	ND	58.9		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Bentazon	ND	41.2		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Chloramben	ND	23.5		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Acifluorfen	ND	94.2		µg/Kg-dry	1	9/29/2015 7:47:00 PM
3,5-Dichlorobenzoic acid	ND	47.1		µg/Kg-dry	1	9/29/2015 7:47:00 PM
4-Nitrophenol	ND	35.3		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Dacthal (DCPA)	ND	35.3		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Surr: 2,4-Dichlorophenylacetic acid	96.9	20.1-168		%REC	1	9/29/2015 7:47:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Alpha BHC	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Beta BHC	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Gamma BHC (Lindane)	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Delta BHC	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Heptachlor	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Aldrin	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Heptachlor epoxide	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
gamma-Chlordane	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Endosulfan I	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
alpha-Chlordane	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Dieldrin	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
4,4'-DDE	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Endrin	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Endosulfan II	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM
4,4'-DDD	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Endrin aldehyde	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Endosulfan sulfate	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509270-001

Matrix: Soil

Client Sample ID: GP-1-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

4,4'-DDT	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Endrin ketone	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Methoxychlor	ND	0.0572		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Surr: Decachlorobiphenyl	90.0	26.5-158		%REC	1	9/24/2015 7:32:00 AM
Surr: Tetrachloro-m-xylene	59.9	11-150		%REC	1	9/24/2015 7:32:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	23.0		mg/Kg-dry	1	9/23/2015 1:51:00 AM
Heavy Oil	ND	57.4		mg/Kg-dry	1	9/23/2015 1:51:00 AM
Surr: 2-Fluorobiphenyl	89.9	50-150		%REC	1	9/23/2015 1:51:00 AM
Surr: o-Terphenyl	87.9	50-150		%REC	1	9/23/2015 1:51:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Bis(2-chloroethyl) ether	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2-Chlorophenol	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
1,3-Dichlorobenzene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
1,4-Dichlorobenzene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
1,2-Dichlorobenzene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Benzyl alcohol	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2-Methylphenol (o-cresol)	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Hexachloroethane	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
N-Nitrosodi-n-propylamine	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Nitrobenzene	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Isophorone	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
4-Methylphenol (p-cresol)	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2-Nitrophenol	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2,4-Dimethylphenol	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Bis(2-chloroethoxy)methane	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2,4-Dichlorophenol	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
1,2,4-Trichlorobenzene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Naphthalene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
4-Chloroaniline	ND	553		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Hexachlorobutadiene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
4-Chloro-3-methylphenol	ND	553		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2-Methylnaphthalene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
1-Methylnaphthalene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509270-001

Matrix: Soil

Client Sample ID: GP-1-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Hexachlorocyclopentadiene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2,4,6-Trichlorophenol	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2,4,5-Trichlorophenol	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2-Chloronaphthalene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2-Nitroaniline	ND	553		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Acenaphthene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Dimethylphthalate	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2,6-Dinitrotoluene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Acenaphthylene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2,4-Dinitrophenol	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Dibenzofuran	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2,4-Dinitrotoluene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
4-Nitrophenol	ND	553		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Fluorene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
4-Chlorophenyl phenyl ether	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Diethylphthalate	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
4,6-Dinitro-2-methylphenol	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
4-Bromophenyl phenyl ether	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Hexachlorobenzene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Pentachlorophenol	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Phenanthrene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Anthracene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Carbazole	ND	553		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Di-n-butylphthalate	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Fluoranthene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Pyrene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Butyl Benzylphthalate	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
bis(2-Ethylhexyl)adipate	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Benz (a) anthracene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Chrysene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
bis (2-Ethylhexyl) phthalate	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Di-n-octyl phthalate	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Benzo (b) fluoranthene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Benzo (k) fluoranthene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Benzo (a) pyrene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Indeno (1,2,3-cd) pyrene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Dibenz (a,h) anthracene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Benzo (g,h,i) perylene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Surr: 2,4,6-Tribromophenol	63.6	11.1-127		%REC	1	9/23/2015 9:28:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509270-001

Matrix: Soil

Client Sample ID: GP-1-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	20.3	16.1-150		%REC	1	9/23/2015 9:28:00 PM
Surr: Nitrobenzene-d5	9.18	10-133	S	%REC	1	9/23/2015 9:28:00 PM
Surr: Phenol-d6	51.0	11.6-133		%REC	1	9/23/2015 9:28:00 PM
Surr: p-Terphenyl	91.9	21.8-150		%REC	1	9/23/2015 9:28:00 PM

NOTES:

S - Outlying surrogate recovery observed, a duplicate analysis was performed with similar results indicating a possible matrix effect.

Gasoline by NWTPH-Gx

Batch ID: 11902

Analyst: BC

Gasoline	ND	2.96		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Surr: Toluene-d8	98.6	65-135		%REC	1	9/22/2015 5:44:00 PM
Surr: 4-Bromofluorobenzene	103	65-135		%REC	1	9/22/2015 5:44:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11902

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0355		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Chloromethane	ND	0.0355		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Vinyl chloride	ND	0.00118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Bromomethane	ND	0.0533		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Chloroethane	ND	0.0355		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,1-Dichloroethene	ND	0.0296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Methylene chloride	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
trans-1,2-Dichloroethene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,1-Dichloroethane	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
2,2-Dichloropropane	ND	0.0296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
cis-1,2-Dichloroethene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Chloroform	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,1-Dichloropropene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Carbon tetrachloride	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2-Dichloroethane (EDC)	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Benzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Trichloroethene (TCE)	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2-Dichloropropane	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Bromodichloromethane	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Dibromomethane	ND	0.0237		mg/Kg-dry	1	9/22/2015 5:44:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509270-001

Matrix: Soil

Client Sample ID: GP-1-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11902

Analyst: BC

cis-1,3-Dichloropropene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Toluene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
trans-1,3-Dichloropropylene	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,1,2-Trichloroethane	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,3-Dichloropropane	ND	0.0296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Tetrachloroethene (PCE)	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Dibromochloromethane	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2-Dibromoethane (EDB)	ND	0.00296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Chlorobenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Ethylbenzene	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
m,p-Xylene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
o-Xylene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Styrene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Isopropylbenzene	ND	0.0474		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Bromoform	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
n-Propylbenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Bromobenzene	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,3,5-Trimethylbenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
2-Chlorotoluene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
4-Chlorotoluene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
tert-Butylbenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2,3-Trichloropropane	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2,4-Trichlorobenzene	ND	0.0296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
sec-Butylbenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
4-Isopropyltoluene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,3-Dichlorobenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,4-Dichlorobenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
n-Butylbenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2-Dichlorobenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2-Dibromo-3-chloropropane	ND	0.296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2,4-Trimethylbenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Hexachlorobutadiene	ND	0.0592		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Naphthalene	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2,3-Trichlorobenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Surr: Dibromofluoromethane	94.0	56.5-129		%REC	1	9/22/2015 5:44:00 PM
Surr: Toluene-d8	98.8	64.3-131		%REC	1	9/22/2015 5:44:00 PM
Surr: 1-Bromo-4-fluorobenzene	99.0	63.1-141		%REC	1	9/22/2015 5:44:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509270-001

Matrix: Soil

Client Sample ID: GP-1-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.289		mg/Kg-dry	1	9/22/2015 12:54:22 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	1.69	0.0866		mg/Kg-dry	1	9/21/2015 5:57:17 PM
Barium	22.9	0.433		mg/Kg-dry	1	9/21/2015 5:57:17 PM
Cadmium	ND	0.173		mg/Kg-dry	1	9/21/2015 5:57:17 PM
Chromium	9.79	0.0866		mg/Kg-dry	1	9/21/2015 5:57:17 PM
Lead	1.28	0.173		mg/Kg-dry	1	9/21/2015 5:57:17 PM
Selenium	1.18	0.433		mg/Kg-dry	1	9/21/2015 5:57:17 PM
Silver	ND	0.0866		mg/Kg-dry	1	9/21/2015 5:57:17 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	16.9			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:45:00 AM

Project: Pacific Park

Lab ID: 1509270-002

Matrix: Soil

Client Sample ID: GP-1-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	43.7		µg/Kg-dry	1	9/29/2015 8:21:00 PM
2,4-D	ND	37.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
2,4-DP	ND	31.2		µg/Kg-dry	1	9/29/2015 8:21:00 PM
2,4,5-TP (Silvex)	ND	25.0		µg/Kg-dry	1	9/29/2015 8:21:00 PM
2,4,5-T	ND	62.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Dinoseb	ND	37.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Dalapon	ND	250		µg/Kg-dry	1	9/29/2015 8:21:00 PM
2,4-DB	ND	31.2		µg/Kg-dry	1	9/29/2015 8:21:00 PM
MCP	ND	5,500		µg/Kg-dry	1	9/29/2015 8:21:00 PM
MCPA	ND	350		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Picloram	ND	62.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Bentazon	ND	43.7		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Chloramben	ND	25.0		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Acifluorfen	ND	100		µg/Kg-dry	1	9/29/2015 8:21:00 PM
3,5-Dichlorobenzoic acid	ND	50.0		µg/Kg-dry	1	9/29/2015 8:21:00 PM
4-Nitrophenol	ND	37.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Dacthal (DCPA)	ND	37.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Surr: 2,4-Dichlorophenylacetic acid	96.6	20.1-168		%REC	1	9/29/2015 8:21:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Alpha BHC	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Beta BHC	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Gamma BHC (Lindane)	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Delta BHC	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Heptachlor	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Aldrin	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Heptachlor epoxide	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
gamma-Chlordane	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Endosulfan I	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
alpha-Chlordane	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Dieldrin	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
4,4'-DDE	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Endrin	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Endosulfan II	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM
4,4'-DDD	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Endrin aldehyde	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Endosulfan sulfate	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:45:00 AM

Project: Pacific Park

Lab ID: 1509270-002

Matrix: Soil

Client Sample ID: GP-1-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

4,4'-DDT	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Endrin ketone	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Methoxychlor	ND	0.0615		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Surr: Decachlorobiphenyl	88.8	26.5-158		%REC	1	9/24/2015 7:43:00 AM
Surr: Tetrachloro-m-xylene	60.3	11-150		%REC	1	9/24/2015 7:43:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	25.1		mg/Kg-dry	1	9/23/2015 8:26:00 AM
Heavy Oil	ND	62.8		mg/Kg-dry	1	9/23/2015 8:26:00 AM
Surr: 2-Fluorobiphenyl	81.6	50-150		%REC	1	9/23/2015 8:26:00 AM
Surr: o-Terphenyl	77.2	50-150		%REC	1	9/23/2015 8:26:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Bis(2-chloroethyl) ether	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2-Chlorophenol	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
1,3-Dichlorobenzene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
1,4-Dichlorobenzene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
1,2-Dichlorobenzene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Benzyl alcohol	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2-Methylphenol (o-cresol)	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Hexachloroethane	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
N-Nitrosodi-n-propylamine	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Nitrobenzene	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Isophorone	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
4-Methylphenol (p-cresol)	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2-Nitrophenol	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2,4-Dimethylphenol	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Bis(2-chloroethoxy)methane	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2,4-Dichlorophenol	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
1,2,4-Trichlorobenzene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Naphthalene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
4-Chloroaniline	ND	630		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Hexachlorobutadiene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
4-Chloro-3-methylphenol	ND	630		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2-Methylnaphthalene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
1-Methylnaphthalene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:45:00 AM

Project: Pacific Park

Lab ID: 1509270-002

Matrix: Soil

Client Sample ID: GP-1-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
Hexachlorocyclopentadiene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2,4,6-Trichlorophenol	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2,4,5-Trichlorophenol	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2-Chloronaphthalene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2-Nitroaniline	ND	630		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Acenaphthene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Dimethylphthalate	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2,6-Dinitrotoluene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Acenaphthylene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2,4-Dinitrophenol	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Dibenzofuran	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2,4-Dinitrotoluene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
4-Nitrophenol	ND	630		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Fluorene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
4-Chlorophenyl phenyl ether	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Diethylphthalate	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
4,6-Dinitro-2-methylphenol	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
4-Bromophenyl phenyl ether	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Hexachlorobenzene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Pentachlorophenol	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Phenanthrene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Anthracene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Carbazole	ND	630		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Di-n-butylphthalate	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Fluoranthene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Pyrene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Butyl Benzylphthalate	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
bis(2-Ethylhexyl)adipate	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Benz (a) anthracene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Chrysene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
bis (2-Ethylhexyl) phthalate	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Di-n-octyl phthalate	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Benzo (b) fluoranthene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Benzo (k) fluoranthene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Benzo (a) pyrene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Indeno (1,2,3-cd) pyrene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Dibenz (a,h) anthracene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Benzo (g,h,i) perylene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Surr: 2,4,6-Tribromophenol	62.8	11.1-127		%REC	1	9/23/2015 10:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:45:00 AM

Project: Pacific Park

Lab ID: 1509270-002

Matrix: Soil

Client Sample ID: GP-1-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
Surr: 2-Fluorobiphenyl	60.7	16.1-150		%REC	1	9/23/2015 10:12:00 PM
Surr: Nitrobenzene-d5	26.3	10-133		%REC	1	9/23/2015 10:12:00 PM
Surr: Phenol-d6	65.8	11.6-133		%REC	1	9/23/2015 10:12:00 PM
Surr: p-Terphenyl	90.3	21.8-150		%REC	1	9/23/2015 10:12:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11902 Analyst: BC

Gasoline	ND	3.44		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Surr: Toluene-d8	98.8	65-135		%REC	1	9/22/2015 6:12:00 PM
Surr: 4-Bromofluorobenzene	103	65-135		%REC	1	9/22/2015 6:12:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11902 Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0413		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Chloromethane	ND	0.0413		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Vinyl chloride	ND	0.00138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Bromomethane	ND	0.0619		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Chloroethane	ND	0.0413		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,1-Dichloroethene	ND	0.0344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Methylene chloride	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
trans-1,2-Dichloroethene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,1-Dichloroethane	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
2,2-Dichloropropane	ND	0.0344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
cis-1,2-Dichloroethene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Chloroform	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,1-Dichloropropene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Carbon tetrachloride	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2-Dichloroethane (EDC)	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Benzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Trichloroethene (TCE)	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2-Dichloropropane	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Bromodichloromethane	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Dibromomethane	ND	0.0275		mg/Kg-dry	1	9/22/2015 6:12:00 PM
cis-1,3-Dichloropropene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Toluene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
trans-1,3-Dichloropropylene	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:45:00 AM

Project: Pacific Park

Lab ID: 1509270-002

Matrix: Soil

Client Sample ID: GP-1-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11902

Analyst: BC

1,1,2-Trichloroethane	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,3-Dichloropropane	ND	0.0344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Tetrachloroethene (PCE)	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Dibromochloromethane	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2-Dibromoethane (EDB)	ND	0.00344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Chlorobenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Ethylbenzene	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM
m,p-Xylene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
o-Xylene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Styrene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Isopropylbenzene	ND	0.0550		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Bromoform	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
n-Propylbenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Bromobenzene	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,3,5-Trimethylbenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
2-Chlorotoluene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
4-Chlorotoluene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
tert-Butylbenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2,3-Trichloropropane	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2,4-Trichlorobenzene	ND	0.0344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
sec-Butylbenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
4-Isopropyltoluene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,3-Dichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,4-Dichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
n-Butylbenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2-Dichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2-Dibromo-3-chloropropane	ND	0.344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2,4-Trimethylbenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Hexachlorobutadiene	ND	0.0688		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Naphthalene	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2,3-Trichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Surr: Dibromofluoromethane	94.9	56.5-129		%REC	1	9/22/2015 6:12:00 PM
Surr: Toluene-d8	99.4	64.3-131		%REC	1	9/22/2015 6:12:00 PM
Surr: 1-Bromo-4-fluorobenzene	99.3	63.1-141		%REC	1	9/22/2015 6:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:45:00 AM

Project: Pacific Park

Lab ID: 1509270-002

Matrix: Soil

Client Sample ID: GP-1-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.299		mg/Kg-dry	1	9/22/2015 12:55:58 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	1.40	0.0911		mg/Kg-dry	1	9/21/2015 6:00:49 PM
Barium	15.4	0.456		mg/Kg-dry	1	9/21/2015 6:00:49 PM
Cadmium	ND	0.182		mg/Kg-dry	1	9/21/2015 6:00:49 PM
Chromium	12.6	0.0911		mg/Kg-dry	1	9/21/2015 6:00:49 PM
Lead	1.22	0.182		mg/Kg-dry	1	9/21/2015 6:00:49 PM
Selenium	1.26	0.456		mg/Kg-dry	1	9/21/2015 6:00:49 PM
Silver	ND	0.0911		mg/Kg-dry	1	9/21/2015 6:00:49 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	21.0			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-003

Matrix: Soil

Client Sample ID: GP-2-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	36.4		µg/Kg-dry	1	9/29/2015 8:54:00 PM
2,4-D	ND	31.2		µg/Kg-dry	1	9/29/2015 8:54:00 PM
2,4-DP	ND	26.0		µg/Kg-dry	1	9/29/2015 8:54:00 PM
2,4,5-TP (Silvex)	ND	20.8		µg/Kg-dry	1	9/29/2015 8:54:00 PM
2,4,5-T	ND	52.0		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Dinoseb	ND	31.2		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Dalapon	ND	208		µg/Kg-dry	1	9/29/2015 8:54:00 PM
2,4-DB	ND	26.0		µg/Kg-dry	1	9/29/2015 8:54:00 PM
MCPP	ND	4,580		µg/Kg-dry	1	9/29/2015 8:54:00 PM
MCPA	ND	291		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Picloram	ND	52.0		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Bentazon	ND	36.4		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Chloramben	23.0	20.8		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Acifluorfen	ND	83.2		µg/Kg-dry	1	9/29/2015 8:54:00 PM
3,5-Dichlorobenzoic acid	ND	41.6		µg/Kg-dry	1	9/29/2015 8:54:00 PM
4-Nitrophenol	ND	31.2		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Dacthal (DCPA)	ND	31.2		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Surr: 2,4-Dichlorophenylacetic acid	98.4	20.1-168		%REC	1	9/29/2015 8:54:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Alpha BHC	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Beta BHC	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Gamma BHC (Lindane)	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Delta BHC	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Heptachlor	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Aldrin	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Heptachlor epoxide	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
gamma-Chlordane	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Endosulfan I	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
alpha-Chlordane	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Dieldrin	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
4,4'-DDE	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Endrin	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Endosulfan II	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM
4,4'-DDD	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Endrin aldehyde	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Endosulfan sulfate	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-003

Matrix: Soil

Client Sample ID: GP-2-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Endrin ketone	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Methoxychlor	ND	0.0511		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Surr: Decachlorobiphenyl	72.6	26.5-158		%REC	1	9/24/2015 7:54:00 AM
Surr: Tetrachloro-m-xylene	55.3	11-150		%REC	1	9/24/2015 7:54:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11903		Analyst: AK
Diesel (Fuel Oil)	ND	19.8		mg/Kg-dry	1	9/23/2015 8:56:00 AM
Heavy Oil	74.8	49.4		mg/Kg-dry	1	9/23/2015 8:56:00 AM
Surr: 2-Fluorobiphenyl	123	50-150		%REC	1	9/23/2015 8:56:00 AM
Surr: o-Terphenyl	120	50-150		%REC	1	9/23/2015 8:56:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Phenol	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Bis(2-chloroethyl) ether	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2-Chlorophenol	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
1,3-Dichlorobenzene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
1,4-Dichlorobenzene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
1,2-Dichlorobenzene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Benzyl alcohol	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2-Methylphenol (o-cresol)	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Hexachloroethane	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
N-Nitrosodi-n-propylamine	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Nitrobenzene	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Isophorone	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
4-Methylphenol (p-cresol)	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2-Nitrophenol	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2,4-Dimethylphenol	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Bis(2-chloroethoxy)methane	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2,4-Dichlorophenol	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
1,2,4-Trichlorobenzene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Naphthalene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
4-Chloroaniline	ND	538		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Hexachlorobutadiene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
4-Chloro-3-methylphenol	ND	538		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2-Methylnaphthalene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
1-Methylnaphthalene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-003

Matrix: Soil

Client Sample ID: GP-2-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904	Analyst: NG	
Hexachlorocyclopentadiene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2,4,6-Trichlorophenol	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2,4,5-Trichlorophenol	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2-Chloronaphthalene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2-Nitroaniline	ND	538		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Acenaphthene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Dimethylphthalate	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2,6-Dinitrotoluene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Acenaphthylene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2,4-Dinitrophenol	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Dibenzofuran	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2,4-Dinitrotoluene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
4-Nitrophenol	ND	538		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Fluorene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
4-Chlorophenyl phenyl ether	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Diethylphthalate	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
4,6-Dinitro-2-methylphenol	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
4-Bromophenyl phenyl ether	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Hexachlorobenzene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Pentachlorophenol	197	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Phenanthrene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Anthracene	90.9	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Carbazole	ND	538		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Di-n-butylphthalate	133	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Fluoranthene	127	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Pyrene	157	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Butyl Benzylphthalate	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
bis(2-Ethylhexyl)adipate	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Benz (a) anthracene	137	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Chrysene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
bis (2-Ethylhexyl) phthalate	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Di-n-octyl phthalate	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Benzo (b) fluoranthene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Benzo (k) fluoranthene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Benzo (a) pyrene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Indeno (1,2,3-cd) pyrene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Dibenz (a,h) anthracene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Benzo (g,h,i) perylene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Surr: 2,4,6-Tribromophenol	68.1	11.1-127		%REC	1	9/23/2015 10:57:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-003

Matrix: Soil

Client Sample ID: GP-2-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	69.8	16.1-150	%REC	1	9/23/2015 10:57:00 PM
Surr: Nitrobenzene-d5	45.0	10-133	%REC	1	9/23/2015 10:57:00 PM
Surr: Phenol-d6	58.9	11.6-133	%REC	1	9/23/2015 10:57:00 PM
Surr: p-Terphenyl	94.2	21.8-150	%REC	1	9/23/2015 10:57:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11902

Analyst: BC

Gasoline	ND	3.19	mg/Kg-dry	1	9/22/2015 6:41:00 PM
Surr: Toluene-d8	98.3	65-135	%REC	1	9/22/2015 6:41:00 PM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/22/2015 6:41:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11902

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0383	mg/Kg-dry	1	9/22/2015 6:41:00 PM
Chloromethane	ND	0.0383	mg/Kg-dry	1	9/22/2015 6:41:00 PM
Vinyl chloride	ND	0.00128	mg/Kg-dry	1	9/22/2015 6:41:00 PM
Bromomethane	ND	0.0574	mg/Kg-dry	1	9/22/2015 6:41:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0319	mg/Kg-dry	1	9/22/2015 6:41:00 PM
Chloroethane	ND	0.0383	mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,1-Dichloroethene	ND	0.0319	mg/Kg-dry	1	9/22/2015 6:41:00 PM
Methylene chloride	ND	0.0128	mg/Kg-dry	1	9/22/2015 6:41:00 PM
trans-1,2-Dichloroethene	ND	0.0128	mg/Kg-dry	1	9/22/2015 6:41:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0319	mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,1-Dichloroethane	ND	0.0128	mg/Kg-dry	1	9/22/2015 6:41:00 PM
2,2-Dichloropropane	ND	0.0319	mg/Kg-dry	1	9/22/2015 6:41:00 PM
cis-1,2-Dichloroethene	ND	0.0128	mg/Kg-dry	1	9/22/2015 6:41:00 PM
Chloroform	ND	0.0128	mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0128	mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,1-Dichloropropene	ND	0.0128	mg/Kg-dry	1	9/22/2015 6:41:00 PM
Carbon tetrachloride	ND	0.0128	mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2-Dichloroethane (EDC)	ND	0.0191	mg/Kg-dry	1	9/22/2015 6:41:00 PM
Benzene	ND	0.0128	mg/Kg-dry	1	9/22/2015 6:41:00 PM
Trichloroethene (TCE)	ND	0.0128	mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2-Dichloropropane	ND	0.0128	mg/Kg-dry	1	9/22/2015 6:41:00 PM
Bromodichloromethane	ND	0.0128	mg/Kg-dry	1	9/22/2015 6:41:00 PM
Dibromomethane	ND	0.0255	mg/Kg-dry	1	9/22/2015 6:41:00 PM
cis-1,3-Dichloropropene	ND	0.0128	mg/Kg-dry	1	9/22/2015 6:41:00 PM
Toluene	ND	0.0128	mg/Kg-dry	1	9/22/2015 6:41:00 PM
trans-1,3-Dichloropropylene	ND	0.0191	mg/Kg-dry	1	9/22/2015 6:41:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-003

Matrix: Soil

Client Sample ID: GP-2-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11902

Analyst: BC

1,1,2-Trichloroethane	ND	0.0191		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,3-Dichloropropane	ND	0.0319		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Tetrachloroethene (PCE)	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Dibromochloromethane	ND	0.0191		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2-Dibromoethane (EDB)	ND	0.00319		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Chlorobenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0191		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Ethylbenzene	ND	0.0191		mg/Kg-dry	1	9/22/2015 6:41:00 PM
m,p-Xylene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
o-Xylene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Styrene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Isopropylbenzene	ND	0.0510		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Bromoform	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
n-Propylbenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Bromobenzene	ND	0.0191		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,3,5-Trimethylbenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
2-Chlorotoluene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
4-Chlorotoluene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
tert-Butylbenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2,3-Trichloropropane	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2,4-Trichlorobenzene	ND	0.0319		mg/Kg-dry	1	9/22/2015 6:41:00 PM
sec-Butylbenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
4-Isopropyltoluene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,3-Dichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,4-Dichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
n-Butylbenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2-Dichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2-Dibromo-3-chloropropane	ND	0.319		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2,4-Trimethylbenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Hexachlorobutadiene	ND	0.0638		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Naphthalene	ND	0.0191		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2,3-Trichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Surr: Dibromofluoromethane	94.6	56.5-129		%REC	1	9/22/2015 6:41:00 PM
Surr: Toluene-d8	98.9	64.3-131		%REC	1	9/22/2015 6:41:00 PM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/22/2015 6:41:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-003

Matrix: Soil

Client Sample ID: GP-2-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.232		mg/Kg-dry	1	9/22/2015 12:57:33 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	3.13	0.0835		mg/Kg-dry	1	9/21/2015 6:04:20 PM
Barium	38.0	0.417		mg/Kg-dry	1	9/21/2015 6:04:20 PM
Cadmium	0.253	0.167		mg/Kg-dry	1	9/21/2015 6:04:20 PM
Chromium	17.5	0.0835		mg/Kg-dry	1	9/21/2015 6:04:20 PM
Lead	22.1	0.167		mg/Kg-dry	1	9/21/2015 6:04:20 PM
Selenium	1.48	0.417		mg/Kg-dry	1	9/21/2015 6:04:20 PM
Silver	ND	0.0835		mg/Kg-dry	1	9/21/2015 6:04:20 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	7.15			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:20:00 AM

Project: Pacific Park

Lab ID: 1509270-004

Matrix: Soil

Client Sample ID: GP-2-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	41.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
2,4-D	ND	35.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
2,4-DP	ND	29.7		µg/Kg-dry	1	9/29/2015 9:11:00 PM
2,4,5-TP (Silvex)	ND	23.8		µg/Kg-dry	1	9/29/2015 9:11:00 PM
2,4,5-T	ND	59.4		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Dinoseb	ND	35.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Dalapon	ND	238		µg/Kg-dry	1	9/29/2015 9:11:00 PM
2,4-DB	ND	29.7		µg/Kg-dry	1	9/29/2015 9:11:00 PM
MCP	ND	5,230		µg/Kg-dry	1	9/29/2015 9:11:00 PM
MCPA	ND	333		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Picloram	ND	59.4		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Bentazon	ND	41.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Chloramben	ND	23.8		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Acifluorfen	ND	95.0		µg/Kg-dry	1	9/29/2015 9:11:00 PM
3,5-Dichlorobenzoic acid	ND	47.5		µg/Kg-dry	1	9/29/2015 9:11:00 PM
4-Nitrophenol	ND	35.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Dacthal (DCPA)	ND	35.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Surr: 2,4-Dichlorophenylacetic acid	98.4	20.1-168		%REC	1	9/29/2015 9:11:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Alpha BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Beta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Gamma BHC (Lindane)	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Delta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Heptachlor	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Aldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Heptachlor epoxide	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
gamma-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Endosulfan I	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
alpha-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Dieldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
4,4'-DDE	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Endrin	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Endosulfan II	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM
4,4'-DDD	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Endrin aldehyde	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Endosulfan sulfate	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:20:00 AM

Project: Pacific Park

Lab ID: 1509270-004

Matrix: Soil

Client Sample ID: GP-2-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

4,4'-DDT	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Endrin ketone	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Methoxychlor	ND	0.0579		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Surr: Decachlorobiphenyl	89.2	26.5-158		%REC	1	9/24/2015 8:05:00 AM
Surr: Tetrachloro-m-xylene	61.1	11-150		%REC	1	9/24/2015 8:05:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	21.2		mg/Kg-dry	1	9/23/2015 9:27:00 AM
Heavy Oil	ND	53.0		mg/Kg-dry	1	9/23/2015 9:27:00 AM
Surr: 2-Fluorobiphenyl	89.7	50-150		%REC	1	9/23/2015 9:27:00 AM
Surr: o-Terphenyl	88.9	50-150		%REC	1	9/23/2015 9:27:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Bis(2-chloroethyl) ether	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2-Chlorophenol	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
1,3-Dichlorobenzene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
1,4-Dichlorobenzene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
1,2-Dichlorobenzene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Benzyl alcohol	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2-Methylphenol (o-cresol)	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Hexachloroethane	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
N-Nitrosodi-n-propylamine	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Nitrobenzene	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Isophorone	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
4-Methylphenol (p-cresol)	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2-Nitrophenol	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2,4-Dimethylphenol	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Bis(2-chloroethoxy)methane	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2,4-Dichlorophenol	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
1,2,4-Trichlorobenzene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Naphthalene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
4-Chloroaniline	ND	578		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Hexachlorobutadiene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
4-Chloro-3-methylphenol	ND	578		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2-Methylnaphthalene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
1-Methylnaphthalene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:20:00 AM

Project: Pacific Park

Lab ID: 1509270-004

Matrix: Soil

Client Sample ID: GP-2-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904	Analyst: NG	
Hexachlorocyclopentadiene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2,4,6-Trichlorophenol	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2,4,5-Trichlorophenol	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2-Chloronaphthalene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2-Nitroaniline	ND	578		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Acenaphthene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Dimethylphthalate	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2,6-Dinitrotoluene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Acenaphthylene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2,4-Dinitrophenol	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Dibenzofuran	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2,4-Dinitrotoluene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
4-Nitrophenol	ND	578		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Fluorene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
4-Chlorophenyl phenyl ether	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Diethylphthalate	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
4,6-Dinitro-2-methylphenol	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
4-Bromophenyl phenyl ether	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Hexachlorobenzene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Pentachlorophenol	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Phenanthrene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Anthracene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Carbazole	ND	578		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Di-n-butylphthalate	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Fluoranthene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Pyrene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Butyl Benzylphthalate	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
bis(2-Ethylhexyl)adipate	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Benz (a) anthracene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Chrysene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
bis (2-Ethylhexyl) phthalate	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Di-n-octyl phthalate	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Benzo (b) fluoranthene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Benzo (k) fluoranthene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Benzo (a) pyrene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Indeno (1,2,3-cd) pyrene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Dibenz (a,h) anthracene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Benzo (g,h,i) perylene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Surr: 2,4,6-Tribromophenol	62.0	11.1-127		%REC	1	9/23/2015 11:19:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:20:00 AM

Project: Pacific Park

Lab ID: 1509270-004

Matrix: Soil

Client Sample ID: GP-2-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904	Analyst: NG	
Surr: 2-Fluorobiphenyl	56.7	16.1-150		%REC	1	9/23/2015 11:19:00 PM
Surr: Nitrobenzene-d5	31.1	10-133		%REC	1	9/23/2015 11:19:00 PM
Surr: Phenol-d6	55.1	11.6-133		%REC	1	9/23/2015 11:19:00 PM
Surr: p-Terphenyl	87.4	21.8-150		%REC	1	9/23/2015 11:19:00 PM
Gasoline by NWTPH-Gx				Batch ID: 11914	Analyst: BC	
Gasoline	ND	3.13		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Surr: Toluene-d8	99.4	65-135		%REC	1	9/23/2015 1:50:00 AM
Surr: 4-Bromofluorobenzene	101	65-135		%REC	1	9/23/2015 1:50:00 AM
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11914	Analyst: BC	
Dichlorodifluoromethane (CFC-12)	ND	0.0375		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Chloromethane	ND	0.0375		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Vinyl chloride	ND	0.00125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Bromomethane	ND	0.0563		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Chloroethane	ND	0.0375		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,1-Dichloroethene	ND	0.0313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Methylene chloride	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
trans-1,2-Dichloroethene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,1-Dichloroethane	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
2,2-Dichloropropane	ND	0.0313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
cis-1,2-Dichloroethene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Chloroform	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,1-Dichloropropene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Carbon tetrachloride	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2-Dichloroethane (EDC)	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Benzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Trichloroethene (TCE)	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2-Dichloropropane	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Bromodichloromethane	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Dibromomethane	ND	0.0250		mg/Kg-dry	1	9/23/2015 1:50:00 AM
cis-1,3-Dichloropropene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Toluene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
trans-1,3-Dichloropropylene	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:20:00 AM

Project: Pacific Park

Lab ID: 1509270-004

Matrix: Soil

Client Sample ID: GP-2-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,3-Dichloropropane	ND	0.0313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Tetrachloroethene (PCE)	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Dibromochloromethane	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2-Dibromoethane (EDB)	ND	0.00313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Chlorobenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Ethylbenzene	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM
m,p-Xylene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
o-Xylene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Styrene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Isopropylbenzene	ND	0.0501		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Bromoform	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
n-Propylbenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Bromobenzene	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,3,5-Trimethylbenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
2-Chlorotoluene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
4-Chlorotoluene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
tert-Butylbenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2,3-Trichloropropane	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2,4-Trichlorobenzene	ND	0.0313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
sec-Butylbenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
4-Isopropyltoluene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,3-Dichlorobenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,4-Dichlorobenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
n-Butylbenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2-Dichlorobenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2-Dibromo-3-chloropropane	ND	0.313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2,4-Trimethylbenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Hexachlorobutadiene	ND	0.0626		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Naphthalene	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2,3-Trichlorobenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Surr: Dibromofluoromethane	96.4	56.5-129		%REC	1	9/23/2015 1:50:00 AM
Surr: Toluene-d8	97.0	64.3-131		%REC	1	9/23/2015 1:50:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.2	63.1-141		%REC	1	9/23/2015 1:50:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:20:00 AM

Project: Pacific Park

Lab ID: 1509270-004

Matrix: Soil

Client Sample ID: GP-2-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.290		mg/Kg-dry	1	9/22/2015 12:59:09 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	2.88	0.0981		mg/Kg-dry	1	9/21/2015 6:07:51 PM
Barium	20.5	0.491		mg/Kg-dry	1	9/21/2015 6:07:51 PM
Cadmium	ND	0.196		mg/Kg-dry	1	9/21/2015 6:07:51 PM
Chromium	16.6	0.0981		mg/Kg-dry	1	9/21/2015 6:07:51 PM
Lead	1.35	0.196		mg/Kg-dry	1	9/21/2015 6:07:51 PM
Selenium	1.24	0.491		mg/Kg-dry	1	9/21/2015 6:07:51 PM
Silver	ND	0.0981		mg/Kg-dry	1	9/21/2015 6:07:51 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	17.2			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:10:00 AM

Project: Pacific Park

Lab ID: 1509270-005

Matrix: Soil

Client Sample ID: GP-3-15:9.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	41.2		µg/Kg-dry	1	9/30/2015 5:46:00 PM
2,4-D	ND	35.3		µg/Kg-dry	1	9/30/2015 5:46:00 PM
2,4-DP	ND	29.5		µg/Kg-dry	1	9/30/2015 5:46:00 PM
2,4,5-TP (Silvex)	ND	23.6		µg/Kg-dry	1	9/30/2015 5:46:00 PM
2,4,5-T	ND	58.9		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Dinoseb	ND	35.3		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Dalapon	ND	236		µg/Kg-dry	1	9/30/2015 5:46:00 PM
2,4-DB	ND	29.5		µg/Kg-dry	1	9/30/2015 5:46:00 PM
MCPP	ND	330		µg/Kg-dry	1	9/30/2015 5:46:00 PM
MCPA	ND	330		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Picloram	ND	58.9		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Bentazon	ND	41.2		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Chloramben	ND	23.6		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Acifluorfen	ND	94.3		µg/Kg-dry	1	9/30/2015 5:46:00 PM
3,5-Dichlorobenzoic acid	ND	47.1		µg/Kg-dry	1	9/30/2015 5:46:00 PM
4-Nitrophenol	ND	35.3		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Dacthal (DCPA)	ND	35.3		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Surr: 2,4-Dichlorophenylacetic acid	25.1	20.1-168		%REC	1	9/30/2015 5:46:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Alpha BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Beta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Gamma BHC (Lindane)	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Delta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Heptachlor	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Aldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Heptachlor epoxide	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
gamma-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Endosulfan I	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
alpha-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Dieldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
4,4'-DDE	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Endrin	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Endosulfan II	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM
4,4'-DDD	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Endrin aldehyde	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Endosulfan sulfate	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:10:00 AM

Project: Pacific Park

Lab ID: 1509270-005

Matrix: Soil

Client Sample ID: GP-3-15:9.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

4,4'-DDT	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Endrin ketone	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Methoxychlor	ND	0.0581		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Surr: Decachlorobiphenyl	88.2	26.5-158		%REC	1	9/24/2015 8:15:00 AM
Surr: Tetrachloro-m-xylene	72.2	11-150		%REC	1	9/24/2015 8:15:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	24.4		mg/Kg-dry	1	9/23/2015 9:58:00 AM
Heavy Oil	ND	61.1		mg/Kg-dry	1	9/23/2015 9:58:00 AM
Surr: 2-Fluorobiphenyl	122	50-150		%REC	1	9/23/2015 9:58:00 AM
Surr: o-Terphenyl	119	50-150		%REC	1	9/23/2015 9:58:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Bis(2-chloroethyl) ether	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2-Chlorophenol	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
1,3-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
1,4-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
1,2-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Benzyl alcohol	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2-Methylphenol (o-cresol)	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Hexachloroethane	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
N-Nitrosodi-n-propylamine	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Nitrobenzene	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Isophorone	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
4-Methylphenol (p-cresol)	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2-Nitrophenol	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2,4-Dimethylphenol	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Bis(2-chloroethoxy)methane	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2,4-Dichlorophenol	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
1,2,4-Trichlorobenzene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Naphthalene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
4-Chloroaniline	ND	594		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Hexachlorobutadiene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
4-Chloro-3-methylphenol	ND	594		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2-Methylnaphthalene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
1-Methylnaphthalene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:10:00 AM

Project: Pacific Park

Lab ID: 1509270-005

Matrix: Soil

Client Sample ID: GP-3-15:9.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
Hexachlorocyclopentadiene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2,4,6-Trichlorophenol	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2,4,5-Trichlorophenol	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2-Chloronaphthalene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2-Nitroaniline	ND	594		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Acenaphthene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Dimethylphthalate	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2,6-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Acenaphthylene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2,4-Dinitrophenol	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Dibenzofuran	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2,4-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
4-Nitrophenol	ND	594		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Fluorene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
4-Chlorophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Diethylphthalate	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
4,6-Dinitro-2-methylphenol	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
4-Bromophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Hexachlorobenzene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Pentachlorophenol	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Phenanthrene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Anthracene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Carbazole	ND	594		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Di-n-butylphthalate	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Fluoranthene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Pyrene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Butyl Benzylphthalate	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
bis(2-Ethylhexyl)adipate	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Benz (a) anthracene	108	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Chrysene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
bis (2-Ethylhexyl) phthalate	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Di-n-octyl phthalate	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Benzo (b) fluoranthene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Benzo (k) fluoranthene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Benzo (a) pyrene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Indeno (1,2,3-cd) pyrene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Dibenz (a,h) anthracene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Benzo (g,h,i) perylene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Surr: 2,4,6-Tribromophenol	53.7	11.1-127		%REC	1	9/23/2015 11:41:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:10:00 AM

Project: Pacific Park

Lab ID: 1509270-005

Matrix: Soil

Client Sample ID: GP-3-15:9.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	31.1	16.1-150	%REC	1	9/23/2015 11:41:00 PM
Surr: Nitrobenzene-d5	19.0	10-133	%REC	1	9/23/2015 11:41:00 PM
Surr: Phenol-d6	50.6	11.6-133	%REC	1	9/23/2015 11:41:00 PM
Surr: p-Terphenyl	82.5	21.8-150	%REC	1	9/23/2015 11:41:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	3.33	mg/Kg-dry	1	9/23/2015 2:47:00 AM
Surr: Toluene-d8	99.9	65-135	%REC	1	9/23/2015 2:47:00 AM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/23/2015 2:47:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0400	mg/Kg-dry	1	9/23/2015 2:47:00 AM
Chloromethane	ND	0.0400	mg/Kg-dry	1	9/23/2015 2:47:00 AM
Vinyl chloride	ND	0.00133	mg/Kg-dry	1	9/23/2015 2:47:00 AM
Bromomethane	ND	0.0599	mg/Kg-dry	1	9/23/2015 2:47:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0333	mg/Kg-dry	1	9/23/2015 2:47:00 AM
Chloroethane	ND	0.0400	mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,1-Dichloroethene	ND	0.0333	mg/Kg-dry	1	9/23/2015 2:47:00 AM
Methylene chloride	ND	0.0133	mg/Kg-dry	1	9/23/2015 2:47:00 AM
trans-1,2-Dichloroethene	ND	0.0133	mg/Kg-dry	1	9/23/2015 2:47:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0333	mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,1-Dichloroethane	ND	0.0133	mg/Kg-dry	1	9/23/2015 2:47:00 AM
2,2-Dichloropropane	ND	0.0333	mg/Kg-dry	1	9/23/2015 2:47:00 AM
cis-1,2-Dichloroethene	ND	0.0133	mg/Kg-dry	1	9/23/2015 2:47:00 AM
Chloroform	ND	0.0133	mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0133	mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,1-Dichloropropene	ND	0.0133	mg/Kg-dry	1	9/23/2015 2:47:00 AM
Carbon tetrachloride	ND	0.0133	mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2-Dichloroethane (EDC)	ND	0.0200	mg/Kg-dry	1	9/23/2015 2:47:00 AM
Benzene	ND	0.0133	mg/Kg-dry	1	9/23/2015 2:47:00 AM
Trichloroethene (TCE)	ND	0.0133	mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2-Dichloropropane	ND	0.0133	mg/Kg-dry	1	9/23/2015 2:47:00 AM
Bromodichloromethane	ND	0.0133	mg/Kg-dry	1	9/23/2015 2:47:00 AM
Dibromomethane	ND	0.0266	mg/Kg-dry	1	9/23/2015 2:47:00 AM
cis-1,3-Dichloropropene	ND	0.0133	mg/Kg-dry	1	9/23/2015 2:47:00 AM
Toluene	ND	0.0133	mg/Kg-dry	1	9/23/2015 2:47:00 AM
trans-1,3-Dichloropropylene	ND	0.0200	mg/Kg-dry	1	9/23/2015 2:47:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:10:00 AM

Project: Pacific Park

Lab ID: 1509270-005

Matrix: Soil

Client Sample ID: GP-3-15:9.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0200		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,3-Dichloropropane	ND	0.0333		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Tetrachloroethene (PCE)	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Dibromochloromethane	ND	0.0200		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2-Dibromoethane (EDB)	ND	0.00333		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Chlorobenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0200		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Ethylbenzene	ND	0.0200		mg/Kg-dry	1	9/23/2015 2:47:00 AM
m,p-Xylene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
o-Xylene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Styrene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Isopropylbenzene	ND	0.0533		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Bromoform	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
n-Propylbenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Bromobenzene	ND	0.0200		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,3,5-Trimethylbenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
2-Chlorotoluene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
4-Chlorotoluene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
tert-Butylbenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2,3-Trichloropropane	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2,4-Trichlorobenzene	ND	0.0333		mg/Kg-dry	1	9/23/2015 2:47:00 AM
sec-Butylbenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
4-Isopropyltoluene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,3-Dichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,4-Dichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
n-Butylbenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2-Dichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2-Dibromo-3-chloropropane	ND	0.333		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2,4-Trimethylbenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Hexachlorobutadiene	ND	0.0666		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Naphthalene	ND	0.0200		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2,3-Trichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Surr: Dibromofluoromethane	95.0	56.5-129		%REC	1	9/23/2015 2:47:00 AM
Surr: Toluene-d8	98.5	64.3-131		%REC	1	9/23/2015 2:47:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.5	63.1-141		%REC	1	9/23/2015 2:47:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:10:00 AM

Project: Pacific Park

Lab ID: 1509270-005

Matrix: Soil

Client Sample ID: GP-3-15:9.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11895

Analyst: MW

Mercury	ND	0.296		mg/Kg-dry	1	9/22/2015 1:04:07 PM
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Total Metals by EPA Method 6020

Batch ID: 11888

Analyst: TN

Arsenic	3.42	0.102		mg/Kg-dry	1	9/21/2015 6:11:23 PM
Barium	23.5	0.509		mg/Kg-dry	1	9/21/2015 6:11:23 PM
Cadmium	ND	0.204		mg/Kg-dry	1	9/21/2015 6:11:23 PM
Chromium	10.6	0.102		mg/Kg-dry	1	9/21/2015 6:11:23 PM
Lead	22.0	0.204		mg/Kg-dry	1	9/21/2015 6:11:23 PM
Selenium	1.12	0.509		mg/Kg-dry	1	9/21/2015 6:11:23 PM
Silver	ND	0.102		mg/Kg-dry	1	9/21/2015 6:11:23 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	18.8			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509270-006

Matrix: Soil

Client Sample ID: GP-3-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	71.3		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-D	ND	61.1		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-DP	ND	50.9		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4,5-TP (Silvex)	ND	40.8		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4,5-T	ND	102		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Dinoseb	ND	61.1		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Dalapon	ND	408		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-DB	ND	50.9		µg/Kg-dry	1	9/29/2015 9:45:00 PM
MCPP	ND	8,970		µg/Kg-dry	1	9/29/2015 9:45:00 PM
MCPA	ND	571		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Picloram	ND	102		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Bentazon	ND	71.3		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Chloramben	ND	40.8		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Acifluorfen	170	163		µg/Kg-dry	1	9/29/2015 9:45:00 PM
3,5-Dichlorobenzoic acid	ND	81.5		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4-Nitrophenol	ND	61.1		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Dacthal (DCPA)	ND	61.1		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Surr: 2,4-Dichlorophenylacetic acid	92.8	20.1-168		%REC	1	9/29/2015 9:45:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Alpha BHC	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Beta BHC	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Gamma BHC (Lindane)	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Delta BHC	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Heptachlor	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Aldrin	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Heptachlor epoxide	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
gamma-Chlordane	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Endosulfan I	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
alpha-Chlordane	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Dieldrin	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
4,4'-DDE	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Endrin	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Endosulfan II	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM
4,4'-DDD	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Endrin aldehyde	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Endosulfan sulfate	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509270-006

Matrix: Soil

Client Sample ID: GP-3-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Endrin ketone	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Methoxychlor	ND	0.0986		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Surr: Decachlorobiphenyl	86.9	26.5-158		%REC	1	9/24/2015 8:26:00 AM
Surr: Tetrachloro-m-xylene	69.8	11-150		%REC	1	9/24/2015 8:26:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11903		Analyst: AK
Diesel (Fuel Oil)	ND	38.9		mg/Kg-dry	1	9/23/2015 10:29:00 AM
Heavy Oil	275	97.4		mg/Kg-dry	1	9/23/2015 10:29:00 AM
Surr: 2-Fluorobiphenyl	85.1	50-150		%REC	1	9/23/2015 10:29:00 AM
Surr: o-Terphenyl	89.0	50-150		%REC	1	9/23/2015 10:29:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Phenol	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Bis(2-chloroethyl) ether	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2-Chlorophenol	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
1,3-Dichlorobenzene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
1,4-Dichlorobenzene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2-Dichlorobenzene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Benzyl alcohol	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2-Methylphenol (o-cresol)	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Hexachloroethane	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
N-Nitrosodi-n-propylamine	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Nitrobenzene	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Isophorone	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Methylphenol (p-cresol)	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2-Nitrophenol	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2,4-Dimethylphenol	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Bis(2-chloroethoxy)methane	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2,4-Dichlorophenol	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2,4-Trichlorobenzene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Naphthalene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Chloroaniline	ND	974		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Hexachlorobutadiene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Chloro-3-methylphenol	ND	974		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2-Methylnaphthalene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
1-Methylnaphthalene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509270-006

Matrix: Soil

Client Sample ID: GP-3-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904	Analyst: NG	
Hexachlorocyclopentadiene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2,4,6-Trichlorophenol	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2,4,5-Trichlorophenol	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2-Chloronaphthalene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2-Nitroaniline	ND	974		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Acenaphthene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Dimethylphthalate	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2,6-Dinitrotoluene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Acenaphthylene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2,4-Dinitrophenol	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Dibenzofuran	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2,4-Dinitrotoluene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Nitrophenol	ND	974		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Fluorene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Chlorophenyl phenyl ether	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Diethylphthalate	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
4,6-Dinitro-2-methylphenol	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Bromophenyl phenyl ether	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Hexachlorobenzene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Pentachlorophenol	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Phenanthrene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Anthracene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Carbazole	ND	974		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Di-n-butylphthalate	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Fluoranthene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Pyrene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Butyl Benzylphthalate	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
bis(2-Ethylhexyl)adipate	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Benz (a) anthracene	192	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Chrysene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
bis (2-Ethylhexyl) phthalate	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Di-n-octyl phthalate	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Benzo (b) fluoranthene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Benzo (k) fluoranthene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Benzo (a) pyrene	284	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Indeno (1,2,3-cd) pyrene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Dibenz (a,h) anthracene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Benzo (g,h,i) perylene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Surr: 2,4,6-Tribromophenol	62.9	11.1-127		%REC	1	9/24/2015 12:03:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509270-006

Matrix: Soil

Client Sample ID: GP-3-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	24.7	16.1-150	%REC	1	9/24/2015 12:03:00 AM
Surr: Nitrobenzene-d5	13.5	10-133	%REC	1	9/24/2015 12:03:00 AM
Surr: Phenol-d6	35.8	11.6-133	%REC	1	9/24/2015 12:03:00 AM
Surr: p-Terphenyl	91.1	21.8-150	%REC	1	9/24/2015 12:03:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	7.99	mg/Kg-dry	1	9/23/2015 3:15:00 AM
Surr: Toluene-d8	99.4	65-135	%REC	1	9/23/2015 3:15:00 AM
Surr: 4-Bromofluorobenzene	99.6	65-135	%REC	1	9/23/2015 3:15:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0959	mg/Kg-dry	1	9/23/2015 3:15:00 AM
Chloromethane	ND	0.0959	mg/Kg-dry	1	9/23/2015 3:15:00 AM
Vinyl chloride	ND	0.00320	mg/Kg-dry	1	9/23/2015 3:15:00 AM
Bromomethane	ND	0.144	mg/Kg-dry	1	9/23/2015 3:15:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0799	mg/Kg-dry	1	9/23/2015 3:15:00 AM
Chloroethane	ND	0.0959	mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,1-Dichloroethene	ND	0.0799	mg/Kg-dry	1	9/23/2015 3:15:00 AM
Methylene chloride	ND	0.0320	mg/Kg-dry	1	9/23/2015 3:15:00 AM
trans-1,2-Dichloroethene	ND	0.0320	mg/Kg-dry	1	9/23/2015 3:15:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0799	mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,1-Dichloroethane	ND	0.0320	mg/Kg-dry	1	9/23/2015 3:15:00 AM
2,2-Dichloropropane	ND	0.0799	mg/Kg-dry	1	9/23/2015 3:15:00 AM
cis-1,2-Dichloroethene	ND	0.0320	mg/Kg-dry	1	9/23/2015 3:15:00 AM
Chloroform	ND	0.0320	mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0320	mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,1-Dichloropropene	ND	0.0320	mg/Kg-dry	1	9/23/2015 3:15:00 AM
Carbon tetrachloride	ND	0.0320	mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2-Dichloroethane (EDC)	ND	0.0479	mg/Kg-dry	1	9/23/2015 3:15:00 AM
Benzene	ND	0.0320	mg/Kg-dry	1	9/23/2015 3:15:00 AM
Trichloroethene (TCE)	ND	0.0320	mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2-Dichloropropane	ND	0.0320	mg/Kg-dry	1	9/23/2015 3:15:00 AM
Bromodichloromethane	ND	0.0320	mg/Kg-dry	1	9/23/2015 3:15:00 AM
Dibromomethane	ND	0.0639	mg/Kg-dry	1	9/23/2015 3:15:00 AM
cis-1,3-Dichloropropene	ND	0.0320	mg/Kg-dry	1	9/23/2015 3:15:00 AM
Toluene	ND	0.0320	mg/Kg-dry	1	9/23/2015 3:15:00 AM
trans-1,3-Dichloropropylene	ND	0.0479	mg/Kg-dry	1	9/23/2015 3:15:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509270-006

Matrix: Soil

Client Sample ID: GP-3-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0479		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,3-Dichloropropane	ND	0.0799		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Tetrachloroethene (PCE)	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Dibromochloromethane	ND	0.0479		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2-Dibromoethane (EDB)	ND	0.00799		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Chlorobenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0479		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Ethylbenzene	ND	0.0479		mg/Kg-dry	1	9/23/2015 3:15:00 AM
m,p-Xylene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
o-Xylene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Styrene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Isopropylbenzene	ND	0.128		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Bromoform	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
n-Propylbenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Bromobenzene	ND	0.0479		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,3,5-Trimethylbenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
2-Chlorotoluene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
4-Chlorotoluene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
tert-Butylbenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2,3-Trichloropropane	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2,4-Trichlorobenzene	ND	0.0799		mg/Kg-dry	1	9/23/2015 3:15:00 AM
sec-Butylbenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
4-Isopropyltoluene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,3-Dichlorobenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,4-Dichlorobenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
n-Butylbenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2-Dichlorobenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2-Dibromo-3-chloropropane	ND	0.799		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2,4-Trimethylbenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Hexachlorobutadiene	ND	0.160		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Naphthalene	ND	0.0479		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2,3-Trichlorobenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Surr: Dibromofluoromethane	97.3	56.5-129		%REC	1	9/23/2015 3:15:00 AM
Surr: Toluene-d8	97.3	64.3-131		%REC	1	9/23/2015 3:15:00 AM
Surr: 1-Bromo-4-fluorobenzene	96.1	63.1-141		%REC	1	9/23/2015 3:15:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509270-006

Matrix: Soil

Client Sample ID: GP-3-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11895

Analyst: MW

Mercury	0.552	0.440		mg/Kg-dry	1	9/22/2015 1:05:44 PM
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Total Metals by EPA Method 6020

Batch ID: 11888

Analyst: TN

Arsenic	102	0.165		mg/Kg-dry	1	9/21/2015 6:14:54 PM
Barium	154	0.824		mg/Kg-dry	1	9/21/2015 6:14:54 PM
Cadmium	3.84	0.329		mg/Kg-dry	1	9/21/2015 6:14:54 PM
Chromium	143	0.165		mg/Kg-dry	1	9/21/2015 6:14:54 PM
Lead	2,780	0.329		mg/Kg-dry	1	9/21/2015 6:14:54 PM
Selenium	1.16	0.824		mg/Kg-dry	1	9/21/2015 6:14:54 PM
Silver	2.46	0.165		mg/Kg-dry	1	9/21/2015 6:14:54 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	51.0			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509270-007

Matrix: Soil

Client Sample ID: GP-4-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	40.6		µg/Kg-dry	1	9/29/2015 10:02:00 PM
2,4-D	ND	34.8		µg/Kg-dry	1	9/29/2015 10:02:00 PM
2,4-DP	ND	29.0		µg/Kg-dry	1	9/29/2015 10:02:00 PM
2,4,5-TP (Silvex)	ND	23.2		µg/Kg-dry	1	9/29/2015 10:02:00 PM
2,4,5-T	ND	58.0		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Dinoseb	ND	34.8		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Dalapon	ND	232		µg/Kg-dry	1	9/29/2015 10:02:00 PM
2,4-DB	ND	29.0		µg/Kg-dry	1	9/29/2015 10:02:00 PM
MCPP	ND	5,110		µg/Kg-dry	1	9/29/2015 10:02:00 PM
MCPA	ND	325		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Picloram	ND	58.0		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Bentazon	ND	40.6		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Chloramben	24.6	23.2		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Acifluorfen	ND	92.9		µg/Kg-dry	1	9/29/2015 10:02:00 PM
3,5-Dichlorobenzoic acid	ND	46.4		µg/Kg-dry	1	9/29/2015 10:02:00 PM
4-Nitrophenol	ND	34.8		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Dacthal (DCPA)	ND	34.8		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Surr: 2,4-Dichlorophenylacetic acid	102	20.1-168		%REC	1	9/29/2015 10:02:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Alpha BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Beta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Gamma BHC (Lindane)	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Delta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Heptachlor	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Aldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Heptachlor epoxide	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
gamma-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Endosulfan I	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
alpha-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Dieldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
4,4'-DDE	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Endrin	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Endosulfan II	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM
4,4'-DDD	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Endrin aldehyde	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Endosulfan sulfate	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509270-007

Matrix: Soil

Client Sample ID: GP-4-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

4,4'-DDT	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Endrin ketone	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Methoxychlor	ND	0.0582		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Surr: Decachlorobiphenyl	83.1	26.5-158		%REC	1	9/24/2015 8:37:00 AM
Surr: Tetrachloro-m-xylene	66.4	11-150		%REC	1	9/24/2015 8:37:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	23.8		mg/Kg-dry	1	9/23/2015 3:11:00 PM
Heavy Oil	182	59.4		mg/Kg-dry	1	9/23/2015 3:11:00 PM
Surr: 2-Fluorobiphenyl	107	50-150		%REC	1	9/23/2015 3:11:00 PM
Surr: o-Terphenyl	106	50-150		%REC	1	9/23/2015 3:11:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Bis(2-chloroethyl) ether	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2-Chlorophenol	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
1,3-Dichlorobenzene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
1,4-Dichlorobenzene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
1,2-Dichlorobenzene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Benzyl alcohol	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2-Methylphenol (o-cresol)	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Hexachloroethane	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
N-Nitrosodi-n-propylamine	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Nitrobenzene	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Isophorone	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
4-Methylphenol (p-cresol)	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2-Nitrophenol	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2,4-Dimethylphenol	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Bis(2-chloroethoxy)methane	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2,4-Dichlorophenol	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
1,2,4-Trichlorobenzene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Naphthalene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
4-Chloroaniline	ND	566		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Hexachlorobutadiene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
4-Chloro-3-methylphenol	ND	566		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2-Methylnaphthalene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
1-Methylnaphthalene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509270-007

Matrix: Soil

Client Sample ID: GP-4-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904	Analyst: NG	
Hexachlorocyclopentadiene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2,4,6-Trichlorophenol	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2,4,5-Trichlorophenol	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2-Chloronaphthalene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2-Nitroaniline	ND	566		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Acenaphthene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Dimethylphthalate	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2,6-Dinitrotoluene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Acenaphthylene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2,4-Dinitrophenol	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Dibenzofuran	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2,4-Dinitrotoluene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
4-Nitrophenol	ND	566		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Fluorene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
4-Chlorophenyl phenyl ether	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Diethylphthalate	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
4,6-Dinitro-2-methylphenol	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
4-Bromophenyl phenyl ether	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Hexachlorobenzene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Pentachlorophenol	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Phenanthrene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Anthracene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Carbazole	ND	566		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Di-n-butylphthalate	118	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Fluoranthene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Pyrene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Butyl Benzylphthalate	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
bis(2-Ethylhexyl)adipate	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Benz (a) anthracene	115	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Chrysene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
bis (2-Ethylhexyl) phthalate	250	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Di-n-octyl phthalate	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Benzo (b) fluoranthene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Benzo (k) fluoranthene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Benzo (a) pyrene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Indeno (1,2,3-cd) pyrene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Dibenz (a,h) anthracene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Benzo (g,h,i) perylene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Surr: 2,4,6-Tribromophenol	68.2	11.1-127		%REC	1	9/24/2015 12:25:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509270-007

Matrix: Soil

Client Sample ID: GP-4-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	49.1	16.1-150	%REC	1	9/24/2015 12:25:00 AM
Surr: Nitrobenzene-d5	40.4	10-133	%REC	1	9/24/2015 12:25:00 AM
Surr: Phenol-d6	47.7	11.6-133	%REC	1	9/24/2015 12:25:00 AM
Surr: p-Terphenyl	90.0	21.8-150	%REC	1	9/24/2015 12:25:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	2.87	mg/Kg-dry	1	9/23/2015 3:44:00 AM
Surr: Toluene-d8	100	65-135	%REC	1	9/23/2015 3:44:00 AM
Surr: 4-Bromofluorobenzene	100	65-135	%REC	1	9/23/2015 3:44:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0344	mg/Kg-dry	1	9/23/2015 3:44:00 AM
Chloromethane	ND	0.0344	mg/Kg-dry	1	9/23/2015 3:44:00 AM
Vinyl chloride	ND	0.00115	mg/Kg-dry	1	9/23/2015 3:44:00 AM
Bromomethane	ND	0.0516	mg/Kg-dry	1	9/23/2015 3:44:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0287	mg/Kg-dry	1	9/23/2015 3:44:00 AM
Chloroethane	ND	0.0344	mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,1-Dichloroethene	ND	0.0287	mg/Kg-dry	1	9/23/2015 3:44:00 AM
Methylene chloride	ND	0.0115	mg/Kg-dry	1	9/23/2015 3:44:00 AM
trans-1,2-Dichloroethene	ND	0.0115	mg/Kg-dry	1	9/23/2015 3:44:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0287	mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,1-Dichloroethane	ND	0.0115	mg/Kg-dry	1	9/23/2015 3:44:00 AM
2,2-Dichloropropane	ND	0.0287	mg/Kg-dry	1	9/23/2015 3:44:00 AM
cis-1,2-Dichloroethene	ND	0.0115	mg/Kg-dry	1	9/23/2015 3:44:00 AM
Chloroform	ND	0.0115	mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0115	mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,1-Dichloropropene	ND	0.0115	mg/Kg-dry	1	9/23/2015 3:44:00 AM
Carbon tetrachloride	ND	0.0115	mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2-Dichloroethane (EDC)	ND	0.0172	mg/Kg-dry	1	9/23/2015 3:44:00 AM
Benzene	ND	0.0115	mg/Kg-dry	1	9/23/2015 3:44:00 AM
Trichloroethene (TCE)	ND	0.0115	mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2-Dichloropropane	ND	0.0115	mg/Kg-dry	1	9/23/2015 3:44:00 AM
Bromodichloromethane	ND	0.0115	mg/Kg-dry	1	9/23/2015 3:44:00 AM
Dibromomethane	ND	0.0229	mg/Kg-dry	1	9/23/2015 3:44:00 AM
cis-1,3-Dichloropropene	ND	0.0115	mg/Kg-dry	1	9/23/2015 3:44:00 AM
Toluene	ND	0.0115	mg/Kg-dry	1	9/23/2015 3:44:00 AM
trans-1,3-Dichloropropylene	ND	0.0172	mg/Kg-dry	1	9/23/2015 3:44:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509270-007

Matrix: Soil

Client Sample ID: GP-4-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0172		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,3-Dichloropropane	ND	0.0287		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Tetrachloroethene (PCE)	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Dibromochloromethane	ND	0.0172		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2-Dibromoethane (EDB)	ND	0.00287		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Chlorobenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0172		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Ethylbenzene	ND	0.0172		mg/Kg-dry	1	9/23/2015 3:44:00 AM
m,p-Xylene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
o-Xylene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Styrene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Isopropylbenzene	ND	0.0459		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Bromoform	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
n-Propylbenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Bromobenzene	ND	0.0172		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,3,5-Trimethylbenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
2-Chlorotoluene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
4-Chlorotoluene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
tert-Butylbenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2,3-Trichloropropane	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2,4-Trichlorobenzene	ND	0.0287		mg/Kg-dry	1	9/23/2015 3:44:00 AM
sec-Butylbenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
4-Isopropyltoluene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,3-Dichlorobenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,4-Dichlorobenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
n-Butylbenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2-Dichlorobenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2-Dibromo-3-chloropropane	ND	0.287		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2,4-Trimethylbenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Hexachlorobutadiene	ND	0.0573		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Naphthalene	ND	0.0172		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2,3-Trichlorobenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Surr: Dibromofluoromethane	95.9	56.5-129		%REC	1	9/23/2015 3:44:00 AM
Surr: Toluene-d8	98.1	64.3-131		%REC	1	9/23/2015 3:44:00 AM
Surr: 1-Bromo-4-fluorobenzene	96.7	63.1-141		%REC	1	9/23/2015 3:44:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509270-007

Matrix: Soil

Client Sample ID: GP-4-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11895

Analyst: MW

Mercury	ND	0.283		mg/Kg-dry	1	9/22/2015 1:07:22 PM
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Total Metals by EPA Method 6020

Batch ID: 11888

Analyst: TN

Arsenic	3.82	0.0929		mg/Kg-dry	1	9/21/2015 6:18:25 PM
Barium	35.8	0.464		mg/Kg-dry	1	9/21/2015 6:18:25 PM
Cadmium	0.195	0.186		mg/Kg-dry	1	9/21/2015 6:18:25 PM
Chromium	11.5	0.0929		mg/Kg-dry	1	9/21/2015 6:18:25 PM
Lead	19.4	0.186		mg/Kg-dry	1	9/21/2015 6:18:25 PM
Selenium	1.49	0.464		mg/Kg-dry	1	9/21/2015 6:18:25 PM
Silver	ND	0.0929		mg/Kg-dry	1	9/21/2015 6:18:25 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	16.6			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509270-008

Matrix: Soil

Client Sample ID: GP-4-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11922		Analyst: MD	
Dicamba	ND	45.2		µg/Kg-dry	1	9/29/2015 10:19:00 PM
2,4-D	ND	38.7		µg/Kg-dry	1	9/29/2015 10:19:00 PM
2,4-DP	ND	32.3		µg/Kg-dry	1	9/29/2015 10:19:00 PM
2,4,5-TP (Silvex)	ND	25.8		µg/Kg-dry	1	9/29/2015 10:19:00 PM
2,4,5-T	ND	64.6		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Dinoseb	ND	38.7		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Dalapon	ND	258		µg/Kg-dry	1	9/29/2015 10:19:00 PM
2,4-DB	ND	32.3		µg/Kg-dry	1	9/29/2015 10:19:00 PM
MCPP	ND	5,680		µg/Kg-dry	1	9/29/2015 10:19:00 PM
MCPA	ND	362		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Picloram	ND	64.6		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Bentazon	ND	45.2		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Chloramben	ND	25.8		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Acifluorfen	ND	103		µg/Kg-dry	1	9/29/2015 10:19:00 PM
3,5-Dichlorobenzoic acid	ND	51.7		µg/Kg-dry	1	9/29/2015 10:19:00 PM
4-Nitrophenol	ND	38.7		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Dacthal (DCPA)	ND	38.7		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Surr: 2,4-Dichlorophenylacetic acid	100	20.1-168		%REC	1	9/29/2015 10:19:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Alpha BHC	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Beta BHC	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Gamma BHC (Lindane)	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Delta BHC	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Heptachlor	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Aldrin	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Heptachlor epoxide	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
gamma-Chlordane	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Endosulfan I	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
alpha-Chlordane	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Dieldrin	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
4,4'-DDE	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Endrin	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Endosulfan II	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM
4,4'-DDD	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Endrin aldehyde	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Endosulfan sulfate	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509270-008

Matrix: Soil

Client Sample ID: GP-4-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Endrin ketone	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Methoxychlor	ND	0.0633		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Surr: Decachlorobiphenyl	119	26.5-158		%REC	1	9/24/2015 8:48:00 AM
Surr: Tetrachloro-m-xylene	91.2	11-150		%REC	1	9/24/2015 8:48:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903 Analyst: AK

Diesel (Fuel Oil)	ND	25.0		mg/Kg-dry	1	9/23/2015 3:43:00 PM
Heavy Oil	ND	62.5		mg/Kg-dry	1	9/23/2015 3:43:00 PM
Surr: 2-Fluorobiphenyl	89.0	50-150		%REC	1	9/23/2015 3:43:00 PM
Surr: o-Terphenyl	88.5	50-150		%REC	1	9/23/2015 3:43:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904 Analyst: NG

Phenol	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Bis(2-chloroethyl) ether	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2-Chlorophenol	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
1,3-Dichlorobenzene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
1,4-Dichlorobenzene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
1,2-Dichlorobenzene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Benzyl alcohol	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2-Methylphenol (o-cresol)	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Hexachloroethane	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
N-Nitrosodi-n-propylamine	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Nitrobenzene	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Isophorone	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
4-Methylphenol (p-cresol)	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2-Nitrophenol	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2,4-Dimethylphenol	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Bis(2-chloroethoxy)methane	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2,4-Dichlorophenol	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
1,2,4-Trichlorobenzene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Naphthalene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
4-Chloroaniline	ND	602		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Hexachlorobutadiene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
4-Chloro-3-methylphenol	ND	602		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2-Methylnaphthalene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
1-Methylnaphthalene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509270-008

Matrix: Soil

Client Sample ID: GP-4-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
Hexachlorocyclopentadiene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2,4,6-Trichlorophenol	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2,4,5-Trichlorophenol	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2-Chloronaphthalene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2-Nitroaniline	ND	602		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Acenaphthene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Dimethylphthalate	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2,6-Dinitrotoluene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Acenaphthylene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2,4-Dinitrophenol	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Dibenzofuran	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2,4-Dinitrotoluene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
4-Nitrophenol	ND	602		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Fluorene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
4-Chlorophenyl phenyl ether	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Diethylphthalate	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
4,6-Dinitro-2-methylphenol	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
4-Bromophenyl phenyl ether	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Hexachlorobenzene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Pentachlorophenol	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Phenanthrene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Anthracene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Carbazole	ND	602		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Di-n-butylphthalate	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Fluoranthene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Pyrene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Butyl Benzylphthalate	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
bis(2-Ethylhexyl)adipate	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Benz (a) anthracene	109	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Chrysene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
bis (2-Ethylhexyl) phthalate	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Di-n-octyl phthalate	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Benzo (b) fluoranthene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Benzo (k) fluoranthene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Benzo (a) pyrene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Indeno (1,2,3-cd) pyrene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Dibenz (a,h) anthracene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Benzo (g,h,i) perylene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Surr: 2,4,6-Tribromophenol	63.4	11.1-127		%REC	1	9/24/2015 12:48:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509270-008

Matrix: Soil

Client Sample ID: GP-4-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	28.4	16.1-150	%REC	1	9/24/2015 12:48:00 AM
Surr: Nitrobenzene-d5	19.2	10-133	%REC	1	9/24/2015 12:48:00 AM
Surr: Phenol-d6	51.1	11.6-133	%REC	1	9/24/2015 12:48:00 AM
Surr: p-Terphenyl	92.2	21.8-150	%REC	1	9/24/2015 12:48:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	3.41	mg/Kg-dry	1	9/23/2015 4:12:00 AM
Surr: Toluene-d8	98.9	65-135	%REC	1	9/23/2015 4:12:00 AM
Surr: 4-Bromofluorobenzene	101	65-135	%REC	1	9/23/2015 4:12:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0409	mg/Kg-dry	1	9/23/2015 4:12:00 AM
Chloromethane	ND	0.0409	mg/Kg-dry	1	9/23/2015 4:12:00 AM
Vinyl chloride	ND	0.00136	mg/Kg-dry	1	9/23/2015 4:12:00 AM
Bromomethane	ND	0.0613	mg/Kg-dry	1	9/23/2015 4:12:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0341	mg/Kg-dry	1	9/23/2015 4:12:00 AM
Chloroethane	ND	0.0409	mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,1-Dichloroethene	ND	0.0341	mg/Kg-dry	1	9/23/2015 4:12:00 AM
Methylene chloride	ND	0.0136	mg/Kg-dry	1	9/23/2015 4:12:00 AM
trans-1,2-Dichloroethene	ND	0.0136	mg/Kg-dry	1	9/23/2015 4:12:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0341	mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,1-Dichloroethane	ND	0.0136	mg/Kg-dry	1	9/23/2015 4:12:00 AM
2,2-Dichloropropane	ND	0.0341	mg/Kg-dry	1	9/23/2015 4:12:00 AM
cis-1,2-Dichloroethene	ND	0.0136	mg/Kg-dry	1	9/23/2015 4:12:00 AM
Chloroform	ND	0.0136	mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0136	mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,1-Dichloropropene	ND	0.0136	mg/Kg-dry	1	9/23/2015 4:12:00 AM
Carbon tetrachloride	ND	0.0136	mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2-Dichloroethane (EDC)	ND	0.0204	mg/Kg-dry	1	9/23/2015 4:12:00 AM
Benzene	ND	0.0136	mg/Kg-dry	1	9/23/2015 4:12:00 AM
Trichloroethene (TCE)	ND	0.0136	mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2-Dichloropropane	ND	0.0136	mg/Kg-dry	1	9/23/2015 4:12:00 AM
Bromodichloromethane	ND	0.0136	mg/Kg-dry	1	9/23/2015 4:12:00 AM
Dibromomethane	ND	0.0273	mg/Kg-dry	1	9/23/2015 4:12:00 AM
cis-1,3-Dichloropropene	ND	0.0136	mg/Kg-dry	1	9/23/2015 4:12:00 AM
Toluene	ND	0.0136	mg/Kg-dry	1	9/23/2015 4:12:00 AM
trans-1,3-Dichloropropylene	ND	0.0204	mg/Kg-dry	1	9/23/2015 4:12:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509270-008

Matrix: Soil

Client Sample ID: GP-4-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0204		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,3-Dichloropropane	ND	0.0341		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Tetrachloroethene (PCE)	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Dibromochloromethane	ND	0.0204		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2-Dibromoethane (EDB)	ND	0.00341		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Chlorobenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0204		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Ethylbenzene	ND	0.0204		mg/Kg-dry	1	9/23/2015 4:12:00 AM
m,p-Xylene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
o-Xylene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Styrene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Isopropylbenzene	ND	0.0545		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Bromoform	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
n-Propylbenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Bromobenzene	ND	0.0204		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,3,5-Trimethylbenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
2-Chlorotoluene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
4-Chlorotoluene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
tert-Butylbenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2,3-Trichloropropane	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2,4-Trichlorobenzene	ND	0.0341		mg/Kg-dry	1	9/23/2015 4:12:00 AM
sec-Butylbenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
4-Isopropyltoluene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,3-Dichlorobenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,4-Dichlorobenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
n-Butylbenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2-Dichlorobenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2-Dibromo-3-chloropropane	ND	0.341		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2,4-Trimethylbenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Hexachlorobutadiene	ND	0.0682		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Naphthalene	ND	0.0204		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2,3-Trichlorobenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Surr: Dibromofluoromethane	94.9	56.5-129		%REC	1	9/23/2015 4:12:00 AM
Surr: Toluene-d8	97.2	64.3-131		%REC	1	9/23/2015 4:12:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.9	63.1-141		%REC	1	9/23/2015 4:12:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509270-008

Matrix: Soil

Client Sample ID: GP-4-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11895

Analyst: MW

Mercury	ND	0.319		mg/Kg-dry	1	9/22/2015 1:09:00 PM
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Total Metals by EPA Method 6020

Batch ID: 11888

Analyst: TN

Arsenic	1.35	0.107		mg/Kg-dry	1	9/21/2015 6:21:57 PM
Barium	16.6	0.534		mg/Kg-dry	1	9/21/2015 6:21:57 PM
Cadmium	ND	0.213		mg/Kg-dry	1	9/21/2015 6:21:57 PM
Chromium	10.8	0.107		mg/Kg-dry	1	9/21/2015 6:21:57 PM
Lead	1.33	0.213		mg/Kg-dry	1	9/21/2015 6:21:57 PM
Selenium	1.14	0.534		mg/Kg-dry	1	9/21/2015 6:21:57 PM
Silver	ND	0.107		mg/Kg-dry	1	9/21/2015 6:21:57 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	23.2			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-009

Matrix: Soil

Client Sample ID: GP-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	42.5		µg/Kg-dry	1	9/29/2015 10:36:00 PM
2,4-D	ND	36.4		µg/Kg-dry	1	9/29/2015 10:36:00 PM
2,4-DP	ND	30.3		µg/Kg-dry	1	9/29/2015 10:36:00 PM
2,4,5-TP (Silvex)	ND	24.3		µg/Kg-dry	1	9/29/2015 10:36:00 PM
2,4,5-T	ND	60.7		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Dinoseb	ND	36.4		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Dalapon	ND	243		µg/Kg-dry	1	9/29/2015 10:36:00 PM
2,4-DB	ND	30.3		µg/Kg-dry	1	9/29/2015 10:36:00 PM
MCP	ND	5,340		µg/Kg-dry	1	9/29/2015 10:36:00 PM
MCPA	ND	340		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Picloram	ND	60.7		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Bentazon	ND	42.5		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Chloramben	24.4	24.3		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Acifluorfen	ND	97.0		µg/Kg-dry	1	9/29/2015 10:36:00 PM
3,5-Dichlorobenzoic acid	ND	48.5		µg/Kg-dry	1	9/29/2015 10:36:00 PM
4-Nitrophenol	ND	36.4		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Dacthal (DCPA)	ND	36.4		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Surr: 2,4-Dichlorophenylacetic acid	105	20.1-168		%REC	1	9/29/2015 10:36:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Alpha BHC	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Beta BHC	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Gamma BHC (Lindane)	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Delta BHC	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Heptachlor	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Aldrin	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Heptachlor epoxide	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
gamma-Chlordane	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Endosulfan I	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
alpha-Chlordane	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Dieldrin	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
4,4'-DDE	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Endrin	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Endosulfan II	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM
4,4'-DDD	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Endrin aldehyde	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Endosulfan sulfate	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-009

Matrix: Soil

Client Sample ID: GP-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

4,4'-DDT	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Endrin ketone	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Methoxychlor	ND	0.0576		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Surr: Decachlorobiphenyl	92.9	26.5-158		%REC	1	9/24/2015 8:59:00 AM
Surr: Tetrachloro-m-xylene	71.8	11-150		%REC	1	9/24/2015 8:59:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	23.7		mg/Kg-dry	1	9/23/2015 4:15:00 PM
Heavy Oil	ND	59.3		mg/Kg-dry	1	9/23/2015 4:15:00 PM
Surr: 2-Fluorobiphenyl	114	50-150		%REC	1	9/23/2015 4:15:00 PM
Surr: o-Terphenyl	116	50-150		%REC	1	9/23/2015 4:15:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Bis(2-chloroethyl) ether	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2-Chlorophenol	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
1,3-Dichlorobenzene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
1,4-Dichlorobenzene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
1,2-Dichlorobenzene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Benzyl alcohol	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2-Methylphenol (o-cresol)	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Hexachloroethane	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
N-Nitrosodi-n-propylamine	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Nitrobenzene	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Isophorone	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
4-Methylphenol (p-cresol)	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2-Nitrophenol	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2,4-Dimethylphenol	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Bis(2-chloroethoxy)methane	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2,4-Dichlorophenol	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
1,2,4-Trichlorobenzene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Naphthalene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
4-Chloroaniline	ND	571		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Hexachlorobutadiene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
4-Chloro-3-methylphenol	ND	571		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2-Methylnaphthalene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
1-Methylnaphthalene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-009

Matrix: Soil

Client Sample ID: GP-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Hexachlorocyclopentadiene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2,4,6-Trichlorophenol	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2,4,5-Trichlorophenol	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2-Chloronaphthalene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2-Nitroaniline	ND	571		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Acenaphthene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Dimethylphthalate	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2,6-Dinitrotoluene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Acenaphthylene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2,4-Dinitrophenol	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Dibenzofuran	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2,4-Dinitrotoluene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
4-Nitrophenol	ND	571		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Fluorene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
4-Chlorophenyl phenyl ether	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Diethylphthalate	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
4,6-Dinitro-2-methylphenol	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
4-Bromophenyl phenyl ether	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Hexachlorobenzene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Pentachlorophenol	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Phenanthrene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Anthracene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Carbazole	ND	571		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Di-n-butylphthalate	283	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Fluoranthene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Pyrene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Butyl Benzylphthalate	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
bis(2-Ethylhexyl)adipate	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Benz (a) anthracene	129	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Chrysene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
bis (2-Ethylhexyl) phthalate	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Di-n-octyl phthalate	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Benzo (b) fluoranthene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Benzo (k) fluoranthene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Benzo (a) pyrene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Indeno (1,2,3-cd) pyrene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Dibenz (a,h) anthracene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Benzo (g,h,i) perylene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Surr: 2,4,6-Tribromophenol	64.0	11.1-127		%REC	1	9/24/2015 1:10:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-009

Matrix: Soil

Client Sample ID: GP-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	59.5	16.1-150	%REC	1	9/24/2015 1:10:00 AM
Surr: Nitrobenzene-d5	36.9	10-133	%REC	1	9/24/2015 1:10:00 AM
Surr: Phenol-d6	75.0	11.6-133	%REC	1	9/24/2015 1:10:00 AM
Surr: p-Terphenyl	85.5	21.8-150	%REC	1	9/24/2015 1:10:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	4.31	mg/Kg-dry	1	9/23/2015 4:41:00 AM
Surr: Toluene-d8	100	65-135	%REC	1	9/23/2015 4:41:00 AM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/23/2015 4:41:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0518	mg/Kg-dry	1	9/23/2015 4:41:00 AM
Chloromethane	ND	0.0518	mg/Kg-dry	1	9/23/2015 4:41:00 AM
Vinyl chloride	ND	0.00173	mg/Kg-dry	1	9/23/2015 4:41:00 AM
Bromomethane	ND	0.0776	mg/Kg-dry	1	9/23/2015 4:41:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0431	mg/Kg-dry	1	9/23/2015 4:41:00 AM
Chloroethane	ND	0.0518	mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,1-Dichloroethene	ND	0.0431	mg/Kg-dry	1	9/23/2015 4:41:00 AM
Methylene chloride	ND	0.0173	mg/Kg-dry	1	9/23/2015 4:41:00 AM
trans-1,2-Dichloroethene	ND	0.0173	mg/Kg-dry	1	9/23/2015 4:41:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0431	mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,1-Dichloroethane	ND	0.0173	mg/Kg-dry	1	9/23/2015 4:41:00 AM
2,2-Dichloropropane	ND	0.0431	mg/Kg-dry	1	9/23/2015 4:41:00 AM
cis-1,2-Dichloroethene	ND	0.0173	mg/Kg-dry	1	9/23/2015 4:41:00 AM
Chloroform	ND	0.0173	mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0173	mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,1-Dichloropropene	ND	0.0173	mg/Kg-dry	1	9/23/2015 4:41:00 AM
Carbon tetrachloride	ND	0.0173	mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2-Dichloroethane (EDC)	ND	0.0259	mg/Kg-dry	1	9/23/2015 4:41:00 AM
Benzene	ND	0.0173	mg/Kg-dry	1	9/23/2015 4:41:00 AM
Trichloroethene (TCE)	ND	0.0173	mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2-Dichloropropane	ND	0.0173	mg/Kg-dry	1	9/23/2015 4:41:00 AM
Bromodichloromethane	ND	0.0173	mg/Kg-dry	1	9/23/2015 4:41:00 AM
Dibromomethane	ND	0.0345	mg/Kg-dry	1	9/23/2015 4:41:00 AM
cis-1,3-Dichloropropene	ND	0.0173	mg/Kg-dry	1	9/23/2015 4:41:00 AM
Toluene	ND	0.0173	mg/Kg-dry	1	9/23/2015 4:41:00 AM
trans-1,3-Dichloropropylene	ND	0.0259	mg/Kg-dry	1	9/23/2015 4:41:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-009

Matrix: Soil

Client Sample ID: GP-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0259		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,3-Dichloropropane	ND	0.0431		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Tetrachloroethene (PCE)	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Dibromochloromethane	ND	0.0259		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2-Dibromoethane (EDB)	ND	0.00431		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Chlorobenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0259		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Ethylbenzene	ND	0.0259		mg/Kg-dry	1	9/23/2015 4:41:00 AM
m,p-Xylene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
o-Xylene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Styrene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Isopropylbenzene	ND	0.0690		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Bromoform	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
n-Propylbenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Bromobenzene	ND	0.0259		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,3,5-Trimethylbenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
2-Chlorotoluene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
4-Chlorotoluene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
tert-Butylbenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2,3-Trichloropropane	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2,4-Trichlorobenzene	ND	0.0431		mg/Kg-dry	1	9/23/2015 4:41:00 AM
sec-Butylbenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
4-Isopropyltoluene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,3-Dichlorobenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,4-Dichlorobenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
n-Butylbenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2-Dichlorobenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2-Dibromo-3-chloropropane	ND	0.431		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2,4-Trimethylbenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Hexachlorobutadiene	ND	0.0863		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Naphthalene	ND	0.0259		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2,3-Trichlorobenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Surr: Dibromofluoromethane	93.6	56.5-129		%REC	1	9/23/2015 4:41:00 AM
Surr: Toluene-d8	98.8	64.3-131		%REC	1	9/23/2015 4:41:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.3	63.1-141		%REC	1	9/23/2015 4:41:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-009

Matrix: Soil

Client Sample ID: GP-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11895

Analyst: MW

Mercury	ND	0.303		mg/Kg-dry	1	9/22/2015 1:10:36 PM
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Total Metals by EPA Method 6020

Batch ID: 11888

Analyst: TN

Arsenic	7.63	0.0974		mg/Kg-dry	1	9/21/2015 6:25:28 PM
Barium	85.0	0.487		mg/Kg-dry	1	9/21/2015 6:25:28 PM
Cadmium	1.43	0.195		mg/Kg-dry	1	9/21/2015 6:25:28 PM
Chromium	20.0	0.0974		mg/Kg-dry	1	9/21/2015 6:25:28 PM
Lead	44.9	0.195		mg/Kg-dry	1	9/21/2015 6:25:28 PM
Selenium	1.55	0.487		mg/Kg-dry	1	9/21/2015 6:25:28 PM
Silver	0.119	0.0974		mg/Kg-dry	1	9/21/2015 6:25:28 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	19.2			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1509270-010

Matrix: Soil

Client Sample ID: GP-5-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	42.2		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-D	ND	36.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-DP	ND	30.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4,5-TP (Silvex)	ND	24.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4,5-T	ND	60.2		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Dinoseb	ND	36.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Dalapon	ND	241		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-DB	ND	30.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
MCPP	ND	5,300		µg/Kg-dry	1	9/29/2015 10:52:00 PM
MCPA	ND	337		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Picloram	ND	60.2		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Bentazon	ND	42.2		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Chloramben	ND	24.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Acifluorfen	ND	96.4		µg/Kg-dry	1	9/29/2015 10:52:00 PM
3,5-Dichlorobenzoic acid	ND	48.2		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4-Nitrophenol	ND	36.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Dacthal (DCPA)	ND	36.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Surr: 2,4-Dichlorophenylacetic acid	102	20.1-168		%REC	1	9/29/2015 10:52:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Alpha BHC	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Beta BHC	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Gamma BHC (Lindane)	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Delta BHC	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Heptachlor	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Aldrin	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Heptachlor epoxide	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
gamma-Chlordane	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Endosulfan I	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
alpha-Chlordane	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Dieldrin	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
4,4'-DDE	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Endrin	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Endosulfan II	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM
4,4'-DDD	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Endrin aldehyde	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Endosulfan sulfate	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1509270-010

Matrix: Soil

Client Sample ID: GP-5-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

4,4'-DDT	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Endrin ketone	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Methoxychlor	ND	0.0598		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Surr: Decachlorobiphenyl	99.0	26.5-158		%REC	1	9/24/2015 9:09:00 AM
Surr: Tetrachloro-m-xylene	75.8	11-150		%REC	1	9/24/2015 9:09:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	23.2		mg/Kg-dry	1	9/23/2015 4:46:00 PM
Heavy Oil	ND	58.1		mg/Kg-dry	1	9/23/2015 4:46:00 PM
Surr: 2-Fluorobiphenyl	94.1	50-150		%REC	1	9/23/2015 4:46:00 PM
Surr: o-Terphenyl	93.7	50-150		%REC	1	9/23/2015 4:46:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Bis(2-chloroethyl) ether	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2-Chlorophenol	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
1,3-Dichlorobenzene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
1,4-Dichlorobenzene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
1,2-Dichlorobenzene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Benzyl alcohol	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2-Methylphenol (o-cresol)	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Hexachloroethane	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
N-Nitrosodi-n-propylamine	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Nitrobenzene	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Isophorone	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
4-Methylphenol (p-cresol)	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2-Nitrophenol	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2,4-Dimethylphenol	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Bis(2-chloroethoxy)methane	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2,4-Dichlorophenol	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
1,2,4-Trichlorobenzene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Naphthalene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
4-Chloroaniline	ND	586		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Hexachlorobutadiene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
4-Chloro-3-methylphenol	ND	586		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2-Methylnaphthalene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
1-Methylnaphthalene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1509270-010

Matrix: Soil

Client Sample ID: GP-5-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Hexachlorocyclopentadiene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2,4,6-Trichlorophenol	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2,4,5-Trichlorophenol	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2-Chloronaphthalene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2-Nitroaniline	ND	586		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Acenaphthene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Dimethylphthalate	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2,6-Dinitrotoluene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Acenaphthylene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2,4-Dinitrophenol	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Dibenzofuran	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2,4-Dinitrotoluene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
4-Nitrophenol	ND	586		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Fluorene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
4-Chlorophenyl phenyl ether	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Diethylphthalate	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
4,6-Dinitro-2-methylphenol	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
4-Bromophenyl phenyl ether	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Hexachlorobenzene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Pentachlorophenol	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Phenanthrene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Anthracene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Carbazole	ND	586		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Di-n-butylphthalate	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Fluoranthene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Pyrene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Butyl Benzylphthalate	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
bis(2-Ethylhexyl)adipate	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Benz (a) anthracene	106	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Chrysene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
bis (2-Ethylhexyl) phthalate	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Di-n-octyl phthalate	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Benzo (b) fluoranthene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Benzo (k) fluoranthene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Benzo (a) pyrene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Indeno (1,2,3-cd) pyrene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Dibenz (a,h) anthracene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Benzo (g,h,i) perylene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Surr: 2,4,6-Tribromophenol	43.1	11.1-127		%REC	1	9/24/2015 1:32:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1509270-010

Matrix: Soil

Client Sample ID: GP-5-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	33.5	16.1-150	%REC	1	9/24/2015 1:32:00 AM
Surr: Nitrobenzene-d5	13.8	10-133	%REC	1	9/24/2015 1:32:00 AM
Surr: Phenol-d6	49.2	11.6-133	%REC	1	9/24/2015 1:32:00 AM
Surr: p-Terphenyl	50.3	21.8-150	%REC	1	9/24/2015 1:32:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	3.20	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Surr: Toluene-d8	99.0	65-135	%REC	1	9/23/2015 5:10:00 AM
Surr: 4-Bromofluorobenzene	101	65-135	%REC	1	9/23/2015 5:10:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0383	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Chloromethane	ND	0.0383	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Vinyl chloride	ND	0.00128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Bromomethane	ND	0.0575	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0320	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Chloroethane	ND	0.0383	mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,1-Dichloroethene	ND	0.0320	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Methylene chloride	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
trans-1,2-Dichloroethene	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0320	mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,1-Dichloroethane	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
2,2-Dichloropropane	ND	0.0320	mg/Kg-dry	1	9/23/2015 5:10:00 AM
cis-1,2-Dichloroethene	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Chloroform	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,1-Dichloropropene	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Carbon tetrachloride	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2-Dichloroethane (EDC)	ND	0.0192	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Benzene	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Trichloroethene (TCE)	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2-Dichloropropane	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Bromodichloromethane	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Dibromomethane	ND	0.0256	mg/Kg-dry	1	9/23/2015 5:10:00 AM
cis-1,3-Dichloropropene	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Toluene	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
trans-1,3-Dichloropropylene	ND	0.0192	mg/Kg-dry	1	9/23/2015 5:10:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1509270-010

Matrix: Soil

Client Sample ID: GP-5-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0192		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,3-Dichloropropane	ND	0.0320		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Tetrachloroethene (PCE)	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Dibromochloromethane	ND	0.0192		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2-Dibromoethane (EDB)	ND	0.00320		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Chlorobenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0192		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Ethylbenzene	ND	0.0192		mg/Kg-dry	1	9/23/2015 5:10:00 AM
m,p-Xylene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
o-Xylene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Styrene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Isopropylbenzene	ND	0.0511		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Bromoform	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
n-Propylbenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Bromobenzene	ND	0.0192		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,3,5-Trimethylbenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
2-Chlorotoluene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
4-Chlorotoluene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
tert-Butylbenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2,3-Trichloropropane	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2,4-Trichlorobenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 5:10:00 AM
sec-Butylbenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
4-Isopropyltoluene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,3-Dichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,4-Dichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
n-Butylbenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2-Dichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2-Dibromo-3-chloropropane	ND	0.320		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2,4-Trimethylbenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Hexachlorobutadiene	ND	0.0639		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Naphthalene	ND	0.0192		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2,3-Trichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Surr: Dibromofluoromethane	95.8	56.5-129		%REC	1	9/23/2015 5:10:00 AM
Surr: Toluene-d8	98.1	64.3-131		%REC	1	9/23/2015 5:10:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.2	63.1-141		%REC	1	9/23/2015 5:10:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1509270-010

Matrix: Soil

Client Sample ID: GP-5-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11895

Analyst: MW

Mercury	ND	0.278		mg/Kg-dry	1	9/22/2015 1:12:12 PM
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Total Metals by EPA Method 6020

Batch ID: 11888

Analyst: TN

Arsenic	2.26	0.0945		mg/Kg-dry	1	9/21/2015 6:28:59 PM
Barium	22.9	0.472		mg/Kg-dry	1	9/21/2015 6:28:59 PM
Cadmium	ND	0.189		mg/Kg-dry	1	9/21/2015 6:28:59 PM
Chromium	12.2	0.0945		mg/Kg-dry	1	9/21/2015 6:28:59 PM
Lead	1.94	0.189		mg/Kg-dry	1	9/21/2015 6:28:59 PM
Selenium	1.12	0.472		mg/Kg-dry	1	9/21/2015 6:28:59 PM
Silver	ND	0.0945		mg/Kg-dry	1	9/21/2015 6:28:59 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	19.8			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509270-011

Matrix: Soil

Client Sample ID: GP-5-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	40.8		µg/Kg-dry	1	9/29/2015 11:09:00 PM
2,4-D	ND	35.0		µg/Kg-dry	1	9/29/2015 11:09:00 PM
2,4-DP	ND	29.1		µg/Kg-dry	1	9/29/2015 11:09:00 PM
2,4,5-TP (Silvex)	ND	23.3		µg/Kg-dry	1	9/29/2015 11:09:00 PM
2,4,5-T	ND	58.3		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Dinoseb	ND	35.0		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Dalapon	ND	233		µg/Kg-dry	1	9/29/2015 11:09:00 PM
2,4-DB	ND	29.1		µg/Kg-dry	1	9/29/2015 11:09:00 PM
MCPP	ND	5,130		µg/Kg-dry	1	9/29/2015 11:09:00 PM
MCPA	ND	326		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Picloram	ND	58.3		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Bentazon	ND	40.8		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Chloramben	ND	23.3		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Acifluorfen	ND	93.2		µg/Kg-dry	1	9/29/2015 11:09:00 PM
3,5-Dichlorobenzoic acid	ND	46.6		µg/Kg-dry	1	9/29/2015 11:09:00 PM
4-Nitrophenol	ND	35.0		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Dacthal (DCPA)	ND	35.0		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Surr: 2,4-Dichlorophenylacetic acid	106	20.1-168		%REC	1	9/29/2015 11:09:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Alpha BHC	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Beta BHC	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Gamma BHC (Lindane)	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Delta BHC	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Heptachlor	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Aldrin	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Heptachlor epoxide	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
gamma-Chlordane	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Endosulfan I	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
alpha-Chlordane	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Dieldrin	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
4,4'-DDE	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Endrin	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Endosulfan II	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM
4,4'-DDD	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Endrin aldehyde	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Endosulfan sulfate	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509270-011

Matrix: Soil

Client Sample ID: GP-5-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

4,4'-DDT	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Endrin ketone	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Methoxychlor	ND	0.0557		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Surr: Decachlorobiphenyl	109	26.5-158		%REC	1	9/24/2015 9:20:00 AM
Surr: Tetrachloro-m-xylene	73.4	11-150		%REC	1	9/24/2015 9:20:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	21.9		mg/Kg-dry	1	9/23/2015 5:52:00 PM
Heavy Oil	ND	54.8		mg/Kg-dry	1	9/23/2015 5:52:00 PM
Surr: 2-Fluorobiphenyl	91.4	50-150		%REC	1	9/23/2015 5:52:00 PM
Surr: o-Terphenyl	88.4	50-150		%REC	1	9/23/2015 5:52:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Bis(2-chloroethyl) ether	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2-Chlorophenol	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
1,3-Dichlorobenzene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
1,4-Dichlorobenzene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
1,2-Dichlorobenzene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Benzyl alcohol	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2-Methylphenol (o-cresol)	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Hexachloroethane	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
N-Nitrosodi-n-propylamine	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Nitrobenzene	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Isophorone	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
4-Methylphenol (p-cresol)	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2-Nitrophenol	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2,4-Dimethylphenol	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Bis(2-chloroethoxy)methane	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2,4-Dichlorophenol	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
1,2,4-Trichlorobenzene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Naphthalene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
4-Chloroaniline	ND	560		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Hexachlorobutadiene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
4-Chloro-3-methylphenol	ND	560		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2-Methylnaphthalene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
1-Methylnaphthalene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509270-011

Matrix: Soil

Client Sample ID: GP-5-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Hexachlorocyclopentadiene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2,4,6-Trichlorophenol	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2,4,5-Trichlorophenol	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2-Chloronaphthalene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2-Nitroaniline	ND	560		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Acenaphthene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Dimethylphthalate	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2,6-Dinitrotoluene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Acenaphthylene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2,4-Dinitrophenol	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Dibenzofuran	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2,4-Dinitrotoluene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
4-Nitrophenol	ND	560		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Fluorene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
4-Chlorophenyl phenyl ether	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Diethylphthalate	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
4,6-Dinitro-2-methylphenol	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
4-Bromophenyl phenyl ether	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Hexachlorobenzene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Pentachlorophenol	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Phenanthrene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Anthracene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Carbazole	ND	560		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Di-n-butylphthalate	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Fluoranthene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Pyrene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Butyl Benzylphthalate	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
bis(2-Ethylhexyl)adipate	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Benz (a) anthracene	101	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Chrysene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
bis (2-Ethylhexyl) phthalate	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Di-n-octyl phthalate	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Benzo (b) fluoranthene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Benzo (k) fluoranthene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Benzo (a) pyrene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Indeno (1,2,3-cd) pyrene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Dibenz (a,h) anthracene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Benzo (g,h,i) perylene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Surr: 2,4,6-Tribromophenol	57.5	11.1-127		%REC	1	9/24/2015 1:54:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509270-011

Matrix: Soil

Client Sample ID: GP-5-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	57.3	16.1-150	%REC	1	9/24/2015 1:54:00 AM
Surr: Nitrobenzene-d5	29.3	10-133	%REC	1	9/24/2015 1:54:00 AM
Surr: Phenol-d6	62.4	11.6-133	%REC	1	9/24/2015 1:54:00 AM
Surr: p-Terphenyl	82.0	21.8-150	%REC	1	9/24/2015 1:54:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	3.60	mg/Kg-dry	1	9/23/2015 5:38:00 AM
Surr: Toluene-d8	98.2	65-135	%REC	1	9/23/2015 5:38:00 AM
Surr: 4-Bromofluorobenzene	103	65-135	%REC	1	9/23/2015 5:38:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0432	mg/Kg-dry	1	9/23/2015 5:38:00 AM
Chloromethane	ND	0.0432	mg/Kg-dry	1	9/23/2015 5:38:00 AM
Vinyl chloride	ND	0.00144	mg/Kg-dry	1	9/23/2015 5:38:00 AM
Bromomethane	ND	0.0648	mg/Kg-dry	1	9/23/2015 5:38:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0360	mg/Kg-dry	1	9/23/2015 5:38:00 AM
Chloroethane	ND	0.0432	mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,1-Dichloroethene	ND	0.0360	mg/Kg-dry	1	9/23/2015 5:38:00 AM
Methylene chloride	ND	0.0144	mg/Kg-dry	1	9/23/2015 5:38:00 AM
trans-1,2-Dichloroethene	ND	0.0144	mg/Kg-dry	1	9/23/2015 5:38:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0360	mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,1-Dichloroethane	ND	0.0144	mg/Kg-dry	1	9/23/2015 5:38:00 AM
2,2-Dichloropropane	ND	0.0360	mg/Kg-dry	1	9/23/2015 5:38:00 AM
cis-1,2-Dichloroethene	ND	0.0144	mg/Kg-dry	1	9/23/2015 5:38:00 AM
Chloroform	ND	0.0144	mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0144	mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,1-Dichloropropene	ND	0.0144	mg/Kg-dry	1	9/23/2015 5:38:00 AM
Carbon tetrachloride	ND	0.0144	mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2-Dichloroethane (EDC)	ND	0.0216	mg/Kg-dry	1	9/23/2015 5:38:00 AM
Benzene	ND	0.0144	mg/Kg-dry	1	9/23/2015 5:38:00 AM
Trichloroethene (TCE)	ND	0.0144	mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2-Dichloropropane	ND	0.0144	mg/Kg-dry	1	9/23/2015 5:38:00 AM
Bromodichloromethane	ND	0.0144	mg/Kg-dry	1	9/23/2015 5:38:00 AM
Dibromomethane	ND	0.0288	mg/Kg-dry	1	9/23/2015 5:38:00 AM
cis-1,3-Dichloropropene	ND	0.0144	mg/Kg-dry	1	9/23/2015 5:38:00 AM
Toluene	ND	0.0144	mg/Kg-dry	1	9/23/2015 5:38:00 AM
trans-1,3-Dichloropropylene	ND	0.0216	mg/Kg-dry	1	9/23/2015 5:38:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509270-011

Matrix: Soil

Client Sample ID: GP-5-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0216		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,3-Dichloropropane	ND	0.0360		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Tetrachloroethene (PCE)	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Dibromochloromethane	ND	0.0216		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2-Dibromoethane (EDB)	ND	0.00360		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Chlorobenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0216		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Ethylbenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 5:38:00 AM
m,p-Xylene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
o-Xylene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Styrene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Isopropylbenzene	ND	0.0576		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Bromoform	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
n-Propylbenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Bromobenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,3,5-Trimethylbenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
2-Chlorotoluene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
4-Chlorotoluene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
tert-Butylbenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2,3-Trichloropropane	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2,4-Trichlorobenzene	ND	0.0360		mg/Kg-dry	1	9/23/2015 5:38:00 AM
sec-Butylbenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
4-Isopropyltoluene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,3-Dichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,4-Dichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
n-Butylbenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2-Dichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2-Dibromo-3-chloropropane	ND	0.360		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2,4-Trimethylbenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Hexachlorobutadiene	ND	0.0720		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Naphthalene	ND	0.0216		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2,3-Trichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Surr: Dibromofluoromethane	93.9	56.5-129		%REC	1	9/23/2015 5:38:00 AM
Surr: Toluene-d8	97.5	64.3-131		%REC	1	9/23/2015 5:38:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.0	63.1-141		%REC	1	9/23/2015 5:38:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509270-011

Matrix: Soil

Client Sample ID: GP-5-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.273		mg/Kg-dry	1	9/22/2015 1:13:48 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	4.02	0.0915		mg/Kg-dry	1	9/21/2015 6:39:36 PM
Barium	19.0	0.458		mg/Kg-dry	1	9/21/2015 6:39:36 PM
Cadmium	ND	0.183		mg/Kg-dry	1	9/21/2015 6:39:36 PM
Chromium	14.3	0.0915		mg/Kg-dry	1	9/21/2015 6:39:36 PM
Lead	1.96	0.183		mg/Kg-dry	1	9/21/2015 6:39:36 PM
Selenium	1.41	0.458		mg/Kg-dry	1	9/21/2015 6:39:36 PM
Silver	ND	0.0915		mg/Kg-dry	1	9/21/2015 6:39:36 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	15.3			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509270-012

Matrix: Soil

Client Sample ID: GP-6-15:7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	59.4		µg/Kg-dry	1	9/29/2015 11:26:00 PM
2,4-D	ND	50.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
2,4-DP	ND	42.4		µg/Kg-dry	1	9/29/2015 11:26:00 PM
2,4,5-TP (Silvex)	ND	34.0		µg/Kg-dry	1	9/29/2015 11:26:00 PM
2,4,5-T	ND	84.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Dinoseb	ND	50.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Dalapon	ND	340		µg/Kg-dry	1	9/29/2015 11:26:00 PM
2,4-DB	ND	42.4		µg/Kg-dry	1	9/29/2015 11:26:00 PM
MCPP	ND	7,470		µg/Kg-dry	1	9/29/2015 11:26:00 PM
MCPA	ND	475		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Picloram	ND	84.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Bentazon	ND	59.4		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Chloramben	ND	34.0		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Acifluorfen	ND	136		µg/Kg-dry	1	9/29/2015 11:26:00 PM
3,5-Dichlorobenzoic acid	ND	67.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
4-Nitrophenol	ND	50.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Dacthal (DCPA)	ND	50.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Surr: 2,4-Dichlorophenylacetic acid	97.4	20.1-168		%REC	1	9/29/2015 11:26:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Alpha BHC	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Beta BHC	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Gamma BHC (Lindane)	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Delta BHC	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Heptachlor	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Aldrin	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Heptachlor epoxide	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
gamma-Chlordane	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Endosulfan I	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
alpha-Chlordane	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Dieldrin	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
4,4'-DDE	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Endrin	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Endosulfan II	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM
4,4'-DDD	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Endrin aldehyde	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Endosulfan sulfate	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509270-012

Matrix: Soil

Client Sample ID: GP-6-15:7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

4,4'-DDT	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Endrin ketone	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Methoxychlor	ND	0.0785		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Surr: Decachlorobiphenyl	126	26.5-158		%REC	1	9/24/2015 9:31:00 AM
Surr: Tetrachloro-m-xylene	73.0	11-150		%REC	1	9/24/2015 9:31:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	33.7		mg/Kg-dry	1	9/23/2015 6:24:00 PM
Heavy Oil	217	84.2		mg/Kg-dry	1	9/23/2015 6:24:00 PM
Surr: 2-Fluorobiphenyl	94.7	50-150		%REC	1	9/23/2015 6:24:00 PM
Surr: o-Terphenyl	98.8	50-150		%REC	1	9/23/2015 6:24:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Bis(2-chloroethyl) ether	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2-Chlorophenol	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
1,3-Dichlorobenzene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
1,4-Dichlorobenzene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
1,2-Dichlorobenzene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Benzyl alcohol	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2-Methylphenol (o-cresol)	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Hexachloroethane	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
N-Nitrosodi-n-propylamine	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Nitrobenzene	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Isophorone	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
4-Methylphenol (p-cresol)	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2-Nitrophenol	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2,4-Dimethylphenol	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Bis(2-chloroethoxy)methane	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2,4-Dichlorophenol	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
1,2,4-Trichlorobenzene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Naphthalene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
4-Chloroaniline	ND	843		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Hexachlorobutadiene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
4-Chloro-3-methylphenol	ND	843		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2-Methylnaphthalene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
1-Methylnaphthalene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509270-012

Matrix: Soil

Client Sample ID: GP-6-15:7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Hexachlorocyclopentadiene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2,4,6-Trichlorophenol	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2,4,5-Trichlorophenol	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2-Chloronaphthalene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2-Nitroaniline	ND	843		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Acenaphthene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Dimethylphthalate	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2,6-Dinitrotoluene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Acenaphthylene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2,4-Dinitrophenol	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Dibenzofuran	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2,4-Dinitrotoluene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
4-Nitrophenol	ND	843		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Fluorene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
4-Chlorophenyl phenyl ether	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Diethylphthalate	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
4,6-Dinitro-2-methylphenol	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
4-Bromophenyl phenyl ether	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Hexachlorobenzene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Pentachlorophenol	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Phenanthrene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Anthracene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Carbazole	ND	843		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Di-n-butylphthalate	174	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Fluoranthene	150	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Pyrene	288	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Butyl Benzylphthalate	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
bis(2-Ethylhexyl)adipate	210	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Benz (a) anthracene	619	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Chrysene	246	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
bis (2-Ethylhexyl) phthalate	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Di-n-octyl phthalate	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Benzo (b) fluoranthene	508	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Benzo (k) fluoranthene	186	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Benzo (a) pyrene	927	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Indeno (1,2,3-cd) pyrene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Dibenz (a,h) anthracene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Benzo (g,h,i) perylene	1,190	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Surr: 2,4,6-Tribromophenol	60.2	11.1-127		%REC	1	9/24/2015 2:16:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509270-012

Matrix: Soil

Client Sample ID: GP-6-15:7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	48.7	16.1-150	%REC	1	9/24/2015 2:16:00 AM
Surr: Nitrobenzene-d5	40.3	10-133	%REC	1	9/24/2015 2:16:00 AM
Surr: Phenol-d6	64.7	11.6-133	%REC	1	9/24/2015 2:16:00 AM
Surr: p-Terphenyl	80.8	21.8-150	%REC	1	9/24/2015 2:16:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	5.40	mg/Kg-dry	1	9/23/2015 6:07:00 AM
Surr: Toluene-d8	99.5	65-135	%REC	1	9/23/2015 6:07:00 AM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/23/2015 6:07:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0648	mg/Kg-dry	1	9/23/2015 6:07:00 AM
Chloromethane	ND	0.0648	mg/Kg-dry	1	9/23/2015 6:07:00 AM
Vinyl chloride	ND	0.00216	mg/Kg-dry	1	9/23/2015 6:07:00 AM
Bromomethane	ND	0.0972	mg/Kg-dry	1	9/23/2015 6:07:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0540	mg/Kg-dry	1	9/23/2015 6:07:00 AM
Chloroethane	ND	0.0648	mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,1-Dichloroethene	ND	0.0540	mg/Kg-dry	1	9/23/2015 6:07:00 AM
Methylene chloride	ND	0.0216	mg/Kg-dry	1	9/23/2015 6:07:00 AM
trans-1,2-Dichloroethene	ND	0.0216	mg/Kg-dry	1	9/23/2015 6:07:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0540	mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,1-Dichloroethane	ND	0.0216	mg/Kg-dry	1	9/23/2015 6:07:00 AM
2,2-Dichloropropane	ND	0.0540	mg/Kg-dry	1	9/23/2015 6:07:00 AM
cis-1,2-Dichloroethene	ND	0.0216	mg/Kg-dry	1	9/23/2015 6:07:00 AM
Chloroform	ND	0.0216	mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0216	mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,1-Dichloropropene	ND	0.0216	mg/Kg-dry	1	9/23/2015 6:07:00 AM
Carbon tetrachloride	ND	0.0216	mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2-Dichloroethane (EDC)	ND	0.0324	mg/Kg-dry	1	9/23/2015 6:07:00 AM
Benzene	ND	0.0216	mg/Kg-dry	1	9/23/2015 6:07:00 AM
Trichloroethene (TCE)	ND	0.0216	mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2-Dichloropropane	ND	0.0216	mg/Kg-dry	1	9/23/2015 6:07:00 AM
Bromodichloromethane	ND	0.0216	mg/Kg-dry	1	9/23/2015 6:07:00 AM
Dibromomethane	ND	0.0432	mg/Kg-dry	1	9/23/2015 6:07:00 AM
cis-1,3-Dichloropropene	ND	0.0216	mg/Kg-dry	1	9/23/2015 6:07:00 AM
Toluene	ND	0.0216	mg/Kg-dry	1	9/23/2015 6:07:00 AM
trans-1,3-Dichloropropylene	ND	0.0324	mg/Kg-dry	1	9/23/2015 6:07:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509270-012

Matrix: Soil

Client Sample ID: GP-6-15:7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0324		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,3-Dichloropropane	ND	0.0540		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Tetrachloroethene (PCE)	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Dibromochloromethane	ND	0.0324		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2-Dibromoethane (EDB)	ND	0.00540		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Chlorobenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0324		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Ethylbenzene	ND	0.0324		mg/Kg-dry	1	9/23/2015 6:07:00 AM
m,p-Xylene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
o-Xylene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Styrene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Isopropylbenzene	ND	0.0864		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Bromoform	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
n-Propylbenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Bromobenzene	ND	0.0324		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,3,5-Trimethylbenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
2-Chlorotoluene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
4-Chlorotoluene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
tert-Butylbenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2,3-Trichloropropane	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2,4-Trichlorobenzene	ND	0.0540		mg/Kg-dry	1	9/23/2015 6:07:00 AM
sec-Butylbenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
4-Isopropyltoluene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,3-Dichlorobenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,4-Dichlorobenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
n-Butylbenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2-Dichlorobenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2-Dibromo-3-chloropropane	ND	0.540		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2,4-Trimethylbenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Hexachlorobutadiene	ND	0.108		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Naphthalene	ND	0.0324		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2,3-Trichlorobenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Surr: Dibromofluoromethane	95.3	56.5-129		%REC	1	9/23/2015 6:07:00 AM
Surr: Toluene-d8	97.2	64.3-131		%REC	1	9/23/2015 6:07:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.2	63.1-141		%REC	1	9/23/2015 6:07:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509270-012

Matrix: Soil

Client Sample ID: GP-6-15:7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11895

Analyst: MW

Mercury	9.14	3.96	D	mg/Kg-dry	10	9/22/2015 2:11:30 PM
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Total Metals by EPA Method 6020

Batch ID: 11888

Analyst: TN

Arsenic	50.3	0.137		mg/Kg-dry	1	9/21/2015 6:43:07 PM
Barium	631	0.685		mg/Kg-dry	1	9/21/2015 6:43:07 PM
Cadmium	36.5	0.274		mg/Kg-dry	1	9/21/2015 6:43:07 PM
Chromium	115	0.137		mg/Kg-dry	1	9/21/2015 6:43:07 PM
Lead	2,180	0.274		mg/Kg-dry	1	9/21/2015 6:43:07 PM
Selenium	1.74	0.685		mg/Kg-dry	1	9/21/2015 6:43:07 PM
Silver	2.60	0.137		mg/Kg-dry	1	9/21/2015 6:43:07 PM

NOTES:

Internal Standard Tb recovered below 70%.

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	41.6			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:05:00 PM

Project: Pacific Park

Lab ID: 1509270-013

Matrix: Soil

Client Sample ID: GP-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11922		Analyst: MD	
Dicamba	ND	41.1		µg/Kg-dry	1	9/29/2015 11:43:00 PM
2,4-D	ND	35.3		µg/Kg-dry	1	9/29/2015 11:43:00 PM
2,4-DP	ND	29.4		µg/Kg-dry	1	9/29/2015 11:43:00 PM
2,4,5-TP (Silvex)	ND	23.5		µg/Kg-dry	1	9/29/2015 11:43:00 PM
2,4,5-T	ND	58.8		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Dinoseb	ND	35.3		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Dalapon	ND	235		µg/Kg-dry	1	9/29/2015 11:43:00 PM
2,4-DB	ND	29.4		µg/Kg-dry	1	9/29/2015 11:43:00 PM
MCPP	ND	5,170		µg/Kg-dry	1	9/29/2015 11:43:00 PM
MCPA	ND	329		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Picloram	ND	58.8		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Bentazon	ND	41.1		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Chloramben	ND	23.5		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Acifluorfen	ND	94.0		µg/Kg-dry	1	9/29/2015 11:43:00 PM
3,5-Dichlorobenzoic acid	ND	47.0		µg/Kg-dry	1	9/29/2015 11:43:00 PM
4-Nitrophenol	ND	35.3		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Dacthal (DCPA)	ND	35.3		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Surr: 2,4-Dichlorophenylacetic acid	96.6	20.1-168		%REC	1	9/29/2015 11:43:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Alpha BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Beta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Gamma BHC (Lindane)	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Delta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Heptachlor	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Aldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Heptachlor epoxide	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
gamma-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Endosulfan I	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
alpha-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Dieldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
4,4'-DDE	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Endrin	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Endosulfan II	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM
4,4'-DDD	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Endrin aldehyde	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Endosulfan sulfate	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:05:00 PM

Project: Pacific Park

Lab ID: 1509270-013

Matrix: Soil

Client Sample ID: GP-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Endrin ketone	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Methoxychlor	ND	0.0580		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Surr: Decachlorobiphenyl	106	26.5-158		%REC	1	9/24/2015 9:42:00 AM
Surr: Tetrachloro-m-xylene	75.2	11-150		%REC	1	9/24/2015 9:42:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	22.5		mg/Kg-dry	1	9/23/2015 6:55:00 PM
Heavy Oil	ND	56.3		mg/Kg-dry	1	9/23/2015 6:55:00 PM
Surr: 2-Fluorobiphenyl	92.9	50-150		%REC	1	9/23/2015 6:55:00 PM
Surr: o-Terphenyl	91.2	50-150		%REC	1	9/23/2015 6:55:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Bis(2-chloroethyl) ether	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2-Chlorophenol	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
1,3-Dichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
1,4-Dichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
1,2-Dichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Benzyl alcohol	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2-Methylphenol (o-cresol)	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Hexachloroethane	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
N-Nitrosodi-n-propylamine	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Nitrobenzene	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Isophorone	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
4-Methylphenol (p-cresol)	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2-Nitrophenol	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2,4-Dimethylphenol	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Bis(2-chloroethoxy)methane	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2,4-Dichlorophenol	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
1,2,4-Trichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Naphthalene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
4-Chloroaniline	ND	608		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Hexachlorobutadiene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
4-Chloro-3-methylphenol	ND	608		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2-Methylnaphthalene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
1-Methylnaphthalene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:05:00 PM

Project: Pacific Park

Lab ID: 1509270-013

Matrix: Soil

Client Sample ID: GP-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Hexachlorocyclopentadiene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2,4,6-Trichlorophenol	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2,4,5-Trichlorophenol	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2-Chloronaphthalene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2-Nitroaniline	ND	608		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Acenaphthene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Dimethylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2,6-Dinitrotoluene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Acenaphthylene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2,4-Dinitrophenol	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Dibenzofuran	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2,4-Dinitrotoluene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
4-Nitrophenol	ND	608		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Fluorene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
4-Chlorophenyl phenyl ether	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Diethylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
4,6-Dinitro-2-methylphenol	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
4-Bromophenyl phenyl ether	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Hexachlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Pentachlorophenol	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Phenanthrene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Anthracene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Carbazole	ND	608		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Di-n-butylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Fluoranthene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Pyrene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Butyl Benzylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
bis(2-Ethylhexyl)adipate	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Benz (a) anthracene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Chrysene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
bis (2-Ethylhexyl) phthalate	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Di-n-octyl phthalate	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Benzo (b) fluoranthene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Benzo (k) fluoranthene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Benzo (a) pyrene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Indeno (1,2,3-cd) pyrene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Dibenz (a,h) anthracene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Benzo (g,h,i) perylene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Surr: 2,4,6-Tribromophenol	63.3	11.1-127		%REC	1	9/24/2015 2:38:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:05:00 PM

Project: Pacific Park

Lab ID: 1509270-013

Matrix: Soil

Client Sample ID: GP-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	41.7	16.1-150	%REC	1	9/24/2015 2:38:00 AM
Surr: Nitrobenzene-d5	12.4	10-133	%REC	1	9/24/2015 2:38:00 AM
Surr: Phenol-d6	59.0	11.6-133	%REC	1	9/24/2015 2:38:00 AM
Surr: p-Terphenyl	87.3	21.8-150	%REC	1	9/24/2015 2:38:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	3.35	mg/Kg-dry	1	9/23/2015 6:35:00 AM
Surr: Toluene-d8	99.1	65-135	%REC	1	9/23/2015 6:35:00 AM
Surr: 4-Bromofluorobenzene	100	65-135	%REC	1	9/23/2015 6:35:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0402	mg/Kg-dry	1	9/23/2015 6:35:00 AM
Chloromethane	ND	0.0402	mg/Kg-dry	1	9/23/2015 6:35:00 AM
Vinyl chloride	ND	0.00134	mg/Kg-dry	1	9/23/2015 6:35:00 AM
Bromomethane	ND	0.0603	mg/Kg-dry	1	9/23/2015 6:35:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0335	mg/Kg-dry	1	9/23/2015 6:35:00 AM
Chloroethane	ND	0.0402	mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,1-Dichloroethene	ND	0.0335	mg/Kg-dry	1	9/23/2015 6:35:00 AM
Methylene chloride	ND	0.0134	mg/Kg-dry	1	9/23/2015 6:35:00 AM
trans-1,2-Dichloroethene	ND	0.0134	mg/Kg-dry	1	9/23/2015 6:35:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0335	mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,1-Dichloroethane	ND	0.0134	mg/Kg-dry	1	9/23/2015 6:35:00 AM
2,2-Dichloropropane	ND	0.0335	mg/Kg-dry	1	9/23/2015 6:35:00 AM
cis-1,2-Dichloroethene	ND	0.0134	mg/Kg-dry	1	9/23/2015 6:35:00 AM
Chloroform	ND	0.0134	mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0134	mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,1-Dichloropropene	ND	0.0134	mg/Kg-dry	1	9/23/2015 6:35:00 AM
Carbon tetrachloride	ND	0.0134	mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2-Dichloroethane (EDC)	ND	0.0201	mg/Kg-dry	1	9/23/2015 6:35:00 AM
Benzene	ND	0.0134	mg/Kg-dry	1	9/23/2015 6:35:00 AM
Trichloroethene (TCE)	ND	0.0134	mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2-Dichloropropane	ND	0.0134	mg/Kg-dry	1	9/23/2015 6:35:00 AM
Bromodichloromethane	ND	0.0134	mg/Kg-dry	1	9/23/2015 6:35:00 AM
Dibromomethane	ND	0.0268	mg/Kg-dry	1	9/23/2015 6:35:00 AM
cis-1,3-Dichloropropene	ND	0.0134	mg/Kg-dry	1	9/23/2015 6:35:00 AM
Toluene	ND	0.0134	mg/Kg-dry	1	9/23/2015 6:35:00 AM
trans-1,3-Dichloropropylene	ND	0.0201	mg/Kg-dry	1	9/23/2015 6:35:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:05:00 PM

Project: Pacific Park

Lab ID: 1509270-013

Matrix: Soil

Client Sample ID: GP-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0201		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,3-Dichloropropane	ND	0.0335		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Tetrachloroethene (PCE)	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Dibromochloromethane	ND	0.0201		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2-Dibromoethane (EDB)	ND	0.00335		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Chlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0201		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Ethylbenzene	ND	0.0201		mg/Kg-dry	1	9/23/2015 6:35:00 AM
m,p-Xylene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
o-Xylene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Styrene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Isopropylbenzene	ND	0.0536		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Bromoform	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
n-Propylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Bromobenzene	ND	0.0201		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,3,5-Trimethylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
2-Chlorotoluene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
4-Chlorotoluene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
tert-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2,3-Trichloropropane	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2,4-Trichlorobenzene	ND	0.0335		mg/Kg-dry	1	9/23/2015 6:35:00 AM
sec-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
4-Isopropyltoluene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,3-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,4-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
n-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2-Dibromo-3-chloropropane	ND	0.335		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2,4-Trimethylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Hexachlorobutadiene	ND	0.0671		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Naphthalene	ND	0.0201		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2,3-Trichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Surr: Dibromofluoromethane	93.9	56.5-129		%REC	1	9/23/2015 6:35:00 AM
Surr: Toluene-d8	96.6	64.3-131		%REC	1	9/23/2015 6:35:00 AM
Surr: 1-Bromo-4-fluorobenzene	96.7	63.1-141		%REC	1	9/23/2015 6:35:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:05:00 PM

Project: Pacific Park

Lab ID: 1509270-013

Matrix: Soil

Client Sample ID: GP-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11895

Analyst: MW

Mercury	ND	0.298		mg/Kg-dry	1	9/22/2015 1:17:08 PM
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Total Metals by EPA Method 6020

Batch ID: 11888

Analyst: TN

Arsenic	2.15	0.0958		mg/Kg-dry	1	9/21/2015 6:46:39 PM
Barium	23.2	0.479		mg/Kg-dry	1	9/21/2015 6:46:39 PM
Cadmium	ND	0.192		mg/Kg-dry	1	9/21/2015 6:46:39 PM
Chromium	9.67	0.0958		mg/Kg-dry	1	9/21/2015 6:46:39 PM
Lead	1.50	0.192		mg/Kg-dry	1	9/21/2015 6:46:39 PM
Selenium	1.11	0.479		mg/Kg-dry	1	9/21/2015 6:46:39 PM
Silver	ND	0.0958		mg/Kg-dry	1	9/21/2015 6:46:39 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	17.8			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-014

Matrix: Soil

Client Sample ID: GP-7-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11922		Analyst: MD	
Dicamba	ND	35.9		µg/Kg-dry	1	9/29/2015 11:59:00 PM
2,4-D	ND	30.7		µg/Kg-dry	1	9/29/2015 11:59:00 PM
2,4-DP	ND	25.6		µg/Kg-dry	1	9/29/2015 11:59:00 PM
2,4,5-TP (Silvex)	ND	20.5		µg/Kg-dry	1	9/29/2015 11:59:00 PM
2,4,5-T	ND	51.2		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Dinoseb	ND	30.7		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Dalapon	ND	205		µg/Kg-dry	1	9/29/2015 11:59:00 PM
2,4-DB	ND	25.6		µg/Kg-dry	1	9/29/2015 11:59:00 PM
MCPP	ND	4,510		µg/Kg-dry	1	9/29/2015 11:59:00 PM
MCPA	ND	287		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Picloram	ND	51.2		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Bentazon	ND	35.9		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Chloramben	ND	20.5		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Acifluorfen	ND	82.0		µg/Kg-dry	1	9/29/2015 11:59:00 PM
3,5-Dichlorobenzoic acid	ND	41.0		µg/Kg-dry	1	9/29/2015 11:59:00 PM
4-Nitrophenol	ND	30.7		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Dacthal (DCPA)	ND	30.7		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Surr: 2,4-Dichlorophenylacetic acid	93.3	20.1-168		%REC	1	9/29/2015 11:59:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.0994		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Alpha BHC	ND	0.00994		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Beta BHC	ND	0.00994		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Gamma BHC (Lindane)	ND	0.00994		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Delta BHC	ND	0.00994		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Heptachlor	ND	0.00994		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Aldrin	ND	0.00994		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Heptachlor epoxide	ND	0.00994		mg/Kg-dry	1	9/24/2015 9:53:00 AM
gamma-Chlordane	ND	0.00994		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Endosulfan I	ND	0.00994		mg/Kg-dry	1	9/24/2015 9:53:00 AM
alpha-Chlordane	ND	0.00994		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Dieldrin	ND	0.00994		mg/Kg-dry	1	9/24/2015 9:53:00 AM
4,4'-DDE	ND	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Endrin	0.0618	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Endosulfan II	0.0625	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM
4,4'-DDD	0.0742	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Endrin aldehyde	ND	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Endosulfan sulfate	ND	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-014

Matrix: Soil

Client Sample ID: GP-7-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Endrin ketone	ND	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Methoxychlor	ND	0.0497		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Surr: Decachlorobiphenyl	118	26.5-158		%REC	1	9/24/2015 9:53:00 AM
Surr: Tetrachloro-m-xylene	89.0	11-150		%REC	1	9/24/2015 9:53:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	19.1		mg/Kg-dry	1	9/23/2015 7:27:00 PM
Heavy Oil	ND	47.6		mg/Kg-dry	1	9/23/2015 7:27:00 PM
Surr: 2-Fluorobiphenyl	117	50-150		%REC	1	9/23/2015 7:27:00 PM
Surr: o-Terphenyl	120	50-150		%REC	1	9/23/2015 7:27:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Bis(2-chloroethyl) ether	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2-Chlorophenol	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
1,3-Dichlorobenzene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
1,4-Dichlorobenzene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
1,2-Dichlorobenzene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Benzyl alcohol	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2-Methylphenol (o-cresol)	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Hexachloroethane	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
N-Nitrosodi-n-propylamine	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Nitrobenzene	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Isophorone	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
4-Methylphenol (p-cresol)	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2-Nitrophenol	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2,4-Dimethylphenol	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Bis(2-chloroethoxy)methane	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2,4-Dichlorophenol	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
1,2,4-Trichlorobenzene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Naphthalene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
4-Chloroaniline	ND	517		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Hexachlorobutadiene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
4-Chloro-3-methylphenol	ND	517		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2-Methylnaphthalene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
1-Methylnaphthalene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-014

Matrix: Soil

Client Sample ID: GP-7-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Hexachlorocyclopentadiene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2,4,6-Trichlorophenol	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2,4,5-Trichlorophenol	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2-Chloronaphthalene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2-Nitroaniline	ND	517		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Acenaphthene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Dimethylphthalate	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2,6-Dinitrotoluene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Acenaphthylene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2,4-Dinitrophenol	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Dibenzofuran	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2,4-Dinitrotoluene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
4-Nitrophenol	ND	517		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Fluorene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
4-Chlorophenyl phenyl ether	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Diethylphthalate	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
4,6-Dinitro-2-methylphenol	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
4-Bromophenyl phenyl ether	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Hexachlorobenzene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Pentachlorophenol	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Phenanthrene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Anthracene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Carbazole	ND	517		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Di-n-butylphthalate	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Fluoranthene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Pyrene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Butyl Benzylphthalate	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
bis(2-Ethylhexyl)adipate	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Benz (a) anthracene	108	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Chrysene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
bis (2-Ethylhexyl) phthalate	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Di-n-octyl phthalate	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Benzo (b) fluoranthene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Benzo (k) fluoranthene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Benzo (a) pyrene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Indeno (1,2,3-cd) pyrene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Dibenz (a,h) anthracene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Benzo (g,h,i) perylene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Surr: 2,4,6-Tribromophenol	43.0	11.1-127		%REC	1	9/24/2015 3:00:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-014

Matrix: Soil

Client Sample ID: GP-7-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	60.5	16.1-150	%REC	1	9/24/2015 3:00:00 AM
Surr: Nitrobenzene-d5	37.9	10-133	%REC	1	9/24/2015 3:00:00 AM
Surr: Phenol-d6	54.2	11.6-133	%REC	1	9/24/2015 3:00:00 AM
Surr: p-Terphenyl	73.1	21.8-150	%REC	1	9/24/2015 3:00:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	3.79	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Surr: Toluene-d8	98.7	65-135	%REC	1	9/23/2015 8:58:00 AM
Surr: 4-Bromofluorobenzene	101	65-135	%REC	1	9/23/2015 8:58:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0454	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Chloromethane	ND	0.0454	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Vinyl chloride	ND	0.00151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Bromomethane	ND	0.0682	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0379	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Chloroethane	ND	0.0454	mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,1-Dichloroethene	ND	0.0379	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Methylene chloride	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
trans-1,2-Dichloroethene	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0379	mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,1-Dichloroethane	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
2,2-Dichloropropane	ND	0.0379	mg/Kg-dry	1	9/23/2015 8:58:00 AM
cis-1,2-Dichloroethene	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Chloroform	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,1-Dichloropropene	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Carbon tetrachloride	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2-Dichloroethane (EDC)	ND	0.0227	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Benzene	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Trichloroethene (TCE)	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2-Dichloropropane	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Bromodichloromethane	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Dibromomethane	ND	0.0303	mg/Kg-dry	1	9/23/2015 8:58:00 AM
cis-1,3-Dichloropropene	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Toluene	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
trans-1,3-Dichloropropylene	ND	0.0227	mg/Kg-dry	1	9/23/2015 8:58:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-014

Matrix: Soil

Client Sample ID: GP-7-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0227		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,3-Dichloropropane	ND	0.0379		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Tetrachloroethene (PCE)	0.0230	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Dibromochloromethane	ND	0.0227		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2-Dibromoethane (EDB)	ND	0.00379		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Chlorobenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0227		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Ethylbenzene	ND	0.0227		mg/Kg-dry	1	9/23/2015 8:58:00 AM
m,p-Xylene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
o-Xylene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Styrene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Isopropylbenzene	ND	0.0606		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Bromoform	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
n-Propylbenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Bromobenzene	ND	0.0227		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,3,5-Trimethylbenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
2-Chlorotoluene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
4-Chlorotoluene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
tert-Butylbenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2,3-Trichloropropane	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2,4-Trichlorobenzene	ND	0.0379		mg/Kg-dry	1	9/23/2015 8:58:00 AM
sec-Butylbenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
4-Isopropyltoluene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,3-Dichlorobenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,4-Dichlorobenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
n-Butylbenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2-Dichlorobenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2-Dibromo-3-chloropropane	ND	0.379		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2,4-Trimethylbenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Hexachlorobutadiene	ND	0.0757		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Naphthalene	ND	0.0227		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2,3-Trichlorobenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Surr: Dibromofluoromethane	94.0	56.5-129		%REC	1	9/23/2015 8:58:00 AM
Surr: Toluene-d8	97.4	64.3-131		%REC	1	9/23/2015 8:58:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.5	63.1-141		%REC	1	9/23/2015 8:58:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-014

Matrix: Soil

Client Sample ID: GP-7-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11895

Analyst: MW

Mercury	2.45	2.21	D	mg/Kg-dry	10	9/22/2015 2:13:07 PM
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Total Metals by EPA Method 6020

Batch ID: 11888

Analyst: TN

Arsenic	6.10	0.0847		mg/Kg-dry	1	9/21/2015 6:50:10 PM
Barium	148	0.424		mg/Kg-dry	1	9/21/2015 6:50:10 PM
Cadmium	0.789	0.169		mg/Kg-dry	1	9/21/2015 6:50:10 PM
Chromium	22.6	0.0847		mg/Kg-dry	1	9/21/2015 6:50:10 PM
Lead	62.9	0.169		mg/Kg-dry	1	9/21/2015 6:50:10 PM
Selenium	1.27	0.424		mg/Kg-dry	1	9/21/2015 6:50:10 PM
Silver	0.138	0.0847		mg/Kg-dry	1	9/21/2015 6:50:10 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	4.07			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:40:00 PM

Project: Pacific Park

Lab ID: 1509270-015

Matrix: Soil

Client Sample ID: GP-7-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11922		Analyst: MD	
Dicamba	ND	41.0		µg/Kg-dry	1	9/30/2015 12:16:00 AM
2,4-D	ND	35.1		µg/Kg-dry	1	9/30/2015 12:16:00 AM
2,4-DP	ND	29.3		µg/Kg-dry	1	9/30/2015 12:16:00 AM
2,4,5-TP (Silvex)	ND	23.4		µg/Kg-dry	1	9/30/2015 12:16:00 AM
2,4,5-T	ND	58.6		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Dinoseb	ND	35.1		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Dalapon	ND	234		µg/Kg-dry	1	9/30/2015 12:16:00 AM
2,4-DB	ND	29.3		µg/Kg-dry	1	9/30/2015 12:16:00 AM
MCPP	ND	5,150		µg/Kg-dry	1	9/30/2015 12:16:00 AM
MCPA	ND	328		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Picloram	ND	58.6		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Bentazon	ND	41.0		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Chloramben	ND	23.4		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Acifluorfen	ND	93.7		µg/Kg-dry	1	9/30/2015 12:16:00 AM
3,5-Dichlorobenzoic acid	ND	46.9		µg/Kg-dry	1	9/30/2015 12:16:00 AM
4-Nitrophenol	ND	35.1		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Dacthal (DCPA)	ND	35.1		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Surr: 2,4-Dichlorophenylacetic acid	83.9	20.1-168		%REC	1	9/30/2015 12:16:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Alpha BHC	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Beta BHC	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Gamma BHC (Lindane)	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Delta BHC	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Heptachlor	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Aldrin	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Heptachlor epoxide	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
gamma-Chlordane	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Endosulfan I	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
alpha-Chlordane	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Dieldrin	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
4,4'-DDE	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Endrin	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Endosulfan II	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM
4,4'-DDD	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Endrin aldehyde	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Endosulfan sulfate	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:40:00 PM

Project: Pacific Park

Lab ID: 1509270-015

Matrix: Soil

Client Sample ID: GP-7-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Endrin ketone	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Methoxychlor	ND	0.0567		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Surr: Decachlorobiphenyl	59.7	26.5-158		%REC	1	9/24/2015 10:04:00 AM
Surr: Tetrachloro-m-xylene	66.6	11-150		%REC	1	9/24/2015 10:04:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903 Analyst: AK

Diesel (Fuel Oil)	ND	22.2		mg/Kg-dry	1	9/23/2015 7:58:00 PM
Heavy Oil	ND	55.5		mg/Kg-dry	1	9/23/2015 7:58:00 PM
Surr: 2-Fluorobiphenyl	99.4	50-150		%REC	1	9/23/2015 7:58:00 PM
Surr: o-Terphenyl	95.3	50-150		%REC	1	9/23/2015 7:58:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904 Analyst: NG

Phenol	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Bis(2-chloroethyl) ether	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2-Chlorophenol	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
1,3-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
1,4-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
1,2-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Benzyl alcohol	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2-Methylphenol (o-cresol)	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Hexachloroethane	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
N-Nitrosodi-n-propylamine	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Nitrobenzene	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Isophorone	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
4-Methylphenol (p-cresol)	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2-Nitrophenol	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2,4-Dimethylphenol	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Bis(2-chloroethoxy)methane	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2,4-Dichlorophenol	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
1,2,4-Trichlorobenzene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Naphthalene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
4-Chloroaniline	ND	576		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Hexachlorobutadiene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
4-Chloro-3-methylphenol	ND	576		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2-Methylnaphthalene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
1-Methylnaphthalene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:40:00 PM

Project: Pacific Park

Lab ID: 1509270-015

Matrix: Soil

Client Sample ID: GP-7-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
Hexachlorocyclopentadiene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2,4,6-Trichlorophenol	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2,4,5-Trichlorophenol	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2-Chloronaphthalene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2-Nitroaniline	ND	576		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Acenaphthene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Dimethylphthalate	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2,6-Dinitrotoluene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Acenaphthylene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2,4-Dinitrophenol	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Dibenzofuran	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2,4-Dinitrotoluene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
4-Nitrophenol	ND	576		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Fluorene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
4-Chlorophenyl phenyl ether	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Diethylphthalate	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
4,6-Dinitro-2-methylphenol	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
4-Bromophenyl phenyl ether	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Hexachlorobenzene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Pentachlorophenol	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Phenanthrene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Anthracene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Carbazole	ND	576		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Di-n-butylphthalate	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Fluoranthene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Pyrene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Butyl Benzylphthalate	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
bis(2-Ethylhexyl)adipate	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Benz (a) anthracene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Chrysene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
bis (2-Ethylhexyl) phthalate	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Di-n-octyl phthalate	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Benzo (b) fluoranthene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Benzo (k) fluoranthene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Benzo (a) pyrene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Indeno (1,2,3-cd) pyrene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Dibenz (a,h) anthracene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Benzo (g,h,i) perylene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Surr: 2,4,6-Tribromophenol	57.5	11.1-127		%REC	1	9/24/2015 3:22:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:40:00 PM

Project: Pacific Park

Lab ID: 1509270-015

Matrix: Soil

Client Sample ID: GP-7-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	34.1	16.1-150	%REC	1	9/24/2015 3:22:00 AM
Surr: Nitrobenzene-d5	13.2	10-133	%REC	1	9/24/2015 3:22:00 AM
Surr: Phenol-d6	45.4	11.6-133	%REC	1	9/24/2015 3:22:00 AM
Surr: p-Terphenyl	70.9	21.8-150	%REC	1	9/24/2015 3:22:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	3.74	mg/Kg-dry	1	9/23/2015 9:55:00 AM
Surr: Toluene-d8	99.9	65-135	%REC	1	9/23/2015 9:55:00 AM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/23/2015 9:55:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0449	mg/Kg-dry	1	9/23/2015 9:55:00 AM
Chloromethane	ND	0.0449	mg/Kg-dry	1	9/23/2015 9:55:00 AM
Vinyl chloride	ND	0.00150	mg/Kg-dry	1	9/23/2015 9:55:00 AM
Bromomethane	ND	0.0673	mg/Kg-dry	1	9/23/2015 9:55:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0374	mg/Kg-dry	1	9/23/2015 9:55:00 AM
Chloroethane	ND	0.0449	mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,1-Dichloroethene	ND	0.0374	mg/Kg-dry	1	9/23/2015 9:55:00 AM
Methylene chloride	ND	0.0150	mg/Kg-dry	1	9/23/2015 9:55:00 AM
trans-1,2-Dichloroethene	ND	0.0150	mg/Kg-dry	1	9/23/2015 9:55:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0374	mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,1-Dichloroethane	ND	0.0150	mg/Kg-dry	1	9/23/2015 9:55:00 AM
2,2-Dichloropropane	ND	0.0374	mg/Kg-dry	1	9/23/2015 9:55:00 AM
cis-1,2-Dichloroethene	ND	0.0150	mg/Kg-dry	1	9/23/2015 9:55:00 AM
Chloroform	ND	0.0150	mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0150	mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,1-Dichloropropene	ND	0.0150	mg/Kg-dry	1	9/23/2015 9:55:00 AM
Carbon tetrachloride	ND	0.0150	mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2-Dichloroethane (EDC)	ND	0.0224	mg/Kg-dry	1	9/23/2015 9:55:00 AM
Benzene	ND	0.0150	mg/Kg-dry	1	9/23/2015 9:55:00 AM
Trichloroethene (TCE)	ND	0.0150	mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2-Dichloropropane	ND	0.0150	mg/Kg-dry	1	9/23/2015 9:55:00 AM
Bromodichloromethane	ND	0.0150	mg/Kg-dry	1	9/23/2015 9:55:00 AM
Dibromomethane	ND	0.0299	mg/Kg-dry	1	9/23/2015 9:55:00 AM
cis-1,3-Dichloropropene	ND	0.0150	mg/Kg-dry	1	9/23/2015 9:55:00 AM
Toluene	ND	0.0150	mg/Kg-dry	1	9/23/2015 9:55:00 AM
trans-1,3-Dichloropropylene	ND	0.0224	mg/Kg-dry	1	9/23/2015 9:55:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:40:00 PM

Project: Pacific Park

Lab ID: 1509270-015

Matrix: Soil

Client Sample ID: GP-7-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0224		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,3-Dichloropropane	ND	0.0374		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Tetrachloroethene (PCE)	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Dibromochloromethane	ND	0.0224		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2-Dibromoethane (EDB)	ND	0.00374		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Chlorobenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0224		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Ethylbenzene	ND	0.0224		mg/Kg-dry	1	9/23/2015 9:55:00 AM
m,p-Xylene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
o-Xylene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Styrene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Isopropylbenzene	ND	0.0598		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Bromoform	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
n-Propylbenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Bromobenzene	ND	0.0224		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,3,5-Trimethylbenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
2-Chlorotoluene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
4-Chlorotoluene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
tert-Butylbenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2,3-Trichloropropane	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2,4-Trichlorobenzene	ND	0.0374		mg/Kg-dry	1	9/23/2015 9:55:00 AM
sec-Butylbenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
4-Isopropyltoluene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,3-Dichlorobenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,4-Dichlorobenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
n-Butylbenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2-Dichlorobenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2-Dibromo-3-chloropropane	ND	0.374		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2,4-Trimethylbenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Hexachlorobutadiene	ND	0.0748		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Naphthalene	ND	0.0224		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2,3-Trichlorobenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Surr: Dibromofluoromethane	94.2	56.5-129		%REC	1	9/23/2015 9:55:00 AM
Surr: Toluene-d8	98.8	64.3-131		%REC	1	9/23/2015 9:55:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/23/2015 9:55:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:40:00 PM

Project: Pacific Park

Lab ID: 1509270-015

Matrix: Soil

Client Sample ID: GP-7-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11895

Analyst: MW

Mercury	ND	0.279		mg/Kg-dry	1	9/22/2015 1:23:40 PM
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Total Metals by EPA Method 6020

Batch ID: 11888

Analyst: TN

Arsenic	2.36	0.0905		mg/Kg-dry	1	9/21/2015 6:53:41 PM
Barium	17.3	0.453		mg/Kg-dry	1	9/21/2015 6:53:41 PM
Cadmium	ND	0.181		mg/Kg-dry	1	9/21/2015 6:53:41 PM
Chromium	9.59	0.0905		mg/Kg-dry	1	9/21/2015 6:53:41 PM
Lead	1.51	0.181		mg/Kg-dry	1	9/21/2015 6:53:41 PM
Selenium	1.14	0.453		mg/Kg-dry	1	9/21/2015 6:53:41 PM
Silver	ND	0.0905		mg/Kg-dry	1	9/21/2015 6:53:41 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	16.9			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-016

Matrix: Soil

Client Sample ID: GP-8-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	41.6		µg/Kg-dry	1	9/30/2015 12:33:00 AM
2,4-D	ND	35.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
2,4-DP	ND	29.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
2,4,5-TP (Silvex)	ND	23.8		µg/Kg-dry	1	9/30/2015 12:33:00 AM
2,4,5-T	ND	59.5		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Dinoseb	ND	35.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Dalapon	ND	238		µg/Kg-dry	1	9/30/2015 12:33:00 AM
2,4-DB	ND	29.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
MCPP	ND	5,230		µg/Kg-dry	1	9/30/2015 12:33:00 AM
MCPA	ND	333		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Picloram	ND	59.5		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Bentazon	ND	41.6		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Chloramben	25.9	23.8		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Acifluorfen	ND	95.1		µg/Kg-dry	1	9/30/2015 12:33:00 AM
3,5-Dichlorobenzoic acid	ND	47.6		µg/Kg-dry	1	9/30/2015 12:33:00 AM
4-Nitrophenol	ND	35.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Dacthal (DCPA)	ND	35.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Surr: 2,4-Dichlorophenylacetic acid	115	20.1-168		%REC	1	9/30/2015 12:33:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Alpha BHC	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Beta BHC	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Gamma BHC (Lindane)	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Delta BHC	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Heptachlor	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Aldrin	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Heptachlor epoxide	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
gamma-Chlordane	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Endosulfan I	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
alpha-Chlordane	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Dieldrin	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
4,4'-DDE	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Endrin	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Endosulfan II	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM
4,4'-DDD	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Endrin aldehyde	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Endosulfan sulfate	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-016

Matrix: Soil

Client Sample ID: GP-8-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Endrin ketone	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Methoxychlor	ND	0.0573		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Surr: Decachlorobiphenyl	95.4	26.5-158		%REC	1	9/24/2015 10:14:00 AM
Surr: Tetrachloro-m-xylene	72.8	11-150		%REC	1	9/24/2015 10:14:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	22.9		mg/Kg-dry	1	9/23/2015 8:30:00 PM
Heavy Oil	119	57.2		mg/Kg-dry	1	9/23/2015 8:30:00 PM
Surr: 2-Fluorobiphenyl	89.8	50-150		%REC	1	9/23/2015 8:30:00 PM
Surr: o-Terphenyl	87.5	50-150		%REC	1	9/23/2015 8:30:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Bis(2-chloroethyl) ether	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2-Chlorophenol	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
1,3-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
1,4-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
1,2-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Benzyl alcohol	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2-Methylphenol (o-cresol)	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Hexachloroethane	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
N-Nitrosodi-n-propylamine	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Nitrobenzene	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Isophorone	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
4-Methylphenol (p-cresol)	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2-Nitrophenol	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2,4-Dimethylphenol	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Bis(2-chloroethoxy)methane	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2,4-Dichlorophenol	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
1,2,4-Trichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Naphthalene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
4-Chloroaniline	ND	594		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Hexachlorobutadiene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
4-Chloro-3-methylphenol	ND	594		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2-Methylnaphthalene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
1-Methylnaphthalene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-016

Matrix: Soil

Client Sample ID: GP-8-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Hexachlorocyclopentadiene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2,4,6-Trichlorophenol	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2,4,5-Trichlorophenol	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2-Chloronaphthalene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2-Nitroaniline	ND	594		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Acenaphthene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Dimethylphthalate	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2,6-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Acenaphthylene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2,4-Dinitrophenol	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Dibenzofuran	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2,4-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
4-Nitrophenol	ND	594		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Fluorene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
4-Chlorophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Diethylphthalate	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
4,6-Dinitro-2-methylphenol	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
4-Bromophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Hexachlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Pentachlorophenol	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Phenanthrene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Anthracene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Carbazole	ND	594		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Di-n-butylphthalate	129	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Fluoranthene	105	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Pyrene	109	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Butyl Benzylphthalate	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
bis(2-Ethylhexyl)adipate	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Benz (a) anthracene	128	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Chrysene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
bis (2-Ethylhexyl) phthalate	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Di-n-octyl phthalate	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Benzo (b) fluoranthene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Benzo (k) fluoranthene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Benzo (a) pyrene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Indeno (1,2,3-cd) pyrene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Dibenz (a,h) anthracene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Benzo (g,h,i) perylene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Surr: 2,4,6-Tribromophenol	60.0	11.1-127		%REC	1	9/24/2015 3:44:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-016

Matrix: Soil

Client Sample ID: GP-8-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	58.6	16.1-150	%REC	1	9/24/2015 3:44:00 AM
Surr: Nitrobenzene-d5	38.6	10-133	%REC	1	9/24/2015 3:44:00 AM
Surr: Phenol-d6	46.2	11.6-133	%REC	1	9/24/2015 3:44:00 AM
Surr: p-Terphenyl	83.7	21.8-150	%REC	1	9/24/2015 3:44:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	3.05	mg/Kg-dry	1	9/23/2015 10:23:00 AM
Surr: Toluene-d8	97.8	65-135	%REC	1	9/23/2015 10:23:00 AM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/23/2015 10:23:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0366	mg/Kg-dry	1	9/23/2015 10:23:00 AM
Chloromethane	ND	0.0366	mg/Kg-dry	1	9/23/2015 10:23:00 AM
Vinyl chloride	ND	0.00122	mg/Kg-dry	1	9/23/2015 10:23:00 AM
Bromomethane	ND	0.0550	mg/Kg-dry	1	9/23/2015 10:23:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0305	mg/Kg-dry	1	9/23/2015 10:23:00 AM
Chloroethane	ND	0.0366	mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,1-Dichloroethene	ND	0.0305	mg/Kg-dry	1	9/23/2015 10:23:00 AM
Methylene chloride	ND	0.0122	mg/Kg-dry	1	9/23/2015 10:23:00 AM
trans-1,2-Dichloroethene	ND	0.0122	mg/Kg-dry	1	9/23/2015 10:23:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0305	mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,1-Dichloroethane	ND	0.0122	mg/Kg-dry	1	9/23/2015 10:23:00 AM
2,2-Dichloropropane	ND	0.0305	mg/Kg-dry	1	9/23/2015 10:23:00 AM
cis-1,2-Dichloroethene	ND	0.0122	mg/Kg-dry	1	9/23/2015 10:23:00 AM
Chloroform	ND	0.0122	mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0122	mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,1-Dichloropropene	ND	0.0122	mg/Kg-dry	1	9/23/2015 10:23:00 AM
Carbon tetrachloride	ND	0.0122	mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2-Dichloroethane (EDC)	ND	0.0183	mg/Kg-dry	1	9/23/2015 10:23:00 AM
Benzene	ND	0.0122	mg/Kg-dry	1	9/23/2015 10:23:00 AM
Trichloroethene (TCE)	ND	0.0122	mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2-Dichloropropane	ND	0.0122	mg/Kg-dry	1	9/23/2015 10:23:00 AM
Bromodichloromethane	ND	0.0122	mg/Kg-dry	1	9/23/2015 10:23:00 AM
Dibromomethane	ND	0.0244	mg/Kg-dry	1	9/23/2015 10:23:00 AM
cis-1,3-Dichloropropene	ND	0.0122	mg/Kg-dry	1	9/23/2015 10:23:00 AM
Toluene	ND	0.0122	mg/Kg-dry	1	9/23/2015 10:23:00 AM
trans-1,3-Dichloropropylene	ND	0.0183	mg/Kg-dry	1	9/23/2015 10:23:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-016

Matrix: Soil

Client Sample ID: GP-8-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11914	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0183		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,3-Dichloropropane	ND	0.0305		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Tetrachloroethene (PCE)	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Dibromochloromethane	ND	0.0183		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2-Dibromoethane (EDB)	ND	0.00305		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Chlorobenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0183		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Ethylbenzene	ND	0.0183		mg/Kg-dry	1	9/23/2015 10:23:00 AM
m,p-Xylene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
o-Xylene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Styrene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Isopropylbenzene	ND	0.0488		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Bromoform	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
n-Propylbenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Bromobenzene	ND	0.0183		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,3,5-Trimethylbenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
2-Chlorotoluene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
4-Chlorotoluene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
tert-Butylbenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2,3-Trichloropropane	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2,4-Trichlorobenzene	ND	0.0305		mg/Kg-dry	1	9/23/2015 10:23:00 AM
sec-Butylbenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
4-Isopropyltoluene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,3-Dichlorobenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,4-Dichlorobenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
n-Butylbenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2-Dichlorobenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2-Dibromo-3-chloropropane	ND	0.305		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2,4-Trimethylbenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Hexachlorobutadiene	ND	0.0611		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Naphthalene	ND	0.0183		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2,3-Trichlorobenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Surr: Dibromofluoromethane	94.9	56.5-129		%REC	1	9/23/2015 10:23:00 AM
Surr: Toluene-d8	97.1	64.3-131		%REC	1	9/23/2015 10:23:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/23/2015 10:23:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-016

Matrix: Soil

Client Sample ID: GP-8-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11895

Analyst: MW

Mercury	ND	0.287		mg/Kg-dry	1	9/22/2015 1:25:18 PM
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Total Metals by EPA Method 6020

Batch ID: 11888

Analyst: TN

Arsenic	11.6	0.0900		mg/Kg-dry	1	9/21/2015 6:57:13 PM
Barium	224	0.450		mg/Kg-dry	1	9/21/2015 6:57:13 PM
Cadmium	0.706	0.180		mg/Kg-dry	1	9/21/2015 6:57:13 PM
Chromium	17.3	0.0900		mg/Kg-dry	1	9/21/2015 6:57:13 PM
Lead	370	0.180		mg/Kg-dry	1	9/21/2015 6:57:13 PM
Selenium	1.88	0.450		mg/Kg-dry	1	9/21/2015 6:57:13 PM
Silver	0.136	0.0900		mg/Kg-dry	1	9/21/2015 6:57:13 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	17.7			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:10:00 PM

Project: Pacific Park

Lab ID: 1509270-017

Matrix: Soil

Client Sample ID: GP-8-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	47.6		µg/Kg-dry	1	9/30/2015 4:03:00 PM
2,4-D	ND	40.8		µg/Kg-dry	1	9/30/2015 4:03:00 PM
2,4-DP	ND	34.0		µg/Kg-dry	1	9/30/2015 4:03:00 PM
2,4,5-TP (Silvex)	ND	27.2		µg/Kg-dry	1	9/30/2015 4:03:00 PM
2,4,5-T	ND	68.1		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Dinoseb	ND	40.8		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Dalapon	ND	272		µg/Kg-dry	1	9/30/2015 4:03:00 PM
2,4-DB	ND	34.0		µg/Kg-dry	1	9/30/2015 4:03:00 PM
MCPP	ND	381		µg/Kg-dry	1	9/30/2015 4:03:00 PM
MCPA	ND	381		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Picloram	ND	68.1		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Bentazon	ND	47.6		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Chloramben	ND	27.2		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Acifluorfen	ND	109		µg/Kg-dry	1	9/30/2015 4:03:00 PM
3,5-Dichlorobenzoic acid	ND	54.5		µg/Kg-dry	1	9/30/2015 4:03:00 PM
4-Nitrophenol	ND	40.8		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Dacthal (DCPA)	ND	40.8		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Surr: 2,4-Dichlorophenylacetic acid	103	20.1-168		%REC	1	9/30/2015 4:03:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Alpha BHC	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Beta BHC	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Gamma BHC (Lindane)	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Delta BHC	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Heptachlor	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Aldrin	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Heptachlor epoxide	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
gamma-Chlordane	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Endosulfan I	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
alpha-Chlordane	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Dieldrin	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
4,4'-DDE	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Endrin	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Endosulfan II	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM
4,4'-DDD	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Endrin aldehyde	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Endosulfan sulfate	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:10:00 PM

Project: Pacific Park

Lab ID: 1509270-017

Matrix: Soil

Client Sample ID: GP-8-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Endrin ketone	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Methoxychlor	ND	0.0644		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Surr: Decachlorobiphenyl	97.8	26.5-158		%REC	1	9/24/2015 10:25:00 AM
Surr: Tetrachloro-m-xylene	67.7	11-150		%REC	1	9/24/2015 10:25:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	24.9		mg/Kg-dry	1	9/23/2015 9:01:00 PM
Heavy Oil	ND	62.4		mg/Kg-dry	1	9/23/2015 9:01:00 PM
Surr: 2-Fluorobiphenyl	86.1	50-150		%REC	1	9/23/2015 9:01:00 PM
Surr: o-Terphenyl	82.0	50-150		%REC	1	9/23/2015 9:01:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Bis(2-chloroethyl) ether	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2-Chlorophenol	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
1,3-Dichlorobenzene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
1,4-Dichlorobenzene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
1,2-Dichlorobenzene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Benzyl alcohol	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2-Methylphenol (o-cresol)	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Hexachloroethane	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
N-Nitrosodi-n-propylamine	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Nitrobenzene	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Isophorone	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
4-Methylphenol (p-cresol)	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2-Nitrophenol	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2,4-Dimethylphenol	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Bis(2-chloroethoxy)methane	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2,4-Dichlorophenol	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
1,2,4-Trichlorobenzene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Naphthalene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
4-Chloroaniline	ND	681		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Hexachlorobutadiene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
4-Chloro-3-methylphenol	ND	681		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2-Methylnaphthalene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
1-Methylnaphthalene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:10:00 PM

Project: Pacific Park

Lab ID: 1509270-017

Matrix: Soil

Client Sample ID: GP-8-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Hexachlorocyclopentadiene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2,4,6-Trichlorophenol	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2,4,5-Trichlorophenol	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2-Chloronaphthalene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2-Nitroaniline	ND	681		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Acenaphthene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Dimethylphthalate	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2,6-Dinitrotoluene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Acenaphthylene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2,4-Dinitrophenol	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Dibenzofuran	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2,4-Dinitrotoluene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
4-Nitrophenol	ND	681		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Fluorene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
4-Chlorophenyl phenyl ether	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Diethylphthalate	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
4,6-Dinitro-2-methylphenol	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
4-Bromophenyl phenyl ether	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Hexachlorobenzene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Pentachlorophenol	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Phenanthrene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Anthracene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Carbazole	ND	681		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Di-n-butylphthalate	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Fluoranthene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Pyrene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Butyl Benzylphthalate	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
bis(2-Ethylhexyl)adipate	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Benz (a) anthracene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Chrysene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
bis (2-Ethylhexyl) phthalate	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Di-n-octyl phthalate	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Benzo (b) fluoranthene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Benzo (k) fluoranthene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Benzo (a) pyrene	552	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Indeno (1,2,3-cd) pyrene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Dibenz (a,h) anthracene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Benzo (g,h,i) perylene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Surr: 2,4,6-Tribromophenol	58.1	11.1-127		%REC	1	9/24/2015 4:07:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:10:00 PM

Project: Pacific Park

Lab ID: 1509270-017

Matrix: Soil

Client Sample ID: GP-8-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	33.8	16.1-150	%REC	1	9/24/2015 4:07:00 AM
Surr: Nitrobenzene-d5	26.0	10-133	%REC	1	9/24/2015 4:07:00 AM
Surr: Phenol-d6	37.0	11.6-133	%REC	1	9/24/2015 4:07:00 AM
Surr: p-Terphenyl	68.7	21.8-150	%REC	1	9/24/2015 4:07:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	3.65	mg/Kg-dry	1	9/23/2015 10:52:00 AM
Surr: Toluene-d8	99.4	65-135	%REC	1	9/23/2015 10:52:00 AM
Surr: 4-Bromofluorobenzene	103	65-135	%REC	1	9/23/2015 10:52:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0438	mg/Kg-dry	1	9/23/2015 10:52:00 AM
Chloromethane	ND	0.0438	mg/Kg-dry	1	9/23/2015 10:52:00 AM
Vinyl chloride	ND	0.00146	mg/Kg-dry	1	9/23/2015 10:52:00 AM
Bromomethane	ND	0.0657	mg/Kg-dry	1	9/23/2015 10:52:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0365	mg/Kg-dry	1	9/23/2015 10:52:00 AM
Chloroethane	ND	0.0438	mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,1-Dichloroethene	ND	0.0365	mg/Kg-dry	1	9/23/2015 10:52:00 AM
Methylene chloride	ND	0.0146	mg/Kg-dry	1	9/23/2015 10:52:00 AM
trans-1,2-Dichloroethene	ND	0.0146	mg/Kg-dry	1	9/23/2015 10:52:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0365	mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,1-Dichloroethane	ND	0.0146	mg/Kg-dry	1	9/23/2015 10:52:00 AM
2,2-Dichloropropane	ND	0.0365	mg/Kg-dry	1	9/23/2015 10:52:00 AM
cis-1,2-Dichloroethene	ND	0.0146	mg/Kg-dry	1	9/23/2015 10:52:00 AM
Chloroform	ND	0.0146	mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0146	mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,1-Dichloropropene	ND	0.0146	mg/Kg-dry	1	9/23/2015 10:52:00 AM
Carbon tetrachloride	ND	0.0146	mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2-Dichloroethane (EDC)	ND	0.0219	mg/Kg-dry	1	9/23/2015 10:52:00 AM
Benzene	ND	0.0146	mg/Kg-dry	1	9/23/2015 10:52:00 AM
Trichloroethene (TCE)	ND	0.0146	mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2-Dichloropropane	ND	0.0146	mg/Kg-dry	1	9/23/2015 10:52:00 AM
Bromodichloromethane	ND	0.0146	mg/Kg-dry	1	9/23/2015 10:52:00 AM
Dibromomethane	ND	0.0292	mg/Kg-dry	1	9/23/2015 10:52:00 AM
cis-1,3-Dichloropropene	ND	0.0146	mg/Kg-dry	1	9/23/2015 10:52:00 AM
Toluene	ND	0.0146	mg/Kg-dry	1	9/23/2015 10:52:00 AM
trans-1,3-Dichloropropylene	ND	0.0219	mg/Kg-dry	1	9/23/2015 10:52:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:10:00 PM

Project: Pacific Park

Lab ID: 1509270-017

Matrix: Soil

Client Sample ID: GP-8-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0219		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,3-Dichloropropane	ND	0.0365		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Tetrachloroethene (PCE)	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Dibromochloromethane	ND	0.0219		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2-Dibromoethane (EDB)	ND	0.00365		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Chlorobenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0219		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Ethylbenzene	ND	0.0219		mg/Kg-dry	1	9/23/2015 10:52:00 AM
m,p-Xylene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
o-Xylene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Styrene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Isopropylbenzene	ND	0.0584		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Bromoform	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
n-Propylbenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Bromobenzene	ND	0.0219		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,3,5-Trimethylbenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
2-Chlorotoluene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
4-Chlorotoluene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
tert-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2,3-Trichloropropane	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2,4-Trichlorobenzene	ND	0.0365		mg/Kg-dry	1	9/23/2015 10:52:00 AM
sec-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
4-Isopropyltoluene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,3-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,4-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
n-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2-Dibromo-3-chloropropane	ND	0.365		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2,4-Trimethylbenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Hexachlorobutadiene	ND	0.0730		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Naphthalene	ND	0.0219		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2,3-Trichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Surr: Dibromofluoromethane	94.2	56.5-129		%REC	1	9/23/2015 10:52:00 AM
Surr: Toluene-d8	98.0	64.3-131		%REC	1	9/23/2015 10:52:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.5	63.1-141		%REC	1	9/23/2015 10:52:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:10:00 PM

Project: Pacific Park

Lab ID: 1509270-017

Matrix: Soil

Client Sample ID: GP-8-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11895

Analyst: MW

Mercury	ND	0.295		mg/Kg-dry	1	9/22/2015 1:27:01 PM
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Total Metals by EPA Method 6020

Batch ID: 11906

Analyst: TN

Arsenic	5.90	0.102		mg/Kg-dry	1	9/22/2015 4:03:55 PM
Barium	49.5	0.511		mg/Kg-dry	1	9/22/2015 4:03:55 PM
Cadmium	ND	0.204		mg/Kg-dry	1	9/22/2015 4:03:55 PM
Chromium	19.5	0.102		mg/Kg-dry	1	9/22/2015 4:03:55 PM
Lead	3.24	0.204		mg/Kg-dry	1	9/22/2015 4:03:55 PM
Selenium	1.54	0.511		mg/Kg-dry	1	9/22/2015 4:03:55 PM
Silver	ND	0.102		mg/Kg-dry	1	9/22/2015 4:03:55 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	27.0			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:06:00 PM

Project: Pacific Park

Lab ID: 1509270-018

Matrix: Soil

Client Sample ID: GP-8-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	44.5		µg/Kg-dry	1	9/30/2015 4:20:00 PM
2,4-D	ND	38.2		µg/Kg-dry	1	9/30/2015 4:20:00 PM
2,4-DP	ND	31.8		µg/Kg-dry	1	9/30/2015 4:20:00 PM
2,4,5-TP (Silvex)	ND	25.4		µg/Kg-dry	1	9/30/2015 4:20:00 PM
2,4,5-T	ND	63.6		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Dinoseb	ND	38.2		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Dalapon	ND	254		µg/Kg-dry	1	9/30/2015 4:20:00 PM
2,4-DB	ND	31.8		µg/Kg-dry	1	9/30/2015 4:20:00 PM
MCPP	ND	356		µg/Kg-dry	1	9/30/2015 4:20:00 PM
MCPA	ND	356		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Picloram	ND	63.6		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Bentazon	ND	44.5		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Chloramben	ND	25.4		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Acifluorfen	ND	102		µg/Kg-dry	1	9/30/2015 4:20:00 PM
3,5-Dichlorobenzoic acid	ND	50.9		µg/Kg-dry	1	9/30/2015 4:20:00 PM
4-Nitrophenol	ND	38.2		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Dacthal (DCPA)	ND	38.2		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Surr: 2,4-Dichlorophenylacetic acid	107	20.1-168		%REC	1	9/30/2015 4:20:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Alpha BHC	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Beta BHC	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Gamma BHC (Lindane)	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Delta BHC	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Heptachlor	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Aldrin	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Heptachlor epoxide	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
gamma-Chlordane	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Endosulfan I	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
alpha-Chlordane	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Dieldrin	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
4,4'-DDE	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Endrin	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Endosulfan II	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM
4,4'-DDD	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Endrin aldehyde	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Endosulfan sulfate	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:06:00 PM

Project: Pacific Park

Lab ID: 1509270-018

Matrix: Soil

Client Sample ID: GP-8-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Endrin ketone	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Methoxychlor	ND	0.0631		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Surr: Decachlorobiphenyl	95.0	26.5-158		%REC	1	9/24/2015 12:27:00 AM
Surr: Tetrachloro-m-xylene	107	11-150		%REC	1	9/24/2015 12:27:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	24.7		mg/Kg-dry	1	9/23/2015 9:32:00 PM
Heavy Oil	ND	61.7		mg/Kg-dry	1	9/23/2015 9:32:00 PM
Surr: 2-Fluorobiphenyl	85.7	50-150		%REC	1	9/23/2015 9:32:00 PM
Surr: o-Terphenyl	87.0	50-150		%REC	1	9/23/2015 9:32:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Bis(2-chloroethyl) ether	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2-Chlorophenol	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
1,3-Dichlorobenzene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
1,4-Dichlorobenzene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
1,2-Dichlorobenzene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Benzyl alcohol	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2-Methylphenol (o-cresol)	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Hexachloroethane	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
N-Nitrosodi-n-propylamine	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Nitrobenzene	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Isophorone	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
4-Methylphenol (p-cresol)	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2-Nitrophenol	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2,4-Dimethylphenol	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Bis(2-chloroethoxy)methane	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2,4-Dichlorophenol	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
1,2,4-Trichlorobenzene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Naphthalene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
4-Chloroaniline	ND	643		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Hexachlorobutadiene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
4-Chloro-3-methylphenol	ND	643		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2-Methylnaphthalene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
1-Methylnaphthalene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:06:00 PM

Project: Pacific Park

Lab ID: 1509270-018

Matrix: Soil

Client Sample ID: GP-8-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Hexachlorocyclopentadiene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2,4,6-Trichlorophenol	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2,4,5-Trichlorophenol	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2-Chloronaphthalene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2-Nitroaniline	ND	643		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Acenaphthene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Dimethylphthalate	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2,6-Dinitrotoluene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Acenaphthylene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2,4-Dinitrophenol	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Dibenzofuran	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2,4-Dinitrotoluene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
4-Nitrophenol	ND	643		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Fluorene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
4-Chlorophenyl phenyl ether	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Diethylphthalate	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
4,6-Dinitro-2-methylphenol	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
4-Bromophenyl phenyl ether	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Hexachlorobenzene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Pentachlorophenol	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Phenanthrene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Anthracene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Carbazole	ND	643		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Di-n-butylphthalate	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Fluoranthene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Pyrene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Butyl Benzylphthalate	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
bis(2-Ethylhexyl)adipate	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Benz (a) anthracene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Chrysene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
bis (2-Ethylhexyl) phthalate	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Di-n-octyl phthalate	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Benzo (b) fluoranthene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Benzo (k) fluoranthene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Benzo (a) pyrene	232	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Indeno (1,2,3-cd) pyrene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Dibenz (a,h) anthracene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Benzo (g,h,i) perylene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Surr: 2,4,6-Tribromophenol	49.0	11.1-127		%REC	1	9/24/2015 4:29:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:06:00 PM

Project: Pacific Park

Lab ID: 1509270-018

Matrix: Soil

Client Sample ID: GP-8-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	39.9	16.1-150	%REC	1	9/24/2015 4:29:00 AM
Surr: Nitrobenzene-d5	24.9	10-133	%REC	1	9/24/2015 4:29:00 AM
Surr: Phenol-d6	37.1	11.6-133	%REC	1	9/24/2015 4:29:00 AM
Surr: p-Terphenyl	69.2	21.8-150	%REC	1	9/24/2015 4:29:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	3.25	mg/Kg-dry	1	9/23/2015 11:21:00 AM
Surr: Toluene-d8	100	65-135	%REC	1	9/23/2015 11:21:00 AM
Surr: 4-Bromofluorobenzene	103	65-135	%REC	1	9/23/2015 11:21:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0390	mg/Kg-dry	1	9/23/2015 11:21:00 AM
Chloromethane	ND	0.0390	mg/Kg-dry	1	9/23/2015 11:21:00 AM
Vinyl chloride	ND	0.00130	mg/Kg-dry	1	9/23/2015 11:21:00 AM
Bromomethane	ND	0.0585	mg/Kg-dry	1	9/23/2015 11:21:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0325	mg/Kg-dry	1	9/23/2015 11:21:00 AM
Chloroethane	ND	0.0390	mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,1-Dichloroethene	ND	0.0325	mg/Kg-dry	1	9/23/2015 11:21:00 AM
Methylene chloride	ND	0.0130	mg/Kg-dry	1	9/23/2015 11:21:00 AM
trans-1,2-Dichloroethene	ND	0.0130	mg/Kg-dry	1	9/23/2015 11:21:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0325	mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,1-Dichloroethane	ND	0.0130	mg/Kg-dry	1	9/23/2015 11:21:00 AM
2,2-Dichloropropane	ND	0.0325	mg/Kg-dry	1	9/23/2015 11:21:00 AM
cis-1,2-Dichloroethene	ND	0.0130	mg/Kg-dry	1	9/23/2015 11:21:00 AM
Chloroform	ND	0.0130	mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0130	mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,1-Dichloropropene	ND	0.0130	mg/Kg-dry	1	9/23/2015 11:21:00 AM
Carbon tetrachloride	ND	0.0130	mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2-Dichloroethane (EDC)	ND	0.0195	mg/Kg-dry	1	9/23/2015 11:21:00 AM
Benzene	ND	0.0130	mg/Kg-dry	1	9/23/2015 11:21:00 AM
Trichloroethene (TCE)	ND	0.0130	mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2-Dichloropropane	ND	0.0130	mg/Kg-dry	1	9/23/2015 11:21:00 AM
Bromodichloromethane	ND	0.0130	mg/Kg-dry	1	9/23/2015 11:21:00 AM
Dibromomethane	ND	0.0260	mg/Kg-dry	1	9/23/2015 11:21:00 AM
cis-1,3-Dichloropropene	ND	0.0130	mg/Kg-dry	1	9/23/2015 11:21:00 AM
Toluene	ND	0.0130	mg/Kg-dry	1	9/23/2015 11:21:00 AM
trans-1,3-Dichloropropylene	ND	0.0195	mg/Kg-dry	1	9/23/2015 11:21:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:06:00 PM

Project: Pacific Park

Lab ID: 1509270-018

Matrix: Soil

Client Sample ID: GP-8-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11914		Analyst: BC
1,1,2-Trichloroethane	ND	0.0195		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,3-Dichloropropane	ND	0.0325		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Tetrachloroethene (PCE)	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Dibromochloromethane	ND	0.0195		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2-Dibromoethane (EDB)	ND	0.00325		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Chlorobenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0195		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Ethylbenzene	ND	0.0195		mg/Kg-dry	1	9/23/2015 11:21:00 AM
m,p-Xylene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
o-Xylene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Styrene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Isopropylbenzene	ND	0.0520		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Bromoform	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
n-Propylbenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Bromobenzene	ND	0.0195		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,3,5-Trimethylbenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
2-Chlorotoluene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
4-Chlorotoluene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
tert-Butylbenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2,3-Trichloropropane	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2,4-Trichlorobenzene	ND	0.0325		mg/Kg-dry	1	9/23/2015 11:21:00 AM
sec-Butylbenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
4-Isopropyltoluene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,3-Dichlorobenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,4-Dichlorobenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
n-Butylbenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2-Dichlorobenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2-Dibromo-3-chloropropane	ND	0.325		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2,4-Trimethylbenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Hexachlorobutadiene	ND	0.0650		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Naphthalene	ND	0.0195		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2,3-Trichlorobenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Surr: Dibromofluoromethane	95.2	56.5-129		%REC	1	9/23/2015 11:21:00 AM
Surr: Toluene-d8	98.6	64.3-131		%REC	1	9/23/2015 11:21:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.6	63.1-141		%REC	1	9/23/2015 11:21:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:06:00 PM

Project: Pacific Park

Lab ID: 1509270-018

Matrix: Soil

Client Sample ID: GP-8-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11895 Analyst: MW

Mercury	ND	0.286		mg/Kg-dry	1	9/22/2015 1:28:43 PM
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Total Metals by EPA Method 6020

Batch ID: 11906 Analyst: TN

Arsenic	3.27	0.100		mg/Kg-dry	1	9/22/2015 4:07:26 PM
Barium	35.9	0.501		mg/Kg-dry	1	9/22/2015 4:07:26 PM
Cadmium	ND	0.200		mg/Kg-dry	1	9/22/2015 4:07:26 PM
Chromium	15.4	0.100		mg/Kg-dry	1	9/22/2015 4:07:26 PM
Lead	2.05	0.200		mg/Kg-dry	1	9/22/2015 4:07:26 PM
Selenium	0.998	0.501		mg/Kg-dry	1	9/22/2015 4:07:26 PM
Silver	ND	0.100		mg/Kg-dry	1	9/22/2015 4:07:26 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044 Analyst: CG

Percent Moisture	23.2			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:45:00 PM

Project: Pacific Park

Lab ID: 1509270-019

Matrix: Soil

Client Sample ID: GP-9-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	42.4		µg/Kg-dry	1	9/30/2015 4:37:00 PM
2,4-D	ND	36.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
2,4-DP	ND	30.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
2,4,5-TP (Silvex)	ND	24.2		µg/Kg-dry	1	9/30/2015 4:37:00 PM
2,4,5-T	ND	60.5		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Dinoseb	ND	36.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Dalapon	ND	242		µg/Kg-dry	1	9/30/2015 4:37:00 PM
2,4-DB	ND	30.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
MCPP	ND	339		µg/Kg-dry	1	9/30/2015 4:37:00 PM
MCPA	ND	339		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Picloram	ND	60.5		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Bentazon	ND	42.4		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Chloramben	ND	24.2		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Acifluorfen	ND	96.8		µg/Kg-dry	1	9/30/2015 4:37:00 PM
3,5-Dichlorobenzoic acid	ND	48.4		µg/Kg-dry	1	9/30/2015 4:37:00 PM
4-Nitrophenol	ND	36.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Dacthal (DCPA)	ND	36.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Surr: 2,4-Dichlorophenylacetic acid	108	20.1-168		%REC	1	9/30/2015 4:37:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Alpha BHC	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Beta BHC	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Gamma BHC (Lindane)	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Delta BHC	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Heptachlor	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Aldrin	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Heptachlor epoxide	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
gamma-Chlordane	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Endosulfan I	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
alpha-Chlordane	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Dieldrin	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
4,4'-DDE	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Endrin	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Endosulfan II	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM
4,4'-DDD	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Endrin aldehyde	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Endosulfan sulfate	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:45:00 PM

Project: Pacific Park

Lab ID: 1509270-019

Matrix: Soil

Client Sample ID: GP-9-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Endrin ketone	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Methoxychlor	ND	0.0590		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Surr: Decachlorobiphenyl	79.9	26.5-158		%REC	1	9/24/2015 12:49:00 AM
Surr: Tetrachloro-m-xylene	77.9	11-150		%REC	1	9/24/2015 12:49:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	24.7		mg/Kg-dry	1	9/23/2015 10:04:00 PM
Heavy Oil	ND	61.7		mg/Kg-dry	1	9/23/2015 10:04:00 PM
Surr: 2-Fluorobiphenyl	99.0	50-150		%REC	1	9/23/2015 10:04:00 PM
Surr: o-Terphenyl	97.4	50-150		%REC	1	9/23/2015 10:04:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Bis(2-chloroethyl) ether	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2-Chlorophenol	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
1,3-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
1,4-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
1,2-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Benzyl alcohol	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2-Methylphenol (o-cresol)	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Hexachloroethane	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
N-Nitrosodi-n-propylamine	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Nitrobenzene	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Isophorone	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
4-Methylphenol (p-cresol)	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2-Nitrophenol	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2,4-Dimethylphenol	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Bis(2-chloroethoxy)methane	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2,4-Dichlorophenol	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
1,2,4-Trichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Naphthalene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
4-Chloroaniline	ND	595		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Hexachlorobutadiene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
4-Chloro-3-methylphenol	ND	595		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2-Methylnaphthalene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
1-Methylnaphthalene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:45:00 PM

Project: Pacific Park

Lab ID: 1509270-019

Matrix: Soil

Client Sample ID: GP-9-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Hexachlorocyclopentadiene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2,4,6-Trichlorophenol	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2,4,5-Trichlorophenol	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2-Chloronaphthalene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2-Nitroaniline	ND	595		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Acenaphthene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Dimethylphthalate	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2,6-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Acenaphthylene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2,4-Dinitrophenol	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Dibenzofuran	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2,4-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
4-Nitrophenol	ND	595		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Fluorene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
4-Chlorophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Diethylphthalate	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
4,6-Dinitro-2-methylphenol	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
4-Bromophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Hexachlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Pentachlorophenol	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Phenanthrene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Anthracene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Carbazole	ND	595		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Di-n-butylphthalate	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Fluoranthene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Pyrene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Butyl Benzylphthalate	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
bis(2-Ethylhexyl)adipate	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Benz (a) anthracene	108	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Chrysene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
bis (2-Ethylhexyl) phthalate	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Di-n-octyl phthalate	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Benzo (b) fluoranthene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Benzo (k) fluoranthene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Benzo (a) pyrene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Indeno (1,2,3-cd) pyrene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Dibenz (a,h) anthracene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Benzo (g,h,i) perylene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Surr: 2,4,6-Tribromophenol	55.4	11.1-127		%REC	1	9/24/2015 4:51:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:45:00 PM

Project: Pacific Park

Lab ID: 1509270-019

Matrix: Soil

Client Sample ID: GP-9-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	48.5	16.1-150	%REC	1	9/24/2015 4:51:00 AM
Surr: Nitrobenzene-d5	29.6	10-133	%REC	1	9/24/2015 4:51:00 AM
Surr: Phenol-d6	51.6	11.6-133	%REC	1	9/24/2015 4:51:00 AM
Surr: p-Terphenyl	83.6	21.8-150	%REC	1	9/24/2015 4:51:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	2.98	mg/Kg-dry	1	9/23/2015 11:50:00 AM
Surr: Toluene-d8	98.9	65-135	%REC	1	9/23/2015 11:50:00 AM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/23/2015 11:50:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0357	mg/Kg-dry	1	9/23/2015 11:50:00 AM
Chloromethane	ND	0.0357	mg/Kg-dry	1	9/23/2015 11:50:00 AM
Vinyl chloride	ND	0.00119	mg/Kg-dry	1	9/23/2015 11:50:00 AM
Bromomethane	ND	0.0536	mg/Kg-dry	1	9/23/2015 11:50:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0298	mg/Kg-dry	1	9/23/2015 11:50:00 AM
Chloroethane	ND	0.0357	mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,1-Dichloroethene	ND	0.0298	mg/Kg-dry	1	9/23/2015 11:50:00 AM
Methylene chloride	ND	0.0119	mg/Kg-dry	1	9/23/2015 11:50:00 AM
trans-1,2-Dichloroethene	ND	0.0119	mg/Kg-dry	1	9/23/2015 11:50:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0298	mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,1-Dichloroethane	ND	0.0119	mg/Kg-dry	1	9/23/2015 11:50:00 AM
2,2-Dichloropropane	ND	0.0298	mg/Kg-dry	1	9/23/2015 11:50:00 AM
cis-1,2-Dichloroethene	ND	0.0119	mg/Kg-dry	1	9/23/2015 11:50:00 AM
Chloroform	ND	0.0119	mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0119	mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,1-Dichloropropene	ND	0.0119	mg/Kg-dry	1	9/23/2015 11:50:00 AM
Carbon tetrachloride	ND	0.0119	mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2-Dichloroethane (EDC)	ND	0.0179	mg/Kg-dry	1	9/23/2015 11:50:00 AM
Benzene	ND	0.0119	mg/Kg-dry	1	9/23/2015 11:50:00 AM
Trichloroethene (TCE)	ND	0.0119	mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2-Dichloropropane	ND	0.0119	mg/Kg-dry	1	9/23/2015 11:50:00 AM
Bromodichloromethane	ND	0.0119	mg/Kg-dry	1	9/23/2015 11:50:00 AM
Dibromomethane	ND	0.0238	mg/Kg-dry	1	9/23/2015 11:50:00 AM
cis-1,3-Dichloropropene	ND	0.0119	mg/Kg-dry	1	9/23/2015 11:50:00 AM
Toluene	ND	0.0119	mg/Kg-dry	1	9/23/2015 11:50:00 AM
trans-1,3-Dichloropropylene	ND	0.0179	mg/Kg-dry	1	9/23/2015 11:50:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:45:00 PM

Project: Pacific Park

Lab ID: 1509270-019

Matrix: Soil

Client Sample ID: GP-9-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0179		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,3-Dichloropropane	ND	0.0298		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Tetrachloroethene (PCE)	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Dibromochloromethane	ND	0.0179		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2-Dibromoethane (EDB)	ND	0.00298		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Chlorobenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0179		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Ethylbenzene	ND	0.0179		mg/Kg-dry	1	9/23/2015 11:50:00 AM
m,p-Xylene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
o-Xylene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Styrene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Isopropylbenzene	ND	0.0476		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Bromoform	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
n-Propylbenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Bromobenzene	ND	0.0179		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,3,5-Trimethylbenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
2-Chlorotoluene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
4-Chlorotoluene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
tert-Butylbenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2,3-Trichloropropane	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2,4-Trichlorobenzene	ND	0.0298		mg/Kg-dry	1	9/23/2015 11:50:00 AM
sec-Butylbenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
4-Isopropyltoluene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,3-Dichlorobenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,4-Dichlorobenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
n-Butylbenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2-Dichlorobenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2-Dibromo-3-chloropropane	ND	0.298		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2,4-Trimethylbenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Hexachlorobutadiene	ND	0.0595		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Naphthalene	ND	0.0179		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2,3-Trichlorobenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Surr: Dibromofluoromethane	94.1	56.5-129		%REC	1	9/23/2015 11:50:00 AM
Surr: Toluene-d8	97.2	64.3-131		%REC	1	9/23/2015 11:50:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.1	63.1-141		%REC	1	9/23/2015 11:50:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:45:00 PM

Project: Pacific Park

Lab ID: 1509270-019

Matrix: Soil

Client Sample ID: GP-9-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11908

Analyst: MW

Mercury	ND	0.281		mg/Kg-dry	1	9/22/2015 5:02:34 PM
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Total Metals by EPA Method 6020

Batch ID: 11906

Analyst: TN

Arsenic	1.85	0.0908		mg/Kg-dry	1	9/22/2015 4:10:57 PM
Barium	28.7	0.454		mg/Kg-dry	1	9/22/2015 4:10:57 PM
Cadmium	ND	0.182		mg/Kg-dry	1	9/22/2015 4:10:57 PM
Chromium	17.6	0.0908		mg/Kg-dry	1	9/22/2015 4:10:57 PM
Lead	8.25	0.182		mg/Kg-dry	1	9/22/2015 4:10:57 PM
Selenium	0.744	0.454		mg/Kg-dry	1	9/22/2015 4:10:57 PM
Silver	ND	0.0908		mg/Kg-dry	1	9/22/2015 4:10:57 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	19.0			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509270-020

Matrix: Soil

Client Sample ID: GP-9-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	46.8		µg/Kg-dry	1	9/30/2015 4:54:00 PM
2,4-D	ND	40.1		µg/Kg-dry	1	9/30/2015 4:54:00 PM
2,4-DP	ND	33.4		µg/Kg-dry	1	9/30/2015 4:54:00 PM
2,4,5-TP (Silvex)	ND	26.7		µg/Kg-dry	1	9/30/2015 4:54:00 PM
2,4,5-T	ND	66.9		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Dinoseb	ND	40.1		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Dalapon	ND	267		µg/Kg-dry	1	9/30/2015 4:54:00 PM
2,4-DB	ND	33.4		µg/Kg-dry	1	9/30/2015 4:54:00 PM
MCPP	ND	374		µg/Kg-dry	1	9/30/2015 4:54:00 PM
MCPA	ND	374		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Picloram	ND	66.9		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Bentazon	ND	46.8		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Chloramben	ND	26.7		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Acifluorfen	ND	107		µg/Kg-dry	1	9/30/2015 4:54:00 PM
3,5-Dichlorobenzoic acid	ND	53.5		µg/Kg-dry	1	9/30/2015 4:54:00 PM
4-Nitrophenol	ND	40.1		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Dacthal (DCPA)	ND	40.1		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Surr: 2,4-Dichlorophenylacetic acid	109	20.1-168		%REC	1	9/30/2015 4:54:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Alpha BHC	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Beta BHC	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Gamma BHC (Lindane)	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Delta BHC	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Heptachlor	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Aldrin	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Heptachlor epoxide	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
gamma-Chlordane	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Endosulfan I	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
alpha-Chlordane	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Dieldrin	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
4,4'-DDE	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Endrin	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Endosulfan II	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM
4,4'-DDD	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Endrin aldehyde	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Endosulfan sulfate	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509270-020

Matrix: Soil

Client Sample ID: GP-9-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

4,4'-DDT	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Endrin ketone	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Methoxychlor	ND	0.0664		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Surr: Decachlorobiphenyl	87.7	26.5-158		%REC	1	9/24/2015 1:11:00 AM
Surr: Tetrachloro-m-xylene	87.2	11-150		%REC	1	9/24/2015 1:11:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	25.3		mg/Kg-dry	1	9/24/2015 8:54:00 AM
Heavy Oil	ND	63.3		mg/Kg-dry	1	9/24/2015 8:54:00 AM
Surr: 2-Fluorobiphenyl	107	50-150		%REC	1	9/24/2015 8:54:00 AM
Surr: o-Terphenyl	104	50-150		%REC	1	9/24/2015 8:54:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Bis(2-chloroethyl) ether	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2-Chlorophenol	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
1,3-Dichlorobenzene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
1,4-Dichlorobenzene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
1,2-Dichlorobenzene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Benzyl alcohol	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2-Methylphenol (o-cresol)	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Hexachloroethane	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
N-Nitrosodi-n-propylamine	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Nitrobenzene	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Isophorone	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
4-Methylphenol (p-cresol)	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2-Nitrophenol	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2,4-Dimethylphenol	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Bis(2-chloroethoxy)methane	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2,4-Dichlorophenol	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
1,2,4-Trichlorobenzene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Naphthalene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
4-Chloroaniline	ND	675		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Hexachlorobutadiene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
4-Chloro-3-methylphenol	ND	675		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2-Methylnaphthalene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
1-Methylnaphthalene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509270-020

Matrix: Soil

Client Sample ID: GP-9-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Hexachlorocyclopentadiene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2,4,6-Trichlorophenol	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2,4,5-Trichlorophenol	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2-Chloronaphthalene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2-Nitroaniline	ND	675		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Acenaphthene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Dimethylphthalate	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2,6-Dinitrotoluene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Acenaphthylene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2,4-Dinitrophenol	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Dibenzofuran	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2,4-Dinitrotoluene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
4-Nitrophenol	ND	675		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Fluorene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
4-Chlorophenyl phenyl ether	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Diethylphthalate	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
4,6-Dinitro-2-methylphenol	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
4-Bromophenyl phenyl ether	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Hexachlorobenzene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Pentachlorophenol	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Phenanthrene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Anthracene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Carbazole	ND	675		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Di-n-butylphthalate	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Fluoranthene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Pyrene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Butyl Benzylphthalate	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
bis(2-Ethylhexyl)adipate	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Benz (a) anthracene	122	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Chrysene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
bis (2-Ethylhexyl) phthalate	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Di-n-octyl phthalate	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Benzo (b) fluoranthene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Benzo (k) fluoranthene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Benzo (a) pyrene	236	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Indeno (1,2,3-cd) pyrene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Dibenz (a,h) anthracene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Benzo (g,h,i) perylene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Surr: 2,4,6-Tribromophenol	40.0	11.1-127		%REC	1	9/24/2015 5:13:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509270-020

Matrix: Soil

Client Sample ID: GP-9-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	32.6	16.1-150	%REC	1	9/24/2015 5:13:00 AM
Surr: Nitrobenzene-d5	20.9	10-133	%REC	1	9/24/2015 5:13:00 AM
Surr: Phenol-d6	29.6	11.6-133	%REC	1	9/24/2015 5:13:00 AM
Surr: p-Terphenyl	60.6	21.8-150	%REC	1	9/24/2015 5:13:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	3.30	mg/Kg-dry	1	9/23/2015 12:18:00 PM
Surr: Toluene-d8	100	65-135	%REC	1	9/23/2015 12:18:00 PM
Surr: 4-Bromofluorobenzene	103	65-135	%REC	1	9/23/2015 12:18:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0396	mg/Kg-dry	1	9/23/2015 12:18:00 PM
Chloromethane	ND	0.0396	mg/Kg-dry	1	9/23/2015 12:18:00 PM
Vinyl chloride	ND	0.00132	mg/Kg-dry	1	9/23/2015 12:18:00 PM
Bromomethane	ND	0.0594	mg/Kg-dry	1	9/23/2015 12:18:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0330	mg/Kg-dry	1	9/23/2015 12:18:00 PM
Chloroethane	ND	0.0396	mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,1-Dichloroethene	ND	0.0330	mg/Kg-dry	1	9/23/2015 12:18:00 PM
Methylene chloride	ND	0.0132	mg/Kg-dry	1	9/23/2015 12:18:00 PM
trans-1,2-Dichloroethene	ND	0.0132	mg/Kg-dry	1	9/23/2015 12:18:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0330	mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,1-Dichloroethane	ND	0.0132	mg/Kg-dry	1	9/23/2015 12:18:00 PM
2,2-Dichloropropane	ND	0.0330	mg/Kg-dry	1	9/23/2015 12:18:00 PM
cis-1,2-Dichloroethene	ND	0.0132	mg/Kg-dry	1	9/23/2015 12:18:00 PM
Chloroform	ND	0.0132	mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0132	mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,1-Dichloropropene	ND	0.0132	mg/Kg-dry	1	9/23/2015 12:18:00 PM
Carbon tetrachloride	ND	0.0132	mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2-Dichloroethane (EDC)	ND	0.0198	mg/Kg-dry	1	9/23/2015 12:18:00 PM
Benzene	ND	0.0132	mg/Kg-dry	1	9/23/2015 12:18:00 PM
Trichloroethene (TCE)	ND	0.0132	mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2-Dichloropropane	ND	0.0132	mg/Kg-dry	1	9/23/2015 12:18:00 PM
Bromodichloromethane	ND	0.0132	mg/Kg-dry	1	9/23/2015 12:18:00 PM
Dibromomethane	ND	0.0264	mg/Kg-dry	1	9/23/2015 12:18:00 PM
cis-1,3-Dichloropropene	ND	0.0132	mg/Kg-dry	1	9/23/2015 12:18:00 PM
Toluene	ND	0.0132	mg/Kg-dry	1	9/23/2015 12:18:00 PM
trans-1,3-Dichloropropylene	ND	0.0198	mg/Kg-dry	1	9/23/2015 12:18:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509270-020

Matrix: Soil

Client Sample ID: GP-9-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11914		Analyst: BC
1,1,2-Trichloroethane	ND	0.0198		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,3-Dichloropropane	ND	0.0330		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Tetrachloroethene (PCE)	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Dibromochloromethane	ND	0.0198		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2-Dibromoethane (EDB)	ND	0.00330		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Chlorobenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0198		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Ethylbenzene	ND	0.0198		mg/Kg-dry	1	9/23/2015 12:18:00 PM
m,p-Xylene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
o-Xylene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Styrene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Isopropylbenzene	ND	0.0528		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Bromoform	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
n-Propylbenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Bromobenzene	ND	0.0198		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,3,5-Trimethylbenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
2-Chlorotoluene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
4-Chlorotoluene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
tert-Butylbenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2,3-Trichloropropane	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2,4-Trichlorobenzene	ND	0.0330		mg/Kg-dry	1	9/23/2015 12:18:00 PM
sec-Butylbenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
4-Isopropyltoluene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,3-Dichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,4-Dichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
n-Butylbenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2-Dichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2-Dibromo-3-chloropropane	ND	0.330		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2,4-Trimethylbenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Hexachlorobutadiene	ND	0.0660		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Naphthalene	ND	0.0198		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2,3-Trichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Surr: Dibromofluoromethane	94.9	56.5-129		%REC	1	9/23/2015 12:18:00 PM
Surr: Toluene-d8	97.8	64.3-131		%REC	1	9/23/2015 12:18:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.9	63.1-141		%REC	1	9/23/2015 12:18:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509270-020

Matrix: Soil

Client Sample ID: GP-9-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11908 Analyst: MW

Mercury	ND	0.299		mg/Kg-dry	1	9/22/2015 5:09:04 PM
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Total Metals by EPA Method 6020

Batch ID: 11906 Analyst: TN

Arsenic	2.71	0.109		mg/Kg-dry	1	9/22/2015 4:14:29 PM
Barium	58.7	0.545		mg/Kg-dry	1	9/22/2015 4:14:29 PM
Cadmium	ND	0.218		mg/Kg-dry	1	9/22/2015 4:14:29 PM
Chromium	20.6	0.109		mg/Kg-dry	1	9/22/2015 4:14:29 PM
Lead	3.59	0.218		mg/Kg-dry	1	9/22/2015 4:14:29 PM
Selenium	1.71	0.545		mg/Kg-dry	1	9/22/2015 4:14:29 PM
Silver	ND	0.109		mg/Kg-dry	1	9/22/2015 4:14:29 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044 Analyst: CG

Percent Moisture	26.5			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:10:00 PM

Project: Pacific Park

Lab ID: 1509270-021

Matrix: Soil

Client Sample ID: GP-10-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	47.4		µg/Kg-dry	1	9/30/2015 5:12:00 PM
2,4-D	ND	40.6		µg/Kg-dry	1	9/30/2015 5:12:00 PM
2,4-DP	ND	33.8		µg/Kg-dry	1	9/30/2015 5:12:00 PM
2,4,5-TP (Silvex)	ND	27.1		µg/Kg-dry	1	9/30/2015 5:12:00 PM
2,4,5-T	ND	67.7		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Dinoseb	ND	40.6		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Dalapon	ND	271		µg/Kg-dry	1	9/30/2015 5:12:00 PM
2,4-DB	ND	33.8		µg/Kg-dry	1	9/30/2015 5:12:00 PM
MCPP	ND	379		µg/Kg-dry	1	9/30/2015 5:12:00 PM
MCPA	ND	379		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Picloram	ND	67.7		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Bentazon	ND	47.4		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Chloramben	ND	27.1		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Acifluorfen	ND	108		µg/Kg-dry	1	9/30/2015 5:12:00 PM
3,5-Dichlorobenzoic acid	ND	54.2		µg/Kg-dry	1	9/30/2015 5:12:00 PM
4-Nitrophenol	ND	40.6		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Dacthal (DCPA)	ND	40.6		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Surr: 2,4-Dichlorophenylacetic acid	84.5	20.1-168		%REC	1	9/30/2015 5:12:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Alpha BHC	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Beta BHC	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Gamma BHC (Lindane)	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Delta BHC	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Heptachlor	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Aldrin	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Heptachlor epoxide	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
gamma-Chlordane	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Endosulfan I	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
alpha-Chlordane	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Dieldrin	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
4,4'-DDE	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Endrin	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Endosulfan II	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM
4,4'-DDD	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Endrin aldehyde	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Endosulfan sulfate	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:10:00 PM

Project: Pacific Park

Lab ID: 1509270-021

Matrix: Soil

Client Sample ID: GP-10-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

4,4'-DDT	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Endrin ketone	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Methoxychlor	ND	0.0645		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Surr: Decachlorobiphenyl	72.7	26.5-158		%REC	1	9/24/2015 1:21:00 AM
Surr: Tetrachloro-m-xylene	73.2	11-150		%REC	1	9/24/2015 1:21:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11918

Analyst: AK

Diesel (Fuel Oil)	ND	26.8		mg/Kg-dry	1	9/23/2015 8:40:00 PM
Heavy Oil	3,840	669	D	mg/Kg-dry	10	9/24/2015 11:18:00 AM
Surr: 2-Fluorobiphenyl	99.7	50-150		%REC	1	9/23/2015 8:40:00 PM
Surr: o-Terphenyl	115	50-150		%REC	1	9/23/2015 8:40:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Bis(2-chloroethyl) ether	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2-Chlorophenol	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
1,3-Dichlorobenzene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
1,4-Dichlorobenzene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
1,2-Dichlorobenzene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Benzyl alcohol	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2-Methylphenol (o-cresol)	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Hexachloroethane	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
N-Nitrosodi-n-propylamine	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Nitrobenzene	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Isophorone	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
4-Methylphenol (p-cresol)	202	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2-Nitrophenol	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2,4-Dimethylphenol	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Bis(2-chloroethoxy)methane	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2,4-Dichlorophenol	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
1,2,4-Trichlorobenzene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Naphthalene	4,420	110		µg/Kg-dry	1	9/24/2015 7:27:00 PM
4-Chloroaniline	ND	690		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Hexachlorobutadiene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
4-Chloro-3-methylphenol	ND	690		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2-Methylnaphthalene	3,100	110		µg/Kg-dry	1	9/24/2015 7:27:00 PM
1-Methylnaphthalene	6110	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:10:00 PM

Project: Pacific Park

Lab ID: 1509270-021

Matrix: Soil

Client Sample ID: GP-10-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Hexachlorocyclopentadiene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2,4,6-Trichlorophenol	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2,4,5-Trichlorophenol	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2-Chloronaphthalene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2-Nitroaniline	ND	690		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Acenaphthene	29,200	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Dimethylphthalate	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2,6-Dinitrotoluene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Acenaphthylene	127	110		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2,4-Dinitrophenol	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Dibenzofuran	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2,4-Dinitrotoluene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
4-Nitrophenol	1,430	690	*	µg/Kg-dry	1	9/24/2015 7:27:00 PM
Fluorene	37,500	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
4-Chlorophenyl phenyl ether	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Diethylphthalate	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
4,6-Dinitro-2-methylphenol	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
4-Bromophenyl phenyl ether	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Hexachlorobenzene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Pentachlorophenol	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Phenanthrene	317,000	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Anthracene	106,000	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Carbazole	ND	69,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Di-n-butylphthalate	179	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Fluoranthene	365,000	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Pyrene	345,000	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Butyl Benzylphthalate	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
bis(2-Ethylhexyl)adipate	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Benz (a) anthracene	164,000	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Chrysene	193,000	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
bis (2-Ethylhexyl) phthalate	1,620	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Di-n-octyl phthalate	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Benzo (b) fluoranthene	186,000	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Benzo (k) fluoranthene	28,400	110		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Benzo (a) pyrene	90,900	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Indeno (1,2,3-cd) pyrene	61,500	110		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Dibenz (a,h) anthracene	52,500	110		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Benzo (g,h,i) perylene	56,600	110		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Surr: 2,4,6-Tribromophenol	59.4	11.1-127		%REC	1	9/24/2015 7:27:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:10:00 PM

Project: Pacific Park

Lab ID: 1509270-021

Matrix: Soil

Client Sample ID: GP-10-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Surr: 2-Fluorobiphenyl	48.3	16.1-150	%REC	1	9/24/2015 7:27:00 PM
Surr: Nitrobenzene-d5	42.3	10-133	%REC	1	9/24/2015 7:27:00 PM
Surr: Phenol-d6	50.2	11.6-133	%REC	1	9/24/2015 7:27:00 PM
Surr: p-Terphenyl	107	21.8-150	%REC	1	9/24/2015 7:27:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	4.64	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Surr: Toluene-d8	100	65-135	%REC	1	9/23/2015 12:47:00 PM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/23/2015 12:47:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0557	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Chloromethane	ND	0.0557	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Vinyl chloride	ND	0.00186	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Bromomethane	ND	0.0835	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0464	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Chloroethane	ND	0.0557	mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,1-Dichloroethene	ND	0.0464	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Methylene chloride	ND	0.0186	mg/Kg-dry	1	9/23/2015 12:47:00 PM
trans-1,2-Dichloroethene	ND	0.0186	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0464	mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,1-Dichloroethane	ND	0.0186	mg/Kg-dry	1	9/23/2015 12:47:00 PM
2,2-Dichloropropane	ND	0.0464	mg/Kg-dry	1	9/23/2015 12:47:00 PM
cis-1,2-Dichloroethene	ND	0.0186	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Chloroform	ND	0.0186	mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0186	mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,1-Dichloropropene	ND	0.0186	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Carbon tetrachloride	ND	0.0186	mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2-Dichloroethane (EDC)	ND	0.0278	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Benzene	ND	0.0186	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Trichloroethene (TCE)	0.0655	0.0186	mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2-Dichloropropane	ND	0.0186	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Bromodichloromethane	ND	0.0186	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Dibromomethane	ND	0.0371	mg/Kg-dry	1	9/23/2015 12:47:00 PM
cis-1,3-Dichloropropene	ND	0.0186	mg/Kg-dry	1	9/23/2015 12:47:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:10:00 PM

Project: Pacific Park

Lab ID: 1509270-021

Matrix: Soil

Client Sample ID: GP-10-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11914		Analyst: BC
Toluene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
trans-1,3-Dichloropropylene	ND	0.0278		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,1,2-Trichloroethane	ND	0.0278		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,3-Dichloropropane	ND	0.0464		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Tetrachloroethene (PCE)	0.184	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Dibromochloromethane	ND	0.0278		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2-Dibromoethane (EDB)	ND	0.00464		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Chlorobenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0278		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Ethylbenzene	ND	0.0278		mg/Kg-dry	1	9/23/2015 12:47:00 PM
m,p-Xylene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
o-Xylene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Styrene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Isopropylbenzene	ND	0.0742		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Bromoform	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
n-Propylbenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Bromobenzene	ND	0.0278		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,3,5-Trimethylbenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
2-Chlorotoluene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
4-Chlorotoluene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
tert-Butylbenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2,3-Trichloropropane	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2,4-Trichlorobenzene	ND	0.0464		mg/Kg-dry	1	9/23/2015 12:47:00 PM
sec-Butylbenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
4-Isopropyltoluene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,3-Dichlorobenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,4-Dichlorobenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
n-Butylbenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2-Dichlorobenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2-Dibromo-3-chloropropane	ND	0.464		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2,4-Trimethylbenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Hexachlorobutadiene	ND	0.0928		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Naphthalene	ND	0.0278		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2,3-Trichlorobenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Surr: Dibromofluoromethane	94.1	56.5-129		%REC	1	9/23/2015 12:47:00 PM
Surr: Toluene-d8	97.3	64.3-131		%REC	1	9/23/2015 12:47:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	63.1-141		%REC	1	9/23/2015 12:47:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:10:00 PM

Project: Pacific Park

Lab ID: 1509270-021

Matrix: Soil

Client Sample ID: GP-10-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11908

Analyst: MW

Mercury	ND	0.309		mg/Kg-dry	1	9/22/2015 5:10:39 PM
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Total Metals by EPA Method 6020

Batch ID: 11906

Analyst: TN

Arsenic	39.7	0.102		mg/Kg-dry	1	9/22/2015 4:18:00 PM
Barium	232	0.512		mg/Kg-dry	1	9/22/2015 4:18:00 PM
Cadmium	8.32	0.205		mg/Kg-dry	1	9/22/2015 4:18:00 PM
Chromium	314	0.102		mg/Kg-dry	1	9/22/2015 4:18:00 PM
Lead	3,320	0.205		mg/Kg-dry	1	9/22/2015 4:18:00 PM
Selenium	0.964	0.512		mg/Kg-dry	1	9/22/2015 4:18:00 PM
Silver	1.99	0.102		mg/Kg-dry	1	9/22/2015 4:18:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	27.7			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1509270-022

Matrix: Soil

Client Sample ID: GP-10-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	44.4		µg/Kg-dry	1	9/30/2015 6:12:00 PM
2,4-D	ND	38.1		µg/Kg-dry	1	9/30/2015 6:12:00 PM
2,4-DP	ND	31.7		µg/Kg-dry	1	9/30/2015 6:12:00 PM
2,4,5-TP (Silvex)	ND	25.4		µg/Kg-dry	1	9/30/2015 6:12:00 PM
2,4,5-T	ND	63.5		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Dinoseb	ND	38.1		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Dalapon	ND	254		µg/Kg-dry	1	9/30/2015 6:12:00 PM
2,4-DB	ND	31.7		µg/Kg-dry	1	9/30/2015 6:12:00 PM
MCPP	ND	355		µg/Kg-dry	1	9/30/2015 6:12:00 PM
MCPA	ND	355		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Picloram	ND	63.5		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Bentazon	ND	44.4		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Chloramben	ND	25.4		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Acifluorfen	ND	102		µg/Kg-dry	1	9/30/2015 6:12:00 PM
3,5-Dichlorobenzoic acid	ND	50.8		µg/Kg-dry	1	9/30/2015 6:12:00 PM
4-Nitrophenol	ND	38.1		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Dacthal (DCPA)	ND	38.1		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Surr: 2,4-Dichlorophenylacetic acid	130	20.1-168		%REC	1	9/30/2015 6:12:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Alpha BHC	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Beta BHC	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Gamma BHC (Lindane)	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Delta BHC	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Heptachlor	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Aldrin	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Heptachlor epoxide	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
gamma-Chlordane	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Endosulfan I	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
alpha-Chlordane	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Dieldrin	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
4,4'-DDE	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Endrin	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Endosulfan II	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM
4,4'-DDD	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Endrin aldehyde	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Endosulfan sulfate	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1509270-022

Matrix: Soil

Client Sample ID: GP-10-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Endrin ketone	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Methoxychlor	ND	0.0601		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Surr: Decachlorobiphenyl	116	26.5-158		%REC	1	9/24/2015 1:32:00 AM
Surr: Tetrachloro-m-xylene	111	11-150		%REC	1	9/24/2015 1:32:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11918

Analyst: AK

Diesel (Fuel Oil)	ND	24.2		mg/Kg-dry	1	9/23/2015 9:43:00 PM
Heavy Oil	ND	60.4		mg/Kg-dry	1	9/23/2015 9:43:00 PM
Surr: 2-Fluorobiphenyl	100	50-150		%REC	1	9/23/2015 9:43:00 PM
Surr: o-Terphenyl	94.8	50-150		%REC	1	9/23/2015 9:43:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Bis(2-chloroethyl) ether	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2-Chlorophenol	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
1,3-Dichlorobenzene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
1,4-Dichlorobenzene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
1,2-Dichlorobenzene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Benzyl alcohol	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2-Methylphenol (o-cresol)	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Hexachloroethane	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
N-Nitrosodi-n-propylamine	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Nitrobenzene	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Isophorone	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
4-Methylphenol (p-cresol)	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2-Nitrophenol	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2,4-Dimethylphenol	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Bis(2-chloroethoxy)methane	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2,4-Dichlorophenol	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
1,2,4-Trichlorobenzene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Naphthalene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
4-Chloroaniline	ND	633		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Hexachlorobutadiene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
4-Chloro-3-methylphenol	ND	633		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2-Methylnaphthalene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
1-Methylnaphthalene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1509270-022

Matrix: Soil

Client Sample ID: GP-10-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Hexachlorocyclopentadiene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2,4,6-Trichlorophenol	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2,4,5-Trichlorophenol	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2-Chloronaphthalene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2-Nitroaniline	ND	633		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Acenaphthene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Dimethylphthalate	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2,6-Dinitrotoluene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Acenaphthylene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2,4-Dinitrophenol	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Dibenzofuran	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2,4-Dinitrotoluene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
4-Nitrophenol	ND	633		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Fluorene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
4-Chlorophenyl phenyl ether	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Diethylphthalate	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
4,6-Dinitro-2-methylphenol	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
4-Bromophenyl phenyl ether	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Hexachlorobenzene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Pentachlorophenol	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Phenanthrene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Anthracene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Carbazole	ND	633		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Di-n-butylphthalate	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Fluoranthene	106	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Pyrene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Butyl Benzylphthalate	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
bis(2-Ethylhexyl)adipate	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Benz (a) anthracene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Chrysene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
bis (2-Ethylhexyl) phthalate	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Di-n-octyl phthalate	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Benzo (b) fluoranthene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Benzo (k) fluoranthene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Benzo (a) pyrene	213	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Indeno (1,2,3-cd) pyrene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Dibenz (a,h) anthracene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Benzo (g,h,i) perylene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Surr: 2,4,6-Tribromophenol	70.1	11.1-127		%REC	1	9/24/2015 8:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1509270-022

Matrix: Soil

Client Sample ID: GP-10-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Surr: 2-Fluorobiphenyl	28.6	16.1-150	%REC	1	9/24/2015 8:12:00 PM
Surr: Nitrobenzene-d5	21.9	10-133	%REC	1	9/24/2015 8:12:00 PM
Surr: Phenol-d6	44.6	11.6-133	%REC	1	9/24/2015 8:12:00 PM
Surr: p-Terphenyl	94.5	21.8-150	%REC	1	9/24/2015 8:12:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	3.48	mg/Kg-dry	1	9/23/2015 1:15:00 PM
Surr: Toluene-d8	100	65-135	%REC	1	9/23/2015 1:15:00 PM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/23/2015 1:15:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0417	mg/Kg-dry	1	9/23/2015 1:15:00 PM
Chloromethane	ND	0.0417	mg/Kg-dry	1	9/23/2015 1:15:00 PM
Vinyl chloride	ND	0.00139	mg/Kg-dry	1	9/23/2015 1:15:00 PM
Bromomethane	ND	0.0626	mg/Kg-dry	1	9/23/2015 1:15:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0348	mg/Kg-dry	1	9/23/2015 1:15:00 PM
Chloroethane	ND	0.0417	mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,1-Dichloroethene	ND	0.0348	mg/Kg-dry	1	9/23/2015 1:15:00 PM
Methylene chloride	ND	0.0139	mg/Kg-dry	1	9/23/2015 1:15:00 PM
trans-1,2-Dichloroethene	ND	0.0139	mg/Kg-dry	1	9/23/2015 1:15:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0348	mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,1-Dichloroethane	ND	0.0139	mg/Kg-dry	1	9/23/2015 1:15:00 PM
2,2-Dichloropropane	ND	0.0348	mg/Kg-dry	1	9/23/2015 1:15:00 PM
cis-1,2-Dichloroethene	ND	0.0139	mg/Kg-dry	1	9/23/2015 1:15:00 PM
Chloroform	ND	0.0139	mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0139	mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,1-Dichloropropene	ND	0.0139	mg/Kg-dry	1	9/23/2015 1:15:00 PM
Carbon tetrachloride	ND	0.0139	mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2-Dichloroethane (EDC)	ND	0.0209	mg/Kg-dry	1	9/23/2015 1:15:00 PM
Benzene	ND	0.0139	mg/Kg-dry	1	9/23/2015 1:15:00 PM
Trichloroethene (TCE)	ND	0.0139	mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2-Dichloropropane	ND	0.0139	mg/Kg-dry	1	9/23/2015 1:15:00 PM
Bromodichloromethane	ND	0.0139	mg/Kg-dry	1	9/23/2015 1:15:00 PM
Dibromomethane	ND	0.0278	mg/Kg-dry	1	9/23/2015 1:15:00 PM
cis-1,3-Dichloropropene	ND	0.0139	mg/Kg-dry	1	9/23/2015 1:15:00 PM
Toluene	ND	0.0139	mg/Kg-dry	1	9/23/2015 1:15:00 PM
trans-1,3-Dichloropropylene	ND	0.0209	mg/Kg-dry	1	9/23/2015 1:15:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1509270-022

Matrix: Soil

Client Sample ID: GP-10-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0209		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,3-Dichloropropane	ND	0.0348		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Tetrachloroethene (PCE)	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Dibromochloromethane	ND	0.0209		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2-Dibromoethane (EDB)	ND	0.00348		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Chlorobenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0209		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Ethylbenzene	ND	0.0209		mg/Kg-dry	1	9/23/2015 1:15:00 PM
m,p-Xylene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
o-Xylene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Styrene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Isopropylbenzene	ND	0.0556		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Bromoform	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
n-Propylbenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Bromobenzene	ND	0.0209		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,3,5-Trimethylbenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
2-Chlorotoluene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
4-Chlorotoluene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
tert-Butylbenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2,3-Trichloropropane	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2,4-Trichlorobenzene	ND	0.0348		mg/Kg-dry	1	9/23/2015 1:15:00 PM
sec-Butylbenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
4-Isopropyltoluene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,3-Dichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,4-Dichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
n-Butylbenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2-Dichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2-Dibromo-3-chloropropane	ND	0.348		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2,4-Trimethylbenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Hexachlorobutadiene	ND	0.0696		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Naphthalene	ND	0.0209		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2,3-Trichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Surr: Dibromofluoromethane	94.1	56.5-129		%REC	1	9/23/2015 1:15:00 PM
Surr: Toluene-d8	97.6	64.3-131		%REC	1	9/23/2015 1:15:00 PM
Surr: 1-Bromo-4-fluorobenzene	97.9	63.1-141		%REC	1	9/23/2015 1:15:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1509270-022

Matrix: Soil

Client Sample ID: GP-10-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11908

Analyst: MW

Mercury	ND	0.298		mg/Kg-dry	1	9/22/2015 5:12:15 PM
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Total Metals by EPA Method 6020

Batch ID: 11906

Analyst: TN

Arsenic	1.24	0.0927		mg/Kg-dry	1	9/22/2015 4:21:31 PM
Barium	31.4	0.464		mg/Kg-dry	1	9/22/2015 4:21:31 PM
Cadmium	ND	0.185		mg/Kg-dry	1	9/22/2015 4:21:31 PM
Chromium	13.5	0.0927		mg/Kg-dry	1	9/22/2015 4:21:31 PM
Lead	2.06	0.185		mg/Kg-dry	1	9/22/2015 4:21:31 PM
Selenium	1.02	0.464		mg/Kg-dry	1	9/22/2015 4:21:31 PM
Silver	ND	0.0927		mg/Kg-dry	1	9/22/2015 4:21:31 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	22.4			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:45:00 PM

Project: Pacific Park

Lab ID: 1509270-023

Matrix: Soil

Client Sample ID: GP-11-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11938		Analyst: MD	
Dicamba	ND	37.6		µg/Kg-dry	1	10/1/2015 12:34:00 AM
2,4-D	ND	32.2		µg/Kg-dry	1	10/1/2015 12:34:00 AM
2,4-DP	ND	26.8		µg/Kg-dry	1	10/1/2015 12:34:00 AM
2,4,5-TP (Silvex)	ND	21.5		µg/Kg-dry	1	10/1/2015 12:34:00 AM
2,4,5-T	ND	53.7		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Dinoseb	ND	32.2		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Dalapon	ND	215		µg/Kg-dry	1	10/1/2015 12:34:00 AM
2,4-DB	ND	26.8		µg/Kg-dry	1	10/1/2015 12:34:00 AM
MCPP	ND	4,720		µg/Kg-dry	1	10/1/2015 12:34:00 AM
MCPA	ND	300		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Picloram	ND	53.7		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Bentazon	ND	37.6		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Chloramben	ND	21.5		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Acifluorfen	ND	85.8		µg/Kg-dry	1	10/1/2015 12:34:00 AM
3,5-Dichlorobenzoic acid	ND	42.9		µg/Kg-dry	1	10/1/2015 12:34:00 AM
4-Nitrophenol	ND	32.2		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Dacthal (DCPA)	ND	32.2		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Surr: 2,4-Dichlorophenylacetic acid	110	20.1-168		%REC	1	10/1/2015 12:34:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Alpha BHC	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Beta BHC	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Gamma BHC (Lindane)	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Delta BHC	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Heptachlor	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Aldrin	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Heptachlor epoxide	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
gamma-Chlordane	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Endosulfan I	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
alpha-Chlordane	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Dieldrin	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
4,4'-DDE	ND	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Endrin	ND	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Endosulfan II	0.0555	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM
4,4'-DDD	ND	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Endrin aldehyde	ND	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Endosulfan sulfate	0.0598	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:45:00 PM

Project: Pacific Park

Lab ID: 1509270-023

Matrix: Soil

Client Sample ID: GP-11-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

4,4'-DDT	ND	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Endrin ketone	ND	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Methoxychlor	0.127	0.0553		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Surr: Decachlorobiphenyl	136	26.5-158		%REC	1	9/24/2015 1:43:00 AM
Surr: Tetrachloro-m-xylene	147	11-150		%REC	1	9/24/2015 1:43:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11918

Analyst: AK

Diesel (Fuel Oil)	ND	20.8		mg/Kg-dry	1	9/23/2015 10:14:00 PM
Heavy Oil	103	51.9		mg/Kg-dry	1	9/23/2015 10:14:00 PM
Surr: 2-Fluorobiphenyl	94.3	50-150		%REC	1	9/23/2015 10:14:00 PM
Surr: o-Terphenyl	89.2	50-150		%REC	1	9/23/2015 10:14:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Bis(2-chloroethyl) ether	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2-Chlorophenol	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
1,3-Dichlorobenzene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
1,4-Dichlorobenzene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
1,2-Dichlorobenzene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Benzyl alcohol	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2-Methylphenol (o-cresol)	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Hexachloroethane	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
N-Nitrosodi-n-propylamine	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Nitrobenzene	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Isophorone	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
4-Methylphenol (p-cresol)	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2-Nitrophenol	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2,4-Dimethylphenol	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Bis(2-chloroethoxy)methane	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2,4-Dichlorophenol	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
1,2,4-Trichlorobenzene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Naphthalene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
4-Chloroaniline	ND	528		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Hexachlorobutadiene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
4-Chloro-3-methylphenol	ND	528		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2-Methylnaphthalene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
1-Methylnaphthalene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:45:00 PM

Project: Pacific Park

Lab ID: 1509270-023

Matrix: Soil

Client Sample ID: GP-11-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Hexachlorocyclopentadiene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2,4,6-Trichlorophenol	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2,4,5-Trichlorophenol	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2-Chloronaphthalene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2-Nitroaniline	ND	528		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Acenaphthene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Dimethylphthalate	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2,6-Dinitrotoluene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Acenaphthylene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2,4-Dinitrophenol	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Dibenzofuran	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2,4-Dinitrotoluene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
4-Nitrophenol	ND	528		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Fluorene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
4-Chlorophenyl phenyl ether	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Diethylphthalate	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
4,6-Dinitro-2-methylphenol	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
4-Bromophenyl phenyl ether	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Hexachlorobenzene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Pentachlorophenol	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Phenanthrene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Anthracene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Carbazole	ND	528		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Di-n-butylphthalate	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Fluoranthene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Pyrene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Butyl Benzylphthalate	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
bis(2-Ethylhexyl)adipate	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Benz (a) anthracene	105	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Chrysene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
bis (2-Ethylhexyl) phthalate	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Di-n-octyl phthalate	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Benzo (b) fluoranthene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Benzo (k) fluoranthene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Benzo (a) pyrene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Indeno (1,2,3-cd) pyrene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Dibenz (a,h) anthracene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Benzo (g,h,i) perylene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Surr: 2,4,6-Tribromophenol	56.5	11.1-127		%REC	1	9/24/2015 10:04:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:45:00 PM

Project: Pacific Park

Lab ID: 1509270-023

Matrix: Soil

Client Sample ID: GP-11-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	73.9	16.1-150		%REC	1	9/24/2015 10:04:00 PM
Surr: Nitrobenzene-d5	58.1	10-133		%REC	1	9/24/2015 10:04:00 PM
Surr: Phenol-d6	57.9	11.6-133		%REC	1	9/24/2015 10:04:00 PM
Surr: p-Terphenyl	82.5	21.8-150		%REC	1	9/24/2015 10:04:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11914 Analyst: BC

Gasoline	ND	2.85		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Surr: Toluene-d8	98.5	65-135		%REC	1	9/23/2015 1:44:00 PM
Surr: 4-Bromofluorobenzene	102	65-135		%REC	1	9/23/2015 1:44:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914 Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0342		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Chloromethane	ND	0.0342		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Vinyl chloride	ND	0.00114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Bromomethane	ND	0.0513		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Chloroethane	ND	0.0342		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,1-Dichloroethene	ND	0.0285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Methylene chloride	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
trans-1,2-Dichloroethene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,1-Dichloroethane	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
2,2-Dichloropropane	ND	0.0285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
cis-1,2-Dichloroethene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Chloroform	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,1-Dichloropropene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Carbon tetrachloride	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2-Dichloroethane (EDC)	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Benzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Trichloroethene (TCE)	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2-Dichloropropane	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Bromodichloromethane	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Dibromomethane	ND	0.0228		mg/Kg-dry	1	9/23/2015 1:44:00 PM
cis-1,3-Dichloropropene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Toluene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
trans-1,3-Dichloropropylene	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:45:00 PM

Project: Pacific Park

Lab ID: 1509270-023

Matrix: Soil

Client Sample ID: GP-11-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

1,1,2-Trichloroethane	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,3-Dichloropropane	ND	0.0285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Tetrachloroethene (PCE)	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Dibromochloromethane	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2-Dibromoethane (EDB)	ND	0.00285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Chlorobenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Ethylbenzene	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM
m,p-Xylene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
o-Xylene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Styrene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Isopropylbenzene	ND	0.0456		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Bromoform	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
n-Propylbenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Bromobenzene	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,3,5-Trimethylbenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
2-Chlorotoluene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
4-Chlorotoluene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
tert-Butylbenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2,3-Trichloropropane	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2,4-Trichlorobenzene	ND	0.0285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
sec-Butylbenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
4-Isopropyltoluene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,3-Dichlorobenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,4-Dichlorobenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
n-Butylbenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2-Dichlorobenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2-Dibromo-3-chloropropane	ND	0.285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2,4-Trimethylbenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Hexachlorobutadiene	ND	0.0570		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Naphthalene	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2,3-Trichlorobenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Surr: Dibromofluoromethane	93.1	56.5-129		%REC	1	9/23/2015 1:44:00 PM
Surr: Toluene-d8	98.4	64.3-131		%REC	1	9/23/2015 1:44:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.2	63.1-141		%REC	1	9/23/2015 1:44:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:45:00 PM

Project: Pacific Park

Lab ID: 1509270-023

Matrix: Soil

Client Sample ID: GP-11-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11908

Analyst: MW

Mercury	ND	0.253		mg/Kg-dry	1	9/22/2015 5:13:51 PM
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Total Metals by EPA Method 6020

Batch ID: 11906

Analyst: TN

Arsenic	2.48	0.0799		mg/Kg-dry	1	9/22/2015 4:25:02 PM
Barium	32.9	0.400		mg/Kg-dry	1	9/22/2015 4:25:02 PM
Cadmium	ND	0.160		mg/Kg-dry	1	9/22/2015 4:25:02 PM
Chromium	14.2	0.0799		mg/Kg-dry	1	9/22/2015 4:25:02 PM
Lead	40.1	0.160		mg/Kg-dry	1	9/22/2015 4:25:02 PM
Selenium	0.801	0.400		mg/Kg-dry	1	9/22/2015 4:25:02 PM
Silver	ND	0.0799		mg/Kg-dry	1	9/22/2015 4:25:02 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	10.0			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:50:00 PM

Project: Pacific Park

Lab ID: 1509270-024

Matrix: Soil

Client Sample ID: GP-11-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11938		Analyst: MD	
Dicamba	ND	65.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
2,4-D	ND	56.0		µg/Kg-dry	1	10/1/2015 12:51:00 AM
2,4-DP	ND	46.6		µg/Kg-dry	1	10/1/2015 12:51:00 AM
2,4,5-TP (Silvex)	ND	37.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
2,4,5-T	ND	93.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Dinoseb	ND	56.0		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Dalapon	ND	373		µg/Kg-dry	1	10/1/2015 12:51:00 AM
2,4-DB	ND	46.6		µg/Kg-dry	1	10/1/2015 12:51:00 AM
MCPP	ND	8,210		µg/Kg-dry	1	10/1/2015 12:51:00 AM
MCPA	ND	522		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Picloram	ND	93.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Bentazon	ND	65.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Chloramben	ND	37.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Acifluorfen	ND	149		µg/Kg-dry	1	10/1/2015 12:51:00 AM
3,5-Dichlorobenzoic acid	ND	74.6		µg/Kg-dry	1	10/1/2015 12:51:00 AM
4-Nitrophenol	ND	56.0		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Dacthal (DCPA)	ND	56.0		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Surr: 2,4-Dichlorophenylacetic acid	110	20.1-168		%REC	1	10/1/2015 12:51:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Alpha BHC	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Beta BHC	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Gamma BHC (Lindane)	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Delta BHC	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Heptachlor	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Aldrin	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Heptachlor epoxide	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
gamma-Chlordane	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Endosulfan I	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
alpha-Chlordane	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Dieldrin	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
4,4'-DDE	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Endrin	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Endosulfan II	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM
4,4'-DDD	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Endrin aldehyde	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Endosulfan sulfate	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:50:00 PM

Project: Pacific Park

Lab ID: 1509270-024

Matrix: Soil

Client Sample ID: GP-11-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

4,4'-DDT	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Endrin ketone	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Methoxychlor	ND	0.0937		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Surr: Decachlorobiphenyl	85.4	26.5-158		%REC	1	9/24/2015 1:54:00 AM
Surr: Tetrachloro-m-xylene	78.9	11-150		%REC	1	9/24/2015 1:54:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11918

Analyst: AK

Diesel (Fuel Oil)	ND	36.2		mg/Kg-dry	1	9/23/2015 10:46:00 PM
Heavy Oil	ND	90.6		mg/Kg-dry	1	9/23/2015 10:46:00 PM
Surr: 2-Fluorobiphenyl	85.2	50-150		%REC	1	9/23/2015 10:46:00 PM
Surr: o-Terphenyl	83.8	50-150		%REC	1	9/23/2015 10:46:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Bis(2-chloroethyl) ether	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2-Chlorophenol	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
1,3-Dichlorobenzene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
1,4-Dichlorobenzene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
1,2-Dichlorobenzene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Benzyl alcohol	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2-Methylphenol (o-cresol)	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Hexachloroethane	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
N-Nitrosodi-n-propylamine	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Nitrobenzene	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Isophorone	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
4-Methylphenol (p-cresol)	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2-Nitrophenol	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2,4-Dimethylphenol	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Bis(2-chloroethoxy)methane	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2,4-Dichlorophenol	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
1,2,4-Trichlorobenzene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Naphthalene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
4-Chloroaniline	ND	899		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Hexachlorobutadiene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
4-Chloro-3-methylphenol	ND	899		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2-Methylnaphthalene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
1-Methylnaphthalene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:50:00 PM

Project: Pacific Park

Lab ID: 1509270-024

Matrix: Soil

Client Sample ID: GP-11-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937	Analyst: NG	
Hexachlorocyclopentadiene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2,4,6-Trichlorophenol	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2,4,5-Trichlorophenol	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2-Chloronaphthalene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2-Nitroaniline	ND	899		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Acenaphthene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Dimethylphthalate	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2,6-Dinitrotoluene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Acenaphthylene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2,4-Dinitrophenol	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Dibenzofuran	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2,4-Dinitrotoluene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
4-Nitrophenol	ND	899		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Fluorene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
4-Chlorophenyl phenyl ether	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Diethylphthalate	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
4,6-Dinitro-2-methylphenol	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
4-Bromophenyl phenyl ether	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Hexachlorobenzene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Pentachlorophenol	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Phenanthrene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Anthracene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Carbazole	ND	899		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Di-n-butylphthalate	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Fluoranthene	193	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Pyrene	186	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Butyl Benzylphthalate	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
bis(2-Ethylhexyl)adipate	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Benz (a) anthracene	197	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Chrysene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
bis (2-Ethylhexyl) phthalate	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Di-n-octyl phthalate	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Benzo (b) fluoranthene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Benzo (k) fluoranthene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Benzo (a) pyrene	591	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Indeno (1,2,3-cd) pyrene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Dibenz (a,h) anthracene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Benzo (g,h,i) perylene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Surr: 2,4,6-Tribromophenol	55.4	11.1-127		%REC	1	9/24/2015 10:26:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:50:00 PM

Project: Pacific Park

Lab ID: 1509270-024

Matrix: Soil

Client Sample ID: GP-11-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Surr: 2-Fluorobiphenyl	50.1	16.1-150	%REC	1	9/24/2015 10:26:00 PM
Surr: Nitrobenzene-d5	51.7	10-133	%REC	1	9/24/2015 10:26:00 PM
Surr: Phenol-d6	58.4	11.6-133	%REC	1	9/24/2015 10:26:00 PM
Surr: p-Terphenyl	70.2	21.8-150	%REC	1	9/24/2015 10:26:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	6.73	mg/Kg-dry	1	9/23/2015 10:08:00 PM
Surr: Toluene-d8	97.4	65-135	%REC	1	9/23/2015 10:08:00 PM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/23/2015 10:08:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0808	mg/Kg-dry	1	9/23/2015 10:08:00 PM
Chloromethane	ND	0.0808	mg/Kg-dry	1	9/23/2015 10:08:00 PM
Vinyl chloride	ND	0.00269	mg/Kg-dry	1	9/23/2015 10:08:00 PM
Bromomethane	ND	0.121	mg/Kg-dry	1	9/23/2015 10:08:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0673	mg/Kg-dry	1	9/23/2015 10:08:00 PM
Chloroethane	ND	0.0808	mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,1-Dichloroethene	ND	0.0673	mg/Kg-dry	1	9/23/2015 10:08:00 PM
Methylene chloride	ND	0.0269	mg/Kg-dry	1	9/23/2015 10:08:00 PM
trans-1,2-Dichloroethene	ND	0.0269	mg/Kg-dry	1	9/23/2015 10:08:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0673	mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,1-Dichloroethane	ND	0.0269	mg/Kg-dry	1	9/23/2015 10:08:00 PM
2,2-Dichloropropane	ND	0.0673	mg/Kg-dry	1	9/23/2015 10:08:00 PM
cis-1,2-Dichloroethene	ND	0.0269	mg/Kg-dry	1	9/23/2015 10:08:00 PM
Chloroform	ND	0.0269	mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0269	mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,1-Dichloropropene	ND	0.0269	mg/Kg-dry	1	9/23/2015 10:08:00 PM
Carbon tetrachloride	ND	0.0269	mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2-Dichloroethane (EDC)	ND	0.0404	mg/Kg-dry	1	9/23/2015 10:08:00 PM
Benzene	ND	0.0269	mg/Kg-dry	1	9/23/2015 10:08:00 PM
Trichloroethene (TCE)	ND	0.0269	mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2-Dichloropropane	ND	0.0269	mg/Kg-dry	1	9/23/2015 10:08:00 PM
Bromodichloromethane	ND	0.0269	mg/Kg-dry	1	9/23/2015 10:08:00 PM
Dibromomethane	ND	0.0539	mg/Kg-dry	1	9/23/2015 10:08:00 PM
cis-1,3-Dichloropropene	ND	0.0269	mg/Kg-dry	1	9/23/2015 10:08:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:50:00 PM

Project: Pacific Park

Lab ID: 1509270-024

Matrix: Soil

Client Sample ID: GP-11-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Toluene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
trans-1,3-Dichloropropylene	ND	0.0404		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,1,2-Trichloroethane	ND	0.0404		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,3-Dichloropropane	ND	0.0673		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Tetrachloroethene (PCE)	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Dibromochloromethane	ND	0.0404		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2-Dibromoethane (EDB)	ND	0.00673		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Chlorobenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0404		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Ethylbenzene	ND	0.0404		mg/Kg-dry	1	9/23/2015 10:08:00 PM
m,p-Xylene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
o-Xylene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Styrene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Isopropylbenzene	ND	0.108		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Bromoform	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
n-Propylbenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Bromobenzene	ND	0.0404		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,3,5-Trimethylbenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
2-Chlorotoluene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
4-Chlorotoluene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
tert-Butylbenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2,3-Trichloropropane	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2,4-Trichlorobenzene	ND	0.0673		mg/Kg-dry	1	9/23/2015 10:08:00 PM
sec-Butylbenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
4-Isopropyltoluene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,3-Dichlorobenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,4-Dichlorobenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
n-Butylbenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2-Dichlorobenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2-Dibromo-3-chloropropane	ND	0.673		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2,4-Trimethylbenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Hexachlorobutadiene	ND	0.135		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Naphthalene	ND	0.0404		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2,3-Trichlorobenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Surr: Dibromofluoromethane	94.7	56.5-129		%REC	1	9/23/2015 10:08:00 PM
Surr: Toluene-d8	98.4	64.3-131		%REC	1	9/23/2015 10:08:00 PM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/23/2015 10:08:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:50:00 PM

Project: Pacific Park

Lab ID: 1509270-024

Matrix: Soil

Client Sample ID: GP-11-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11908 Analyst: MW

Mercury	ND	0.448		mg/Kg-dry	1	9/22/2015 5:18:49 PM
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Total Metals by EPA Method 6020

Batch ID: 11906 Analyst: TN

Arsenic	3.03	0.138		mg/Kg-dry	1	9/22/2015 4:28:33 PM
Barium	72.1	0.688		mg/Kg-dry	1	9/22/2015 4:28:33 PM
Cadmium	ND	0.275		mg/Kg-dry	1	9/22/2015 4:28:33 PM
Chromium	21.7	0.138		mg/Kg-dry	1	9/22/2015 4:28:33 PM
Lead	4.34	0.275		mg/Kg-dry	1	9/22/2015 4:28:33 PM
Selenium	1.41	0.688		mg/Kg-dry	1	9/22/2015 4:28:33 PM
Silver	ND	0.138		mg/Kg-dry	1	9/22/2015 4:28:33 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044 Analyst: CG

Percent Moisture	47.3			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:50:00 AM

Project: Pacific Park

Lab ID: 1509270-025

Matrix: Soil

Client Sample ID: GP-12-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	43.3		µg/Kg-dry	1	10/1/2015 1:07:00 AM
2,4-D	ND	37.1		µg/Kg-dry	1	10/1/2015 1:07:00 AM
2,4-DP	ND	30.9		µg/Kg-dry	1	10/1/2015 1:07:00 AM
2,4,5-TP (Silvex)	ND	24.7		µg/Kg-dry	1	10/1/2015 1:07:00 AM
2,4,5-T	ND	61.9		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Dinoseb	ND	37.1		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Dalapon	ND	247		µg/Kg-dry	1	10/1/2015 1:07:00 AM
2,4-DB	ND	30.9		µg/Kg-dry	1	10/1/2015 1:07:00 AM
MCPP	ND	5,440		µg/Kg-dry	1	10/1/2015 1:07:00 AM
MCPA	ND	346		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Picloram	ND	61.9		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Bentazon	ND	43.3		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Chloramben	ND	24.7		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Acifluorfen	ND	99.0		µg/Kg-dry	1	10/1/2015 1:07:00 AM
3,5-Dichlorobenzoic acid	ND	49.5		µg/Kg-dry	1	10/1/2015 1:07:00 AM
4-Nitrophenol	ND	37.1		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Dacthal (DCPA)	ND	37.1		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Surr: 2,4-Dichlorophenylacetic acid	111	20.1-168		%REC	1	10/1/2015 1:07:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Alpha BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Beta BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Gamma BHC (Lindane)	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Delta BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Heptachlor	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Aldrin	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Heptachlor epoxide	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
gamma-Chlordane	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Endosulfan I	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
alpha-Chlordane	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Dieldrin	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
4,4'-DDE	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Endrin	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Endosulfan II	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM
4,4'-DDD	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Endrin aldehyde	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Endosulfan sulfate	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:50:00 AM

Project: Pacific Park

Lab ID: 1509270-025

Matrix: Soil

Client Sample ID: GP-12-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

4,4'-DDT	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Endrin ketone	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Methoxychlor	ND	0.0597		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Surr: Decachlorobiphenyl	94.6	26.5-158		%REC	1	9/24/2015 2:05:00 AM
Surr: Tetrachloro-m-xylene	89.5	11-150		%REC	1	9/24/2015 2:05:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11918

Analyst: AK

Diesel (Fuel Oil)	ND	23.3		mg/Kg-dry	1	9/23/2015 11:17:00 PM
Heavy Oil	ND	58.2		mg/Kg-dry	1	9/23/2015 11:17:00 PM
Surr: 2-Fluorobiphenyl	91.0	50-150		%REC	1	9/23/2015 11:17:00 PM
Surr: o-Terphenyl	86.4	50-150		%REC	1	9/23/2015 11:17:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Bis(2-chloroethyl) ether	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2-Chlorophenol	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
1,3-Dichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
1,4-Dichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
1,2-Dichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Benzyl alcohol	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2-Methylphenol (o-cresol)	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Hexachloroethane	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
N-Nitrosodi-n-propylamine	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Nitrobenzene	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Isophorone	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
4-Methylphenol (p-cresol)	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2-Nitrophenol	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2,4-Dimethylphenol	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Bis(2-chloroethoxy)methane	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2,4-Dichlorophenol	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
1,2,4-Trichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Naphthalene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
4-Chloroaniline	ND	592		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Hexachlorobutadiene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
4-Chloro-3-methylphenol	ND	592		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2-Methylnaphthalene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
1-Methylnaphthalene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:50:00 AM

Project: Pacific Park

Lab ID: 1509270-025

Matrix: Soil

Client Sample ID: GP-12-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Hexachlorocyclopentadiene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2,4,6-Trichlorophenol	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2,4,5-Trichlorophenol	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2-Chloronaphthalene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2-Nitroaniline	ND	592		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Acenaphthene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Dimethylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2,6-Dinitrotoluene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Acenaphthylene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2,4-Dinitrophenol	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Dibenzofuran	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2,4-Dinitrotoluene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
4-Nitrophenol	ND	592		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Fluorene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
4-Chlorophenyl phenyl ether	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Diethylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
4,6-Dinitro-2-methylphenol	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
4-Bromophenyl phenyl ether	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Hexachlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Pentachlorophenol	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Phenanthrene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Anthracene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Carbazole	ND	592		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Di-n-butylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Fluoranthene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Pyrene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Butyl Benzylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
bis(2-Ethylhexyl)adipate	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Benz (a) anthracene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Chrysene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
bis (2-Ethylhexyl) phthalate	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Di-n-octyl phthalate	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Benzo (b) fluoranthene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Benzo (k) fluoranthene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Benzo (a) pyrene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Indeno (1,2,3-cd) pyrene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Dibenz (a,h) anthracene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Benzo (g,h,i) perylene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Surr: 2,4,6-Tribromophenol	54.1	11.1-127		%REC	1	9/24/2015 10:49:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:50:00 AM

Project: Pacific Park

Lab ID: 1509270-025

Matrix: Soil

Client Sample ID: GP-12-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Surr: 2-Fluorobiphenyl	41.5	16.1-150	%REC	1	9/24/2015 10:49:00 PM
Surr: Nitrobenzene-d5	53.0	10-133	%REC	1	9/24/2015 10:49:00 PM
Surr: Phenol-d6	60.7	11.6-133	%REC	1	9/24/2015 10:49:00 PM
Surr: p-Terphenyl	73.9	21.8-150	%REC	1	9/24/2015 10:49:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	3.03	mg/Kg-dry	1	9/23/2015 11:05:00 PM
Surr: Toluene-d8	99.2	65-135	%REC	1	9/23/2015 11:05:00 PM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/23/2015 11:05:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0364	mg/Kg-dry	1	9/23/2015 11:05:00 PM
Chloromethane	ND	0.0364	mg/Kg-dry	1	9/23/2015 11:05:00 PM
Vinyl chloride	ND	0.00121	mg/Kg-dry	1	9/23/2015 11:05:00 PM
Bromomethane	ND	0.0546	mg/Kg-dry	1	9/23/2015 11:05:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0303	mg/Kg-dry	1	9/23/2015 11:05:00 PM
Chloroethane	ND	0.0364	mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,1-Dichloroethene	ND	0.0303	mg/Kg-dry	1	9/23/2015 11:05:00 PM
Methylene chloride	ND	0.0121	mg/Kg-dry	1	9/23/2015 11:05:00 PM
trans-1,2-Dichloroethene	ND	0.0121	mg/Kg-dry	1	9/23/2015 11:05:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0303	mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,1-Dichloroethane	ND	0.0121	mg/Kg-dry	1	9/23/2015 11:05:00 PM
2,2-Dichloropropane	ND	0.0303	mg/Kg-dry	1	9/23/2015 11:05:00 PM
cis-1,2-Dichloroethene	ND	0.0121	mg/Kg-dry	1	9/23/2015 11:05:00 PM
Chloroform	ND	0.0121	mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0121	mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,1-Dichloropropene	ND	0.0121	mg/Kg-dry	1	9/23/2015 11:05:00 PM
Carbon tetrachloride	ND	0.0121	mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2-Dichloroethane (EDC)	ND	0.0182	mg/Kg-dry	1	9/23/2015 11:05:00 PM
Benzene	ND	0.0121	mg/Kg-dry	1	9/23/2015 11:05:00 PM
Trichloroethene (TCE)	ND	0.0121	mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2-Dichloropropane	ND	0.0121	mg/Kg-dry	1	9/23/2015 11:05:00 PM
Bromodichloromethane	ND	0.0121	mg/Kg-dry	1	9/23/2015 11:05:00 PM
Dibromomethane	ND	0.0243	mg/Kg-dry	1	9/23/2015 11:05:00 PM
cis-1,3-Dichloropropene	ND	0.0121	mg/Kg-dry	1	9/23/2015 11:05:00 PM
Toluene	ND	0.0121	mg/Kg-dry	1	9/23/2015 11:05:00 PM
trans-1,3-Dichloropropylene	ND	0.0182	mg/Kg-dry	1	9/23/2015 11:05:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:50:00 AM

Project: Pacific Park

Lab ID: 1509270-025

Matrix: Soil

Client Sample ID: GP-12-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11930		Analyst: BC
1,1,2-Trichloroethane	ND	0.0182		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,3-Dichloropropane	ND	0.0303		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Tetrachloroethene (PCE)	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Dibromochloromethane	ND	0.0182		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2-Dibromoethane (EDB)	ND	0.00303		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Chlorobenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0182		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Ethylbenzene	ND	0.0182		mg/Kg-dry	1	9/23/2015 11:05:00 PM
m,p-Xylene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
o-Xylene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Styrene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Isopropylbenzene	ND	0.0485		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Bromoform	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
n-Propylbenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Bromobenzene	ND	0.0182		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,3,5-Trimethylbenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
2-Chlorotoluene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
4-Chlorotoluene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
tert-Butylbenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2,3-Trichloropropane	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2,4-Trichlorobenzene	ND	0.0303		mg/Kg-dry	1	9/23/2015 11:05:00 PM
sec-Butylbenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
4-Isopropyltoluene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,3-Dichlorobenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,4-Dichlorobenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
n-Butylbenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2-Dichlorobenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2-Dibromo-3-chloropropane	ND	0.303		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2,4-Trimethylbenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Hexachlorobutadiene	ND	0.0607		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Naphthalene	ND	0.0182		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2,3-Trichlorobenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Surr: Dibromofluoromethane	93.4	56.5-129		%REC	1	9/23/2015 11:05:00 PM
Surr: Toluene-d8	97.5	64.3-131		%REC	1	9/23/2015 11:05:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.9	63.1-141		%REC	1	9/23/2015 11:05:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:50:00 AM

Project: Pacific Park

Lab ID: 1509270-025

Matrix: Soil

Client Sample ID: GP-12-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11908

Analyst: MW

Mercury	ND	0.287		mg/Kg-dry	1	9/22/2015 5:20:26 PM
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Total Metals by EPA Method 6020

Batch ID: 11906

Analyst: TN

Arsenic	2.82	0.0999		mg/Kg-dry	1	9/22/2015 4:32:06 PM
Barium	26.5	0.500		mg/Kg-dry	1	9/22/2015 4:32:06 PM
Cadmium	ND	0.200		mg/Kg-dry	1	9/22/2015 4:32:06 PM
Chromium	13.1	0.0999		mg/Kg-dry	1	9/22/2015 4:32:06 PM
Lead	3.54	0.200		mg/Kg-dry	1	9/22/2015 4:32:06 PM
Selenium	1.37	0.500		mg/Kg-dry	1	9/22/2015 4:32:06 PM
Silver	ND	0.0999		mg/Kg-dry	1	9/22/2015 4:32:06 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	19.3			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509270-026

Matrix: Soil

Client Sample ID: GP-12-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	43.6		µg/Kg-dry	1	10/1/2015 1:24:00 AM
2,4-D	ND	37.3		µg/Kg-dry	1	10/1/2015 1:24:00 AM
2,4-DP	ND	31.1		µg/Kg-dry	1	10/1/2015 1:24:00 AM
2,4,5-TP (Silvex)	ND	24.9		µg/Kg-dry	1	10/1/2015 1:24:00 AM
2,4,5-T	ND	62.2		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Dinoseb	ND	37.3		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Dalapon	ND	249		µg/Kg-dry	1	10/1/2015 1:24:00 AM
2,4-DB	ND	31.1		µg/Kg-dry	1	10/1/2015 1:24:00 AM
MCPP	ND	5,480		µg/Kg-dry	1	10/1/2015 1:24:00 AM
MCPA	ND	348		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Picloram	ND	62.2		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Bentazon	ND	43.6		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Chloramben	ND	24.9		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Acifluorfen	ND	99.6		µg/Kg-dry	1	10/1/2015 1:24:00 AM
3,5-Dichlorobenzoic acid	ND	49.8		µg/Kg-dry	1	10/1/2015 1:24:00 AM
4-Nitrophenol	ND	37.3		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Dacthal (DCPA)	ND	37.3		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Surr: 2,4-Dichlorophenylacetic acid	104	20.1-168		%REC	1	10/1/2015 1:24:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Alpha BHC	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Beta BHC	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Gamma BHC (Lindane)	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Delta BHC	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Heptachlor	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Aldrin	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Heptachlor epoxide	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
gamma-Chlordane	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Endosulfan I	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
alpha-Chlordane	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Dieldrin	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
4,4'-DDE	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Endrin	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Endosulfan II	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM
4,4'-DDD	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Endrin aldehyde	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Endosulfan sulfate	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509270-026

Matrix: Soil

Client Sample ID: GP-12-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

4,4'-DDT	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Endrin ketone	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Methoxychlor	ND	0.0588		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Surr: Decachlorobiphenyl	80.1	26.5-158		%REC	1	9/24/2015 2:16:00 AM
Surr: Tetrachloro-m-xylene	84.2	11-150		%REC	1	9/24/2015 2:16:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11918

Analyst: AK

Diesel (Fuel Oil)	ND	25.1		mg/Kg-dry	1	9/23/2015 11:48:00 PM
Heavy Oil	ND	62.7		mg/Kg-dry	1	9/23/2015 11:48:00 PM
Surr: 2-Fluorobiphenyl	88.6	50-150		%REC	1	9/23/2015 11:48:00 PM
Surr: o-Terphenyl	84.6	50-150		%REC	1	9/23/2015 11:48:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Bis(2-chloroethyl) ether	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2-Chlorophenol	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
1,3-Dichlorobenzene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
1,4-Dichlorobenzene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
1,2-Dichlorobenzene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Benzyl alcohol	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2-Methylphenol (o-cresol)	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Hexachloroethane	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
N-Nitrosodi-n-propylamine	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Nitrobenzene	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Isophorone	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
4-Methylphenol (p-cresol)	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2-Nitrophenol	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2,4-Dimethylphenol	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Bis(2-chloroethoxy)methane	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2,4-Dichlorophenol	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
1,2,4-Trichlorobenzene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Naphthalene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
4-Chloroaniline	ND	622		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Hexachlorobutadiene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
4-Chloro-3-methylphenol	ND	622		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2-Methylnaphthalene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
1-Methylnaphthalene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509270-026

Matrix: Soil

Client Sample ID: GP-12-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937	Analyst: NG	
Hexachlorocyclopentadiene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2,4,6-Trichlorophenol	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2,4,5-Trichlorophenol	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2-Chloronaphthalene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2-Nitroaniline	ND	622		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Acenaphthene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Dimethylphthalate	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2,6-Dinitrotoluene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Acenaphthylene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2,4-Dinitrophenol	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Dibenzofuran	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2,4-Dinitrotoluene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
4-Nitrophenol	ND	622		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Fluorene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
4-Chlorophenyl phenyl ether	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Diethylphthalate	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
4,6-Dinitro-2-methylphenol	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
4-Bromophenyl phenyl ether	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Hexachlorobenzene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Pentachlorophenol	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Phenanthrene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Anthracene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Carbazole	ND	622		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Di-n-butylphthalate	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Fluoranthene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Pyrene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Butyl Benzylphthalate	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
bis(2-Ethylhexyl)adipate	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Benz (a) anthracene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Chrysene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
bis (2-Ethylhexyl) phthalate	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Di-n-octyl phthalate	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Benzo (b) fluoranthene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Benzo (k) fluoranthene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Benzo (a) pyrene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Indeno (1,2,3-cd) pyrene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Dibenz (a,h) anthracene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Benzo (g,h,i) perylene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Surr: 2,4,6-Tribromophenol	46.5	11.1-127		%REC	1	9/24/2015 11:11:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509270-026

Matrix: Soil

Client Sample ID: GP-12-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	56.7	16.1-150		%REC	1	9/24/2015 11:11:00 PM
Surr: Nitrobenzene-d5	40.8	10-133		%REC	1	9/24/2015 11:11:00 PM
Surr: Phenol-d6	39.1	11.6-133		%REC	1	9/24/2015 11:11:00 PM
Surr: p-Terphenyl	67.0	21.8-150		%REC	1	9/24/2015 11:11:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	3.34		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Surr: Toluene-d8	101	65-135		%REC	1	9/23/2015 11:34:00 PM
Surr: 4-Bromofluorobenzene	102	65-135		%REC	1	9/23/2015 11:34:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0401		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Chloromethane	ND	0.0401		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Vinyl chloride	ND	0.00134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Bromomethane	ND	0.0602		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Chloroethane	ND	0.0401		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,1-Dichloroethene	ND	0.0334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Methylene chloride	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
trans-1,2-Dichloroethene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,1-Dichloroethane	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
2,2-Dichloropropane	ND	0.0334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
cis-1,2-Dichloroethene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Chloroform	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,1-Dichloropropene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Carbon tetrachloride	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2-Dichloroethane (EDC)	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Benzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Trichloroethene (TCE)	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2-Dichloropropane	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Bromodichloromethane	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Dibromomethane	ND	0.0268		mg/Kg-dry	1	9/23/2015 11:34:00 PM
cis-1,3-Dichloropropene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509270-026

Matrix: Soil

Client Sample ID: GP-12-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Toluene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
trans-1,3-Dichloropropylene	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,1,2-Trichloroethane	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,3-Dichloropropane	ND	0.0334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Tetrachloroethene (PCE)	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Dibromochloromethane	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2-Dibromoethane (EDB)	ND	0.00334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Chlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Ethylbenzene	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM
m,p-Xylene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
o-Xylene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Styrene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Isopropylbenzene	ND	0.0535		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Bromoform	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
n-Propylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Bromobenzene	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,3,5-Trimethylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
2-Chlorotoluene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
4-Chlorotoluene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
tert-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2,3-Trichloropropane	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2,4-Trichlorobenzene	ND	0.0334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
sec-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
4-Isopropyltoluene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,3-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,4-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
n-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2-Dibromo-3-chloropropane	ND	0.334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2,4-Trimethylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Hexachlorobutadiene	ND	0.0669		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Naphthalene	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2,3-Trichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Surr: Dibromofluoromethane	93.3	56.5-129		%REC	1	9/23/2015 11:34:00 PM
Surr: Toluene-d8	97.7	64.3-131		%REC	1	9/23/2015 11:34:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	63.1-141		%REC	1	9/23/2015 11:34:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509270-026

Matrix: Soil

Client Sample ID: GP-12-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11908		Analyst: MW
Mercury	ND	0.309		mg/Kg-dry	1	9/22/2015 5:22:04 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	1.18	0.0988		mg/Kg-dry	1	9/22/2015 4:42:44 PM
Barium	17.8	0.494		mg/Kg-dry	1	9/22/2015 4:42:44 PM
Cadmium	ND	0.198		mg/Kg-dry	1	9/22/2015 4:42:44 PM
Chromium	14.4	0.0988		mg/Kg-dry	1	9/22/2015 4:42:44 PM
Lead	1.30	0.198		mg/Kg-dry	1	9/22/2015 4:42:44 PM
Selenium	0.886	0.494		mg/Kg-dry	1	9/22/2015 4:42:44 PM
Silver	ND	0.0988		mg/Kg-dry	1	9/22/2015 4:42:44 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	22.2			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509270-027

Matrix: Groundwater

Client Sample ID: GP-12-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11896		Analyst: CM
Diesel (Fuel Oil)	ND	49.9		µg/L	1	9/24/2015 12:34:00 PM
Heavy Oil	ND	99.9		µg/L	1	9/24/2015 12:34:00 PM
Surr: 2-Fluorobiphenyl	61.4	50-150		%REC	1	9/24/2015 12:34:00 PM
Surr: o-Terphenyl	67.3	50-150		%REC	1	9/24/2015 12:34:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 11916

Analyst: NG

Naphthalene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
2-Methylnaphthalene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
1-Methylnaphthalene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Acenaphthylene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Acenaphthene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Fluorene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Phenanthrene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Anthracene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Fluoranthene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Pyrene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Benz(a)anthracene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Chrysene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Benzo(b)fluoranthene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Benzo(k)fluoranthene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Benzo(a)pyrene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Dibenz(a,h)anthracene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Benzo(g,h,i)perylene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Surr: 2-Fluorobiphenyl	64.8	23.9-122		%REC	1	9/23/2015 6:42:00 PM
Surr: Terphenyl-d14	42.6	33.4-135		%REC	1	9/23/2015 6:42:00 PM

Gasoline by NWTPH-Gx

Batch ID: R25021

Analyst: EM

Gasoline	ND	50.0		µg/L	1	9/22/2015 2:43:00 AM
Surr: Toluene-d8	88.0	65-135		%REC	1	9/22/2015 2:43:00 AM
Surr: 4-Bromofluorobenzene	95.8	65-135		%REC	1	9/22/2015 2:43:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25020

Analyst: EM

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Chloromethane	2.02	1.00		µg/L	1	9/22/2015 2:43:00 AM
Vinyl chloride	ND	0.200		µg/L	1	9/22/2015 2:43:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509270-027

Matrix: Groundwater

Client Sample ID: GP-12-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25020

Analyst: EM

Bromomethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Chloroethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Methylene chloride	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/22/2015 2:43:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Chloroform	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Benzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/22/2015 2:43:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Dibromomethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Toluene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/22/2015 2:43:00 AM
Chlorobenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Ethylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
m,p-Xylene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
o-Xylene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Styrene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Bromoform	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Bromobenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509270-027

Matrix: Groundwater

Client Sample ID: GP-12-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25020

Analyst: EM

1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/22/2015 2:43:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/22/2015 2:43:00 AM
Naphthalene	ND	1.00	Q	µg/L	1	9/22/2015 2:43:00 AM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/22/2015 2:43:00 AM
Surr: Dibromofluoromethane	101	45.4-152		%REC	1	9/22/2015 2:43:00 AM
Surr: Toluene-d8	102	40.1-139		%REC	1	9/22/2015 2:43:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	64.2-128		%REC	1	9/22/2015 2:43:00 AM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:10:29 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:07:35 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11907

Analyst: TN

Antimony	0.513	0.200	[RE]	µg/L	1	9/22/2015 1:52:02 PM
Arsenic	2.66	1.00		µg/L	1	9/21/2015 4:43:15 PM
Beryllium	ND	0.200		µg/L	1	9/21/2015 4:43:15 PM
Cadmium	ND	0.200		µg/L	1	9/21/2015 4:43:15 PM
Chromium	0.966	0.500		µg/L	1	9/21/2015 4:43:15 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509270-027

Matrix: Groundwater

Client Sample ID: GP-12-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 11907

Analyst: TN

Copper	11.6	0.500		µg/L	1	9/21/2015 4:43:15 PM
Lead	ND	1.00		µg/L	1	9/21/2015 4:43:15 PM
Nickel	1.63	0.500		µg/L	1	9/21/2015 4:43:15 PM
Selenium	1.56	1.00		µg/L	1	9/21/2015 4:43:15 PM
Silver	0.795	0.200		µg/L	1	9/21/2015 4:43:15 PM
Thallium	ND	0.200	[RE]	µg/L	1	9/22/2015 1:52:02 PM
Zinc	4.31	1.50		µg/L	1	9/21/2015 4:43:15 PM

Total Metals by EPA Method 200.8

Batch ID: 11891

Analyst: TN

Antimony	ND	0.200		µg/L	1	9/22/2015 1:23:48 PM
Arsenic	20.7	1.00		µg/L	1	9/21/2015 4:53:49 PM
Beryllium	0.513	0.200		µg/L	1	9/21/2015 4:53:49 PM
Cadmium	0.753	0.200		µg/L	1	9/21/2015 4:53:49 PM
Chromium	21.6	0.500		µg/L	1	9/21/2015 4:53:49 PM
Copper	94.4	0.500		µg/L	1	9/21/2015 4:53:49 PM
Lead	8.24	1.00		µg/L	1	9/21/2015 4:53:49 PM
Nickel	9.98	0.500		µg/L	1	9/21/2015 4:53:49 PM
Selenium	5.78	1.00		µg/L	1	9/21/2015 4:53:49 PM
Silver	ND	0.200		µg/L	1	9/21/2015 4:53:49 PM
Thallium	ND	0.200		µg/L	1	9/22/2015 1:23:48 PM
Zinc	29.4	1.50		µg/L	1	9/21/2015 4:53:49 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:05:00 AM

Project: Pacific Park

Lab ID: 1509270-028

Matrix: Soil

Client Sample ID: MW-1-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	39.3		µg/Kg-dry	1	10/1/2015 1:41:00 AM
2,4-D	ND	33.7		µg/Kg-dry	1	10/1/2015 1:41:00 AM
2,4-DP	ND	28.1		µg/Kg-dry	1	10/1/2015 1:41:00 AM
2,4,5-TP (Silvex)	ND	22.5		µg/Kg-dry	1	10/1/2015 1:41:00 AM
2,4,5-T	ND	56.1		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Dinoseb	ND	33.7		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Dalapon	ND	225		µg/Kg-dry	1	10/1/2015 1:41:00 AM
2,4-DB	ND	28.1		µg/Kg-dry	1	10/1/2015 1:41:00 AM
MCPP	ND	4,940		µg/Kg-dry	1	10/1/2015 1:41:00 AM
MCPA	ND	314		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Picloram	ND	56.1		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Bentazon	ND	39.3		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Chloramben	ND	22.5		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Acifluorfen	ND	89.8		µg/Kg-dry	1	10/1/2015 1:41:00 AM
3,5-Dichlorobenzoic acid	ND	44.9		µg/Kg-dry	1	10/1/2015 1:41:00 AM
4-Nitrophenol	ND	33.7		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Dacthal (DCPA)	ND	33.7		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Surr: 2,4-Dichlorophenylacetic acid	99.9	20.1-168		%REC	1	10/1/2015 1:41:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Alpha BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Beta BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Gamma BHC (Lindane)	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Delta BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Heptachlor	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Aldrin	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Heptachlor epoxide	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
gamma-Chlordane	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Endosulfan I	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
alpha-Chlordane	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Dieldrin	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
4,4'-DDE	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Endrin	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Endosulfan II	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM
4,4'-DDD	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Endrin aldehyde	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Endosulfan sulfate	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:05:00 AM

Project: Pacific Park

Lab ID: 1509270-028

Matrix: Soil

Client Sample ID: MW-1-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Endrin ketone	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Methoxychlor	ND	0.0594		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Surr: Decachlorobiphenyl	111	26.5-158		%REC	1	9/24/2015 2:27:00 AM
Surr: Tetrachloro-m-xylene	110	11-150		%REC	1	9/24/2015 2:27:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11918

Analyst: AK

Diesel (Fuel Oil)	ND	24.0		mg/Kg-dry	1	9/24/2015 12:20:00 AM
Heavy Oil	ND	59.9		mg/Kg-dry	1	9/24/2015 12:20:00 AM
Surr: 2-Fluorobiphenyl	94.8	50-150		%REC	1	9/24/2015 12:20:00 AM
Surr: o-Terphenyl	89.6	50-150		%REC	1	9/24/2015 12:20:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Bis(2-chloroethyl) ether	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2-Chlorophenol	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
1,3-Dichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
1,4-Dichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
1,2-Dichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Benzyl alcohol	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2-Methylphenol (o-cresol)	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Hexachloroethane	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
N-Nitrosodi-n-propylamine	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Nitrobenzene	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Isophorone	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
4-Methylphenol (p-cresol)	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2-Nitrophenol	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2,4-Dimethylphenol	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Bis(2-chloroethoxy)methane	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2,4-Dichlorophenol	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
1,2,4-Trichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Naphthalene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
4-Chloroaniline	ND	590		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Hexachlorobutadiene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
4-Chloro-3-methylphenol	ND	590		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2-Methylnaphthalene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
1-Methylnaphthalene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:05:00 AM

Project: Pacific Park

Lab ID: 1509270-028

Matrix: Soil

Client Sample ID: MW-1-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937	Analyst: NG	
Hexachlorocyclopentadiene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2,4,6-Trichlorophenol	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2,4,5-Trichlorophenol	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2-Chloronaphthalene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2-Nitroaniline	ND	590		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Acenaphthene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Dimethylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2,6-Dinitrotoluene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Acenaphthylene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2,4-Dinitrophenol	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Dibenzofuran	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2,4-Dinitrotoluene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
4-Nitrophenol	ND	590		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Fluorene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
4-Chlorophenyl phenyl ether	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Diethylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
4,6-Dinitro-2-methylphenol	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
4-Bromophenyl phenyl ether	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Hexachlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Pentachlorophenol	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Phenanthrene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Anthracene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Carbazole	ND	590		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Di-n-butylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Fluoranthene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Pyrene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Butyl Benzylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
bis(2-Ethylhexyl)adipate	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Benz (a) anthracene	125	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Chrysene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
bis (2-Ethylhexyl) phthalate	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Di-n-octyl phthalate	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Benzo (b) fluoranthene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Benzo (k) fluoranthene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Benzo (a) pyrene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Indeno (1,2,3-cd) pyrene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Dibenz (a,h) anthracene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Benzo (g,h,i) perylene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Surr: 2,4,6-Tribromophenol	55.5	11.1-127		%REC	1	9/24/2015 11:33:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:05:00 AM

Project: Pacific Park

Lab ID: 1509270-028

Matrix: Soil

Client Sample ID: MW-1-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Surr: 2-Fluorobiphenyl	42.3	16.1-150	%REC	1	9/24/2015 11:33:00 PM
Surr: Nitrobenzene-d5	30.2	10-133	%REC	1	9/24/2015 11:33:00 PM
Surr: Phenol-d6	43.2	11.6-133	%REC	1	9/24/2015 11:33:00 PM
Surr: p-Terphenyl	76.9	21.8-150	%REC	1	9/24/2015 11:33:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	2.72	mg/Kg-dry	1	9/24/2015 12:03:00 AM
Surr: Toluene-d8	100	65-135	%REC	1	9/24/2015 12:03:00 AM
Surr: 4-Bromofluorobenzene	103	65-135	%REC	1	9/24/2015 12:03:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0326	mg/Kg-dry	1	9/24/2015 12:03:00 AM
Chloromethane	ND	0.0326	mg/Kg-dry	1	9/24/2015 12:03:00 AM
Vinyl chloride	ND	0.00109	mg/Kg-dry	1	9/24/2015 12:03:00 AM
Bromomethane	ND	0.0489	mg/Kg-dry	1	9/24/2015 12:03:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0272	mg/Kg-dry	1	9/24/2015 12:03:00 AM
Chloroethane	ND	0.0326	mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,1-Dichloroethene	ND	0.0272	mg/Kg-dry	1	9/24/2015 12:03:00 AM
Methylene chloride	ND	0.0109	mg/Kg-dry	1	9/24/2015 12:03:00 AM
trans-1,2-Dichloroethene	ND	0.0109	mg/Kg-dry	1	9/24/2015 12:03:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0272	mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,1-Dichloroethane	ND	0.0109	mg/Kg-dry	1	9/24/2015 12:03:00 AM
2,2-Dichloropropane	ND	0.0272	mg/Kg-dry	1	9/24/2015 12:03:00 AM
cis-1,2-Dichloroethene	ND	0.0109	mg/Kg-dry	1	9/24/2015 12:03:00 AM
Chloroform	ND	0.0109	mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0109	mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,1-Dichloropropene	ND	0.0109	mg/Kg-dry	1	9/24/2015 12:03:00 AM
Carbon tetrachloride	ND	0.0109	mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2-Dichloroethane (EDC)	ND	0.0163	mg/Kg-dry	1	9/24/2015 12:03:00 AM
Benzene	ND	0.0109	mg/Kg-dry	1	9/24/2015 12:03:00 AM
Trichloroethene (TCE)	0.0120	0.0109	mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2-Dichloropropane	ND	0.0109	mg/Kg-dry	1	9/24/2015 12:03:00 AM
Bromodichloromethane	ND	0.0109	mg/Kg-dry	1	9/24/2015 12:03:00 AM
Dibromomethane	ND	0.0217	mg/Kg-dry	1	9/24/2015 12:03:00 AM
cis-1,3-Dichloropropene	ND	0.0109	mg/Kg-dry	1	9/24/2015 12:03:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:05:00 AM

Project: Pacific Park

Lab ID: 1509270-028

Matrix: Soil

Client Sample ID: MW-1-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11930		Analyst: BC
Toluene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
trans-1,3-Dichloropropylene	ND	0.0163		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,1,2-Trichloroethane	ND	0.0163		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,3-Dichloropropane	ND	0.0272		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Tetrachloroethene (PCE)	0.234	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Dibromochloromethane	ND	0.0163		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2-Dibromoethane (EDB)	ND	0.00272		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Chlorobenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0163		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Ethylbenzene	ND	0.0163		mg/Kg-dry	1	9/24/2015 12:03:00 AM
m,p-Xylene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
o-Xylene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Styrene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Isopropylbenzene	ND	0.0435		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Bromoform	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
n-Propylbenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Bromobenzene	ND	0.0163		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,3,5-Trimethylbenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
2-Chlorotoluene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Chlorotoluene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
tert-Butylbenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2,3-Trichloropropane	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2,4-Trichlorobenzene	ND	0.0272		mg/Kg-dry	1	9/24/2015 12:03:00 AM
sec-Butylbenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Isopropyltoluene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,3-Dichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,4-Dichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
n-Butylbenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2-Dichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2-Dibromo-3-chloropropane	ND	0.272		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2,4-Trimethylbenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Hexachlorobutadiene	ND	0.0543		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Naphthalene	ND	0.0163		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2,3-Trichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Surr: Dibromofluoromethane	94.1	56.5-129		%REC	1	9/24/2015 12:03:00 AM
Surr: Toluene-d8	98.0	64.3-131		%REC	1	9/24/2015 12:03:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.2	63.1-141		%REC	1	9/24/2015 12:03:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:05:00 AM

Project: Pacific Park

Lab ID: 1509270-028

Matrix: Soil

Client Sample ID: MW-1-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11908

Analyst: MW

Mercury	ND	0.263		mg/Kg-dry	1	9/22/2015 5:23:42 PM
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Total Metals by EPA Method 6020

Batch ID: 11906

Analyst: TN

Arsenic	3.71	0.0937		mg/Kg-dry	1	9/22/2015 4:46:15 PM
Barium	30.6	0.468		mg/Kg-dry	1	9/22/2015 4:46:15 PM
Cadmium	0.441	0.187		mg/Kg-dry	1	9/22/2015 4:46:15 PM
Chromium	16.7	0.0937		mg/Kg-dry	1	9/22/2015 4:46:15 PM
Lead	41.1	0.187		mg/Kg-dry	1	9/22/2015 4:46:15 PM
Selenium	1.13	0.468		mg/Kg-dry	1	9/22/2015 4:46:15 PM
Silver	ND	0.0937		mg/Kg-dry	1	9/22/2015 4:46:15 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	16.6			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-029

Matrix: Soil

Client Sample ID: MW-1-15:12.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	41.4		µg/Kg-dry	1	10/1/2015 1:58:00 AM
2,4-D	ND	35.5		µg/Kg-dry	1	10/1/2015 1:58:00 AM
2,4-DP	ND	29.6		µg/Kg-dry	1	10/1/2015 1:58:00 AM
2,4,5-TP (Silvex)	ND	23.6		µg/Kg-dry	1	10/1/2015 1:58:00 AM
2,4,5-T	ND	59.1		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Dinoseb	ND	35.5		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Dalapon	ND	236		µg/Kg-dry	1	10/1/2015 1:58:00 AM
2,4-DB	ND	29.6		µg/Kg-dry	1	10/1/2015 1:58:00 AM
MCPP	ND	5,200		µg/Kg-dry	1	10/1/2015 1:58:00 AM
MCPA	ND	331		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Picloram	ND	59.1		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Bentazon	ND	41.4		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Chloramben	ND	23.6		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Acifluorfen	ND	94.6		µg/Kg-dry	1	10/1/2015 1:58:00 AM
3,5-Dichlorobenzoic acid	ND	47.3		µg/Kg-dry	1	10/1/2015 1:58:00 AM
4-Nitrophenol	ND	35.5		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Dacthal (DCPA)	ND	35.5		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Surr: 2,4-Dichlorophenylacetic acid	92.7	20.1-168		%REC	1	10/1/2015 1:58:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Alpha BHC	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Beta BHC	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Gamma BHC (Lindane)	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Delta BHC	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Heptachlor	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Aldrin	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Heptachlor epoxide	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
gamma-Chlordane	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Endosulfan I	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
alpha-Chlordane	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Dieldrin	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
4,4'-DDE	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Endrin	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Endosulfan II	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM
4,4'-DDD	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Endrin aldehyde	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Endosulfan sulfate	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-029

Matrix: Soil

Client Sample ID: MW-1-15:12.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Endrin ketone	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Methoxychlor	ND	0.0583		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Surr: Decachlorobiphenyl	63.9	26.5-158		%REC	1	9/24/2015 2:38:00 AM
Surr: Tetrachloro-m-xylene	62.2	11-150		%REC	1	9/24/2015 2:38:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11918		Analyst: AK
Diesel (Fuel Oil)	ND	23.9		mg/Kg-dry	1	9/24/2015 12:51:00 AM
Heavy Oil	ND	59.8		mg/Kg-dry	1	9/24/2015 12:51:00 AM
Surr: 2-Fluorobiphenyl	90.2	50-150		%REC	1	9/24/2015 12:51:00 AM
Surr: o-Terphenyl	86.4	50-150		%REC	1	9/24/2015 12:51:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Bis(2-chloroethyl) ether	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2-Chlorophenol	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
1,3-Dichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
1,4-Dichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
1,2-Dichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Benzyl alcohol	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2-Methylphenol (o-cresol)	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Hexachloroethane	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
N-Nitrosodi-n-propylamine	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Nitrobenzene	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Isophorone	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
4-Methylphenol (p-cresol)	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2-Nitrophenol	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2,4-Dimethylphenol	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Bis(2-chloroethoxy)methane	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2,4-Dichlorophenol	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
1,2,4-Trichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Naphthalene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
4-Chloroaniline	ND	612		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Hexachlorobutadiene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
4-Chloro-3-methylphenol	ND	612		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2-Methylnaphthalene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
1-Methylnaphthalene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-029

Matrix: Soil

Client Sample ID: MW-1-15:12.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Hexachlorocyclopentadiene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2,4,6-Trichlorophenol	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2,4,5-Trichlorophenol	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2-Chloronaphthalene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2-Nitroaniline	ND	612		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Acenaphthene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Dimethylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2,6-Dinitrotoluene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Acenaphthylene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2,4-Dinitrophenol	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Dibenzofuran	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2,4-Dinitrotoluene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
4-Nitrophenol	ND	612		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Fluorene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
4-Chlorophenyl phenyl ether	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Diethylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
4,6-Dinitro-2-methylphenol	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
4-Bromophenyl phenyl ether	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Hexachlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Pentachlorophenol	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Phenanthrene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Anthracene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Carbazole	ND	612		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Di-n-butylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Fluoranthene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Pyrene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Butyl Benzylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
bis(2-Ethylhexyl)adipate	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Benz (a) anthracene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Chrysene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
bis (2-Ethylhexyl) phthalate	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Di-n-octyl phthalate	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Benzo (b) fluoranthene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Benzo (k) fluoranthene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Benzo (a) pyrene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Indeno (1,2,3-cd) pyrene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Dibenz (a,h) anthracene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Benzo (g,h,i) perylene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Surr: 2,4,6-Tribromophenol	54.7	11.1-127		%REC	1	9/24/2015 11:56:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-029

Matrix: Soil

Client Sample ID: MW-1-15:12.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Surr: 2-Fluorobiphenyl	58.7	16.1-150	%REC	1	9/24/2015 11:56:00 PM
Surr: Nitrobenzene-d5	47.8	10-133	%REC	1	9/24/2015 11:56:00 PM
Surr: Phenol-d6	40.6	11.6-133	%REC	1	9/24/2015 11:56:00 PM
Surr: p-Terphenyl	74.1	21.8-150	%REC	1	9/24/2015 11:56:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	3.27	mg/Kg-dry	1	9/24/2015 12:31:00 AM
Surr: Toluene-d8	100	65-135	%REC	1	9/24/2015 12:31:00 AM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/24/2015 12:31:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0392	mg/Kg-dry	1	9/24/2015 12:31:00 AM
Chloromethane	ND	0.0392	mg/Kg-dry	1	9/24/2015 12:31:00 AM
Vinyl chloride	ND	0.00131	mg/Kg-dry	1	9/24/2015 12:31:00 AM
Bromomethane	ND	0.0589	mg/Kg-dry	1	9/24/2015 12:31:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0327	mg/Kg-dry	1	9/24/2015 12:31:00 AM
Chloroethane	ND	0.0392	mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,1-Dichloroethene	ND	0.0327	mg/Kg-dry	1	9/24/2015 12:31:00 AM
Methylene chloride	ND	0.0131	mg/Kg-dry	1	9/24/2015 12:31:00 AM
trans-1,2-Dichloroethene	ND	0.0131	mg/Kg-dry	1	9/24/2015 12:31:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0327	mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,1-Dichloroethane	ND	0.0131	mg/Kg-dry	1	9/24/2015 12:31:00 AM
2,2-Dichloropropane	ND	0.0327	mg/Kg-dry	1	9/24/2015 12:31:00 AM
cis-1,2-Dichloroethene	ND	0.0131	mg/Kg-dry	1	9/24/2015 12:31:00 AM
Chloroform	ND	0.0131	mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0131	mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,1-Dichloropropene	ND	0.0131	mg/Kg-dry	1	9/24/2015 12:31:00 AM
Carbon tetrachloride	ND	0.0131	mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2-Dichloroethane (EDC)	ND	0.0196	mg/Kg-dry	1	9/24/2015 12:31:00 AM
Benzene	ND	0.0131	mg/Kg-dry	1	9/24/2015 12:31:00 AM
Trichloroethene (TCE)	ND	0.0131	mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2-Dichloropropane	ND	0.0131	mg/Kg-dry	1	9/24/2015 12:31:00 AM
Bromodichloromethane	ND	0.0131	mg/Kg-dry	1	9/24/2015 12:31:00 AM
Dibromomethane	ND	0.0262	mg/Kg-dry	1	9/24/2015 12:31:00 AM
cis-1,3-Dichloropropene	ND	0.0131	mg/Kg-dry	1	9/24/2015 12:31:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-029

Matrix: Soil

Client Sample ID: MW-1-15:12.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11930		Analyst: BC
Toluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
trans-1,3-Dichloropropylene	ND	0.0196		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,1,2-Trichloroethane	ND	0.0196		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,3-Dichloropropane	ND	0.0327		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Tetrachloroethene (PCE)	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Dibromochloromethane	ND	0.0196		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2-Dibromoethane (EDB)	ND	0.00327		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Chlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0196		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Ethylbenzene	ND	0.0196		mg/Kg-dry	1	9/24/2015 12:31:00 AM
m,p-Xylene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
o-Xylene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Styrene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Isopropylbenzene	ND	0.0523		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Bromoform	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
n-Propylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Bromobenzene	ND	0.0196		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,3,5-Trimethylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
2-Chlorotoluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
4-Chlorotoluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
tert-Butylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2,3-Trichloropropane	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2,4-Trichlorobenzene	ND	0.0327		mg/Kg-dry	1	9/24/2015 12:31:00 AM
sec-Butylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
4-Isopropyltoluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,3-Dichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,4-Dichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
n-Butylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2-Dichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2-Dibromo-3-chloropropane	ND	0.327		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2,4-Trimethylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Hexachlorobutadiene	ND	0.0654		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Naphthalene	ND	0.0196		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2,3-Trichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Surr: Dibromofluoromethane	93.8	56.5-129		%REC	1	9/24/2015 12:31:00 AM
Surr: Toluene-d8	98.4	64.3-131		%REC	1	9/24/2015 12:31:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.6	63.1-141		%REC	1	9/24/2015 12:31:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-029

Matrix: Soil

Client Sample ID: MW-1-15:12.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11908 Analyst: MW

Mercury	ND	0.278		mg/Kg-dry	1	9/22/2015 5:25:18 PM
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Total Metals by EPA Method 6020

Batch ID: 11906 Analyst: TN

Arsenic	2.74	0.102		mg/Kg-dry	1	9/22/2015 4:49:46 PM
Barium	20.2	0.510		mg/Kg-dry	1	9/22/2015 4:49:46 PM
Cadmium	ND	0.204		mg/Kg-dry	1	9/22/2015 4:49:46 PM
Chromium	13.9	0.102		mg/Kg-dry	1	9/22/2015 4:49:46 PM
Lead	3.37	0.204		mg/Kg-dry	1	9/22/2015 4:49:46 PM
Selenium	1.02	0.510		mg/Kg-dry	1	9/22/2015 4:49:46 PM
Silver	ND	0.102		mg/Kg-dry	1	9/22/2015 4:49:46 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044 Analyst: CG

Percent Moisture	19.7			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:05:00 PM

Project: Pacific Park

Lab ID: 1509270-030

Matrix: Soil

Client Sample ID: MW-2-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	38.9		µg/Kg-dry	1	10/1/2015 2:14:00 AM
2,4-D	ND	33.3		µg/Kg-dry	1	10/1/2015 2:14:00 AM
2,4-DP	ND	27.8		µg/Kg-dry	1	10/1/2015 2:14:00 AM
2,4,5-TP (Silvex)	ND	22.2		µg/Kg-dry	1	10/1/2015 2:14:00 AM
2,4,5-T	ND	55.5		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Dinoseb	ND	33.3		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Dalapon	ND	222		µg/Kg-dry	1	10/1/2015 2:14:00 AM
2,4-DB	ND	27.8		µg/Kg-dry	1	10/1/2015 2:14:00 AM
MCPP	ND	4,890		µg/Kg-dry	1	10/1/2015 2:14:00 AM
MCPA	ND	311		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Picloram	ND	55.5		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Bentazon	ND	38.9		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Chloramben	ND	22.2		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Acifluorfen	ND	88.8		µg/Kg-dry	1	10/1/2015 2:14:00 AM
3,5-Dichlorobenzoic acid	ND	44.4		µg/Kg-dry	1	10/1/2015 2:14:00 AM
4-Nitrophenol	ND	33.3		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Dacthal (DCPA)	ND	33.3		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Surr: 2,4-Dichlorophenylacetic acid	87.6	20.1-168		%REC	1	10/1/2015 2:14:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Alpha BHC	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Beta BHC	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Gamma BHC (Lindane)	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Delta BHC	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Heptachlor	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Aldrin	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Heptachlor epoxide	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
gamma-Chlordane	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Endosulfan I	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
alpha-Chlordane	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Dieldrin	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
4,4'-DDE	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Endrin	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Endosulfan II	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM
4,4'-DDD	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Endrin aldehyde	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Endosulfan sulfate	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:05:00 PM

Project: Pacific Park

Lab ID: 1509270-030

Matrix: Soil

Client Sample ID: MW-2-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

4,4'-DDT	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Endrin ketone	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Methoxychlor	ND	0.0538		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Surr: Decachlorobiphenyl	87.6	26.5-158		%REC	1	9/24/2015 2:49:00 AM
Surr: Tetrachloro-m-xylene	105	11-150		%REC	1	9/24/2015 2:49:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11918

Analyst: AK

Diesel (Fuel Oil)	ND	21.9		mg/Kg-dry	1	9/24/2015 1:22:00 AM
Heavy Oil	137	54.7		mg/Kg-dry	1	9/24/2015 1:22:00 AM
Surr: 2-Fluorobiphenyl	91.0	50-150		%REC	1	9/24/2015 1:22:00 AM
Surr: o-Terphenyl	87.5	50-150		%REC	1	9/24/2015 1:22:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Bis(2-chloroethyl) ether	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2-Chlorophenol	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
1,3-Dichlorobenzene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
1,4-Dichlorobenzene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
1,2-Dichlorobenzene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Benzyl alcohol	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2-Methylphenol (o-cresol)	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Hexachloroethane	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
N-Nitrosodi-n-propylamine	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Nitrobenzene	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Isophorone	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
4-Methylphenol (p-cresol)	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2-Nitrophenol	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2,4-Dimethylphenol	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Bis(2-chloroethoxy)methane	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2,4-Dichlorophenol	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
1,2,4-Trichlorobenzene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Naphthalene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
4-Chloroaniline	ND	570		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Hexachlorobutadiene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
4-Chloro-3-methylphenol	ND	570		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2-Methylnaphthalene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
1-Methylnaphthalene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:05:00 PM

Project: Pacific Park

Lab ID: 1509270-030

Matrix: Soil

Client Sample ID: MW-2-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Hexachlorocyclopentadiene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2,4,6-Trichlorophenol	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2,4,5-Trichlorophenol	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2-Chloronaphthalene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2-Nitroaniline	ND	570		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Acenaphthene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Dimethylphthalate	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2,6-Dinitrotoluene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Acenaphthylene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2,4-Dinitrophenol	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Dibenzofuran	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2,4-Dinitrotoluene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
4-Nitrophenol	ND	570		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Fluorene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
4-Chlorophenyl phenyl ether	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Diethylphthalate	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
4,6-Dinitro-2-methylphenol	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
4-Bromophenyl phenyl ether	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Hexachlorobenzene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Pentachlorophenol	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Phenanthrene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Anthracene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Carbazole	ND	570		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Di-n-butylphthalate	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Fluoranthene	164	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Pyrene	150	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Butyl Benzylphthalate	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
bis(2-Ethylhexyl)adipate	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Benz (a) anthracene	144	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Chrysene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
bis (2-Ethylhexyl) phthalate	118	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Di-n-octyl phthalate	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Benzo (b) fluoranthene	264	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Benzo (k) fluoranthene	114	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Benzo (a) pyrene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Indeno (1,2,3-cd) pyrene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Dibenz (a,h) anthracene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Benzo (g,h,i) perylene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Surr: 2,4,6-Tribromophenol	54.2	11.1-127		%REC	1	9/25/2015 1:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:05:00 PM

Project: Pacific Park

Lab ID: 1509270-030

Matrix: Soil

Client Sample ID: MW-2-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	76.6	16.1-150		%REC	1	9/25/2015 1:12:00 PM
Surr: Nitrobenzene-d5	73.4	10-133		%REC	1	9/25/2015 1:12:00 PM
Surr: Phenol-d6	47.8	11.6-133		%REC	1	9/25/2015 1:12:00 PM
Surr: p-Terphenyl	75.9	21.8-150		%REC	1	9/25/2015 1:12:00 PM
Gasoline by NWTPH-Gx				Batch ID: 11930		Analyst: BC
Gasoline	ND	3.28		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Surr: Toluene-d8	101	65-135		%REC	1	9/24/2015 1:00:00 AM
Surr: 4-Bromofluorobenzene	101	65-135		%REC	1	9/24/2015 1:00:00 AM
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11930		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0393		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Chloromethane	ND	0.0393		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Vinyl chloride	ND	0.00131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Bromomethane	ND	0.0590		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Chloroethane	ND	0.0393		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,1-Dichloroethene	ND	0.0328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Methylene chloride	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
trans-1,2-Dichloroethene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,1-Dichloroethane	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
2,2-Dichloropropane	ND	0.0328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
cis-1,2-Dichloroethene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Chloroform	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,1-Dichloropropene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Carbon tetrachloride	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2-Dichloroethane (EDC)	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Benzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Trichloroethene (TCE)	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2-Dichloropropane	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Bromodichloromethane	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Dibromomethane	ND	0.0262		mg/Kg-dry	1	9/24/2015 1:00:00 AM
cis-1,3-Dichloropropene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Toluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
trans-1,3-Dichloropropylene	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:05:00 PM

Project: Pacific Park

Lab ID: 1509270-030

Matrix: Soil

Client Sample ID: MW-2-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

1,1,2-Trichloroethane	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,3-Dichloropropane	ND	0.0328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Tetrachloroethene (PCE)	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Dibromochloromethane	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2-Dibromoethane (EDB)	ND	0.00328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Chlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Ethylbenzene	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM
m,p-Xylene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
o-Xylene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Styrene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Isopropylbenzene	ND	0.0525		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Bromoform	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
n-Propylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Bromobenzene	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,3,5-Trimethylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
2-Chlorotoluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
4-Chlorotoluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
tert-Butylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2,3-Trichloropropane	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2,4-Trichlorobenzene	ND	0.0328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
sec-Butylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
4-Isopropyltoluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,3-Dichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,4-Dichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
n-Butylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2-Dichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2-Dibromo-3-chloropropane	ND	0.328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2,4-Trimethylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Hexachlorobutadiene	ND	0.0656		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Naphthalene	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2,3-Trichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Surr: Dibromofluoromethane	95.1	56.5-129		%REC	1	9/24/2015 1:00:00 AM
Surr: Toluene-d8	98.6	64.3-131		%REC	1	9/24/2015 1:00:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.6	63.1-141		%REC	1	9/24/2015 1:00:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:05:00 PM

Project: Pacific Park

Lab ID: 1509270-030

Matrix: Soil

Client Sample ID: MW-2-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11908

Analyst: MW

Mercury	ND	0.243		mg/Kg-dry	1	9/22/2015 5:26:54 PM
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Total Metals by EPA Method 6020

Batch ID: 11906

Analyst: TN

Arsenic	3.11	0.0842		mg/Kg-dry	1	9/22/2015 4:53:18 PM
Barium	27.5	0.421		mg/Kg-dry	1	9/22/2015 4:53:18 PM
Cadmium	ND	0.168		mg/Kg-dry	1	9/22/2015 4:53:18 PM
Chromium	14.7	0.0842		mg/Kg-dry	1	9/22/2015 4:53:18 PM
Lead	22.9	0.168		mg/Kg-dry	1	9/22/2015 4:53:18 PM
Selenium	0.888	0.421		mg/Kg-dry	1	9/22/2015 4:53:18 PM
Silver	ND	0.0842		mg/Kg-dry	1	9/22/2015 4:53:18 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	12.7			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-031

Matrix: Soil

Client Sample ID: MW-2-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	66.0		µg/Kg-dry	1	10/1/2015 2:31:00 AM
2,4-D	ND	56.6		µg/Kg-dry	1	10/1/2015 2:31:00 AM
2,4-DP	ND	47.2		µg/Kg-dry	1	10/1/2015 2:31:00 AM
2,4,5-TP (Silvex)	ND	37.7		µg/Kg-dry	1	10/1/2015 2:31:00 AM
2,4,5-T	ND	94.3		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Dinoseb	ND	56.6		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Dalapon	ND	377		µg/Kg-dry	1	10/1/2015 2:31:00 AM
2,4-DB	ND	47.2		µg/Kg-dry	1	10/1/2015 2:31:00 AM
MCPP	ND	8,300		µg/Kg-dry	1	10/1/2015 2:31:00 AM
MCPA	ND	528		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Picloram	ND	94.3		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Bentazon	ND	66.0		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Chloramben	ND	37.7		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Acifluorfen	ND	151		µg/Kg-dry	1	10/1/2015 2:31:00 AM
3,5-Dichlorobenzoic acid	ND	75.5		µg/Kg-dry	1	10/1/2015 2:31:00 AM
4-Nitrophenol	ND	56.6		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Dacthal (DCPA)	ND	56.6		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Surr: 2,4-Dichlorophenylacetic acid	113	20.1-168		%REC	1	10/1/2015 2:31:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Alpha BHC	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Beta BHC	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Gamma BHC (Lindane)	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Delta BHC	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Heptachlor	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Aldrin	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Heptachlor epoxide	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
gamma-Chlordane	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Endosulfan I	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
alpha-Chlordane	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Dieldrin	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
4,4'-DDE	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Endrin	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Endosulfan II	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM
4,4'-DDD	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Endrin aldehyde	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Endosulfan sulfate	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-031

Matrix: Soil

Client Sample ID: MW-2-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Endrin ketone	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Methoxychlor	ND	0.0872		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Surr: Decachlorobiphenyl	81.1	26.5-158		%REC	1	9/24/2015 3:00:00 AM
Surr: Tetrachloro-m-xylene	72.6	11-150		%REC	1	9/24/2015 3:00:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11918		Analyst: AK
Diesel (Fuel Oil)	ND	37.8		mg/Kg-dry	1	9/24/2015 1:53:00 AM
Heavy Oil	ND	94.6		mg/Kg-dry	1	9/24/2015 1:53:00 AM
Surr: 2-Fluorobiphenyl	95.4	50-150		%REC	1	9/24/2015 1:53:00 AM
Surr: o-Terphenyl	91.0	50-150		%REC	1	9/24/2015 1:53:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Bis(2-chloroethyl) ether	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2-Chlorophenol	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
1,3-Dichlorobenzene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
1,4-Dichlorobenzene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
1,2-Dichlorobenzene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Benzyl alcohol	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2-Methylphenol (o-cresol)	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Hexachloroethane	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
N-Nitrosodi-n-propylamine	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Nitrobenzene	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Isophorone	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
4-Methylphenol (p-cresol)	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2-Nitrophenol	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2,4-Dimethylphenol	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Bis(2-chloroethoxy)methane	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2,4-Dichlorophenol	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
1,2,4-Trichlorobenzene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Naphthalene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
4-Chloroaniline	ND	952		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Hexachlorobutadiene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
4-Chloro-3-methylphenol	ND	952		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2-Methylnaphthalene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
1-Methylnaphthalene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-031

Matrix: Soil

Client Sample ID: MW-2-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Hexachlorocyclopentadiene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2,4,6-Trichlorophenol	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2,4,5-Trichlorophenol	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2-Chloronaphthalene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2-Nitroaniline	ND	952		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Acenaphthene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Dimethylphthalate	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2,6-Dinitrotoluene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Acenaphthylene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2,4-Dinitrophenol	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Dibenzofuran	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2,4-Dinitrotoluene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
4-Nitrophenol	ND	952		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Fluorene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
4-Chlorophenyl phenyl ether	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Diethylphthalate	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
4,6-Dinitro-2-methylphenol	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
4-Bromophenyl phenyl ether	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Hexachlorobenzene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Pentachlorophenol	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Phenanthrene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Anthracene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Carbazole	ND	952		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Di-n-butylphthalate	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Fluoranthene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Pyrene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Butyl Benzylphthalate	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
bis(2-Ethylhexyl)adipate	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Benz (a) anthracene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Chrysene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
bis (2-Ethylhexyl) phthalate	333	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Di-n-octyl phthalate	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Benzo (b) fluoranthene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Benzo (k) fluoranthene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Benzo (a) pyrene	516	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Indeno (1,2,3-cd) pyrene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Dibenz (a,h) anthracene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Benzo (g,h,i) perylene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Surr: 2,4,6-Tribromophenol	44.5	11.1-127		%REC	1	9/25/2015 1:34:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-031

Matrix: Soil

Client Sample ID: MW-2-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Surr: 2-Fluorobiphenyl	51.2	16.1-150	%REC	1	9/25/2015 1:34:00 PM
Surr: Nitrobenzene-d5	62.9	10-133	%REC	1	9/25/2015 1:34:00 PM
Surr: Phenol-d6	56.8	11.6-133	%REC	1	9/25/2015 1:34:00 PM
Surr: p-Terphenyl	68.6	21.8-150	%REC	1	9/25/2015 1:34:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	5.50	mg/Kg-dry	1	9/24/2015 1:28:00 AM
Surr: Toluene-d8	101	65-135	%REC	1	9/24/2015 1:28:00 AM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/24/2015 1:28:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0661	mg/Kg-dry	1	9/24/2015 1:28:00 AM
Chloromethane	ND	0.0661	mg/Kg-dry	1	9/24/2015 1:28:00 AM
Vinyl chloride	ND	0.00220	mg/Kg-dry	1	9/24/2015 1:28:00 AM
Bromomethane	ND	0.0991	mg/Kg-dry	1	9/24/2015 1:28:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0550	mg/Kg-dry	1	9/24/2015 1:28:00 AM
Chloroethane	ND	0.0661	mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,1-Dichloroethene	ND	0.0550	mg/Kg-dry	1	9/24/2015 1:28:00 AM
Methylene chloride	ND	0.0220	mg/Kg-dry	1	9/24/2015 1:28:00 AM
trans-1,2-Dichloroethene	ND	0.0220	mg/Kg-dry	1	9/24/2015 1:28:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0550	mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,1-Dichloroethane	ND	0.0220	mg/Kg-dry	1	9/24/2015 1:28:00 AM
2,2-Dichloropropane	ND	0.0550	mg/Kg-dry	1	9/24/2015 1:28:00 AM
cis-1,2-Dichloroethene	ND	0.0220	mg/Kg-dry	1	9/24/2015 1:28:00 AM
Chloroform	ND	0.0220	mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0220	mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,1-Dichloropropene	ND	0.0220	mg/Kg-dry	1	9/24/2015 1:28:00 AM
Carbon tetrachloride	ND	0.0220	mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2-Dichloroethane (EDC)	ND	0.0330	mg/Kg-dry	1	9/24/2015 1:28:00 AM
Benzene	ND	0.0220	mg/Kg-dry	1	9/24/2015 1:28:00 AM
Trichloroethene (TCE)	ND	0.0220	mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2-Dichloropropane	ND	0.0220	mg/Kg-dry	1	9/24/2015 1:28:00 AM
Bromodichloromethane	ND	0.0220	mg/Kg-dry	1	9/24/2015 1:28:00 AM
Dibromomethane	ND	0.0440	mg/Kg-dry	1	9/24/2015 1:28:00 AM
cis-1,3-Dichloropropene	ND	0.0220	mg/Kg-dry	1	9/24/2015 1:28:00 AM
Toluene	ND	0.0220	mg/Kg-dry	1	9/24/2015 1:28:00 AM
trans-1,3-Dichloropropylene	ND	0.0330	mg/Kg-dry	1	9/24/2015 1:28:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-031

Matrix: Soil

Client Sample ID: MW-2-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

1,1,2-Trichloroethane	ND	0.0330		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,3-Dichloropropane	ND	0.0550		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Tetrachloroethene (PCE)	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Dibromochloromethane	ND	0.0330		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2-Dibromoethane (EDB)	ND	0.00550		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Chlorobenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0330		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Ethylbenzene	ND	0.0330		mg/Kg-dry	1	9/24/2015 1:28:00 AM
m,p-Xylene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
o-Xylene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Styrene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Isopropylbenzene	ND	0.0881		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Bromoform	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
n-Propylbenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Bromobenzene	ND	0.0330		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,3,5-Trimethylbenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
2-Chlorotoluene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
4-Chlorotoluene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
tert-Butylbenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2,3-Trichloropropane	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2,4-Trichlorobenzene	ND	0.0550		mg/Kg-dry	1	9/24/2015 1:28:00 AM
sec-Butylbenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
4-Isopropyltoluene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,3-Dichlorobenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,4-Dichlorobenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
n-Butylbenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2-Dichlorobenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2-Dibromo-3-chloropropane	ND	0.550		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2,4-Trimethylbenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Hexachlorobutadiene	ND	0.110		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Naphthalene	ND	0.0330		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2,3-Trichlorobenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Surr: Dibromofluoromethane	96.2	56.5-129		%REC	1	9/24/2015 1:28:00 AM
Surr: Toluene-d8	97.5	64.3-131		%REC	1	9/24/2015 1:28:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.0	63.1-141		%REC	1	9/24/2015 1:28:00 AM



Client: Shannon & Wilson

Collection Date: 9/18/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-031

Matrix: Soil

Client Sample ID: MW-2-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11908

Analyst: MW

Mercury	ND	0.443		mg/Kg-dry	1	9/22/2015 5:28:30 PM
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Total Metals by EPA Method 6020

Batch ID: 11906

Analyst: TN

Arsenic	8.12	0.142		mg/Kg-dry	1	9/22/2015 4:56:49 PM
Barium	74.0	0.709		mg/Kg-dry	1	9/22/2015 4:56:49 PM
Cadmium	ND	0.283		mg/Kg-dry	1	9/22/2015 4:56:49 PM
Chromium	21.8	0.142		mg/Kg-dry	1	9/22/2015 4:56:49 PM
Lead	4.89	0.283		mg/Kg-dry	1	9/22/2015 4:56:49 PM
Selenium	2.35	0.709		mg/Kg-dry	1	9/22/2015 4:56:49 PM
Silver	ND	0.142		mg/Kg-dry	1	9/22/2015 4:56:49 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044

Analyst: CG

Percent Moisture	47.7			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509270-032

Matrix: Groundwater

Client Sample ID: MW-2-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11896

Analyst: CM

Diesel (Fuel Oil)	ND	50.1		µg/L	1	9/24/2015 1:05:00 PM
Heavy Oil	ND	100		µg/L	1	9/24/2015 1:05:00 PM
Surr: 2-Fluorobiphenyl	58.6	50-150		%REC	1	9/24/2015 1:05:00 PM
Surr: o-Terphenyl	55.7	50-150		%REC	1	9/24/2015 1:05:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 11916

Analyst: NG

Naphthalene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
2-Methylnaphthalene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
1-Methylnaphthalene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Acenaphthylene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Acenaphthene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Fluorene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Phenanthrene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Anthracene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Fluoranthene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Pyrene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Benz(a)anthracene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Chrysene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Benzo(b)fluoranthene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Benzo(k)fluoranthene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Benzo(a)pyrene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Dibenz(a,h)anthracene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Benzo(g,h,i)perylene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Surr: 2-Fluorobiphenyl	64.8	23.9-122		%REC	1	9/23/2015 7:35:00 PM
Surr: Terphenyl-d14	50.6	33.4-135		%REC	1	9/23/2015 7:35:00 PM

Gasoline by NWTPH-Gx

Batch ID: R25021

Analyst: EM

Gasoline	ND	50.0		µg/L	1	9/22/2015 3:40:00 AM
Surr: Toluene-d8	86.4	65-135		%REC	1	9/22/2015 3:40:00 AM
Surr: 4-Bromofluorobenzene	94.3	65-135		%REC	1	9/22/2015 3:40:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25020

Analyst: EM

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Chloromethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Vinyl chloride	ND	0.200		µg/L	1	9/22/2015 3:40:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509270-032

Matrix: Groundwater

Client Sample ID: MW-2-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25020

Analyst: EM

Bromomethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Chloroethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Methylene chloride	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/22/2015 3:40:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Chloroform	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Benzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/22/2015 3:40:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Dibromomethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Toluene	1.11	1.00		µg/L	1	9/22/2015 3:40:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/22/2015 3:40:00 AM
Chlorobenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Ethylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
m,p-Xylene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
o-Xylene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Styrene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Bromoform	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Bromobenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509270-032

Matrix: Groundwater

Client Sample ID: MW-2-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25020

Analyst: EM

1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/22/2015 3:40:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/22/2015 3:40:00 AM
Naphthalene	ND	1.00	Q	µg/L	1	9/22/2015 3:40:00 AM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/22/2015 3:40:00 AM
Surr: Dibromofluoromethane	100	45.4-152		%REC	1	9/22/2015 3:40:00 AM
Surr: Toluene-d8	98.6	40.1-139		%REC	1	9/22/2015 3:40:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.9	64.2-128		%REC	1	9/22/2015 3:40:00 AM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:17:19 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:14:24 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11907

Analyst: TN

Antimony	0.730	0.200	[RE]	µg/L	1	9/22/2015 2:06:07 PM
Arsenic	2.16	1.00		µg/L	1	9/21/2015 4:46:47 PM
Beryllium	ND	0.200		µg/L	1	9/21/2015 4:46:47 PM
Cadmium	ND	0.200		µg/L	1	9/21/2015 4:46:47 PM
Chromium	1.16	0.500		µg/L	1	9/21/2015 4:46:47 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509270-032

Matrix: Groundwater

Client Sample ID: MW-2-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 11907

Analyst: TN

Copper	13.3	0.500		µg/L	1	9/21/2015 4:46:47 PM
Lead	ND	1.00		µg/L	1	9/21/2015 4:46:47 PM
Nickel	4.14	0.500		µg/L	1	9/21/2015 4:46:47 PM
Selenium	ND	1.00		µg/L	1	9/21/2015 4:46:47 PM
Silver	ND	0.200		µg/L	1	9/21/2015 4:46:47 PM
Thallium	ND	0.200	[RE]	µg/L	1	9/22/2015 2:06:07 PM
Zinc	10.9	1.50		µg/L	1	9/21/2015 4:46:47 PM

Total Metals by EPA Method 200.8

Batch ID: 11891

Analyst: TN

Antimony	0.292	0.200		µg/L	1	9/22/2015 1:27:19 PM
Arsenic	7.86	1.00		µg/L	1	9/21/2015 4:57:20 PM
Beryllium	ND	0.200		µg/L	1	9/21/2015 4:57:20 PM
Cadmium	ND	0.200		µg/L	1	9/21/2015 4:57:20 PM
Chromium	4.99	0.500		µg/L	1	9/21/2015 4:57:20 PM
Copper	25.2	0.500		µg/L	1	9/21/2015 4:57:20 PM
Lead	5.18	1.00		µg/L	1	9/21/2015 4:57:20 PM
Nickel	6.01	0.500		µg/L	1	9/21/2015 4:57:20 PM
Selenium	1.90	1.00		µg/L	1	9/21/2015 4:57:20 PM
Silver	ND	0.200		µg/L	1	9/21/2015 4:57:20 PM
Thallium	ND	0.200		µg/L	1	9/22/2015 1:27:19 PM
Zinc	19.9	1.50		µg/L	1	9/21/2015 4:57:20 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-033

Matrix: Soil

Client Sample ID: MW-3-15:6.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	43.8		µg/Kg-dry	1	10/1/2015 2:48:00 AM
2,4-D	ND	37.5		µg/Kg-dry	1	10/1/2015 2:48:00 AM
2,4-DP	ND	31.3		µg/Kg-dry	1	10/1/2015 2:48:00 AM
2,4,5-TP (Silvex)	ND	25.0		µg/Kg-dry	1	10/1/2015 2:48:00 AM
2,4,5-T	ND	62.6		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Dinoseb	ND	37.5		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Dalapon	ND	250		µg/Kg-dry	1	10/1/2015 2:48:00 AM
2,4-DB	ND	31.3		µg/Kg-dry	1	10/1/2015 2:48:00 AM
MCPP	ND	5,510		µg/Kg-dry	1	10/1/2015 2:48:00 AM
MCPA	ND	350		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Picloram	ND	62.6		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Bentazon	ND	43.8		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Chloramben	ND	25.0		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Acifluorfen	ND	100		µg/Kg-dry	1	10/1/2015 2:48:00 AM
3,5-Dichlorobenzoic acid	ND	50.1		µg/Kg-dry	1	10/1/2015 2:48:00 AM
4-Nitrophenol	ND	37.5		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Dacthal (DCPA)	ND	37.5		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Surr: 2,4-Dichlorophenylacetic acid	82.9	20.1-168		%REC	1	10/1/2015 2:48:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Alpha BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Beta BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Gamma BHC (Lindane)	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Delta BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Heptachlor	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Aldrin	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Heptachlor epoxide	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
gamma-Chlordane	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Endosulfan I	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
alpha-Chlordane	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Dieldrin	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
4,4'-DDE	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Endrin	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Endosulfan II	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM
4,4'-DDD	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Endrin aldehyde	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Endosulfan sulfate	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-033

Matrix: Soil

Client Sample ID: MW-3-15:6.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

4,4'-DDT	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Endrin ketone	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Methoxychlor	ND	0.0593		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Surr: Decachlorobiphenyl	65.0	26.5-158		%REC	1	9/24/2015 3:11:00 AM
Surr: Tetrachloro-m-xylene	77.6	11-150		%REC	1	9/24/2015 3:11:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11918

Analyst: AK

Diesel (Fuel Oil)	ND	23.4		mg/Kg-dry	1	9/24/2015 2:56:00 AM
Heavy Oil	ND	58.6		mg/Kg-dry	1	9/24/2015 2:56:00 AM
Surr: 2-Fluorobiphenyl	90.8	50-150		%REC	1	9/24/2015 2:56:00 AM
Surr: o-Terphenyl	86.8	50-150		%REC	1	9/24/2015 2:56:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Bis(2-chloroethyl) ether	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2-Chlorophenol	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
1,3-Dichlorobenzene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
1,4-Dichlorobenzene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
1,2-Dichlorobenzene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Benzyl alcohol	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2-Methylphenol (o-cresol)	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Hexachloroethane	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
N-Nitrosodi-n-propylamine	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Nitrobenzene	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Isophorone	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
4-Methylphenol (p-cresol)	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2-Nitrophenol	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2,4-Dimethylphenol	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Bis(2-chloroethoxy)methane	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2,4-Dichlorophenol	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
1,2,4-Trichlorobenzene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Naphthalene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
4-Chloroaniline	ND	618		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Hexachlorobutadiene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
4-Chloro-3-methylphenol	ND	618		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2-Methylnaphthalene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
1-Methylnaphthalene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-033

Matrix: Soil

Client Sample ID: MW-3-15:6.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Hexachlorocyclopentadiene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2,4,6-Trichlorophenol	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2,4,5-Trichlorophenol	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2-Chloronaphthalene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2-Nitroaniline	ND	618		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Acenaphthene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Dimethylphthalate	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2,6-Dinitrotoluene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Acenaphthylene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2,4-Dinitrophenol	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Dibenzofuran	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2,4-Dinitrotoluene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
4-Nitrophenol	ND	618		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Fluorene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
4-Chlorophenyl phenyl ether	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Diethylphthalate	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
4,6-Dinitro-2-methylphenol	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
4-Bromophenyl phenyl ether	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Hexachlorobenzene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Pentachlorophenol	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Phenanthrene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Anthracene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Carbazole	ND	618		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Di-n-butylphthalate	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Fluoranthene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Pyrene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Butyl Benzylphthalate	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
bis(2-Ethylhexyl)adipate	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Benz (a) anthracene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Chrysene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
bis (2-Ethylhexyl) phthalate	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Di-n-octyl phthalate	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Benzo (b) fluoranthene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Benzo (k) fluoranthene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Benzo (a) pyrene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Indeno (1,2,3-cd) pyrene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Dibenz (a,h) anthracene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Benzo (g,h,i) perylene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Surr: 2,4,6-Tribromophenol	58.6	11.1-127		%REC	1	9/25/2015 1:56:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-033

Matrix: Soil

Client Sample ID: MW-3-15:6.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Surr: 2-Fluorobiphenyl	56.7	16.1-150	%REC	1	9/25/2015 1:56:00 PM
Surr: Nitrobenzene-d5	37.2	10-133	%REC	1	9/25/2015 1:56:00 PM
Surr: Phenol-d6	52.8	11.6-133	%REC	1	9/25/2015 1:56:00 PM
Surr: p-Terphenyl	82.7	21.8-150	%REC	1	9/25/2015 1:56:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	3.88	mg/Kg-dry	1	9/24/2015 3:51:00 AM
Surr: Toluene-d8	99.5	65-135	%REC	1	9/24/2015 3:51:00 AM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/24/2015 3:51:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0465	mg/Kg-dry	1	9/24/2015 3:51:00 AM
Chloromethane	ND	0.0465	mg/Kg-dry	1	9/24/2015 3:51:00 AM
Vinyl chloride	ND	0.00155	mg/Kg-dry	1	9/24/2015 3:51:00 AM
Bromomethane	ND	0.0698	mg/Kg-dry	1	9/24/2015 3:51:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0388	mg/Kg-dry	1	9/24/2015 3:51:00 AM
Chloroethane	ND	0.0465	mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,1-Dichloroethene	ND	0.0388	mg/Kg-dry	1	9/24/2015 3:51:00 AM
Methylene chloride	ND	0.0155	mg/Kg-dry	1	9/24/2015 3:51:00 AM
trans-1,2-Dichloroethene	ND	0.0155	mg/Kg-dry	1	9/24/2015 3:51:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0388	mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,1-Dichloroethane	ND	0.0155	mg/Kg-dry	1	9/24/2015 3:51:00 AM
2,2-Dichloropropane	ND	0.0388	mg/Kg-dry	1	9/24/2015 3:51:00 AM
cis-1,2-Dichloroethene	ND	0.0155	mg/Kg-dry	1	9/24/2015 3:51:00 AM
Chloroform	ND	0.0155	mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0155	mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,1-Dichloropropene	ND	0.0155	mg/Kg-dry	1	9/24/2015 3:51:00 AM
Carbon tetrachloride	ND	0.0155	mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2-Dichloroethane (EDC)	ND	0.0233	mg/Kg-dry	1	9/24/2015 3:51:00 AM
Benzene	ND	0.0155	mg/Kg-dry	1	9/24/2015 3:51:00 AM
Trichloroethene (TCE)	ND	0.0155	mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2-Dichloropropane	ND	0.0155	mg/Kg-dry	1	9/24/2015 3:51:00 AM
Bromodichloromethane	ND	0.0155	mg/Kg-dry	1	9/24/2015 3:51:00 AM
Dibromomethane	ND	0.0310	mg/Kg-dry	1	9/24/2015 3:51:00 AM
cis-1,3-Dichloropropene	ND	0.0155	mg/Kg-dry	1	9/24/2015 3:51:00 AM
Toluene	ND	0.0155	mg/Kg-dry	1	9/24/2015 3:51:00 AM
trans-1,3-Dichloropropylene	ND	0.0233	mg/Kg-dry	1	9/24/2015 3:51:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-033

Matrix: Soil

Client Sample ID: MW-3-15:6.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

1,1,2-Trichloroethane	ND	0.0233		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,3-Dichloropropane	ND	0.0388		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Tetrachloroethene (PCE)	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Dibromochloromethane	ND	0.0233		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2-Dibromoethane (EDB)	ND	0.00388		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Chlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0233		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Ethylbenzene	ND	0.0233		mg/Kg-dry	1	9/24/2015 3:51:00 AM
m,p-Xylene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
o-Xylene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Styrene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Isopropylbenzene	ND	0.0620		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Bromoform	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
n-Propylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Bromobenzene	ND	0.0233		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,3,5-Trimethylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
2-Chlorotoluene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
4-Chlorotoluene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
tert-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2,3-Trichloropropane	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2,4-Trichlorobenzene	ND	0.0388		mg/Kg-dry	1	9/24/2015 3:51:00 AM
sec-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
4-Isopropyltoluene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,3-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,4-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
n-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2-Dibromo-3-chloropropane	ND	0.388		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2,4-Trimethylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Hexachlorobutadiene	ND	0.0775		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Naphthalene	ND	0.0233		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2,3-Trichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Surr: Dibromofluoromethane	94.6	56.5-129		%REC	1	9/24/2015 3:51:00 AM
Surr: Toluene-d8	98.4	64.3-131		%REC	1	9/24/2015 3:51:00 AM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/24/2015 3:51:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-033

Matrix: Soil

Client Sample ID: MW-3-15:6.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11908		Analyst: MW
Mercury	ND	0.304		mg/Kg-dry	1	9/22/2015 5:30:07 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	3.76	0.103		mg/Kg-dry	1	9/22/2015 5:00:20 PM
Barium	16.6	0.515		mg/Kg-dry	1	9/22/2015 5:00:20 PM
Cadmium	ND	0.206		mg/Kg-dry	1	9/22/2015 5:00:20 PM
Chromium	11.7	0.103		mg/Kg-dry	1	9/22/2015 5:00:20 PM
Lead	1.28	0.206		mg/Kg-dry	1	9/22/2015 5:00:20 PM
Selenium	0.860	0.515		mg/Kg-dry	1	9/22/2015 5:00:20 PM
Silver	ND	0.103		mg/Kg-dry	1	9/22/2015 5:00:20 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	22.4			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-034

Matrix: Soil

Client Sample ID: MW-3-15:15.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	47.7		µg/Kg-dry	1	10/1/2015 3:05:00 AM
2,4-D	ND	40.9		µg/Kg-dry	1	10/1/2015 3:05:00 AM
2,4-DP	ND	34.1		µg/Kg-dry	1	10/1/2015 3:05:00 AM
2,4,5-TP (Silvex)	ND	27.3		µg/Kg-dry	1	10/1/2015 3:05:00 AM
2,4,5-T	ND	68.1		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Dinoseb	ND	40.9		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Dalapon	ND	273		µg/Kg-dry	1	10/1/2015 3:05:00 AM
2,4-DB	ND	34.1		µg/Kg-dry	1	10/1/2015 3:05:00 AM
MCPP	ND	6,000		µg/Kg-dry	1	10/1/2015 3:05:00 AM
MCPA	ND	382		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Picloram	ND	68.1		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Bentazon	ND	47.7		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Chloramben	ND	27.3		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Acifluorfen	ND	109		µg/Kg-dry	1	10/1/2015 3:05:00 AM
3,5-Dichlorobenzoic acid	ND	54.5		µg/Kg-dry	1	10/1/2015 3:05:00 AM
4-Nitrophenol	ND	40.9		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Dacthal (DCPA)	ND	40.9		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Surr: 2,4-Dichlorophenylacetic acid	97.6	20.1-168		%REC	1	10/1/2015 3:05:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Alpha BHC	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Beta BHC	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Gamma BHC (Lindane)	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Delta BHC	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Heptachlor	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Aldrin	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Heptachlor epoxide	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
gamma-Chlordane	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Endosulfan I	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
alpha-Chlordane	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Dieldrin	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
4,4'-DDE	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Endrin	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Endosulfan II	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM
4,4'-DDD	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Endrin aldehyde	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Endosulfan sulfate	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-034

Matrix: Soil

Client Sample ID: MW-3-15:15.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Endrin ketone	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Methoxychlor	ND	0.0634		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Surr: Decachlorobiphenyl	82.8	26.5-158		%REC	1	9/24/2015 3:21:00 AM
Surr: Tetrachloro-m-xylene	85.8	11-150		%REC	1	9/24/2015 3:21:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11918

Analyst: AK

Diesel (Fuel Oil)	ND	25.7		mg/Kg-dry	1	9/24/2015 4:29:00 AM
Heavy Oil	ND	64.2		mg/Kg-dry	1	9/24/2015 4:29:00 AM
Surr: 2-Fluorobiphenyl	94.9	50-150		%REC	1	9/24/2015 4:29:00 AM
Surr: o-Terphenyl	90.4	50-150		%REC	1	9/24/2015 4:29:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Bis(2-chloroethyl) ether	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2-Chlorophenol	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
1,3-Dichlorobenzene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
1,4-Dichlorobenzene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
1,2-Dichlorobenzene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Benzyl alcohol	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2-Methylphenol (o-cresol)	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Hexachloroethane	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
N-Nitrosodi-n-propylamine	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Nitrobenzene	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Isophorone	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
4-Methylphenol (p-cresol)	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2-Nitrophenol	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2,4-Dimethylphenol	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Bis(2-chloroethoxy)methane	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2,4-Dichlorophenol	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
1,2,4-Trichlorobenzene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Naphthalene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
4-Chloroaniline	ND	674		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Hexachlorobutadiene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
4-Chloro-3-methylphenol	ND	674		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2-Methylnaphthalene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
1-Methylnaphthalene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-034

Matrix: Soil

Client Sample ID: MW-3-15:15.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Hexachlorocyclopentadiene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2,4,6-Trichlorophenol	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2,4,5-Trichlorophenol	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2-Chloronaphthalene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2-Nitroaniline	ND	674		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Acenaphthene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Dimethylphthalate	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2,6-Dinitrotoluene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Acenaphthylene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2,4-Dinitrophenol	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Dibenzofuran	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2,4-Dinitrotoluene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
4-Nitrophenol	ND	674		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Fluorene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
4-Chlorophenyl phenyl ether	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Diethylphthalate	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
4,6-Dinitro-2-methylphenol	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
4-Bromophenyl phenyl ether	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Hexachlorobenzene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Pentachlorophenol	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Phenanthrene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Anthracene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Carbazole	ND	674		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Di-n-butylphthalate	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Fluoranthene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Pyrene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Butyl Benzylphthalate	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
bis(2-Ethylhexyl)adipate	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Benz (a) anthracene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Chrysene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
bis (2-Ethylhexyl) phthalate	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Di-n-octyl phthalate	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Benzo (b) fluoranthene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Benzo (k) fluoranthene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Benzo (a) pyrene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Indeno (1,2,3-cd) pyrene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Dibenz (a,h) anthracene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Benzo (g,h,i) perylene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Surr: 2,4,6-Tribromophenol	41.4	11.1-127		%REC	1	9/25/2015 2:19:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-034

Matrix: Soil

Client Sample ID: MW-3-15:15.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Surr: 2-Fluorobiphenyl	36.2	16.1-150	%REC	1	9/25/2015 2:19:00 PM
Surr: Nitrobenzene-d5	21.3	10-133	%REC	1	9/25/2015 2:19:00 PM
Surr: Phenol-d6	31.5	11.6-133	%REC	1	9/25/2015 2:19:00 PM
Surr: p-Terphenyl	48.1	21.8-150	%REC	1	9/25/2015 2:19:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	3.69	mg/Kg-dry	1	9/24/2015 4:49:00 AM
Surr: Toluene-d8	99.5	65-135	%REC	1	9/24/2015 4:49:00 AM
Surr: 4-Bromofluorobenzene	101	65-135	%REC	1	9/24/2015 4:49:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0442	mg/Kg-dry	1	9/24/2015 4:49:00 AM
Chloromethane	ND	0.0442	mg/Kg-dry	1	9/24/2015 4:49:00 AM
Vinyl chloride	ND	0.00147	mg/Kg-dry	1	9/24/2015 4:49:00 AM
Bromomethane	ND	0.0663	mg/Kg-dry	1	9/24/2015 4:49:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0369	mg/Kg-dry	1	9/24/2015 4:49:00 AM
Chloroethane	ND	0.0442	mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,1-Dichloroethene	ND	0.0369	mg/Kg-dry	1	9/24/2015 4:49:00 AM
Methylene chloride	ND	0.0147	mg/Kg-dry	1	9/24/2015 4:49:00 AM
trans-1,2-Dichloroethene	ND	0.0147	mg/Kg-dry	1	9/24/2015 4:49:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0369	mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,1-Dichloroethane	ND	0.0147	mg/Kg-dry	1	9/24/2015 4:49:00 AM
2,2-Dichloropropane	ND	0.0369	mg/Kg-dry	1	9/24/2015 4:49:00 AM
cis-1,2-Dichloroethene	ND	0.0147	mg/Kg-dry	1	9/24/2015 4:49:00 AM
Chloroform	ND	0.0147	mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0147	mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,1-Dichloropropene	ND	0.0147	mg/Kg-dry	1	9/24/2015 4:49:00 AM
Carbon tetrachloride	ND	0.0147	mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2-Dichloroethane (EDC)	ND	0.0221	mg/Kg-dry	1	9/24/2015 4:49:00 AM
Benzene	ND	0.0147	mg/Kg-dry	1	9/24/2015 4:49:00 AM
Trichloroethene (TCE)	ND	0.0147	mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2-Dichloropropane	ND	0.0147	mg/Kg-dry	1	9/24/2015 4:49:00 AM
Bromodichloromethane	ND	0.0147	mg/Kg-dry	1	9/24/2015 4:49:00 AM
Dibromomethane	ND	0.0295	mg/Kg-dry	1	9/24/2015 4:49:00 AM
cis-1,3-Dichloropropene	ND	0.0147	mg/Kg-dry	1	9/24/2015 4:49:00 AM
Toluene	ND	0.0147	mg/Kg-dry	1	9/24/2015 4:49:00 AM
trans-1,3-Dichloropropylene	ND	0.0221	mg/Kg-dry	1	9/24/2015 4:49:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-034

Matrix: Soil

Client Sample ID: MW-3-15:15.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

1,1,2-Trichloroethane	ND	0.0221		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,3-Dichloropropane	ND	0.0369		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Tetrachloroethene (PCE)	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Dibromochloromethane	ND	0.0221		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2-Dibromoethane (EDB)	ND	0.00369		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Chlorobenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0221		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Ethylbenzene	ND	0.0221		mg/Kg-dry	1	9/24/2015 4:49:00 AM
m,p-Xylene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
o-Xylene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Styrene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Isopropylbenzene	ND	0.0590		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Bromoform	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
n-Propylbenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Bromobenzene	ND	0.0221		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,3,5-Trimethylbenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
2-Chlorotoluene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
4-Chlorotoluene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
tert-Butylbenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2,3-Trichloropropane	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2,4-Trichlorobenzene	ND	0.0369		mg/Kg-dry	1	9/24/2015 4:49:00 AM
sec-Butylbenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
4-Isopropyltoluene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,3-Dichlorobenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,4-Dichlorobenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
n-Butylbenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2-Dichlorobenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2-Dibromo-3-chloropropane	ND	0.369		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2,4-Trimethylbenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Hexachlorobutadiene	ND	0.0737		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Naphthalene	ND	0.0221		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2,3-Trichlorobenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Surr: Dibromofluoromethane	95.3	56.5-129		%REC	1	9/24/2015 4:49:00 AM
Surr: Toluene-d8	96.8	64.3-131		%REC	1	9/24/2015 4:49:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.6	63.1-141		%REC	1	9/24/2015 4:49:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-034

Matrix: Soil

Client Sample ID: MW-3-15:15.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11908 Analyst: MW

Mercury	ND	0.315		mg/Kg-dry	1	9/22/2015 5:35:04 PM
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Total Metals by EPA Method 6020

Batch ID: 11906 Analyst: TN

Arsenic	1.55	0.114		mg/Kg-dry	1	9/22/2015 5:03:52 PM
Barium	26.5	0.568		mg/Kg-dry	1	9/22/2015 5:03:52 PM
Cadmium	ND	0.227		mg/Kg-dry	1	9/22/2015 5:03:52 PM
Chromium	12.1	0.114		mg/Kg-dry	1	9/22/2015 5:03:52 PM
Lead	1.52	0.227		mg/Kg-dry	1	9/22/2015 5:03:52 PM
Selenium	0.975	0.568		mg/Kg-dry	1	9/22/2015 5:03:52 PM
Silver	ND	0.114		mg/Kg-dry	1	9/22/2015 5:03:52 PM

Sample Moisture (Percent Moisture)

Batch ID: R25044 Analyst: CG

Percent Moisture	26.6			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:55:00 PM

Project: Pacific Park

Lab ID: 1509270-035

Matrix: Groundwater

Client Sample ID: MW-3-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11896

Analyst: CM

Diesel (Fuel Oil)	ND	50.0		µg/L	1	9/24/2015 1:37:00 PM
Heavy Oil	ND	99.9		µg/L	1	9/24/2015 1:37:00 PM
Surr: 2-Fluorobiphenyl	51.3	50-150		%REC	1	9/24/2015 1:37:00 PM
Surr: o-Terphenyl	50.4	50-150		%REC	1	9/24/2015 1:37:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 11916

Analyst: NG

Naphthalene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
2-Methylnaphthalene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
1-Methylnaphthalene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Acenaphthylene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Acenaphthene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Fluorene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Phenanthrene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Anthracene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Fluoranthene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Pyrene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Benz(a)anthracene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Chrysene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Benzo(b)fluoranthene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Benzo(k)fluoranthene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Benzo(a)pyrene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Dibenz(a,h)anthracene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Benzo(g,h,i)perylene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Surr: 2-Fluorobiphenyl	61.0	23.9-122		%REC	1	9/23/2015 8:27:00 PM
Surr: Terphenyl-d14	38.3	33.4-135		%REC	1	9/23/2015 8:27:00 PM

Gasoline by NWTPH-Gx

Batch ID: R25021

Analyst: EM

Gasoline	ND	50.0		µg/L	1	9/22/2015 4:08:00 AM
Surr: Toluene-d8	88.6	65-135		%REC	1	9/22/2015 4:08:00 AM
Surr: 4-Bromofluorobenzene	97.8	65-135		%REC	1	9/22/2015 4:08:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25020

Analyst: EM

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Chloromethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Vinyl chloride	ND	0.200		µg/L	1	9/22/2015 4:08:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:55:00 PM

Project: Pacific Park

Lab ID: 1509270-035

Matrix: Groundwater

Client Sample ID: MW-3-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25020

Analyst: EM

Bromomethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Chloroethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Methylene chloride	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/22/2015 4:08:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Chloroform	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Benzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/22/2015 4:08:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Dibromomethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Toluene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/22/2015 4:08:00 AM
Chlorobenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Ethylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
m,p-Xylene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
o-Xylene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Styrene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Bromoform	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Bromobenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:55:00 PM

Project: Pacific Park

Lab ID: 1509270-035

Matrix: Groundwater

Client Sample ID: MW-3-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25020

Analyst: EM

1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/22/2015 4:08:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/22/2015 4:08:00 AM
Naphthalene	ND	1.00	Q	µg/L	1	9/22/2015 4:08:00 AM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/22/2015 4:08:00 AM
Surr: Dibromofluoromethane	99.9	45.4-152		%REC	1	9/22/2015 4:08:00 AM
Surr: Toluene-d8	100	40.1-139		%REC	1	9/22/2015 4:08:00 AM
Surr: 1-Bromo-4-fluorobenzene	103	64.2-128		%REC	1	9/22/2015 4:08:00 AM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:18:59 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:16:05 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11907

Analyst: TN

Antimony	0.620	0.200	[RE]	µg/L	1	9/22/2015 2:09:39 PM
Arsenic	3.87	1.00		µg/L	1	9/21/2015 4:50:18 PM
Beryllium	ND	0.200		µg/L	1	9/21/2015 4:50:18 PM
Cadmium	ND	0.200		µg/L	1	9/21/2015 4:50:18 PM
Chromium	ND	0.500		µg/L	1	9/21/2015 4:50:18 PM



Analytical Report

WO#: 1509270

Date Reported: 10/3/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:55:00 PM

Project: Pacific Park

Lab ID: 1509270-035

Matrix: Groundwater

Client Sample ID: MW-3-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 11907

Analyst: TN

Copper	3.97	0.500		µg/L	1	9/21/2015 4:50:18 PM
Lead	ND	1.00		µg/L	1	9/21/2015 4:50:18 PM
Nickel	3.17	0.500		µg/L	1	9/21/2015 4:50:18 PM
Selenium	1.40	1.00		µg/L	1	9/21/2015 4:50:18 PM
Silver	ND	0.200		µg/L	1	9/21/2015 4:50:18 PM
Thallium	ND	0.200	[RE]	µg/L	1	9/22/2015 2:09:39 PM
Zinc	19.1	1.50		µg/L	1	9/21/2015 4:50:18 PM

Total Metals by EPA Method 200.8

Batch ID: 11891

Analyst: TN

Antimony	0.408	0.200		µg/L	1	9/22/2015 1:30:51 PM
Arsenic	11.4	1.00		µg/L	1	9/21/2015 5:00:51 PM
Beryllium	0.978	0.200		µg/L	1	9/21/2015 5:00:51 PM
Cadmium	0.460	0.200		µg/L	1	9/21/2015 5:00:51 PM
Chromium	5.32	0.500		µg/L	1	9/21/2015 5:00:51 PM
Copper	18.7	0.500		µg/L	1	9/21/2015 5:00:51 PM
Lead	29.8	1.00		µg/L	1	9/21/2015 5:00:51 PM
Nickel	6.85	0.500		µg/L	1	9/21/2015 5:00:51 PM
Selenium	2.67	1.00		µg/L	1	9/21/2015 5:00:51 PM
Silver	ND	0.200		µg/L	1	9/21/2015 5:00:51 PM
Thallium	ND	0.200		µg/L	1	9/22/2015 1:30:51 PM
Zinc	128	1.50		µg/L	1	9/21/2015 5:00:51 PM



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID	MB-11892	SampType:	MBLK			Units:	µg/L			Prep Date:	9/21/2015		RunNo:	25002	
Client ID:	MBLKW	Batch ID:	11892							Analysis Date:	9/21/2015		SeqNo:	470997	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Arsenic	ND	1.00									
Beryllium	ND	0.200									
Cadmium	ND	0.200									
Chromium	ND	0.500									
Copper	ND	0.500									
Lead	ND	1.00									
Nickel	ND	0.500									
Selenium	ND	1.00									
Silver	ND	0.200									
Zinc	ND	1.50									

Sample ID	MB-11897FB	SampType:	MBLK	Units:	µg/L	Prep Date:	9/21/2015	RunNo:	25002		
Client ID:	MBLKW	Batch ID:	11892			Analysis Date:	9/21/2015	SeqNo:	470998		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	ND	1.00									
Beryllium	ND	0.200									
Cadmium	ND	0.200									
Chromium	ND	0.500									
Copper	ND	0.500									
Lead	ND	1.00									
Nickel	ND	0.500									
Selenium	ND	1.00									
Silver	ND	0.200									
Zinc	ND	1.50									

NOTES:
Filter Blank



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID	LCS-11892	SampType:	LCS	Units:	µg/L	Prep Date:	9/21/2015	RunNo:	25002		
Client ID:	LCSW	Batch ID:	11892			Analysis Date:	9/21/2015	SeqNo:	470999		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	98.6	1.00	100.0	0	98.6	85	115				
Beryllium	4.87	0.200	5.000	0	97.5	85	115				
Cadmium	5.05	0.200	5.000	0	101	85	115				
Chromium	90.6	0.500	100.0	0	90.6	85	115				
Copper	90.6	0.500	100.0	0	90.6	85	115				
Lead	54.0	1.00	50.00	0	108	85	115				
Nickel	90.9	0.500	100.0	0	90.9	85	115				
Selenium	10.3	1.00	10.00	0	103	85	115				
Silver	4.49	0.200	5.000	0	89.8	85	115				
Zinc	90.4	1.50	100.0	0	90.4	85	115				

Sample ID	1509253-001ADUP	SampType: DUP			Units: µg/L	Prep Date: 9/21/2015			RunNo: 25002		
Client ID:	BATCH	Batch ID: 11892			Analysis Date: 9/21/2015			SeqNo: 471003			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	1.00						1.118	21.5	30	
Beryllium	ND	0.200						0		30	
Cadmium	ND	0.200						0		30	
Chromium	15.7	0.500						15.54	1.12	30	
Copper	52.2	0.500						50.87	2.57	30	
Lead	ND	1.00						0		30	
Nickel	4.11	0.500						3.990	2.96	30	
Selenium	2.90	1.00						3.245	11.1	30	
Silver	ND	0.200						0		30	
Zinc	128	1.50						131.0	2.10	30	



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID	1509253-001AMS	SampType: MS	Units: µg/L			Prep Date: 9/21/2015			RunNo: 25002		
Client ID:	BATCH	Batch ID: 11892				Analysis Date: 9/21/2015			SeqNo: 471004		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	569	1.00	500.0	1.118	114	70	130				
Beryllium	22.6	0.200	25.00	0.1360	89.8	70	130				
Cadmium	26.8	0.200	25.00	0.06450	107	70	130				
Chromium	506	0.500	500.0	15.54	98.1	70	130				
Copper	500	0.500	500.0	50.87	89.8	70	130				
Lead	241	1.00	250.0	0.9300	96.1	70	130				
Nickel	461	0.500	500.0	3.990	91.3	70	130				
Selenium	60.4	1.00	50.00	3.245	114	70	130				
Silver	16.2	0.200	25.00	0	64.8	70	130				S
Zinc	599	1.50	500.0	131.0	93.6	70	130				

NOTES:

S - Outlying spike recovery observed. A duplicate analysis was performed with the same result, indicating a possible matrix effect.

Sample ID	1509253-001AMSD	SampType: MSD		Units: µg/L		Prep Date: 9/21/2015			RunNo: 25002		
Client ID:	BATCH	Batch ID: 11892					Analysis Date: 9/21/2015			SeqNo: 471005	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	561	1.00	500.0	1.118	112	70	130	569.2	1.43	30	
Beryllium	21.4	0.200	25.00	0.1360	85.0	70	130	22.59	5.53	30	
Cadmium	26.7	0.200	25.00	0.06450	106	70	130	26.80	0.482	30	
Chromium	491	0.500	500.0	15.54	95.1	70	130	505.9	2.97	30	
Copper	491	0.500	500.0	50.87	88.0	70	130	499.9	1.86	30	
Lead	237	1.00	250.0	0.9300	94.4	70	130	241.1	1.74	30	
Nickel	452	0.500	500.0	3.990	89.6	70	130	460.6	1.83	30	
Selenium	59.0	1.00	50.00	3.245	112	70	130	60.44	2.39	30	
Silver	15.2	0.200	25.00	0	60.7	70	130	16.20	6.63	30	S
Zinc	607	1.50	500.0	131.0	95.1	70	130	598.9	1.29	30	

NOTES:

S - Outlying spike recovery observed. A duplicate analysis was performed with the same result, indicating a possible matrix effect.



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Dissolved Metals by EPA Method 200.8

Sample ID	MB-11897FB	SampType:	MBLK			Units:	µg/L			Prep Date:	9/22/2015		RunNo:	25019	
Client ID:	MBLKW	Batch ID:	11907							Analysis Date:	9/22/2015		SeqNo:	471311	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Antimony	ND	0.200
Thallium	ND	0.200

NOTES:
Filter Blank

Sample ID	MB-11907	SampType:	MBLK	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25019		
Client ID:	MBLKW	Batch ID:	11907			Analysis Date:	9/22/2015	SeqNo:	471312		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	ND	0.200
Thallium	ND	0.200

Sample ID	LCS-11907	SampType: LCS			Units: µg/L	Prep Date: 9/22/2015			RunNo: 25019		
Client ID:	LCSW	Batch ID: 11907			Analysis Date: 9/22/2015			SeqNo: 471313			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	4.77	0.200	5.000	0	95.4	85	115
Thallium	2.46	0.200	2.500	0	98.3	85	115

Sample ID	1509270-027DDUP	SampType: DUP			Units: µg/L	Prep Date: 9/22/2015			RunNo: 25019		
Client ID:	GP-12-15:GW	Batch ID: 11907			Analysis Date: 9/22/2015			SeqNo: 471315			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	0.360	0.200						0.5130	34.9	30
Thallium	ND	0.200						0		30



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Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID	1509270-027DMS	SampType:	MS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25019		
Client ID:	GP-12-15:GW	Batch ID:	11907			Analysis Date:	9/22/2015	SeqNo:	471316		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	24.9	0.200	25.00	0.5130	97.4	70	130				
Thallium	12.8	0.200	12.50	0.06650	102	70	130				

Sample ID	1509270-027DMSD	SampType:	MSD	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25019		
Client ID:	GP-12-15:GW	Batch ID:	11907			Analysis Date:	9/22/2015	SeqNo:	471317		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	25.8	0.200	25.00	0.5130	101	70	130	24.86	3.83	30	
Thallium	13.1	0.200	12.50	0.06650	105	70	130	12.78	2.74	30	



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID	MB-11891	SampType:	MBLK		Units:	µg/L		Prep Date:	9/21/2015		RunNo:	24996	
Client ID:	MBLKW	Batch ID:	11891					Analysis Date:	9/21/2015		SeqNo:	470915	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Antimony		ND	0.200										
Arsenic		ND	1.00										
Beryllium		ND	0.200										
Cadmium		ND	0.200										
Chromium		ND	0.500										
Copper		ND	0.500										
Lead		ND	1.00										
Nickel		ND	0.500										
Selenium		ND	1.00										
Silver		ND	0.200										
Thallium		ND	0.200										
Zinc		ND	1.50										

Sample ID	LCS-11891	SampType:	LCS	Units:	µg/L	Prep Date:	9/21/2015	RunNo:	24996		
Client ID:	LCSW	Batch ID:	11891			Analysis Date:	9/21/2015	SeqNo:	470916		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	4.53	0.200	5.000	0	90.7	85	115				
Arsenic	104	1.00	100.0	0	104	85	115				
Beryllium	5.49	0.200	5.000	0	110	85	115				
Cadmium	5.07	0.200	5.000	0	101	85	115				
Chromium	105	0.500	100.0	0	105	85	115				
Copper	101	0.500	100.0	0	101	85	115				
Lead	51.1	1.00	50.00	0	102	85	115				
Nickel	102	0.500	100.0	0	102	85	115				
Selenium	10.6	1.00	10.00	0	106	85	115				
Silver	4.73	0.200	5.000	0	94.6	85	115				
Thallium	2.14	0.200	2.500	0	85.4	85	115				
Zinc	99.6	1.50	100.0	0	99.6	85	115				



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID	1509241-001BDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/21/2015	RunNo:	24996		
Client ID:	BATCH	Batch ID:	11891			Analysis Date:	9/21/2015	SeqNo:	470918		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.494	0.200						0.5730	14.7	30	
Arsenic	ND	1.00						0		30	
Beryllium	ND	0.200						0		30	
Cadmium	ND	0.200						0		30	
Chromium	0.989	0.500						1.166	16.5	30	
Copper	6.70	0.500						6.985	4.14	30	
Lead	ND	1.00						1.052	6.18	30	
Nickel	1.22	0.500						1.559	24.3	30	
Selenium	ND	1.00						0		30	
Silver	ND	0.200						0		30	
Thallium	ND	0.200						0		30	
Zinc	53.2	1.50						54.87	3.18	30	

Sample ID	1509241-001BMS	SampType:	MS		Units:	µg/L		Prep Date:	9/21/2015		RunNo:	24996	
Client ID:	BATCH	Batch ID:	11891					Analysis Date:	9/21/2015		SeqNo:	470919	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Antimony	21.8	0.200	25.00	0.5730	85.0	70	130						
Arsenic	528	1.00	500.0	0.4850	105	70	130						
Beryllium	26.2	0.200	25.00	0.01600	105	70	130						
Cadmium	25.3	0.200	25.00	0.02350	101	70	130						
Chromium	539	0.500	500.0	1.166	108	70	130						
Copper	534	0.500	500.0	6.985	105	70	130						
Lead	260	1.00	250.0	1.052	104	70	130						
Nickel	520	0.500	500.0	1.559	104	70	130						
Selenium	48.3	1.00	50.00	0.1100	96.3	70	130						
Silver	22.3	0.200	25.00	0.05800	88.9	70	130						
Thallium	10.3	0.200	12.50	0.009000	82.2	70	130						
Zinc	562	1.50	500.0	54.87	102	70	130						



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID	1509241-001BMSD	SampType: MSD			Units: µg/L	Prep Date: 9/21/2015			RunNo: 24996		
Client ID:	BATCH	Batch ID: 11891			Analysis Date: 9/21/2015			SeqNo: 470922			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	22.5	0.200	25.00	0.5730	87.7	70	130	21.83	3.03	30	
Arsenic	505	1.00	500.0	0.4850	101	70	130	527.9	4.43	30	
Beryllium	27.0	0.200	25.00	0.01600	108	70	130	26.20	3.04	30	
Cadmium	23.8	0.200	25.00	0.02350	94.9	70	130	25.33	6.44	30	
Chromium	511	0.500	500.0	1.166	102	70	130	538.7	5.18	30	
Copper	511	0.500	500.0	6.985	101	70	130	533.5	4.33	30	
Lead	255	1.00	250.0	1.052	102	70	130	259.8	1.75	30	
Nickel	497	0.500	500.0	1.559	99.1	70	130	519.6	4.48	30	
Selenium	52.4	1.00	50.00	0.1100	105	70	130	48.26	8.27	30	
Silver	22.6	0.200	25.00	0.05800	90.0	70	130	22.29	1.17	30	
Thallium	10.5	0.200	12.50	0.009000	84.3	70	130	10.28	2.49	30	
Zinc	548	1.50	500.0	54.87	98.7	70	130	562.4	2.52	30	



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 245.1

Sample ID	MB-11934	SampType:	MBLK			Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25090	
Client ID:	MBLKW	Batch ID:	11934						Analysis Date:	9/24/2015		SeqNo:	472885	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
Mercury		ND	0.100											

Sample ID	LCS-11934	SampType:	LCS			Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25090	
Client ID:	LCSW	Batch ID:	11934						Analysis Date:	9/24/2015		SeqNo:	472886	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
Mercury		2.50	0.100	2.500	0	100	85	115						

Sample ID	1509270-027CDUP	SampType:	DUP			Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25090	
Client ID:	GP-12-15:GW	Batch ID:	11934						Analysis Date:	9/24/2015		SeqNo:	472888	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
Mercury		ND	0.100						0				20	

Sample ID	1509270-027CMS	SampType:	MS			Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25090	
Client ID:	GP-12-15:GW	Batch ID:	11934						Analysis Date:	9/24/2015		SeqNo:	472889	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
Mercury		2.51	0.100	2.500	0.01400	99.8	80	120						

Sample ID	1509270-027CMSD	SampType:	MSD			Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25090	
Client ID:	GP-12-15:GW	Batch ID:	11934						Analysis Date:	9/24/2015		SeqNo:	472890	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
Mercury		2.47	0.100	2.500	0.01400	98.2	80	120	2.510			1.61	20	



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Dissolved Mercury by EPA Method 245.1

Sample ID	MB-11933	SampType:	MBLK		Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25075	
Client ID:	MBLKW	Batch ID:	11933					Analysis Date:	9/24/2015		SeqNo:	472581	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Mercury		ND	0.100										

Sample ID	LCS-11933	SampType:	LCS		Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25075	
Client ID:	LCSW	Batch ID:	11933					Analysis Date:	9/24/2015		SeqNo:	472582	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Mercury		2.37	0.100	2.500	0	94.8	85	115					

Sample ID	1509270-027DDUP	SampType:	DUP		Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25075	
Client ID:	GP-12-15:GW	Batch ID:	11933					Analysis Date:	9/24/2015		SeqNo:	472584	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Mercury		ND	0.100						0			20	

Sample ID	1509270-027DMS	SampType:	MS		Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25075	
Client ID:	GP-12-15:GW	Batch ID:	11933					Analysis Date:	9/24/2015		SeqNo:	472585	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Mercury		2.38	0.100	2.500	0.01700	94.5	80	120					

Sample ID	1509270-027DMSD	SampType:	MSD		Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25075	
Client ID:	GP-12-15:GW	Batch ID:	11933					Analysis Date:	9/24/2015		SeqNo:	472586	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Mercury		2.54	0.100	2.500	0.01700	101	80	120	2.380		6.50	20	



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 6020

Sample ID	MB-11888	SampType: MBLK		Units: mg/Kg		Prep Date: 9/21/2015			RunNo: 25006		
Client ID:	MBLKS	Batch ID: 11888		Analysis Date: 9/21/2015						SeqNo: 471090	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.100									
Barium	ND	0.500									
Cadmium	ND	0.200									
Chromium	ND	0.100									
Lead	ND	0.200									
Selenium	ND	0.500									
Silver	ND	0.100									

Sample ID	LCS-11888	SampType: LCS		Units: mg/Kg		Prep Date: 9/21/2015			RunNo: 25006		
Client ID:	LCSS	Batch ID: 11888					Analysis Date: 9/21/2015			SeqNo: 471091	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	49.8	0.100	50.00	0	99.6	80	120				
Barium	49.6	0.500	50.00	0	99.3	80	120				
Cadmium	2.55	0.200	2.500	0	102	80	120				
Chromium	49.3	0.100	50.00	0	98.5	80	120				
Lead	26.5	0.200	25.00	0	106	80	120				
Selenium	5.12	0.500	5.000	0	102	80	120				
Silver	2.51	0.100	2.500	0	100	80	120				

Sample ID	1509245-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25006		
Client ID:	BATCH	Batch ID:	11888			Analysis Date:	9/21/2015	SeqNo:	471093		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4.39	0.0901						5.045	13.8	20	
Barium	131	0.451						74.79	54.9	20	R
Cadmium	ND	0.180						0		20	
Chromium	49.7	0.0901						32.87	40.8	20	R
Lead	16.5	0.180						13.44	20.6	20	R
Selenium	1.50	0.451						1.231	19.5	20	



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509245-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25006		
Client ID:	BATCH	Batch ID:	11888			Analysis Date:	9/21/2015	SeqNo:	471093		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	ND	0.0901						0		20	

NOTES:

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID	1509245-001AMS	SampType: MS		Units: mg/Kg-dry		Prep Date: 9/21/2015			RunNo: 25006		
Client ID:	BATCH	Batch ID: 11888		Analysis Date: 9/21/2015					SeqNo: 471095		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	51.6	0.0894	44.71	5.045	104	75	125				
Barium	163	0.447	44.71	74.79	196	75	125				S
Cadmium	2.35	0.179	2.236	0.08790	101	75	125				
Chromium	85.4	0.0894	44.71	32.87	118	75	125				
Lead	33.7	0.179	22.36	13.44	90.6	75	125				
Selenium	5.69	0.447	4.471	1.231	99.8	75	125				
Silver	2.06	0.0894	2.236	0.03608	90.7	75	125				

NOTES:

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID	1509245-001AMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25006		
Client ID:	BATCH	Batch ID:	11888	Analysis Date:				9/21/2015	SeqNo:	471096	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	49.4	0.0888	44.38	5.045	100	75	125	51.59	4.29	20	S
Barium	160	0.444	44.38	74.79	192	75	125	162.6	1.50	20	
Cadmium	2.33	0.178	2.219	0.08790	101	75	125	2.349	0.892	20	
Chromium	84.8	0.0888	44.38	32.87	117	75	125	85.41	0.763	20	
Lead	39.7	0.178	22.19	13.44	118	75	125	33.69	16.3	20	
Selenium	5.36	0.444	4.438	1.231	93.0	75	125	5.692	6.01	20	
Silver	2.05	0.0888	2.219	0.03608	90.8	75	125	2.065	0.718	20	

NOTES:

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509245-001APDS	SampType:	PDS	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25006		
Client ID:	BATCH	Batch ID:	11888			Analysis Date:	9/21/2015	SeqNo:	471097		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Barium	126	0.447	44.7	74.8	114	80	120				
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Sample ID	MB-11906	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/22/2015		RunNo:	25024	
Client ID:	MBLKS	Batch ID:	11906						Analysis Date:	9/22/2015			SeqNo:	471529	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Arsenic	ND	0.100									
Barium	ND	0.500									
Cadmium	ND	0.200									
Chromium	ND	0.100									
Lead	ND	0.200									
Selenium	ND	0.500									
Silver	ND	0.100									

Sample ID	LCS-11906	SampType: LCS			Units: mg/Kg		Prep Date: 9/22/2015			RunNo: 25024		
Client ID:	LCSS	Batch ID: 11906			Analysis Date: 9/22/2015					SeqNo: 471530		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	47.7	0.100	50.00	0	95.4	80	120				
Barium	47.4	0.500	50.00	0	94.8	80	120				
Cadmium	2.59	0.200	2.500	0	103	80	120				
Chromium	52.8	0.100	50.00	0	106	80	120				
Lead	25.8	0.200	25.00	0	103	80	120				
Selenium	4.64	0.500	5.000	0	92.8	80	120				
Silver	2.38	0.100	2.500	0	95.2	80	120				



Date: 10/3/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 6020

Sample ID	1509274-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25024		
Client ID:	BATCH	Batch ID:	11906			Analysis Date:	9/22/2015	SeqNo:	471532		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	1.84	0.0880						1.904	3.41	20	
Barium	39.5	0.440						39.03	1.06	20	
Cadmium	ND	0.176						0		20	
Chromium	26.2	0.0880						28.61	8.64	20	
Lead	7.52	0.176						6.629	12.6	20	
Selenium	0.774	0.440						0.7936	2.51	20	
Silver	ND	0.0880						0		20	

Sample ID	1509274-001AMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25024		
Client ID:	BATCH	Batch ID:	11906	Analysis Date:				9/22/2015	SeqNo:	471534	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	43.0	0.0802	40.09	1.904	103	75	125				
Barium	82.6	0.401	40.09	39.03	109	75	125				
Cadmium	2.14	0.160	2.004	0.06399	104	75	125				
Chromium	72.5	0.0802	40.09	28.61	110	75	125				
Lead	24.1	0.160	20.04	6.629	87.2	75	125				
Selenium	4.52	0.401	4.009	0.7936	92.9	75	125				
Silver	1.84	0.0802	2.004	0.02475	90.8	75	125				

Sample ID	1509274-001AMSD	SampType: MSD		Units: mg/Kg-dry		Prep Date: 9/22/2015			RunNo: 25024		
Client ID:	BATCH	Batch ID: 11906		Analysis Date: 9/22/2015					SeqNo: 471535		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	47.5	0.0866	43.29	1.904	105	75	125	43.03	9.92	20	R
Barium	84.1	0.433	43.29	39.03	104	75	125	82.64	1.71	20	
Cadmium	2.31	0.173	2.165	0.06399	104	75	125	2.140	7.58	20	
Chromium	77.1	0.0866	43.29	28.61	112	75	125	72.52	6.08	20	
Lead	33.3	0.173	21.65	6.629	123	75	125	24.10	32.1	20	
Selenium	4.95	0.433	4.329	0.7936	96.1	75	125	4.518	9.17	20	



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509274-001AMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25024		
Client ID:	BATCH	Batch ID:	11906			Analysis Date:	9/22/2015	SeqNo:	471535		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	1.95	0.0866	2.165	0.02475	88.9	75	125	1.844	5.53	20	

NOTES:

R - Outlying RPD observed, spike recovery is within range.



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 7471

Sample ID	MB-11895	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/21/2015		RunNo:	25039	
Client ID:	MBLKS	Batch ID:	11895						Analysis Date:	9/22/2015			SeqNo:	471767	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Mercury	ND	0.250										
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Sample ID	LCS-11895	SampType: LCS			Units: mg/Kg		Prep Date: 9/21/2015			RunNo: 25039		
Client ID:	LCSS	Batch ID: 11895			Analysis Date: 9/22/2015					SeqNo: 471768		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.490	0.250	0.5000	0	98.0	80	120					
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Sample ID	1509243-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25039			
Client ID:	BATCH	Batch ID:	11895			Analysis Date:	9/22/2015	SeqNo:	471770			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.377							0		20	
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Sample ID	1509243-001AMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25039			
Client ID:	BATCH	Batch ID:	11895			Analysis Date:	9/22/2015	SeqNo:	471771			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.810	0.405	0.8097	0.05740	92.9	70	130					
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Sample ID	1509243-001AMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25039			
Client ID:	BATCH	Batch ID:	11895			Analysis Date:	9/22/2015	SeqNo:	471772			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.752	0.384	0.7678	0.05740	90.5	70	130	0.8098	7.41	20		
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Date: 10/3/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 7471

Sample ID	MB-11908	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/22/2015		RunNo:	25040	
Client ID:	MBLKS	Batch ID:	11908						Analysis Date:	9/22/2015		SeqNo:	471857		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Mercury	ND	0.250										
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Sample ID	LCS-11908	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25040			
Client ID:	LCSS	Batch ID:	11908			Analysis Date:	9/22/2015	SeqNo:	471858			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.450	0.250	0.5000	0	89.9	80	120					
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Sample ID	1509270-019ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25040			
Client ID:	GP-9-15:5.0	Batch ID:	11908			Analysis Date:	9/22/2015	SeqNo:	471860			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.261							0		20	
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Sample ID	1509270-019AMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25040			
Client ID:	GP-9-15:5.0	Batch ID:	11908			Analysis Date:	9/22/2015	SeqNo:	471861			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.576	0.309	0.6171	0.005595	92.4	70	130					
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Sample ID	1509270-019AMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25040			
Client ID:	GP-9-15:5.0	Batch ID:	11908			Analysis Date:	9/22/2015	SeqNo:	471862			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.541	0.291	0.5822	0.005595	92.0	70	130	0.5758	6.16	20		
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Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	MB-11903	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/22/2015		RunNo:	25108	
Client ID:	MBLKS	Batch ID:	11903						Analysis Date:	9/23/2015			SeqNo:	473356	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Diesel (Fuel Oil)	21.9	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	18.3		20.00		91.4	50	150				
Surr: o-Terphenyl	17.0		20.00		84.8	50	150				

Sample ID	LCS-11903	SampType: LCS			Units: mg/Kg		Prep Date: 9/22/2015			RunNo: 25108		
Client ID:	LCSS	Batch ID: 11903			Analysis Date: 9/23/2015					SeqNo: 473355		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	414	20.0	500.0	0	82.7	65	135				
Surr: 2-Fluorobiphenyl	19.0		20.00		94.9	50	150				
Surr: o-Terphenyl	17.5		20.00		87.7	50	150				

Sample ID	1509270-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25108		
Client ID:	GP-1-15:5.0	Batch ID:	11903			Analysis Date:	9/23/2015	SeqNo:	473330		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	23.6						0		30	
Heavy Oil	ND	58.9						0		30	
Surr: 2-Fluorobiphenyl	19.3		23.57		82.0	50	150		0		
Surr: o-Terphenyl	18.3		23.57		77.5	50	150		0		

Sample ID	1509270-010ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25108		
Client ID:	GP-5-15:13.0	Batch ID:	11903			Analysis Date:	9/23/2015	SeqNo:	473340		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	24.2						0		30	
Heavy Oil	ND	60.4						0		30	
Surr: 2-Fluorobiphenyl	22.0		24.17		91.0	50	150		0		
Surr: o-Terphenyl	21.5		24.17		88.9	50	150		0		



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	1509270-010ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25108		
Client ID:	GP-5-15:13.0	Batch ID:	11903			Analysis Date:	9/23/2015	SeqNo:	473340		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	MB-11918	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/23/2015		RunNo:	25072	
Client ID:	MBLKS	Batch ID:	11918						Analysis Date:	9/23/2015			SeqNo:	472530	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	18.4		20.00		92.1	50	150				
Surr: o-Terphenyl	17.4		20.00		86.8	50	150				

Sample ID	LCS-11918	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/23/2015	RunNo:	25072		
Client ID:	LCSS	Batch ID:	11918			Analysis Date:	9/23/2015	SeqNo:	472529		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	409	20.0	500.0	0	81.9	65	135				
Surr: 2-Fluorobiphenyl	19.3		20.00		96.7	50	150				
Surr: o-Terphenyl	17.7		20.00		88.7	50	150				

Sample ID	1509270-021ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25072		
Client ID:	GP-10-15:4.5	Batch ID:	11918			Analysis Date:	9/23/2015	SeqNo:	472541		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	26.4						0		30	
Heavy Oil	3,740	65.9						3,683	1.60	30	
Surr: 2-Fluorobiphenyl	27.4		26.38		104	50	150		0		
Surr: o-Terphenyl	30.9		26.38		117	50	150		0		



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	1509270-031ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25072		
Client ID:	MW-2-15:13.0	Batch ID:	11918			Analysis Date:	9/24/2015	SeqNo:	472515		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	35.0						0		30	
Heavy Oil	ND	87.5						0		30	
Surr: 2-Fluorobiphenyl	31.0		35.00		88.6	50	150		0		
Surr: o-Terphenyl	28.8		35.00		82.4	50	150		0		



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	MB-11896	SampType:	MBLK			Units:	µg/L			Prep Date:	9/21/2015			RunNo:	25050			
Client ID:	MBLKW	Batch ID:	11896			Analysis Date:						9/23/2015			SeqNo:	472305		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual					

Diesel (Fuel Oil)	ND	50.0									
Heavy Oil	ND	100									
Surr: 2-Fluorobiphenyl	52.2		80.00		65.2	50	150				
Surr: o-Terphenyl	55.8		80.00		69.7	50	150				

Sample ID	LCS-11896	SampType: LCS			Units: µg/L		Prep Date: 9/21/2015			RunNo: 25050		
Client ID:	LCSW	Batch ID: 11896			Analysis Date: 9/23/2015					SeqNo: 472304		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	653	50.0	1,000	0	65.3	65	135				
Surr: 2-Fluorobiphenyl	54.3		80.00		67.9	50	150				
Surr: o-Terphenyl	45.9		80.00		57.4	50	150				

Sample ID	1509246-020DDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/21/2015	RunNo:	25050		
Client ID:	BATCH	Batch ID:	11896			Analysis Date:	9/23/2015	SeqNo:	472301		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	50.0						0		30	
Heavy Oil	ND	100						0		30	
Surr: 2-Fluorobiphenyl	53.1		80.00		66.4	50	150		0		
Surr: o-Terphenyl	52.7		80.00		65.8	50	150		0		

Sample ID	1509263-005ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/21/2015	RunNo:	25050		
Client ID:	BATCH	Batch ID:	11896			Analysis Date:	9/24/2015	SeqNo:	473366		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	49.9						0		30	
Heavy Oil	ND	99.9						0		30	
Surr: 2-Fluorobiphenyl	60.1		79.92		75.2	50	150		0		
Surr: o-Terphenyl	64.0		79.92		80.1	50	150		0		



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	1509263-005ADUP	SampType: DUP			Units: µg/L		Prep Date: 9/21/2015			RunNo: 25050		
Client ID:	BATCH	Batch ID: 11896			Analysis Date: 9/24/2015					SeqNo: 473366		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	MB-11922	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/23/2015		RunNo:	25219	
Client ID:	MBLKS	Batch ID:	11922					Analysis Date:	9/29/2015		SeqNo:	475625	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Dicamba	ND	35.0											
2,4-D	ND	30.0											
2,4-DP	ND	25.0											
2,4,5-TP (Silvex)	ND	20.0											
2,4,5-T	ND	50.0											
Dinoseb	ND	30.0											
Dalapon	ND	200											
2,4-DB	ND	25.0											
MCPP	ND	4,400											
MCPA	ND	280											
Picloram	ND	50.0											
Bentazon	ND	35.0											
Chloramben	ND	20.0											
Acifluorfen	ND	80.0											
3,5-Dichlorobenzoic acid	ND	40.0											
4-Nitrophenol	ND	30.0											
Dacthal (DCPA)	ND	30.0											
Surr: 2,4-Dichlorophenylacetic acid	55.8		50.00		112	20.1	168						

Sample ID	LCS-11922	SampType: LCS		Units: µg/Kg		Prep Date: 9/23/2015			RunNo: 25219		
Client ID:	LCSS	Batch ID: 11922					Analysis Date: 9/29/2015			SeqNo: 475623	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	119	35.0	100.0	0	119	32.1	135				
2,4-D	122	30.0	100.0	0	122	22.4	130				
2,4-DP	117	25.0	100.0	0	117	26.4	130				
2,4,5-TP (Silvex)	110	20.0	100.0	0	110	21.2	138				
2,4,5-T	111	50.0	100.0	0	111	39	117				
Dinoseb	105	30.0	100.0	0	105	5	165				
Dalapon	9,840	200	10,000	0	98.4	18.4	162				
2,4-DB	113	25.0	100.0	0	113	5	164				



Date: 10/3/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	LCS-11922	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/23/2015	RunNo:	25219		
Client ID:	LCSS	Batch ID:	11922			Analysis Date:	9/29/2015	SeqNo:	475623		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MCPP	1170	4,400	1,000	0	117	22.2	157				
MCPA	2,210	280	1,000	0	221	47.4	128				S
Picloram	109	50.0	100.0	0	109	5	175				
Bentazon	102	35.0	100.0	0	102	7.59	162				
Chloramben	56.7	20.0	100.0	0	56.7	5	147				
Acifluorfen	94.1	80.0	100.0	0	94.1	5	163				
3,5-Dichlorobenzoic acid	124	40.0	100.0	0	124	18.7	139				
4-Nitrophenol	94.0	30.0	100.0	0	94.0	5	163				
Dacthal (DCPA)	111	30.0	100.0	0	111	5	164				
Surr: 2,4-Dichlorophenylacetic acid	99.5		100.0		99.5	20.1	168				

NOTES:

S - Outlying spike recovery observed for MCPA - High bias. There were no detections in the batch samples. No further action is required.

Sample ID	1509270-001ADUP	SampType:	DUP			Units:	µg/Kg-dry			Prep Date:	9/23/2015			RunNo:	25219	
Client ID:	GP-1-15:5.0	Batch ID:	11922							Analysis Date:	9/29/2015			SeqNo:	475598	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val				%RPD	RPDLimit	Qual	
Dicamba		ND	41.0						0					30		
2,4-D		ND	35.2						0					30		
2,4-DP		ND	29.3						0					30		
2,4,5-TP (Silvex)		ND	23.4						0					30		
2,4,5-T		ND	58.6						0					30		
Dinoseb		ND	35.2						0					30		
Dalapon		ND	234						0					30		
2,4-DB		ND	29.3						0					30		
MCPP		ND	5,160						0					30		
MCPA		ND	328						0					30		
Picloram		ND	58.6						0					30		
Bentazon		ND	41.0						0					30		
Chloramben		ND	23.4						0					30		
Acifluorfen		ND	93.7						0					30		
3,5-Dichlorobenzoic acid		ND	46.9						0					30		



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	1509270-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25219		
Client ID:	GP-1-15:5.0	Batch ID:	11922			Analysis Date:	9/29/2015	SeqNo:	475598		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

4-Nitrophenol	ND	35.2						0		30	
Dacthal (DCPA)	ND	35.2						0		30	
Surr: 2,4-Dichlorophenylacetic acid	110		117.2		93.5	20.1	168		0		

Sample ID	1509270-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25219		
Client ID:	GP-1-15:13.5	Batch ID:	11922			Analysis Date:	9/29/2015	SeqNo:	475600		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	140	43.9	125.4	0	112	31.9	118				
2,4-D	150	37.6	125.4	8.523	113	12.4	134				
2,4-DP	137	31.3	125.4	0	109	27.2	129				
2,4,5-TP (Silvex)	133	25.1	125.4	8.510	99.5	28.6	134				
2,4,5-T	139	62.7	125.4	0	111	13.1	147				
Dinoseb	126	37.6	125.4	0	100	10	179				
Dalapon	7,600	251	12,540	0	60.6	24.9	139				
2,4-DB	141	31.3	125.4	20.49	96.0	50.2	152				
MCPP	1380	5,520	1,254	0	110	37.8	140				
MCPA	2,560	351	1,254	0	204	13.7	147				S
Picloram	148	62.7	125.4	31.34	92.7	5	153				
Bentazon	132	43.9	125.4	18.23	90.4	15	140				
Chloramben	110	25.1	125.4	21.69	70.7	5	162				
Acifluorfen	117	100	125.4	17.13	79.9	15	140				
3,5-Dichlorobenzoic acid	141	50.2	125.4	12.43	102	10	164				
4-Nitrophenol	131	37.6	125.4	13.88	93.3	44.8	125				
Dacthal (DCPA)	88.5	37.6	125.4	17.71	56.5	5	132				
Surr: 2,4-Dichlorophenylacetic acid	119		125.4		94.8	20.1	168				

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	1509270-022AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25230		
Client ID:	GP-10-15:13.0	Batch ID:	11938			Analysis Date:	9/30/2015	SeqNo:	475820		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	121	45.1	128.9	0	93.7	31.9	118				
2,4-D	126	38.7	128.9	0	97.7	12.4	134				
2,4-DP	121	32.2	128.9	0	93.6	27.2	129				
2,4,5-TP (Silvex)	107	25.8	128.9	0	83.3	28.6	134				
2,4,5-T	115	64.5	128.9	0	89.4	13.1	147				
Dinoseb	116	38.7	128.9	0	90.2	10	179				
Dalapon	1,200	258	1,289	0	93.1	24.9	139				
2,4-DB	110	32.2	128.9	0	85.6	50.2	152				
MCP	251	361	644.5	0	39.0	37.8	140				
MCPA	541	361	644.5	0	84.0	13.7	147				
Picloram	107	64.5	128.9	0	83.1	5	153				
Bentazon	119	45.1	128.9	0	92.3	15	140				
Chloramben	118	25.8	128.9	10.45	83.5	5	162				
Acifluorfen	93.8	103	128.9	0	72.8	15	140				
3,5-Dichlorobenzoic acid	119	51.6	128.9	0	92.4	10	164				
4-Nitrophenol	118	38.7	128.9	8.524	84.7	44.8	125				
Dacthal (DCPA)	106	38.7	128.9	15.85	69.8	5	132				
Surr: 2,4-Dichlorophenylacetic acid	156		128.9		121	20.1	168				

Sample ID	MB-11938	SampType: MBLK			Units: µg/Kg	Prep Date: 9/24/2015			RunNo: 25230		
Client ID:	MBLKS	Batch ID: 11938				Analysis Date: 9/30/2015			SeqNo: 475823		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	ND	35.0									
2,4-D	ND	30.0									
2,4-DP	ND	25.0									
2,4,5-TP (Silvex)	ND	20.0									
2,4,5-T	ND	50.0									
Dinoseb	ND	30.0									
Dalapon	ND	200									
2,4-DB	ND	25.0									



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	MB-11938	SampType:	MBLK			Units:	µg/Kg			Prep Date:	9/24/2015			RunNo:	25230		
Client ID:	MBLKS	Batch ID:	11938							Analysis Date:	9/30/2015			SeqNo:	475823		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual				
MCP		ND	280														
MCPA		ND	280														
Picloram		ND	50.0														
Bentazon		ND	35.0														
Chloramben		ND	20.0														
Acifluorfen		ND	80.0														
3,5-Dichlorobenzoic acid		ND	40.0														
4-Nitrophenol		ND	30.0														
Dacthal (DCPA)		ND	30.0														
Surr: 2,4-Dichlorophenylacetic acid		119		100.0		119	20.1	168									

Sample ID	LCS-11938	SampType: LCS		Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25230		
Client ID:	LCSS	Batch ID: 11938		Analysis Date: 9/30/2015					SeqNo: 475822		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	64.3	35.0	100.0	0	64.3	32.1	135				
2,4-D	67.1	30.0	100.0	0	67.1	22.4	130				
2,4-DP	63.6	25.0	100.0	0	63.6	26.4	130				
2,4,5-TP (Silvex)	56.7	20.0	100.0	0	56.7	21.2	138				
2,4,5-T	61.3	50.0	100.0	0	61.3	39	117				
Dinoseb	68.6	30.0	100.0	0	68.6	5	165				
Dalapon	4,880	200	10,000	0	48.8	18.4	162				
2,4-DB	56.3	25.0	100.0	0	56.3	5	164				
MCPP	721	280	1,000	0	72.1	22.2	157				
MCPA	842	280	1,000	0	84.2	47.4	128				
Picloram	50.0	50.0	100.0	0	50.0	5	175				
Bentazon	58.3	35.0	100.0	0	58.3	7.59	162				
Chloramben	73.2	20.0	100.0	0	73.2	5	147				
Acifluorfen	53.3	80.0	100.0	0	53.3	5	163				
3,5-Dichlorobenzoic acid	61.8	40.0	100.0	0	61.8	18.7	139				
4-Nitrophenol	56.1	30.0	100.0	0	56.1	5	163				



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Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	LCS-11938	SampType: LCS			Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25230		
Client ID:	LCSS	Batch ID: 11938			Analysis Date: 9/30/2015			SeqNo: 475822				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dacthal (DCPA)	57.3	30.0	100.0	0	57.3	5	164				
Surr: 2,4-Dichlorophenylacetic acid	93.5		100.0		93.5	20.1	168				

Sample ID	1509270-021ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25230		
Client ID:	GP-10-15:4.5	Batch ID:	11938			Analysis Date:	9/30/2015	SeqNo:	475818		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	ND	46.1						0		30	
2,4-D	ND	39.5						0		30	
2,4-DP	ND	32.9						0		30	
2,4,5-TP (Silvex)	ND	26.3						0		30	
2,4,5-T	ND	65.8						0		30	
Dinoseb	ND	39.5						0		30	
Dalapon	ND	263						0		30	
2,4-DB	ND	32.9						0		30	
MCP	ND	369						0		30	
MCPA	ND	369						0		30	
Picloram	ND	65.8						0		30	
Bentazon	ND	46.1						0		30	
Chloramben	ND	26.3						0		30	
Acifluorfen	ND	105						0		30	
3,5-Dichlorobenzoic acid	ND	52.7						0		30	
4-Nitrophenol	ND	39.5						0		30	
Dacthal (DCPA)	ND	39.5						0		30	
Surr: 2,4-Dichlorophenylacetic acid	0		131.6		0	20.1	168		0		S



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID	MB-11916	SampType:	MBLK		Units:	µg/L		Prep Date:	9/22/2015		RunNo:	25071	
Client ID:	MBLKW	Batch ID:	11916					Analysis Date:	9/23/2015		SeqNo:	472505	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Naphthalene		ND	0.0996										
2-Methylnaphthalene		ND	0.0996										
1-Methylnaphthalene		ND	0.0996										
Acenaphthylene		ND	0.0996										
Acenaphthene		ND	0.0996										
Fluorene		ND	0.0996										
Phenanthrene		ND	0.0996										
Anthracene		ND	0.0996										
Fluoranthene		ND	0.0996										
Pyrene		ND	0.0996										
Benz(a)anthracene		ND	0.0996										
Chrysene		ND	0.0996										
Benzo(b)fluoranthene		ND	0.0996										
Benzo(k)fluoranthene		ND	0.0996										
Benzo(a)pyrene		ND	0.0996										
Indeno(1,2,3-cd)pyrene		ND	0.0996										
Dibenz(a,h)anthracene		ND	0.0996										
Benzo(g,h,i)perylene		ND	0.0996										
Surr: 2-Fluorobiphenyl		1.29		1.992		64.7	23.9	122					
Surr: Terphenyl-d14		1.54		1.992		77.5	33.4	135					

Sample ID	LCS-11916	SampType:	LCS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	LCSW	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472504		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.27	0.0998	3.993	0	56.8	26.7	106				
2-Methylnaphthalene	2.33	0.0998	3.993	0	58.3	35.4	110				
1-Methylnaphthalene	2.31	0.0998	3.993	0	57.9	37.5	116				
Acenaphthylene	2.88	0.0998	3.993	0	72.2	39.2	114				
Acenaphthene	2.44	0.0998	3.993	0	61.1	37	113				
Fluorene	1.80	0.0998	3.993	0	45.0	40.3	117				



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID	LCS-11916	SampType:	LCS	Units:	µg/L	Prep Date:	9/22/2015			RunNo:	25071	
Client ID:	LCSW	Batch ID:	11916				Analysis Date:	9/23/2015			SeqNo:	472504
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Phenanthrene	2.42	0.0998	3.993	0	60.6	35.1	118				
Anthracene	2.33	0.0998	3.993	0	58.4	45.4	115				
Fluoranthene	2.48	0.0998	3.993	0	62.2	47.1	123				
Pyrene	3.05	0.0998	3.993	0	76.3	47.6	123				
Benz(a)anthracene	2.40	0.0998	3.993	0	60.0	48.7	126				
Chrysene	2.42	0.0998	3.993	0	60.5	45.1	114				
Benzo(b)fluoranthene	2.36	0.0998	3.993	0	59.1	52.2	126				
Benzo(k)fluoranthene	2.67	0.0998	3.993	0	66.8	45.5	121				
Benzo(a)pyrene	2.37	0.0998	3.993	0	59.3	38.4	121				
Indeno(1,2,3-cd)pyrene	2.28	0.0998	3.993	0	57.1	23.9	143				
Dibenz(a,h)anthracene	2.56	0.0998	3.993	0	64.0	24.9	141				
Benzo(g,h,i)perylene	2.12	0.0998	3.993	0	53.1	35.9	139				
Surr: 2-Fluorobiphenyl	1.39		1.997		69.7	23.9	122				
Surr: Terphenyl-d14	1.50		1.997		74.9	33.4	135				

Sample ID	1509270-027EDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	GP-12-15:GW	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Naphthalene	ND	0.0997						0		30	
2-Methylnaphthalene	ND	0.0997						0		30	
1-Methylnaphthalene	ND	0.0997						0		30	
Acenaphthylene	ND	0.0997						0		30	
Acenaphthene	ND	0.0997						0		30	
Fluorene	ND	0.0997						0		30	
Phenanthrene	ND	0.0997						0		30	
Anthracene	ND	0.0997						0		30	
Fluoranthene	ND	0.0997						0		30	
Pyrene	ND	0.0997						0		30	
Benz(a)anthracene	ND	0.0997						0		30	
Chrysene	ND	0.0997						0		30	



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID	1509270-027EDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	GP-12-15:GW	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	ND	0.0997						0		30	
Benzo(k)fluoranthene	ND	0.0997						0		30	
Benzo(a)pyrene	ND	0.0997						0		30	
Indeno(1,2,3-cd)pyrene	ND	0.0997						0		30	
Dibenz(a,h)anthracene	ND	0.0997						0		30	
Benzo(g,h,i)perylene	ND	0.0997						0		30	
Surr: 2-Fluorobiphenyl	1.14		1.995		56.9	23.9	122		0		
Surr: Terphenyl-d14	0.798		1.995		40.0	33.4	135		0		

Sample ID	1509270-032EMS	SampType: MS	Units: µg/L			Prep Date: 9/22/2015			RunNo: 25071		
Client ID:	MW-2-15:GW	Batch ID: 11916				Analysis Date: 9/23/2015			SeqNo: 472493		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.33	0.0999	3.997	0	58.3	31.2	104				
2-Methylnaphthalene	2.30	0.0999	3.997	0	57.7	33.9	109				
1-Methylnaphthalene	2.28	0.0999	3.997	0	57.1	33.2	110				
Acenaphthylene	2.81	0.0999	3.997	0	70.4	40.5	98.7				
Acenaphthene	2.38	0.0999	3.997	0	59.6	30.6	117				
Fluorene	2.35	0.0999	3.997	0	58.8	35.2	99.1				
Phenanthrene	2.21	0.0999	3.997	0	55.4	42.7	111				
Anthracene	2.02	0.0999	3.997	0	50.5	43.9	103				
Fluoranthene	2.10	0.0999	3.997	0	52.5	56.1	115				S
Pyrene	2.49	0.0999	3.997	0	62.2	44.2	134				
Benz(a)anthracene	1.65	0.0999	3.997	0	41.4	50.4	128				S
Chrysene	1.53	0.0999	3.997	0	38.4	41.4	118				S
Benzo(b)fluoranthene	1.25	0.0999	3.997	0	31.2	50.8	121				S
Benzo(k)fluoranthene	1.33	0.0999	3.997	0	33.2	43.4	113				S
Benzo(a)pyrene	1.21	0.0999	3.997	0	30.2	40.8	128				S
Indeno(1,2,3-cd)pyrene	1.08	0.0999	3.997	0	26.9	29.5	126				S
Dibenz(a,h)anthracene	1.27	0.0999	3.997	0	31.8	31.4	120				
Benzo(g,h,i)perylene	0.925	0.0999	3.997	0	23.2	30	116				S



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID	1509270-032EMS	SampType:	MS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	MW-2-15:GW	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472493		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 2-Fluorobiphenyl	1.14		1.999		57.0	23.9	122				
Surr: Terphenyl-d14	0.865		1.999		43.3	33.4	135				

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Organochlorine Pesticides by EPA Method 8081

Sample ID	TOXIPHENE	SampType:	CCV	Units:	mg/L	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	CCV	Batch ID:	R25086			Analysis Date:	9/23/2015	SeqNo:	472772		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Toxaphene	1,200	0.100	1,000	0	120	50	150				
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Sample ID	MB-11935	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/23/2015		RunNo:	25086	
Client ID:	MBLKS	Batch ID:	11935							Analysis Date:	9/24/2015		SeqNo:	472762	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Toxaphene	ND	0.100									
Alpha BHC	ND	0.0100									
Beta BHC	ND	0.0100									
Gamma BHC (Lindane)	ND	0.0100									
Delta BHC	ND	0.0100									
Heptachlor	ND	0.0100									
Aldrin	ND	0.0100									
Heptachlor epoxide	ND	0.0100									
gamma-Chlordane	ND	0.0100									
Endosulfan I	ND	0.0100									
alpha-Chlordane	ND	0.0100									
Dieldrin	ND	0.0100									
4,4'-DDE	ND	0.0200									
Endrin	ND	0.0200									
Endosulfan II	ND	0.0200									
4,4'-DDD	ND	0.0200									
Endrin aldehyde	ND	0.0200									
Endosulfan sulfate	ND	0.0200									
4,4'-DDT	ND	0.0200									
Endrin ketone	ND	0.0200									
Methoxychlor	ND	0.0500									
Surr: Decachlorobiphenyl	0.0418		0.05000		83.6	26.5	158				
Surr: Tetrachloro-m-xylene	0.0417		0.05000		83.5	11	150				



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	LCS-11935	SampType: LCS		Units: µg/Kg		Prep Date: 9/23/2015			RunNo: 25086		
Client ID:	LCSS	Batch ID: 11935					Analysis Date: 9/24/2015			SeqNo: 472760	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.183	0.0100	0.2000	0	91.6	54.2	139				
Beta BHC	0.189	0.0100	0.2000	0	94.7	56.5	142				
Gamma BHC (Lindane)	0.189	0.0100	0.2000	0	94.4	55.5	142				
Delta BHC	0.184	0.0100	0.2000	0	92.1	47.4	157				
Heptachlor	0.196	0.0100	0.2000	0	97.9	54	141				
Aldrin	0.187	0.0100	0.2000	0	93.7	43.7	147				
Heptachlor epoxide	0.193	0.0100	0.2000	0	96.5	56.2	137				
gamma-Chlordane	0.200	0.0100	0.2000	0	100	58.5	136				
Endosulfan I	0.188	0.0100	0.2000	0	94.1	60	132				
alpha-Chlordane	0.217	0.0100	0.2000	0	108	46.1	140				
Dieldrin	0.190	0.0100	0.2000	0	94.9	61.2	133				
4,4´-DDE	0.189	0.0200	0.2000	0	94.6	55.4	142				
Endrin	0.197	0.0200	0.2000	0	98.4	56.5	143				
Endosulfan II	0.192	0.0200	0.2000	0	96.0	62	143				
4,4´-DDD	0.187	0.0200	0.2000	0	93.7	53.3	145				
Endrin aldehyde	0.183	0.0200	0.2000	0	91.4	39.5	153				
Endosulfan sulfate	0.188	0.0200	0.2000	0	93.9	53.8	148				
4,4´-DDT	0.193	0.0200	0.2000	0	96.7	48.2	152				
Endrin ketone	0.199	0.0200	0.2000	0	99.5	28.5	162				
Methoxychlor	0.194	0.0500	0.2000	0	96.8	34.6	159				
Surr: Decachlorobiphenyl	0.0490		0.05000		98.0	26.5	158				
Surr: Tetrachloro-m-xylene	0.0507		0.05000		101	11	150				

Sample ID	1509270-018ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	GP-8-15:DUP	Batch ID:	11935			Analysis Date:	9/24/2015	SeqNo:	472731		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.123						0		30	
Alpha BHC	ND	0.0123						0		30	
Beta BHC	ND	0.0123						0		30	
Gamma BHC (Lindane)	ND	0.0123						0		30	



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	1509270-018ADUP	SampType:	DUP		Units:	mg/Kg-dry		Prep Date:	9/23/2015		RunNo:	25086	
Client ID:	GP-8-15:DUP	Batch ID:	11935					Analysis Date:	9/24/2015		SeqNo:	472731	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Delta BHC	ND	0.0123						0			30		
Heptachlor	ND	0.0123						0			30		
Aldrin	ND	0.0123						0			30		
Heptachlor epoxide	ND	0.0123						0			30		
gamma-Chlordane	ND	0.0123						0			30		
Endosulfan I	ND	0.0123						0			30		
alpha-Chlordane	ND	0.0123						0			30		
Dieldrin	ND	0.0123						0			30		
4,4´-DDE	ND	0.0246						0			30		
Endrin	ND	0.0246						0			30		
Endosulfan II	ND	0.0246						0			30		
4,4´-DDD	ND	0.0246						0			30		
Endrin aldehyde	ND	0.0246						0			30		
Endosulfan sulfate	ND	0.0246						0			30		
4,4´-DDT	ND	0.0246						0			30		
Endrin ketone	ND	0.0246						0			30		
Methoxychlor	ND	0.0614						0			30		
Surr: Decachlorobiphenyl	0.0509		0.06140		82.9	26.5	158			0			
Surr: Tetrachloro-m-xylene	0.0553		0.06140		90.1	11	150			0			

Sample ID	1509270-019AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	GP-9-15:5.0	Batch ID:	11935			Analysis Date:	9/24/2015	SeqNo:	472733		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.192	0.0112	0.2248	0	85.5	49.1	158				
Beta BHC	0.196	0.0112	0.2248	0	87.4	50.9	160				
Gamma BHC (Lindane)	0.198	0.0112	0.2248	0	88.0	55.3	157				
Delta BHC	0.194	0.0112	0.2248	0	86.1	55.8	160				
Heptachlor	0.206	0.0112	0.2248	0	91.6	59.1	150				
Aldrin	0.202	0.0112	0.2248	0	90.0	46.4	145				
Heptachlor epoxide	0.205	0.0112	0.2248	0	91.2	48.5	151				



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Sample ID	1509270-019AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	GP-9-15:5.0	Batch ID:	11935			Analysis Date:	9/24/2015	SeqNo:	472733		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
gamma-Chlordane	0.253	0.0112	0.2248	0	113	50.9	143				
Endosulfan I	0.202	0.0112	0.2248	0	90.0	46.4	149				
alpha-Chlordane	0.128	0.0112	0.2248	0	56.8	46.3	153				
Dieldrin	0.203	0.0112	0.2248	0	90.5	51	147				
4,4'-DDE	0.207	0.0225	0.2248	0	92.2	39.9	162				
Endrin	0.210	0.0225	0.2248	0	93.5	51.3	151				
Endosulfan II	0.218	0.0225	0.2248	0	96.9	51	152				
4,4'-DDD	0.207	0.0225	0.2248	0	92.0	45.8	160				
Endrin aldehyde	0.215	0.0225	0.2248	0	95.8	38.3	156				
Endosulfan sulfate	0.217	0.0225	0.2248	0	96.6	53.2	154				
4,4'-DDT	0.215	0.0225	0.2248	0	95.6	45.7	168				
Endrin ketone	0.217	0.0225	0.2248	0	96.6	68.3	144				
Methoxychlor	0.220	0.0562	0.2248	0	97.7	43.4	178				
Surr: Decachlorobiphenyl	0.0537		0.05621		95.5	26.5	158				
Surr: Tetrachloro-m-xylene	0.0504		0.05621		89.7	11	150				

Sample ID	TOXIPHENE	SampType:	CCV	Units:	mg/L	Prep Date:	9/24/2015	RunNo:	25086		
Client ID:	CCV	Batch ID:	R25086			Analysis Date:	9/24/2015	SeqNo:	472770		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	1,150	0.100	1,000	0	115	50	150				

Sample ID	MB-11932	SampType:	MBLK	Units:	mg/Kg	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	MBLKS	Batch ID:	11932			Analysis Date:	9/24/2015	SeqNo:	472761		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.100									
Alpha BHC	ND	0.0100									
Beta BHC	ND	0.0100									
Gamma BHC (Lindane)	ND	0.0100									



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Sample ID	MB-11932	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/23/2015		RunNo:	25086	
Client ID:	MBLKS	Batch ID:	11932					Analysis Date:	9/24/2015		SeqNo:	472761	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Delta BHC		ND	0.0100										
Heptachlor		ND	0.0100										
Aldrin		ND	0.0100										
Heptachlor epoxide		ND	0.0100										
gamma-Chlordane		ND	0.0100										
Endosulfan I		ND	0.0100										
alpha-Chlordane		ND	0.0100										
Dieldrin		ND	0.0100										
4,4´-DDE		ND	0.0200										
Endrin		ND	0.0200										
Endosulfan II		ND	0.0200										
4,4´-DDD		ND	0.0200										
Endrin aldehyde		ND	0.0200										
Endosulfan sulfate		ND	0.0200										
4,4´-DDT		ND	0.0200										
Endrin ketone		ND	0.0200										
Methoxychlor		ND	0.0500										
Surr: Decachlorobiphenyl		0.0299		0.05000		59.7	26.5	158					
Surr: Tetrachloro-m-xylene		0.0299		0.05000		59.9	11	150					

Sample ID	LCS-11932	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	LCSS	Batch ID:	11932	Analysis Date:				9/24/2015	SeqNo:	472759	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.163	0.0100	0.2000	0	81.5	54.2	139				
Beta BHC	0.160	0.0100	0.2000	0	80.2	56.5	142				
Gamma BHC (Lindane)	0.165	0.0100	0.2000	0	82.7	55.5	142				
Delta BHC	0.162	0.0100	0.2000	0	81.2	47.4	157				
Heptachlor	0.174	0.0100	0.2000	0	87.0	54	141				
Aldrin	0.169	0.0100	0.2000	0	84.4	43.7	147				
Heptachlor epoxide	0.172	0.0100	0.2000	0	85.8	56.2	137				



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Sample ID	LCS-11932	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	LCSS	Batch ID:	11932			Analysis Date:	9/24/2015	SeqNo:	472759		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
gamma-Chlordane	0.182	0.0100	0.2000	0	91.2	58.5	136				
Endosulfan I	0.173	0.0100	0.2000	0	86.4	60	132				
alpha-Chlordane	0.207	0.0100	0.2000	0	104	46.1	140				
Dieldrin	0.172	0.0100	0.2000	0	86.0	61.2	133				
4,4´-DDE	0.214	0.0200	0.2000	0	107	55.4	142				
Endrin	0.174	0.0200	0.2000	0	86.8	56.5	143				
Endosulfan II	0.181	0.0200	0.2000	0	90.5	62	143				
4,4´-DDD	0.163	0.0200	0.2000	0	81.3	53.3	145				
Endrin aldehyde	0.173	0.0200	0.2000	0	86.7	39.5	153				
Endosulfan sulfate	0.183	0.0200	0.2000	0	91.4	53.8	148				
4,4´-DDT	0.165	0.0200	0.2000	0	82.6	48.2	152				
Endrin ketone	0.170	0.0200	0.2000	0	84.9	28.5	162				
Methoxychlor	0.162	0.0500	0.2000	0	81.1	34.6	159				
Surr: Decachlorobiphenyl	0.0330		0.05000		65.9	26.5	158				
Surr: Tetrachloro-m-xylene	0.0331		0.05000		66.2	11	150				

Sample ID	1509267-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	BATCH	Batch ID:	11932			Analysis Date:	9/24/2015	SeqNo:	472709		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.104						0		30	
Alpha BHC	ND	0.0104						0		30	
Beta BHC	ND	0.0104						0		30	
Gamma BHC (Lindane)	ND	0.0104						0		30	
Delta BHC	ND	0.0104						0		30	
Heptachlor	ND	0.0104						0		30	
Aldrin	ND	0.0104						0		30	
Heptachlor epoxide	ND	0.0104						0		30	
gamma-Chlordane	ND	0.0104						0		30	
Endosulfan I	ND	0.0104						0		30	
alpha-Chlordane	ND	0.0104						0		30	



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Sample ID	1509267-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	BATCH	Batch ID:	11932			Analysis Date:	9/24/2015	SeqNo:	472709		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dieldrin	ND	0.0104						0		30	
4,4'-DDE	ND	0.0208						0		30	
Endrin	ND	0.0208						0		30	
Endosulfan II	ND	0.0208						0		30	
4,4'-DDD	ND	0.0208						0		30	
Endrin aldehyde	ND	0.0208						0		30	
Endosulfan sulfate	ND	0.0208						0		30	
4,4'-DDT	ND	0.0208						0		30	
Endrin ketone	ND	0.0208						0		30	
Methoxychlor	ND	0.0519						0		30	
Surr: Decachlorobiphenyl	0.0398		0.05194		76.6	26.5	158		0		
Surr: Tetrachloro-m-xylene	0.0329		0.05194		63.4	11	150		0		

Sample ID	1509268-003AMS	SampType:	MS		Units:	µg/Kg-dry			Prep Date:	9/23/2015		RunNo:	25086	
Client ID:	BATCH	Batch ID:	11932					Analysis Date:	9/24/2015		SeqNo:	472711		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual			
Alpha BHC	0.160	0.0101	0.2026	0	79.2	49.1	158							
Beta BHC	0.160	0.0101	0.2026	0	78.8	50.9	160							
Gamma BHC (Lindane)	0.163	0.0101	0.2026	0	80.5	55.3	157							
Delta BHC	0.161	0.0101	0.2026	0	79.3	55.8	160							
Heptachlor	0.172	0.0101	0.2026	0	84.8	59.1	150							
Aldrin	0.167	0.0101	0.2026	0	82.4	46.4	145							
Heptachlor epoxide	0.172	0.0101	0.2026	0	84.7	48.5	151							
gamma-Chlordane	0.187	0.0101	0.2026	0	92.1	50.9	143							
Endosulfan I	0.179	0.0101	0.2026	0	88.3	46.4	149							
alpha-Chlordane	0.119	0.0101	0.2026	0	58.7	46.3	153							
Dieldrin	0.177	0.0101	0.2026	0	87.2	51	147							
4,4´-DDE	0.222	0.0203	0.2026	0	110	39.9	162							
Endrin	0.180	0.0203	0.2026	0	88.8	51.3	151							
Endosulfan II	0.193	0.0203	0.2026	0	95.1	51	152							



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Sample ID	1509268-003AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	BATCH	Batch ID:	11932			Analysis Date:	9/24/2015	SeqNo:	472711		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4´-DDD	0.188	0.0203	0.2026	0	92.7	45.8	160				
Endrin aldehyde	0.185	0.0203	0.2026	0	91.2	38.3	156				
Endosulfan sulfate	0.196	0.0203	0.2026	0	96.7	53.2	154				
4,4´-DDT	0.197	0.0203	0.2026	0	97.1	45.7	168				
Endrin ketone	0.191	0.0203	0.2026	0	94.5	68.3	144				
Methoxychlor	0.213	0.0506	0.2026	0	105	43.4	178				
Surr: Decachlorobiphenyl	0.0436		0.05064		86.2	26.5	158				
Surr: Tetrachloro-m-xylene	0.0311		0.05064		61.4	11	150				

Sample ID	TOXIPHENE	SampType:	CCV	Units:	mg/L	Prep Date:	9/24/2015	RunNo:	25086		
Client ID:	CCV	Batch ID:	R25086			Analysis Date:	9/24/2015	SeqNo:	472771		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	1,170	0.100	1,000	0	117	50	150				



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QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11904	SampType:	MBLK	Units:	µg/Kg	Prep Date:	9/22/2015	RunNo:	25094		
Client ID:	MBLKS	Batch ID:	11904			Analysis Date:	9/23/2015	SeqNo:	472988		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	ND	200									
Bis(2-chloroethyl) ether	ND	200									
2-Chlorophenol	ND	100									
1,3-Dichlorobenzene	ND	100									
1,4-Dichlorobenzene	ND	100									
1,2-Dichlorobenzene	ND	100									
Benzyl alcohol	ND	100									
2-Methylphenol (o-cresol)	ND	100									
Hexachloroethane	ND	100									
N-Nitrosodi-n-propylamine	ND	100									
Nitrobenzene	ND	200									
Isophorone	ND	100									
4-Methylphenol (p-cresol)	ND	100									
2-Nitrophenol	ND	200									
2,4-Dimethylphenol	ND	100									
Bis(2-chloroethoxy)methane	ND	100									
2,4-Dichlorophenol	ND	200									
1,2,4-Trichlorobenzene	ND	100									
Naphthalene	ND	80.0									
4-Chloroaniline	ND	500									
Hexachlorobutadiene	ND	100									
4-Chloro-3-methylphenol	ND	500									
2-Methylnaphthalene	ND	80.0									
1-Methylnaphthalene	ND	80.0									
Hexachlorocyclopentadiene	ND	100									
2,4,6-Trichlorophenol	ND	200									
2,4,5-Trichlorophenol	ND	200									
2-Chloronaphthalene	ND	100									
2-Nitroaniline	ND	500									
Acenaphthene	ND	80.0									
Dimethylphthalate	ND	100									



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Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11904	SampType:	MBLK			Units:	µg/Kg			Prep Date:	9/22/2015			RunNo:	25094		
Client ID:	MBLKS	Batch ID:	11904							Analysis Date:	9/23/2015			SeqNo:	472988		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual				
2,6-Dinitrotoluene		ND	100														
Acenaphthylene		ND	80.0														
2,4-Dinitrophenol		ND	200														
Dibenzofuran		ND	100														
2,4-Dinitrotoluene		ND	100														
4-Nitrophenol		ND	500														
Fluorene		ND	80.0														
4-Chlorophenyl phenyl ether		ND	100														
Diethylphthalate		ND	100														
4,6-Dinitro-2-methylphenol		ND	200														
4-Bromophenyl phenyl ether		ND	100														
Hexachlorobenzene		ND	100														
Pentachlorophenol		ND	100														
Phenanthrene		ND	80.0														
Anthracene		ND	80.0														
Carbazole		ND	500														
Di-n-butylphthalate		ND	100														
Fluoranthene		ND	80.0														
Pyrene		ND	80.0														
Butyl Benzylphthalate		ND	100														
bis(2-Ethylhexyl)adipate		ND	100														
Benz (a) anthracene		ND	80.0														
Chrysene		ND	80.0														
bis (2-Ethylhexyl) phthalate		ND	100														
Di-n-octyl phthalate		ND	100														
Benzo (b) fluoranthene		ND	80.0														
Benzo (k) fluoranthene		ND	80.0														
Benzo (a) pyrene		ND	80.0														
Indeno (1,2,3-cd) pyrene		ND	80.0														
Dibenz (a,h) anthracene		ND	80.0														
Benzo (g,h,i) perylene		ND	80.0														



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Sample ID	MB-11904	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/22/2015		RunNo:	25094
Client ID:	MBLKS	Batch ID:	11904					Analysis Date:	9/23/2015		SeqNo:	472988
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol		386		1,000		38.6	11.1	127				
Surr: 2-Fluorobiphenyl		464		500.0		92.8	16.1	150				
Surr: Nitrobenzene-d5		480		500.0		96.0	10	133				
Surr: Phenol-d6		834		1,000		83.4	11.6	133				
Surr: p-Terphenyl		455		500.0		90.9	21.8	150				

Sample ID	LCS-11904	SampType: LCS		Units: µg/Kg		Prep Date: 9/22/2015			RunNo: 25094		
Client ID:	LCSS	Batch ID: 11904					Analysis Date: 9/23/2015			SeqNo: 472989	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	832	200	1,000	0	83.2	41.8	138				
Bis(2-chloroethyl) ether	826	200	1,000	0	82.6	65	116				
2-Chlorophenol	809	100	1,000	0	80.9	49.3	132				
1,3-Dichlorobenzene	852	100	1,000	0	85.2	50.9	133				
1,4-Dichlorobenzene	727	100	1,000	0	72.7	51.3	133				
1,2-Dichlorobenzene	794	100	1,000	0	79.4	54.2	129				
Benzyl alcohol	751	100	1,000	0	75.1	42.4	131				
2-Methylphenol (o-cresol)	863	100	1,000	0	86.3	47.2	134				
Hexachloroethane	800	100	1,000	0	80.0	48.9	133				
N-Nitrosodi-n-propylamine	899	100	1,000	0	89.9	39.8	135				
Nitrobenzene	870	200	1,000	0	87.0	62.3	126				
Isophorone	897	100	1,000	0	89.7	62.7	131				
4-Methylphenol (p-cresol)	805	100	1,000	0	80.5	57.4	131				
2-Nitrophenol	660	200	1,000	0	66.0	44.2	129				
2,4-Dimethylphenol	762	100	1,000	0	76.2	57.8	121				
Bis(2-chloroethoxy)methane	833	100	1,000	0	83.3	67.5	124				
2,4-Dichlorophenol	741	200	1,000	0	74.1	57.1	128				
1,2,4-Trichlorobenzene	805	100	1,000	0	80.5	36.2	140				
Naphthalene	807	80.0	1,000	0	80.7	56.8	130				
4-Chloroaniline	381	500	1,000	0	38.1	10.4	130				
Hexachlorobutadiene	798	100	1,000	0	79.8	55.9	131				



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Sample ID	LCS-11904	SampType: LCS		Units: µg/Kg		Prep Date: 9/22/2015			RunNo: 25094		
Client ID:	LCSS	Batch ID: 11904					Analysis Date: 9/23/2015			SeqNo: 472989	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chloro-3-methylphenol	798	500	1,000	0	79.8	49.4	138				
2-Methylnaphthalene	821	80.0	1,000	0	82.1	68.3	121				
1-Methylnaphthalene	802	80.0	1,000	0	80.2	64.1	126				
Hexachlorocyclopentadiene	462	100	1,000	0	46.2	36.7	128				
2,4,6-Trichlorophenol	689	200	1,000	0	68.9	36.4	132				
2,4,5-Trichlorophenol	709	200	1,000	0	70.9	52.3	128				
2-Chloronaphthalene	780	100	1,000	0	78.0	67.1	123				
2-Nitroaniline	766	500	1,000	0	76.6	43.9	135				
Acenaphthene	828	80.0	1,000	0	82.8	49.2	127				
Dimethylphthalate	797	100	1,000	0	79.7	62.4	130				
2,6-Dinitrotoluene	732	100	1,000	0	73.2	54.6	127				
Acenaphthylene	808	80.0	1,000	0	80.8	64.8	127				
2,4-Dinitrophenol	421	200	1,000	0	42.1	7.9	119				
Dibenzofuran	789	100	1,000	0	78.9	67.5	123				
2,4-Dinitrotoluene	698	100	1,000	0	69.8	21.9	136				
4-Nitrophenol	2,400	500	1,000	0	240	25.4	138				S
Fluorene	787	80.0	1,000	0	78.7	64.8	126				
4-Chlorophenyl phenyl ether	803	100	1,000	0	80.3	66.6	124				
Diethylphthalate	800	100	1,000	0	80.0	42.9	132				
4,6-Dinitro-2-methylphenol	407	200	1,000	0	40.7	12.9	110				
4-Bromophenyl phenyl ether	795	100	1,000	0	79.5	61.8	128				
Hexachlorobenzene	803	100	1,000	0	80.3	66.8	124				
Pentachlorophenol	558	100	1,000	0	55.8	10	123				
Phenanthrene	770	80.0	1,000	0	77.0	61.2	130				
Anthracene	824	80.0	1,000	0	82.4	68.9	122				
Carbazole	790	500	1,000	0	79.0	64.5	135				
Di-n-butylphthalate	769	100	1,000	0	76.9	50.6	130				
Fluoranthene	803	80.0	1,000	0	80.3	66	129				
Pyrene	784	80.0	1,000	0	78.4	45.4	140				
Butyl Benzylphthalate	709	100	1,000	0	70.9	31.1	157				
bis(2-Ethylhexyl)adipate	769	100	1,000	0	76.9	28.7	160				



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	LCS-11904	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/22/2015	RunNo:	25094		
Client ID:	LCSS	Batch ID:	11904			Analysis Date:	9/23/2015	SeqNo:	472989		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz (a) anthracene	710	80.0	1,000	0	71.0	44	150				
Chrysene	797	80.0	1,000	0	79.7	65.8	128				
bis (2-Ethylhexyl) phthalate	812	100	1,000	0	81.2	36.3	149				
Di-n-octyl phthalate	805	100	1,000	0	80.5	37.2	135				
Benzo (b) fluoranthene	609	80.0	1,000	0	60.9	45.6	146				
Benzo (k) fluoranthene	540	80.0	1,000	0	54.0	45.5	138				
Benzo (a) pyrene	536	80.0	1,000	0	53.6	49.2	137				
Indeno (1,2,3-cd) pyrene	563	80.0	1,000	0	56.3	44.2	146				
Dibenz (a,h) anthracene	458	80.0	1,000	0	45.8	37.5	152				
Benzo (g,h,i) perylene	509	80.0	1,000	0	50.9	24.1	156				
Surr: 2,4,6-Tribromophenol	563		1,000		56.3	11.1	127				
Surr: 2-Fluorobiphenyl	420		500.0		84.0	16.1	150				
Surr: Nitrobenzene-d5	427		500.0		85.4	10	133				
Surr: Phenol-d6	775		1,000		77.5	11.6	133				
Surr: p-Terphenyl	381		500.0		76.3	21.8	150				

NOTES:

S - Outlying spike recoveries observed for 4-Nitrophenol (high bias), samples are non-detect for this analyte, no further action required.

Sample ID	1509270-001ADUP	SampType:	DUP	Units:			µg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25094
Client ID:	GP-1-15:5.0	Batch ID:	11904					Analysis Date:	9/23/2015	SeqNo:	472991
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	221						0		50	
Bis(2-chloroethyl) ether	ND	221						0		50	
2-Chlorophenol	ND	111						0		50	
1,3-Dichlorobenzene	ND	111						0		50	
1,4-Dichlorobenzene	ND	111						0		50	
1,2-Dichlorobenzene	ND	111						0		50	
Benzyl alcohol	ND	111						0		50	
2-Methylphenol (o-cresol)	ND	111						0		50	
Hexachloroethane	ND	111						0		50	
N-Nitrosodi-n-propylamine	ND	111						0		50	



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25094		
Client ID:	GP-1-15:5.0	Batch ID:	11904			Analysis Date:	9/23/2015	SeqNo:	472991		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrobenzene	ND	221						0		50	
Isophorone	ND	111						0		50	
4-Methylphenol (p-cresol)	ND	111						0		50	
2-Nitrophenol	ND	221						0		50	
2,4-Dimethylphenol	ND	111						0		50	
Bis(2-chloroethoxy)methane	ND	111						0		50	
2,4-Dichlorophenol	ND	221						0		50	
1,2,4-Trichlorobenzene	ND	111						0		50	
Naphthalene	ND	88.6						0		50	
4-Chloroaniline	ND	554						0		50	
Hexachlorobutadiene	ND	111						0		50	
4-Chloro-3-methylphenol	ND	554						0		50	
2-Methylnaphthalene	ND	88.6						0		50	
1-Methylnaphthalene	ND	88.6						0		50	
Hexachlorocyclopentadiene	ND	111						0		50	
2,4,6-Trichlorophenol	ND	221						0		50	
2,4,5-Trichlorophenol	ND	221						0		50	
2-Chloronaphthalene	ND	111						0		50	
2-Nitroaniline	ND	554						0		50	
Acenaphthene	ND	88.6						0		50	
Dimethylphthalate	ND	111						0		50	
2,6-Dinitrotoluene	ND	111						0		50	
Acenaphthylene	ND	88.6						0		50	
2,4-Dinitrophenol	ND	221						0		50	
Dibenzofuran	ND	111						0		50	
2,4-Dinitrotoluene	ND	111						0		50	
4-Nitrophenol	ND	554						0		50	
Fluorene	ND	88.6						0		50	
4-Chlorophenyl phenyl ether	ND	111						0		50	
Diethylphthalate	ND	111						0		50	
4,6-Dinitro-2-methylphenol	ND	221						0		50	



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25094		
Client ID:	GP-1-15:5.0	Batch ID:	11904			Analysis Date:	9/23/2015	SeqNo:	472991		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Bromophenyl phenyl ether	ND	111						0		50	
Hexachlorobenzene	ND	111						0		50	
Pentachlorophenol	ND	111						0		50	
Phenanthrene	ND	88.6						0		50	
Anthracene	ND	88.6						0		50	
Carbazole	ND	554						0		50	
Di-n-butylphthalate	ND	111						0		50	
Fluoranthene	ND	88.6						0		50	
Pyrene	ND	88.6						0		50	
Butyl Benzylphthalate	ND	111						0		50	
bis(2-Ethylhexyl)adipate	ND	111						0		50	
Benz (a) anthracene	ND	88.6						0		50	
Chrysene	ND	88.6						0		50	
bis (2-Ethylhexyl) phthalate	ND	111						0		50	
Di-n-octyl phthalate	ND	111						0		50	
Benzo (b) fluoranthene	ND	88.6						0		50	
Benzo (k) fluoranthene	ND	88.6						0		50	
Benzo (a) pyrene	ND	88.6						0		50	
Indeno (1,2,3-cd) pyrene	ND	88.6						0		50	
Dibenz (a,h) anthracene	ND	88.6						0		50	
Benzo (g,h,i) perylene	ND	88.6						0		50	
Surr: 2,4,6-Tribromophenol	695		1,107		62.8	11.1	127		0		
Surr: 2-Fluorobiphenyl	102		553.5		18.4	16.1	150		0		
Surr: Nitrobenzene-d5	62.8		553.5		11.3	10	133		0		
Surr: Phenol-d6	545		1,107		49.2	11.6	133		0		
Surr: p-Terphenyl	484		553.5		87.4	21.8	150		0		



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25094		
Client ID:	GP-1-15:13.5	Batch ID:	11904			Analysis Date:	9/23/2015	SeqNo:	472993		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	988	251	1,256	0	78.6	29.2	146				
Bis(2-chloroethyl) ether	827	251	1,256	0	65.8	65.4	115				
2-Chlorophenol	971	126	1,256	0	77.3	44	134				
1,3-Dichlorobenzene	662	126	1,256	0	52.7	21.3	133				
1,4-Dichlorobenzene	622	126	1,256	0	49.5	44.5	134				
1,2-Dichlorobenzene	681	126	1,256	0	54.2	35	131				
Benzyl alcohol	557	126	1,256	0	44.3	30.8	159				
2-Methylphenol (o-cresol)	999	126	1,256	0	79.5	57.7	125				
Hexachloroethane	595	126	1,256	0	47.4	15.4	139				
N-Nitrosodi-n-propylamine	1,100	126	1,256	0	87.7	26.4	151				
Nitrobenzene	894	251	1,256	0	71.2	61.4	130				
Isophorone	1,140	126	1,256	0	90.4	61.8	132				
4-Methylphenol (p-cresol)	994	126	1,256	0	79.1	65.5	127				
2-Nitrophenol	887	251	1,256	0	70.6	46.3	118				
2,4-Dimethylphenol	1,030	126	1,256	0	82.0	46	158				
Bis(2-chloroethoxy)methane	1,010	126	1,256	0	80.6	66.8	124				
2,4-Dichlorophenol	991	251	1,256	0	78.9	56.2	128				
1,2,4-Trichlorobenzene	935	126	1,256	0	74.4	29.2	140				
Naphthalene	973	101	1,256	0	77.5	44.4	136				
4-Chloroaniline	868	628	1,256	0	69.1	27	126				
Hexachlorobutadiene	887	126	1,256	0	70.6	38.2	138				
4-Chloro-3-methylphenol	983	628	1,256	0	78.2	36.8	159				
2-Methylnaphthalene	1,050	101	1,256	0	83.6	51.7	138				
1-Methylnaphthalene	1,050	101	1,256	0	83.4	70.4	124				
Hexachlorocyclopentadiene	452	126	1,256	0	35.9	10	133				
2,4,6-Trichlorophenol	1,020	251	1,256	0	81.5	62.7	122				
2,4,5-Trichlorophenol	1,060	251	1,256	0	84.6	54.7	127				
2-Chloronaphthalene	1,060	126	1,256	0	84.0	69.8	126				
2-Nitroaniline	985	628	1,256	0	78.4	39.3	145				
Acenaphthene	1,100	101	1,256	0	87.4	49.6	129				
Dimethylphthalate	1,070	126	1,256	0	84.8	61.5	131				



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25094		
Client ID:	GP-1-15:13.5	Batch ID:	11904			Analysis Date:	9/23/2015	SeqNo:	472993		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,6-Dinitrotoluene	955	126	1,256	0	76.0	56.8	137				
Acenaphthylene	1,050	101	1,256	0	83.7	64	128				
2,4-Dinitrophenol	1,010	251	1,256	0	80.8	35.3	144				
Dibenzofuran	1,080	126	1,256	0	85.8	64.7	131				
2,4-Dinitrotoluene	927	126	1,256	0	73.8	30.9	139				
4-Nitrophenol	3,270	628	1,256	0	260	15.6	160				S
Fluorene	1,070	101	1,256	0	85.4	64.2	127				
4-Chlorophenyl phenyl ether	1,070	126	1,256	0	85.0	70.9	128				
Diethylphthalate	1,080	126	1,256	0	86.3	61.7	129				
4,6-Dinitro-2-methylphenol	650	251	1,256	0	51.8	21.9	143				
4-Bromophenyl phenyl ether	1,060	126	1,256	0	84.6	69.6	136				
Hexachlorobenzene	1,060	126	1,256	0	84.2	66.5	123				
Pentachlorophenol	905	126	1,256	0	72.0	28.2	156				
Phenanthrene	1,060	101	1,256	0	84.1	57	134				
Anthracene	1,100	101	1,256	0	87.2	68.2	123				
Carbazole	1,050	628	1,256	0	83.2	64.1	152				
Di-n-butylphthalate	987	126	1,256	0	78.5	52.4	130				
Fluoranthene	1,050	101	1,256	0	83.6	46.5	165				
Pyrene	1,050	101	1,256	0	83.9	31.4	151				
Butyl Benzylphthalate	897	126	1,256	0	71.4	30.4	138				
bis(2-Ethylhexyl)adipate	920	126	1,256	0	73.2	32	136				
Benz (a) anthracene	881	101	1,256	0	70.1	43.9	151				
Chrysene	1,100	101	1,256	0	87.4	71.1	126				
bis (2-Ethylhexyl) phthalate	1,000	126	1,256	0	79.6	40.8	170				
Di-n-octyl phthalate	1,010	126	1,256	0	80.2	34.6	142				
Benzo (b) fluoranthene	690	101	1,256	0	54.9	52.1	136				
Benzo (k) fluoranthene	789	101	1,256	0	62.8	45	140				
Benzo (a) pyrene	732	101	1,256	0	58.3	50.5	137				
Indeno (1,2,3-cd) pyrene	606	101	1,256	0	48.3	38.1	155				
Dibenz (a,h) anthracene	598	101	1,256	0	47.6	40.7	152				
Benzo (g,h,l) perylene	764	101	1,256	0	60.8	34	157				



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25094		
Client ID:	GP-1-15:13.5	Batch ID:	11904			Analysis Date:	9/23/2015	SeqNo:	472993		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	870		1,256		69.2	11.1	127				
Surr: 2-Fluorobiphenyl	394		628.2		62.7	16.1	150				
Surr: Nitrobenzene-d5	127		628.2		20.2	10	133				
Surr: Phenol-d6	843		1,256		67.1	11.6	133				
Surr: p-Terphenyl	545		628.2		86.8	21.8	150				

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.

Sample ID	MB-11937	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/24/2015		RunNo:	25119	
Client ID:	MBLKS	Batch ID:	11937					Analysis Date:	9/24/2015		SeqNo:	473647	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Phenol		ND	200										
Bis(2-chloroethyl) ether		ND	200										
2-Chlorophenol		ND	100										
1,3-Dichlorobenzene		ND	100										
1,4-Dichlorobenzene		ND	100										
1,2-Dichlorobenzene		ND	100										
Benzyl alcohol		ND	100										
2-Methylphenol (o-cresol)		ND	100										
Hexachloroethane		ND	100										
N-Nitrosodi-n-propylamine		ND	100										
Nitrobenzene		ND	200										
Isophorone		ND	100										
4-Methylphenol (p-cresol)		ND	100										
2-Nitrophenol		ND	200										
2,4-Dimethylphenol		ND	100										
Bis(2-chloroethoxy)methane		ND	100										
2,4-Dichlorophenol		ND	200										
1,2,4-Trichlorobenzene		ND	100										
Naphthalene		ND	80.0										
4-Chloroaniline		ND	500										



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11937	SampType:	MBLK	Units:	µg/Kg	Prep Date:	9/24/2015	RunNo:	25119		
Client ID:	MBLKS	Batch ID:	11937			Analysis Date:	9/24/2015	SeqNo:	473647		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Hexachlorobutadiene	ND	100									
4-Chloro-3-methylphenol	ND	500									
2-Methylnaphthalene	ND	80.0									
1-Methylnaphthalene	ND	80.0									
Hexachlorocyclopentadiene	ND	100									
2,4,6-Trichlorophenol	ND	200									
2,4,5-Trichlorophenol	ND	200									
2-Chloronaphthalene	ND	100									
2-Nitroaniline	ND	500									
Acenaphthene	ND	80.0									
Dimethylphthalate	ND	100									
2,6-Dinitrotoluene	ND	100									
Acenaphthylene	ND	80.0									
2,4-Dinitrophenol	ND	200									
Dibenzofuran	ND	100									
2,4-Dinitrotoluene	ND	100									
4-Nitrophenol	ND	500									
Fluorene	ND	80.0									
4-Chlorophenyl phenyl ether	ND	100									
Diethylphthalate	ND	100									
4,6-Dinitro-2-methylphenol	ND	200									
4-Bromophenyl phenyl ether	ND	100									
Hexachlorobenzene	ND	100									
Pentachlorophenol	ND	100									
Phenanthrene	ND	80.0									
Anthracene	ND	80.0									
Carbazole	ND	500									
Di-n-butylphthalate	ND	100									
Fluoranthene	ND	80.0									
Pyrene	ND	80.0									
Butyl Benzylphthalate	ND	100									



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11937	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/24/2015		RunNo:	25119	
Client ID:	MBLKS	Batch ID:	11937					Analysis Date:	9/24/2015		SeqNo:	473647	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
bis(2-Ethylhexyl)adipate	ND	100											
Benz (a) anthracene	ND	80.0											
Chrysene	ND	80.0											
bis (2-Ethylhexyl) phthalate	ND	100											
Di-n-octyl phthalate	ND	100											
Benzo (b) fluoranthene	ND	80.0											
Benzo (k) fluoranthene	ND	80.0											
Benzo (a) pyrene	ND	80.0											
Indeno (1,2,3-cd) pyrene	ND	80.0											
Dibenz (a,h) anthracene	ND	80.0											
Benzo (g,h,l) perylene	ND	80.0											
Surr: 2,4,6-Tribromophenol	199		1,000		19.9	11.1	127						
Surr: 2-Fluorobiphenyl	315		500.0		62.9	16.1	150						
Surr: Nitrobenzene-d5	160		500.0		32.0	10	133						
Surr: Phenol-d6	629		1,000		62.9	11.6	133						
Surr: p-Terphenyl	363		500.0		72.5	21.8	150						

Sample ID	LCS-11937	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/24/2015	RunNo:	25119		
Client ID:	LCSS	Batch ID:	11937			Analysis Date:	9/24/2015	SeqNo:	473648		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	901	200	1,000	0	90.1	41.8	138				
Bis(2-chloroethyl) ether	775	200	1,000	0	77.5	65	116				
2-Chlorophenol	823	100	1,000	0	82.3	49.3	132				
1,3-Dichlorobenzene	857	100	1,000	0	85.7	50.9	133				
1,4-Dichlorobenzene	779	100	1,000	0	77.9	51.3	133				
1,2-Dichlorobenzene	851	100	1,000	0	85.1	54.2	129				
Benzyl alcohol	1,300	100	1,000	0	130	42.4	131				
2-Methylphenol (o-cresol)	924	100	1,000	0	92.4	47.2	134				
Hexachloroethane	829	100	1,000	0	82.9	48.9	133				
N-Nitrosodi-n-propylamine	932	100	1,000	0	93.2	39.8	135				



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Semi-Volatile Organic Compounds by EPA Method 8270**

Sample ID	LCS-11937	SampType: LCS		Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25119		
Client ID:	LCSS	Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473648	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrobenzene	883	200	1,000	0	88.3	62.3	126				
Isophorone	944	100	1,000	0	94.4	62.7	131				
4-Methylphenol (p-cresol)	865	100	1,000	0	86.5	57.4	131				
2-Nitrophenol	640	200	1,000	0	64.0	44.2	129				
2,4-Dimethylphenol	883	100	1,000	0	88.3	57.8	121				
Bis(2-chloroethoxy)methane	914	100	1,000	0	91.4	67.5	124				
2,4-Dichlorophenol	801	200	1,000	0	80.1	57.1	128				
1,2,4-Trichlorobenzene	877	100	1,000	0	87.7	36.2	140				
Naphthalene	888	80.0	1,000	0	88.8	56.8	130				
4-Chloroaniline	891	500	1,000	0	89.1	10.4	130				
Hexachlorobutadiene	859	100	1,000	0	85.9	55.9	131				
4-Chloro-3-methylphenol	869	500	1,000	0	86.9	49.4	138				
2-Methylnaphthalene	877	80.0	1,000	0	87.7	68.3	121				
1-Methylnaphthalene	888	80.0	1,000	0	88.8	64.1	126				
Hexachlorocyclopentadiene	667	100	1,000	0	66.7	36.7	128				
2,4,6-Trichlorophenol	641	200	1,000	0	64.1	36.4	132				
2,4,5-Trichlorophenol	819	200	1,000	0	81.9	52.3	128				
2-Chloronaphthalene	872	100	1,000	0	87.2	67.1	123				
2-Nitroaniline	768	500	1,000	0	76.8	43.9	135				
Acenaphthene	907	80.0	1,000	0	90.7	49.2	127				
Dimethylphthalate	840	100	1,000	0	84.0	62.4	130				
2,6-Dinitrotoluene	825	100	1,000	0	82.5	54.6	127				
Acenaphthylene	882	80.0	1,000	0	88.2	64.8	127				
2,4-Dinitrophenol	331	200	1,000	0	33.1	7.9	119				
Dibenzofuran	865	100	1,000	0	86.5	67.5	123				
2,4-Dinitrotoluene	745	100	1,000	0	74.5	21.9	136				
4-Nitrophenol	2,620	500	1,000	0	262	25.4	138				S
Fluorene	863	80.0	1,000	0	86.3	64.8	126				
4-Chlorophenyl phenyl ether	888	100	1,000	0	88.8	66.6	124				
Diethylphthalate	803	100	1,000	0	80.3	42.9	132				
4,6-Dinitro-2-methylphenol	472	200	1,000	0	47.2	12.9	110				

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	LCS-11937	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/24/2015	RunNo:	25119		
Client ID:	LCSS	Batch ID:	11937			Analysis Date:	9/24/2015	SeqNo:	473648		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Bromophenyl phenyl ether	846	100	1,000	0	84.6	61.8	128				
Hexachlorobenzene	829	100	1,000	0	82.9	66.8	124				
Pentachlorophenol	366	100	1,000	0	36.6	10	123				
Phenanthrene	854	80.0	1,000	0	85.4	61.2	130				
Anthracene	863	80.0	1,000	0	86.3	68.9	122				
Carbazole	804	500	1,000	0	80.4	64.5	135				
Di-n-butylphthalate	727	100	1,000	0	72.7	50.6	130				
Fluoranthene	841	80.0	1,000	0	84.1	66	129				
Pyrene	842	80.0	1,000	0	84.2	45.4	140				
Butyl Benzylphthalate	629	100	1,000	0	62.9	31.1	157				
bis(2-Ethylhexyl)adipate	661	100	1,000	0	66.1	28.7	160				
Benz (a) anthracene	742	80.0	1,000	0	74.2	44	150				
Chrysene	908	80.0	1,000	0	90.8	65.8	128				
bis (2-Ethylhexyl) phthalate	682	100	1,000	0	68.2	36.3	149				
Di-n-octyl phthalate	699	100	1,000	0	69.9	37.2	135				
Benzo (b) fluoranthene	658	80.0	1,000	0	65.8	45.6	146				
Benzo (k) fluoranthene	705	80.0	1,000	0	70.5	45.5	138				
Benzo (a) pyrene	599	80.0	1,000	0	59.9	49.2	137				
Indeno (1,2,3-cd) pyrene	731	80.0	1,000	0	73.1	44.2	146				
Dibenz (a,h) anthracene	519	80.0	1,000	0	51.9	37.5	152				
Benzo (g,h,i) perylene	860	80.0	1,000	0	86.0	24.1	156				
Surr: 2,4,6-Tribromophenol	457		1,000		45.7	11.1	127				
Surr: 2-Fluorobiphenyl	424		500.0		84.8	16.1	150				
Surr: Nitrobenzene-d5	243		500.0		48.5	10	133				
Surr: Phenol-d6	758		1,000		75.8	11.6	133				
Surr: p-Terphenyl	431		500.0		86.2	21.8	150				

NOTES:

S - Outlying spike recovery observed for 4-Nitrophenol (high bias). Detections of this analyte will be qualified with an *. No further action required for samples without detections.



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-021ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25119		
Client ID:	GP-10-15:4.5	Batch ID:	11937			Analysis Date:	9/24/2015	SeqNo:	473650		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	275						0		50	
Bis(2-chloroethyl) ether	ND	275						0		50	
2-Chlorophenol	ND	138						0		50	
1,3-Dichlorobenzene	ND	138						0		50	
1,4-Dichlorobenzene	ND	138						0		50	
1,2-Dichlorobenzene	ND	138						0		50	
Benzyl alcohol	ND	138						0		50	
2-Methylphenol (o-cresol)	ND	138						0		50	
Hexachloroethane	ND	138						0		50	
N-Nitrosodi-n-propylamine	ND	138						0		50	
Nitrobenzene	ND	275						0		50	
Isophorone	ND	138						0		50	
4-Methylphenol (p-cresol)	279	138						202.0	31.9	50	
2-Nitrophenol	ND	275						0		50	
2,4-Dimethylphenol	155	138						133.2	15.3	50	
Bis(2-chloroethoxy)methane	ND	138						0		50	
2,4-Dichlorophenol	ND	275						0		50	
1,2,4-Trichlorobenzene	ND	138						0		50	
Naphthalene	4,470	110						4,420	1.05	50	
4-Chloroaniline	ND	689						0		50	
Hexachlorobutadiene	ND	138						0		50	
4-Chloro-3-methylphenol	ND	689						0		50	
2-Methylnaphthalene	3,210	110						3,098	3.70	50	
Hexachlorocyclopentadiene	ND	138						0		50	
2,4,6-Trichlorophenol	ND	275						0		50	
2,4,5-Trichlorophenol	ND	275						0		50	
2-Chloronaphthalene	ND	138						0		50	
2-Nitroaniline	ND	689						0		50	
Dimethylphthalate	ND	138						0		50	
2,6-Dinitrotoluene	ND	138						0		50	
Acenaphthylene	137	110						127.0	7.85	50	



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-021ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25119		
Client ID:	GP-10-15:4.5	Batch ID:	11937	Analysis Date:				9/24/2015	SeqNo:	473650	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4-Dinitrophenol	ND	275						0		50	
Dibenzofuran	ND	138						0		50	
2,4-Dinitrotoluene	ND	138						0		50	
4-Nitrophenol	1,500	689						1,430	4.63	50	*
4-Chlorophenyl phenyl ether	ND	138						0		50	
Diethylphthalate	ND	138						0		50	
4,6-Dinitro-2-methylphenol	ND	275						0		50	
4-Bromophenyl phenyl ether	ND	138						0		50	
Hexachlorobenzene	ND	138						0		50	
Pentachlorophenol	ND	138						0		50	
Di-n-butylphthalate	ND	138						178.8	200	50	R
Butyl Benzylphthalate	ND	138						0		50	
bis(2-Ethylhexyl)adipate	ND	138						0		50	
Chrysene	ND	110						131,100	200	50	R
bis (2-Ethylhexyl) phthalate	2,090	138						1,623	25.0	50	
Di-n-octyl phthalate	ND	138						0		50	
Benzo (k) fluoranthene	ND	110						28,380	200	50	R
Benzo (a) pyrene	49,800	110						43,060	14.5	50	
Indeno (1,2,3-cd) pyrene	51,300	110						61,540	18.2	50	
Dibenz (a,h) anthracene	50,000	110						52,540	5.00	50	
Benzo (g,h,i) perylene	51,100	110						56,570	10.1	50	
Surr: 2,4,6-Tribromophenol	801		1,377		58.1	11.1	127		0		
Surr: 2-Fluorobiphenyl	279		688.7		40.5	16.1	150		0		
Surr: Nitrobenzene-d5	266		688.7		38.6	10	133		0		
Surr: Phenol-d6	613		1,377		44.5	11.6	133		0		
Surr: p-Terphenyl	775		688.7		113	21.8	150		0		

NOTES:

* - Flagged value is not within established control limits.

R - High RPD observed, the method is in control as indicated by the LCS.



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-022AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25119		
Client ID:	GP-10-15:13.0	Batch ID:	11937			Analysis Date:	9/24/2015	SeqNo:	473652		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	870	242	1,209	0	72.0	29.2	146				
Bis(2-chloroethyl) ether	671	242	1,209	0	55.5	34.4	135				
2-Chlorophenol	799	121	1,209	0	66.1	44	134				
1,3-Dichlorobenzene	415	121	1,209	0	34.4	21.3	133				
1,4-Dichlorobenzene	465	121	1,209	0	38.4	20.9	131				
1,2-Dichlorobenzene	505	121	1,209	0	41.8	35	131				
Benzyl alcohol	1,200	121	1,209	0	99.4	30.8	159				
2-Methylphenol (o-cresol)	897	121	1,209	0	74.2	57.7	125				
Hexachloroethane	465	121	1,209	0	38.4	15.4	139				
N-Nitrosodi-n-propylamine	1,010	121	1,209	0	83.2	26.4	151				
Nitrobenzene	832	242	1,209	0	68.8	61.4	130				
Isophorone	1,060	121	1,209	0	87.5	61.8	132				
4-Methylphenol (p-cresol)	940	121	1,209	0	77.7	65.5	127				
2-Nitrophenol	830	242	1,209	0	68.7	46.3	118				
2,4-Dimethylphenol	941	121	1,209	0	77.8	46	158				
Bis(2-chloroethoxy)methane	908	121	1,209	0	75.2	66.8	124				
2,4-Dichlorophenol	887	242	1,209	0	73.4	56.2	128				
1,2,4-Trichlorobenzene	730	121	1,209	0	60.4	29.2	140				
Naphthalene	756	96.7	1,209	0	62.5	44.4	136				
4-Chloroaniline	838	604	1,209	0	69.3	27	126				
Hexachlorobutadiene	722	121	1,209	0	59.8	38.2	138				
4-Chloro-3-methylphenol	1,060	604	1,209	0	87.3	36.8	159				
2-Methylnaphthalene	831	96.7	1,209	0	68.8	51.7	138				
1-Methylnaphthalene	846	96.7	1,209	0	70.0	51.8	131				
Hexachlorocyclopentadiene	276	121	1,209	0	22.8	10	133				
2,4,6-Trichlorophenol	912	242	1,209	0	75.4	62.7	122				
2,4,5-Trichlorophenol	990	242	1,209	0	81.9	54.7	127				
2-Chloronaphthalene	856	121	1,209	0	70.8	69.8	126				
2-Nitroaniline	1,010	604	1,209	0	83.5	39.3	145				
Acenaphthene	912	96.7	1,209	0	75.4	49.6	129				
Dimethylphthalate	956	121	1,209	0	79.1	61.5	131				



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-022AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25119		
Client ID:	GP-10-15:13.0	Batch ID:	11937			Analysis Date:	9/24/2015	SeqNo:	473652		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,6-Dinitrotoluene	894	121	1,209	0	74.0	56.8	137				
Acenaphthylene	904	96.7	1,209	0	74.8	64	128				
2,4-Dinitrophenol	733	242	1,209	0	60.7	35.3	144				
Dibenzofuran	861	121	1,209	0	71.2	64.7	131				
2,4-Dinitrotoluene	868	121	1,209	0	71.8	30.9	139				
4-Nitrophenol	2,770	604	1,209	0	230	15.6	160				S
Fluorene	900	96.7	1,209	0	74.5	64.2	127				
4-Chlorophenyl phenyl ether	865	121	1,209	0	71.6	70.9	128				
Diethylphthalate	978	121	1,209	0	80.9	61.7	129				
4,6-Dinitro-2-methylphenol	694	242	1,209	0	57.4	21.9	143				
4-Bromophenyl phenyl ether	855	121	1,209	0	70.7	69.6	136				
Hexachlorobenzene	879	121	1,209	0	72.7	66.5	123				
Pentachlorophenol	935	121	1,209	0	77.4	28.2	156				
Phenanthrene	890	96.7	1,209	0	73.7	57	134				
Anthracene	932	96.7	1,209	0	77.1	68.2	123				
Carbazole	907	604	1,209	0	75.0	64.1	152				
Di-n-butylphthalate	943	121	1,209	0	78.0	52.4	130				
Fluoranthene	916	96.7	1,209	106.1	67.0	46.5	165				
Pyrene	899	96.7	1,209	0	74.4	31.4	151				
Butyl Benzylphthalate	1,030	121	1,209	0	85.2	30.4	138				
bis(2-Ethylhexyl)adipate	1,120	121	1,209	0	92.3	32	136				
Benz (a) anthracene	921	96.7	1,209	0	76.2	43.9	151				
Chrysene	870	96.7	1,209	0	72.0	71.1	126				
bis (2-Ethylhexyl) phthalate	1,030	121	1,209	0	85.1	40.8	170				
Di-n-octyl phthalate	1,270	121	1,209	0	105	34.6	142				
Benzo (b) fluoranthene	948	96.7	1,209	0	78.4	52.1	136				
Benzo (k) fluoranthene	809	96.7	1,209	0	67.0	64.5	135				
Benzo (a) pyrene	867	96.7	1,209	213.4	54.1	50.5	137				
Indeno (1,2,3-cd) pyrene	1,140	96.7	1,209	0	94.5	49.7	143				
Dibenz (a,h) anthracene	944	96.7	1,209	0	78.1	40.7	152				
Benzo (g,h,l) perylene	900	96.7	1,209	0	74.5	34	157				



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-022AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25119		
Client ID:	GP-10-15:13.0	Batch ID:	11937			Analysis Date:	9/24/2015	SeqNo:	473652		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 2,4,6-Tribromophenol	837		1,209		69.2	11.1	127				
Surr: 2-Fluorobiphenyl	247		604.4		40.9	16.1	150				
Surr: Nitrobenzene-d5	121		604.4		20.0	10	133				
Surr: Phenol-d6	693		1,209		57.3	11.6	133				
Surr: p-Terphenyl	499		604.4		82.6	21.8	150				

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Gasoline by NWTPH-Gx**

Sample ID	LCS-11902	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/21/2015	RunNo:	25017		
Client ID:	LCSS	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471276		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	22.6	5.00	25.00	0	90.2	65	135				
Surr: Toluene-d8	1.22		1.250		97.8	65	135				
Surr: 4-Bromofluorobenzene	1.27		1.250		102	65	135				

Sample ID	MB-11902	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/21/2015		RunNo:	25017	
Client ID:	MBLKS	Batch ID:	11902						Analysis Date:	9/22/2015			SeqNo:	471277	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Gasoline	ND	5.00									
Surr: Toluene-d8	1.21		1.250		96.5	65	135				
Surr: 4-Bromofluorobenzene	1.25		1.250		100	65	135				

Sample ID	1509274-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25017		
Client ID:	BATCH	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471274		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	632	136						646.1	2.19	30	D
Surr: Toluene-d8	33.9		33.92		99.9	65	135		0		D
Surr: 4-Bromofluorobenzene	34.2		33.92		101	65	135		0		D

Sample ID	1509270-003BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25017		
Client ID:	GP-2-15:4.5	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471606		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	3.19						0		30	
Surr: Toluene-d8	0.800		0.7974		100	65	135		0		
Surr: 4-Bromofluorobenzene	0.833		0.7974		104	65	135		0		



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Gasoline by NWTPH-Gx**

Sample ID	LCS-11914	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25041		
Client ID:	LCSS	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471905		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	25.6	5.00	25.00	0	102	65	135				
Surr: Toluene-d8	1.26		1.250		101	65	135				
Surr: 4-Bromofluorobenzene	1.24		1.250		99.0	65	135				

Sample ID	MB-11914	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/22/2015		RunNo:	25041	
Client ID:	MBLKS	Batch ID:	11914						Analysis Date:	9/23/2015			SeqNo:	471906	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Gasoline	ND	5.00									
Surr: Toluene-d8	1.22		1.250		97.6	65	135				
Surr: 4-Bromofluorobenzene	1.28		1.250		102	65	135				

Sample ID	1509270-004BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25041		
Client ID:	GP-2-15:14.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471889		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	3.13						0		30	
Surr: Toluene-d8	0.781		0.7821		99.9	65	135		0		
Surr: 4-Bromofluorobenzene	0.786		0.7821		101	65	135		0		

Sample ID	1509270-014BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25041		
Client ID:	GP-7-15:5.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471900		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	3.79						0		30	
Surr: Toluene-d8	0.939		0.9468		99.2	65	135		0		
Surr: 4-Bromofluorobenzene	0.985		0.9468		104	65	135		0		



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CLIENT: Shannon & Wilson
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QC SUMMARY REPORT**Gasoline by NWTPH-Gx**

Sample ID	LCS-11930	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/23/2015	RunNo:	25069		
Client ID:	LCSS	Batch ID:	11930			Analysis Date:	9/23/2015	SeqNo:	472470		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	27.1	5.00	25.00	0	108	65	135				
Surr: Toluene-d8	1.24		1.250		99.1	65	135				
Surr: 4-Bromofluorobenzene	1.24		1.250		99.5	65	135				

Sample ID	MB-11930	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/23/2015		RunNo:	25069	
Client ID:	MBLKS	Batch ID:	11930						Analysis Date:	9/23/2015			SeqNo:	472471	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Gasoline	ND	5.00									
Surr: Toluene-d8	1.23		1.250		98.8	65	135				
Surr: 4-Bromofluorobenzene	1.28		1.250		102	65	135				

Sample ID	1509270-024BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25069		
Client ID:	GP-11-15:14.5	Batch ID:	11930			Analysis Date:	9/23/2015	SeqNo:	472446		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	6.73						0		30	
Surr: Toluene-d8	1.69		1.683		100	65	135		0		
Surr: 4-Bromofluorobenzene	1.70		1.683		101	65	135		0		

Sample ID	1509270-033BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25069		
Client ID:	MW-3-15:6.5	Batch ID:	11930			Analysis Date:	9/24/2015	SeqNo:	472454		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	3.88						0		30	
Surr: Toluene-d8	0.973		0.9689		100	65	135		0		
Surr: 4-Bromofluorobenzene	0.987		0.9689		102	65	135		0		



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QC SUMMARY REPORT**Gasoline by NWTPH-Gx**

Sample ID	LCS-R25021	SampType: LCS			Units: µg/L	Prep Date: 9/22/2015			RunNo: 25021		
Client ID:	LCSW	Batch ID: R25021			Analysis Date: 9/22/2015			SeqNo: 471371			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	575	50.0	500.0	0	115	65	135				
Surr: Toluene-d8	21.4		25.00		85.5	65	135				
Surr: 4-Bromofluorobenzene	23.4		25.00		93.6	65	135				

Sample ID	MB-R25021	SampType: MBLK			Units: µg/L	Prep Date: 9/22/2015			RunNo: 25021		
Client ID:	MBLKW	Batch ID: R25021			Analysis Date: 9/22/2015			SeqNo: 471372			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0									
Surr: Toluene-d8	21.8		25.00		87.4	65	135				
Surr: 4-Bromofluorobenzene	24.2		25.00		96.8	65	135				

Sample ID	1509270-027ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25021		
Client ID:	GP-12-15:GW	Batch ID:	R25021			Analysis Date:	9/22/2015	SeqNo:	471366		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	21.8		25.00		87.2	65	135		0	0	
Surr: 4-Bromofluorobenzene	23.9		25.00		95.5	65	135		0	0	

Sample ID	1509263-006BDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25021		
Client ID:	BATCH	Batch ID:	R25021			Analysis Date:	9/22/2015	SeqNo:	471364		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	21.8		25.00		87.2	65	135		0	0	
Surr: 4-Bromofluorobenzene	23.5		25.00		94.0	65	135		0	0	



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11902	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/21/2015	RunNo:	25015		
Client ID:	LCSS	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471249		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.795	0.0600	1.000	0	79.5	37.2	139				
Chloromethane	0.866	0.0600	1.000	0	86.6	38.8	132				
Vinyl chloride	0.979	0.00200	1.000	0	97.9	56.1	130				
Bromomethane	1.02	0.0900	1.000	0	102	41.3	148				
Trichlorofluoromethane (CFC-11)	0.921	0.0500	1.000	0	92.1	42.9	147				
Chloroethane	0.987	0.0600	1.000	0	98.7	37.1	144				
1,1-Dichloroethene	1.12	0.0500	1.000	0	112	49.7	142				
Methylene chloride	0.960	0.0200	1.000	0	96.0	46.3	140				
trans-1,2-Dichloroethene	1.13	0.0200	1.000	0	113	68	130				
Methyl tert-butyl ether (MTBE)	0.953	0.0500	1.000	0	95.3	59.1	138				
1,1-Dichloroethane	1.13	0.0200	1.000	0	113	61.9	137				
2,2-Dichloropropane	1.04	0.0500	1.000	0	104	28.1	149				
cis-1,2-Dichloroethene	1.11	0.0200	1.000	0	111	71.3	135				
Chloroform	1.06	0.0200	1.000	0	106	67.5	129				
1,1,1-Trichloroethane (TCA)	1.21	0.0200	1.000	0	121	69	132				
1,1-Dichloropropene	1.06	0.0200	1.000	0	106	72.7	131				
Carbon tetrachloride	1.07	0.0200	1.000	0	107	63.4	137				
1,2-Dichloroethane (EDC)	1.04	0.0300	1.000	0	104	61.9	136				
Benzene	1.02	0.0200	1.000	0	102	64.3	133				
Trichloroethene (TCE)	1.12	0.0200	1.000	0	112	65.5	137				
1,2-Dichloropropane	1.10	0.0200	1.000	0	110	63.2	142				
Bromodichloromethane	0.975	0.0200	1.000	0	97.5	73.2	131				
Dibromomethane	1.17	0.0400	1.000	0	117	70	130				
cis-1,3-Dichloropropene	0.960	0.0200	1.000	0	96.0	59.1	143				
Toluene	0.993	0.0200	1.000	0	99.3	67.3	138				
trans-1,3-Dichloropropylene	1.03	0.0300	1.000	0	103	49.2	149				
1,1,2-Trichloroethane	1.13	0.0300	1.000	0	113	74.5	129				
1,3-Dichloropropane	1.09	0.0500	1.000	0	109	70	130				
Tetrachloroethene (PCE)	1.10	0.0200	1.000	0	110	52.7	150				
Dibromochloromethane	1.10	0.0300	1.000	0	110	70.6	144				
1,2-Dibromoethane (EDB)	1.23	0.00500	1.000	0	123	70	130				



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Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11902	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/21/2015	RunNo:	25015		
Client ID:	LCSS	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471249		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	1.07	0.0200	1.000	0	107	76.1	123				
1,1,1,2-Tetrachloroethane	1.07	0.0300	1.000	0	107	74.8	131				
Ethylbenzene	0.991	0.0300	1.000	0	99.1	74	129				
m,p-Xylene	1.96	0.0200	2.000	0	98.2	79.8	128				
o-Xylene	0.962	0.0200	1.000	0	96.2	72.7	124				
Styrene	1.11	0.0200	1.000	0	111	76.8	130				
Isopropylbenzene	1.10	0.0800	1.000	0	110	70	130				
Bromoform	1.11	0.0200	1.000	0	111	67	154				
1,1,2,2-Tetrachloroethane	1.17	0.0200	1.000	0	117	60	130				
n-Propylbenzene	1.09	0.0200	1.000	0	109	74.8	125				
Bromobenzene	1.11	0.0300	1.000	0	111	49.2	144				
1,3,5-Trimethylbenzene	1.07	0.0200	1.000	0	107	74.6	123				
2-Chlorotoluene	1.08	0.0200	1.000	0	108	76.7	129				
4-Chlorotoluene	1.11	0.0200	1.000	0	111	77.5	125				
tert-Butylbenzene	1.11	0.0200	1.000	0	111	66.2	130				
1,2,3-Trichloropropane	1.15	0.0200	1.000	0	115	67.9	136				
1,2,4-Trichlorobenzene	1.13	0.0500	1.000	0	113	65.6	137				
sec-Butylbenzene	1.12	0.0200	1.000	0	112	75.6	133				
4-Isopropyltoluene	1.12	0.0200	1.000	0	112	76.8	131				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	128				
1,4-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.6	126				
n-Butylbenzene	1.08	0.0200	1.000	0	108	65.3	136				
1,2-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	126				
1,2-Dibromo-3-chloropropane	1.16	0.500	1.000	0	116	61.2	139				
1,2,4-Trimethylbenzene	0.971	0.0200	1.000	0	97.1	77.5	129				
Hexachlorobutadiene	1.11	0.100	1.000	0	111	42	151				
Naphthalene	1.10	0.0300	1.000	0	110	62.3	134				
1,2,3-Trichlorobenzene	1.09	0.0200	1.000	0	109	62.1	140				
Surr: Dibromofluoromethane	1.31		1.250		105	56.5	129				
Surr: Toluene-d8	1.26		1.250		101	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.29		1.250		103	63.1	141				



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QC SUMMARY REPORT
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Sample ID	LCS-11902	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/21/2015	RunNo:	25015		
Client ID:	LCSS	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471249		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	MB-11902	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/21/2015		RunNo:	25015	
Client ID:	MBLKS	Batch ID:	11902						Analysis Date:	9/22/2015			SeqNo:	471250	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Dichlorodifluoromethane (CFC-12)	ND	0.0600
Chloromethane	ND	0.0600
Vinyl chloride	ND	0.00200
Bromomethane	ND	0.0900
Trichlorofluoromethane (CFC-11)	ND	0.0500
Chloroethane	ND	0.0600
1,1-Dichloroethene	ND	0.0500
Methylene chloride	ND	0.0200
trans-1,2-Dichloroethene	ND	0.0200
Methyl tert-butyl ether (MTBE)	ND	0.0500
1,1-Dichloroethane	ND	0.0200
2,2-Dichloropropane	ND	0.0500
cis-1,2-Dichloroethene	ND	0.0200
Chloroform	ND	0.0200
1,1,1-Trichloroethane (TCA)	ND	0.0200
1,1-Dichloropropene	ND	0.0200
Carbon tetrachloride	ND	0.0200
1,2-Dichloroethane (EDC)	ND	0.0300
Benzene	ND	0.0200
Trichloroethene (TCE)	ND	0.0200
1,2-Dichloropropane	ND	0.0200
Bromodichloromethane	ND	0.0200
Dibromomethane	ND	0.0400
cis-1,3-Dichloropropene	ND	0.0200
Toluene	ND	0.0200
trans-1,3-Dichloropropylene	ND	0.0300



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11902	SampType:	MBLK	Units:	mg/Kg	Prep Date:	9/21/2015	RunNo:	25015		
Client ID:	MBLKS	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471250		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,2-Trichloroethane	ND	0.0300
1,3-Dichloropropane	ND	0.0500
Tetrachloroethene (PCE)	ND	0.0200
Dibromochloromethane	ND	0.0300
1,2-Dibromoethane (EDB)	ND	0.00500
Chlorobenzene	ND	0.0200
1,1,1,2-Tetrachloroethane	ND	0.0300
Ethylbenzene	ND	0.0300
m,p-Xylene	ND	0.0200
o-Xylene	ND	0.0200
Styrene	ND	0.0200
Isopropylbenzene	ND	0.0800
Bromoform	ND	0.0200
1,1,2,2-Tetrachloroethane	ND	0.0200
n-Propylbenzene	ND	0.0200
Bromobenzene	ND	0.0300
1,3,5-Trimethylbenzene	ND	0.0200
2-Chlorotoluene	ND	0.0200
4-Chlorotoluene	ND	0.0200
tert-Butylbenzene	ND	0.0200
1,2,3-Trichloropropane	ND	0.0200
1,2,4-Trichlorobenzene	ND	0.0500
sec-Butylbenzene	ND	0.0200
4-Isopropyltoluene	ND	0.0200
1,3-Dichlorobenzene	ND	0.0200
1,4-Dichlorobenzene	ND	0.0200
n-Butylbenzene	ND	0.0200
1,2-Dichlorobenzene	ND	0.0200
1,2-Dibromo-3-chloropropane	ND	0.500
1,2,4-Trimethylbenzene	ND	0.0200
Hexachlorobutadiene	ND	0.100



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11902	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/21/2015		RunNo:	25015
Client ID:	MBLKS	Batch ID:	11902					Analysis Date:	9/22/2015		SeqNo:	471250
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Naphthalene	ND	0.0300										
1,2,3-Trichlorobenzene	ND	0.0200										
Surr: Dibromofluoromethane	1.26		1.250		101	56.5	129					
Surr: Toluene-d8	1.23		1.250		98.5	64.3	131					
Surr: 1-Bromo-4-fluorobenzene	1.21		1.250		96.6	63.1	141					

Sample ID	1509258-002BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25015		
Client ID:	BATCH	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471255		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.48	0.0792	1.320	0	112	43.5	121				
Chloromethane	1.30	0.0792	1.320	0.007104	98.0	45	130				
Vinyl chloride	1.50	0.00264	1.320	0	113	51.2	146				
Bromomethane	1.44	0.119	1.320	0	109	21.3	120				
Trichlorofluoromethane (CFC-11)	1.27	0.0660	1.320	0	96.3	35	131				
Chloroethane	1.45	0.0792	1.320	0	110	43.8	117				
1,1-Dichloroethene	1.56	0.0660	1.320	0	118	61.9	141				
Methylene chloride	1.31	0.0264	1.320	0.008133	98.4	54.7	142				
trans-1,2-Dichloroethene	1.55	0.0264	1.320	0	117	52	136				
Methyl tert-butyl ether (MTBE)	1.33	0.0660	1.320	0.03848	97.6	54.4	132				
1,1-Dichloroethane	1.52	0.0264	1.320	0	115	51.8	141				
2,2-Dichloropropane	1.78	0.0660	1.320	0	135	36	123				S
cis-1,2-Dichloroethene	1.49	0.0264	1.320	0	113	58.6	136				
Chloroform	1.42	0.0264	1.320	0.004370	108	53.2	129				
1,1,1-Trichloroethane (TCA)	1.67	0.0264	1.320	0	126	58.3	145				
1,1-Dichloropropene	1.47	0.0264	1.320	0	111	55.1	138				
Carbon tetrachloride	1.46	0.0264	1.320	0	110	53.3	144				
1,2-Dichloroethane (EDC)	1.41	0.0396	1.320	0	107	51.3	139				
Benzene	1.40	0.0264	1.320	0.003327	106	63.5	133				
Trichloroethene (TCE)	1.49	0.0264	1.320	0	113	68.6	132				
1,2-Dichloropropane	1.48	0.0264	1.320	0	112	59	136				



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509258-002BMS	SampType: MS	Units: mg/Kg-dry			Prep Date: 9/21/2015			RunNo: 25015		
Client ID:	BATCH	Batch ID:	11902	Analysis Date: 9/22/2015					SeqNo: 471255		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	1.28	0.0264	1.320	0	97.1	50.7	141				
Dibromomethane	1.59	0.0528	1.320	0	120	50.6	137				
cis-1,3-Dichloropropene	1.33	0.0264	1.320	0	100	50.4	138				
Toluene	1.38	0.0264	1.320	0.01796	103	63.4	132				
trans-1,3-Dichloropropylene	1.37	0.0396	1.320	0	104	44.1	147				
1,1,2-Trichloroethane	1.51	0.0396	1.320	0	114	51.6	137				
1,3-Dichloropropane	1.48	0.0660	1.320	0	112	53.1	134				
Tetrachloroethene (PCE)	1.49	0.0264	1.320	0	113	35.6	158				
Dibromochloromethane	1.41	0.0396	1.320	0	107	55.3	140				
1,2-Dibromoethane (EDB)	1.65	0.00660	1.320	0	125	50.4	136				
Chlorobenzene	1.46	0.0264	1.320	0	110	60	133				
1,1,1,2-Tetrachloroethane	1.41	0.0396	1.320	0	107	53.1	142				
Ethylbenzene	1.37	0.0396	1.320	0.004344	103	54.5	134				
m,p-Xylene	2.70	0.0264	2.641	0.01685	102	53.1	132				
o-Xylene	1.32	0.0264	1.320	0.006938	99.7	53.3	139				
Styrene	1.54	0.0264	1.320	0	117	51.1	132				
Isopropylbenzene	1.53	0.106	1.320	0	116	58.9	138				
Bromoform	1.46	0.0264	1.320	0	111	57.9	130				
1,1,1,2,2-Tetrachloroethane	1.68	0.0264	1.320	0	127	51.9	131				
n-Propylbenzene	1.52	0.0264	1.320	0	115	53.6	140				
Bromobenzene	1.51	0.0396	1.320	0	114	54.2	140				
1,3,5-Trimethylbenzene	1.48	0.0264	1.320	0	112	51.8	136				
2-Chlorotoluene	1.50	0.0264	1.320	0	114	51.6	136				
4-Chlorotoluene	1.53	0.0264	1.320	0	116	50.1	139				
tert-Butylbenzene	1.55	0.0264	1.320	0	118	50.5	135				
1,2,3-Trichloropropane	1.60	0.0264	1.320	0	121	50.5	131				
1,2,4-Trichlorobenzene	1.52	0.0660	1.320	0	115	50.8	130				
sec-Butylbenzene	1.58	0.0264	1.320	0	120	52.6	141				
4-Isopropyltoluene	1.58	0.0264	1.320	0	119	52.9	134				
1,3-Dichlorobenzene	1.40	0.0264	1.320	0	106	52.6	131				
1,4-Dichlorobenzene	1.39	0.0264	1.320	0	106	52.9	129				



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509258-002BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25015		
Client ID:	BATCH	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471255		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Butylbenzene	1.51	0.0264	1.320	0	114	52.6	130				
1,2-Dichlorobenzene	1.40	0.0264	1.320	0	106	55.8	129				
1,2-Dibromo-3-chloropropane	1.51	0.660	1.320	0	114	40.5	131				
1,2,4-Trimethylbenzene	1.35	0.0264	1.320	0.006457	101	50.6	137				
Hexachlorobutadiene	1.58	0.132	1.320	0	119	40.6	158				
Naphthalene	1.43	0.0396	1.320	0	108	52.3	124				
1,2,3-Trichlorobenzene	1.47	0.0264	1.320	0	111	54.4	124				
Surr: Dibromofluoromethane	1.71		1.650		104	56.5	129				
Surr: Toluene-d8	1.65		1.650		99.9	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.69		1.650		102	63.1	141				

Sample ID	1509270-003BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25015		
Client ID:	GP-2-15:4.5	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471585		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0383						0		30	
Chloromethane	ND	0.0383						0		30	
Vinyl chloride	ND	0.00128						0		30	
Bromomethane	ND	0.0574						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0319						0		30	
Chloroethane	ND	0.0383						0		30	
1,1-Dichloroethene	ND	0.0319						0		30	
Methylene chloride	ND	0.0128						0		30	
trans-1,2-Dichloroethene	ND	0.0128						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0319						0		30	
1,1-Dichloroethane	ND	0.0128						0		30	
2,2-Dichloropropane	ND	0.0319						0		30	
cis-1,2-Dichloroethene	ND	0.0128						0		30	
Chloroform	ND	0.0128						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0128						0		30	
1,1-Dichloropropene	ND	0.0128						0		30	



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Sample ID	1509270-003BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25015		
Client ID:	GP-2-15:4.5	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471585		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	ND	0.0128						0		30	
1,2-Dichloroethane (EDC)	ND	0.0191						0		30	
Benzene	ND	0.0128						0		30	
Trichloroethene (TCE)	ND	0.0128						0		30	
1,2-Dichloropropane	ND	0.0128						0		30	
Bromodichloromethane	ND	0.0128						0		30	
Dibromomethane	ND	0.0255						0		30	
cis-1,3-Dichloropropene	ND	0.0128						0		30	
Toluene	ND	0.0128						0		30	
trans-1,3-Dichloropropylene	ND	0.0191						0		30	
1,1,2-Trichloroethane	ND	0.0191						0		30	
1,3-Dichloropropane	ND	0.0319						0		30	
Tetrachloroethene (PCE)	ND	0.0128						0		30	
Dibromochloromethane	ND	0.0191						0		30	
1,2-Dibromoethane (EDB)	ND	0.00319						0		30	
Chlorobenzene	ND	0.0128						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0191						0		30	
Ethylbenzene	ND	0.0191						0		30	
m,p-Xylene	ND	0.0128						0		30	
o-Xylene	ND	0.0128						0		30	
Styrene	ND	0.0128						0		30	
Isopropylbenzene	ND	0.0510						0		30	
Bromoform	ND	0.0128						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0128						0		30	
n-Propylbenzene	ND	0.0128						0		30	
Bromobenzene	ND	0.0191						0		30	
1,3,5-Trimethylbenzene	ND	0.0128						0		30	
2-Chlorotoluene	ND	0.0128						0		30	
4-Chlorotoluene	ND	0.0128						0		30	
tert-Butylbenzene	ND	0.0128						0		30	
1,2,3-Trichloropropane	ND	0.0128						0		30	



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Sample ID	1509270-003BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25015		
Client ID:	GP-2-15:4.5	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471585		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	0.0319						0		30	
sec-Butylbenzene	ND	0.0128						0		30	
4-Isopropyltoluene	ND	0.0128						0		30	
1,3-Dichlorobenzene	ND	0.0128						0		30	
1,4-Dichlorobenzene	ND	0.0128						0		30	
n-Butylbenzene	ND	0.0128						0		30	
1,2-Dichlorobenzene	ND	0.0128						0		30	
1,2-Dibromo-3-chloropropane	ND	0.319						0		30	
1,2,4-Trimethylbenzene	ND	0.0128						0		30	
Hexachlorobutadiene	ND	0.0638						0		30	
Naphthalene	ND	0.0191						0		30	
1,2,3-Trichlorobenzene	ND	0.0128						0		30	
Surr: Dibromofluoromethane	0.747		0.7974		93.7	56.5	129		0		
Surr: Toluene-d8	0.792		0.7974		99.3	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.801		0.7974		100	63.1	141		0		

Sample ID	LCS-11914	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	LCSS	Batch ID:	11914			Analysis Date:	9/22/2015	SeqNo:	471734		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.783	0.0600	1.000	0	78.3	37.2	139				
Chloromethane	0.815	0.0600	1.000	0	81.5	38.8	132				
Vinyl chloride	0.954	0.00200	1.000	0	95.4	56.1	130				
Bromomethane	1.07	0.0900	1.000	0	107	41.3	148				
Trichlorofluoromethane (CFC-11)	1.06	0.0500	1.000	0	106	42.9	147				
Chloroethane	1.07	0.0600	1.000	0	107	37.1	144				
1,1-Dichloroethene	1.10	0.0500	1.000	0	110	49.7	142				
Methylene chloride	0.945	0.0200	1.000	0	94.5	46.3	140				
trans-1,2-Dichloroethene	1.10	0.0200	1.000	0	110	68	130				
Methyl tert-butyl ether (MTBE)	0.940	0.0500	1.000	0	94.0	59.1	138				
1,1-Dichloroethane	1.09	0.0200	1.000	0	109	61.9	137				



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Sample ID	LCS-11914	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	LCSS	Batch ID:	11914			Analysis Date:	9/22/2015	SeqNo:	471734		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,2-Dichloropropane	1.19	0.0500	1.000	0	119	28.1	149				
cis-1,2-Dichloroethene	1.08	0.0200	1.000	0	108	71.3	135				
Chloroform	1.03	0.0200	1.000	0	103	67.5	129				
1,1,1-Trichloroethane (TCA)	1.19	0.0200	1.000	0	119	69	132				
1,1-Dichloropropene	1.05	0.0200	1.000	0	105	72.7	131				
Carbon tetrachloride	1.03	0.0200	1.000	0	103	63.4	137				
1,2-Dichloroethane (EDC)	1.00	0.0300	1.000	0	100	61.9	136				
Benzene	1.06	0.0200	1.000	0	106	64.3	133				
Trichloroethene (TCE)	1.07	0.0200	1.000	0	107	65.5	137				
1,2-Dichloropropane	1.07	0.0200	1.000	0	107	63.2	142				
Bromodichloromethane	0.923	0.0200	1.000	0	92.3	73.2	131				
Dibromomethane	1.15	0.0400	1.000	0	115	70	130				
cis-1,3-Dichloropropene	0.935	0.0200	1.000	0	93.5	59.1	143				
Toluene	1.05	0.0200	1.000	0	105	67.3	138				
trans-1,3-Dichloropropylene	0.982	0.0300	1.000	0	98.2	49.2	149				
1,1,2-Trichloroethane	1.10	0.0300	1.000	0	110	74.5	129				
1,3-Dichloropropane	1.06	0.0500	1.000	0	106	70	130				
Tetrachloroethene (PCE)	1.09	0.0200	1.000	0	109	52.7	150				
Dibromochloromethane	1.03	0.0300	1.000	0	103	70.6	144				
1,2-Dibromoethane (EDB)	1.19	0.00500	1.000	0	119	70	130				
Chlorobenzene	1.05	0.0200	1.000	0	105	76.1	123				
1,1,1,2-Tetrachloroethane	1.04	0.0300	1.000	0	104	74.8	131				
Ethylbenzene	1.05	0.0300	1.000	0	105	74	129				
m,p-Xylene	2.08	0.0200	2.000	0	104	79.8	128				
o-Xylene	1.02	0.0200	1.000	0	102	72.7	124				
Styrene	1.12	0.0200	1.000	0	112	76.8	130				
Isopropylbenzene	1.10	0.0800	1.000	0	110	70	130				
Bromoform	1.06	0.0200	1.000	0	106	67	154				
1,1,1,2,2-Tetrachloroethane	1.20	0.0200	1.000	0	120	60	130				
n-Propylbenzene	1.10	0.0200	1.000	0	110	74.8	125				
Bromobenzene	1.11	0.0300	1.000	0	111	49.2	144				



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Sample ID	LCS-11914	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	LCSS	Batch ID:	11914			Analysis Date:	9/22/2015	SeqNo:	471734		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	1.07	0.0200	1.000	0	107	74.6	123				
2-Chlorotoluene	1.08	0.0200	1.000	0	108	76.7	129				
4-Chlorotoluene	1.10	0.0200	1.000	0	110	77.5	125				
tert-Butylbenzene	1.12	0.0200	1.000	0	112	66.2	130				
1,2,3-Trichloropropane	1.13	0.0200	1.000	0	113	67.9	136				
1,2,4-Trichlorobenzene	1.09	0.0500	1.000	0	109	65.6	137				
sec-Butylbenzene	1.14	0.0200	1.000	0	114	75.6	133				
4-Isopropyltoluene	1.14	0.0200	1.000	0	114	76.8	131				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	128				
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	72.6	126				
n-Butylbenzene	1.09	0.0200	1.000	0	109	65.3	136				
1,2-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	126				
1,2-Dibromo-3-chloropropane	1.08	0.500	1.000	0	108	61.2	139				
1,2,4-Trimethylbenzene	0.970	0.0200	1.000	0	97.0	77.5	129				
Hexachlorobutadiene	1.14	0.100	1.000	0	114	42	151				
Naphthalene	1.04	0.0300	1.000	0	104	62.3	134				
1,2,3-Trichlorobenzene	1.06	0.0200	1.000	0	106	62.1	140				
Surr: Dibromofluoromethane	1.30		1.250		104	56.5	129				
Surr: Toluene-d8	1.25		1.250		99.9	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.250		102	63.1	141				

Sample ID	MB-11914	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/22/2015		RunNo:	25038	
Client ID:	MBLKS	Batch ID:	11914					Analysis Date:	9/23/2015		SeqNo:	471735	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)		ND	0.0600										
Chloromethane		ND	0.0600										
Vinyl chloride		ND	0.00200										
Bromomethane		ND	0.0900										
Trichlorofluoromethane (CFC-11)		ND	0.0500										
Chloroethane		ND	0.0600										



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Sample ID	MB-11914	SampType:	MBLK	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	MBLKS	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471735		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	ND	0.0500									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
Methyl tert-butyl ether (MTBE)	ND	0.0500									
1,1-Dichloroethane	ND	0.0200									
2,2-Dichloropropane	ND	0.0500									
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0200									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0200									
1,2-Dichloroethane (EDC)	ND	0.0300									
Benzene	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0400									
cis-1,3-Dichloropropene	ND	0.0200									
Toluene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0300									
1,1,2-Trichloroethane	ND	0.0300									
1,3-Dichloropropane	ND	0.0500									
Tetrachloroethene (PCE)	ND	0.0200									
Dibromochloromethane	ND	0.0300									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0200									
1,1,1,2-Tetrachloroethane	ND	0.0300									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Styrene	ND	0.0200									



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Sample ID	MB-11914	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/22/2015		RunNo:	25038	
Client ID:	MBLKS	Batch ID:	11914					Analysis Date:	9/23/2015		SeqNo:	471735	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Isopropylbenzene		ND	0.0800										
Bromoform		ND	0.0200										
1,1,2,2-Tetrachloroethane		ND	0.0200										
n-Propylbenzene		ND	0.0200										
Bromobenzene		ND	0.0300										
1,3,5-Trimethylbenzene		ND	0.0200										
2-Chlorotoluene		ND	0.0200										
4-Chlorotoluene		ND	0.0200										
tert-Butylbenzene		ND	0.0200										
1,2,3-Trichloropropane		ND	0.0200										
1,2,4-Trichlorobenzene		ND	0.0500										
sec-Butylbenzene		ND	0.0200										
4-Isopropyltoluene		ND	0.0200										
1,3-Dichlorobenzene		ND	0.0200										
1,4-Dichlorobenzene		ND	0.0200										
n-Butylbenzene		ND	0.0200										
1,2-Dichlorobenzene		ND	0.0200										
1,2-Dibromo-3-chloropropane		ND	0.500										
1,2,4-Trimethylbenzene		ND	0.0200										
Hexachlorobutadiene		ND	0.100										
Naphthalene		ND	0.0300										
1,2,3-Trichlorobenzene		ND	0.0200										
Surr: Dibromofluoromethane		1.19		1.250		95.3	56.5	129					
Surr: Toluene-d8		1.24		1.250		99.0	64.3	131					
Surr: 1-Bromo-4-fluorobenzene		1.23		1.250		98.7	63.1	141					

Sample ID	1509270-004BDUP	SampType:	DUP	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	GP-2-15:14.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471716		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.031						0		30	



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Sample ID	1509270-004BDUP	SampType:	DUP	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	GP-2-15:14.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471716		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	ND	0.031						0		30	
Vinyl chloride	ND	0.0010						0		30	
Bromomethane	ND	0.047						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.026						0		30	
Chloroethane	ND	0.031						0		30	
1,1-Dichloroethene	ND	0.026						0		30	
Methylene chloride	ND	0.010						0		30	
trans-1,2-Dichloroethene	ND	0.010						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.026						0		30	
1,1-Dichloroethane	ND	0.010						0		30	
2,2-Dichloropropane	ND	0.026						0		30	
cis-1,2-Dichloroethene	ND	0.010						0		30	
Chloroform	ND	0.010						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.010						0		30	
1,1-Dichloropropene	ND	0.010						0		30	
Carbon tetrachloride	ND	0.010						0		30	
1,2-Dichloroethane (EDC)	ND	0.016						0		30	
Benzene	ND	0.010						0		30	
Trichloroethene (TCE)	ND	0.010						0		30	
1,2-Dichloropropane	ND	0.010						0		30	
Bromodichloromethane	ND	0.010						0		30	
Dibromomethane	ND	0.021						0		30	
cis-1,3-Dichloropropene	ND	0.010						0		30	
Toluene	ND	0.010						0		30	
trans-1,3-Dichloropropylene	ND	0.016						0		30	
1,1,2-Trichloroethane	ND	0.016						0		30	
1,3-Dichloropropane	ND	0.026						0		30	
Tetrachloroethene (PCE)	ND	0.010						0		30	
Dibromochloromethane	ND	0.016						0		30	
1,2-Dibromoethane (EDB)	ND	0.0026						0		30	
Chlorobenzene	ND	0.010						0		30	



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Sample ID	1509270-004BDUP	SampType:	DUP	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	GP-2-15:14.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471716		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.016						0		30	
Ethylbenzene	ND	0.016						0		30	
m,p-Xylene	ND	0.010						0		30	
o-Xylene	ND	0.010						0		30	
Styrene	ND	0.010						0		30	
Isopropylbenzene	ND	0.041						0		30	
Bromoform	ND	0.010						0		30	
1,1,2,2-Tetrachloroethane	ND	0.010						0		30	
n-Propylbenzene	ND	0.010						0		30	
Bromobenzene	ND	0.016						0		30	
1,3,5-Trimethylbenzene	ND	0.010						0		30	
2-Chlorotoluene	ND	0.010						0		30	
4-Chlorotoluene	ND	0.010						0		30	
tert-Butylbenzene	ND	0.010						0		30	
1,2,3-Trichloropropane	ND	0.010						0		30	
1,2,4-Trichlorobenzene	ND	0.026						0		30	
sec-Butylbenzene	ND	0.010						0		30	
4-Isopropyltoluene	ND	0.010						0		30	
1,3-Dichlorobenzene	ND	0.010						0		30	
1,4-Dichlorobenzene	ND	0.010						0		30	
n-Butylbenzene	ND	0.010						0		30	
1,2-Dichlorobenzene	ND	0.010						0		30	
1,2-Dibromo-3-chloropropane	ND	0.26						0		30	
1,2,4-Trimethylbenzene	ND	0.010						0		30	
Hexachlorobutadiene	ND	0.052						0		30	
Naphthalene	ND	0.016						0		30	
1,2,3-Trichlorobenzene	ND	0.010						0		30	
Surr: Dibromofluoromethane	0.62		0.6479		95.5	56.5	129		0		
Surr: Toluene-d8	0.63		0.6479		96.9	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.63		0.6479		96.9	63.1	141		0		



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-013BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	GP-6-15:14.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471726		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.571	0.0402	0.6705	0	85.2	43.5	121				
Chloromethane	0.547	0.0402	0.6705	0.006403	80.6	45	130				
Vinyl chloride	0.662	0.00134	0.6705	0	98.7	51.2	146				
Bromomethane	0.785	0.0603	0.6705	0	117	21.3	120				
Trichlorofluoromethane (CFC-11)	2.19	0.0335	0.6705	0	327	35	131				S
Chloroethane	0.728	0.0402	0.6705	0	109	43.8	117				
1,1-Dichloroethene	0.831	0.0335	0.6705	0	124	61.9	141				
Methylene chloride	0.619	0.0134	0.6705	0	92.4	54.7	142				
trans-1,2-Dichloroethene	0.808	0.0134	0.6705	0	121	52	136				
Methyl tert-butyl ether (MTBE)	0.574	0.0335	0.6705	0	85.6	54.4	132				
1,1-Dichloroethane	0.783	0.0134	0.6705	0	117	51.8	141				
2,2-Dichloropropane	0.629	0.0335	0.6705	0	93.8	36	123				
cis-1,2-Dichloroethene	0.764	0.0134	0.6705	0	114	58.6	136				
Chloroform	0.738	0.0134	0.6705	0.003044	110	53.2	129				
1,1,1-Trichloroethane (TCA)	0.884	0.0134	0.6705	0	132	58.3	145				
1,1-Dichloropropene	0.768	0.0134	0.6705	0	114	55.1	138				
Carbon tetrachloride	0.776	0.0134	0.6705	0	116	53.3	144				
1,2-Dichloroethane (EDC)	0.671	0.0201	0.6705	0	100	51.3	139				
Benzene	0.716	0.0134	0.6705	0	107	63.5	133				
Trichloroethene (TCE)	0.794	0.0134	0.6705	0	118	68.6	132				
1,2-Dichloropropane	0.737	0.0134	0.6705	0	110	59	136				
Bromodichloromethane	0.650	0.0134	0.6705	0	96.9	50.7	141				
Dibromomethane	0.754	0.0268	0.6705	0	113	50.6	137				
cis-1,3-Dichloropropene	0.600	0.0134	0.6705	0	89.5	50.4	138				
Toluene	0.676	0.0134	0.6705	0	101	63.4	132				
trans-1,3-Dichloropropylene	0.668	0.0201	0.6705	0	99.7	44.1	147				
1,1,2-Trichloroethane	0.726	0.0201	0.6705	0	108	51.6	137				
1,3-Dichloropropane	0.695	0.0335	0.6705	0	104	53.1	134				
Tetrachloroethene (PCE)	0.785	0.0134	0.6705	0	117	35.6	158				
Dibromochloromethane	0.711	0.0201	0.6705	0	106	55.3	140				
1,2-Dibromoethane (EDB)	0.765	0.00335	0.6705	0	114	50.4	136				



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Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-013BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	GP-6-15:14.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471726		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chlorobenzene	0.737	0.0134	0.6705	0	110	60	133				
1,1,1,2-Tetrachloroethane	0.744	0.0201	0.6705	0	111	53.1	142				
Ethylbenzene	0.701	0.0201	0.6705	0	104	54.5	134				
m,p-Xylene	1.36	0.0134	1.341	0	101	53.1	132				
o-Xylene	0.660	0.0134	0.6705	0	98.4	53.3	139				
Styrene	0.731	0.0134	0.6705	0	109	51.1	132				
Isopropylbenzene	0.775	0.0536	0.6705	0	116	58.9	138				
Bromoform	0.694	0.0134	0.6705	0	103	57.9	130				
1,1,2,2-Tetrachloroethane	0.706	0.0134	0.6705	0	105	51.9	131				
n-Propylbenzene	0.762	0.0134	0.6705	0	114	53.6	140				
Bromobenzene	0.731	0.0201	0.6705	0	109	54.2	140				
1,3,5-Trimethylbenzene	0.730	0.0134	0.6705	0	109	51.8	136				
2-Chlorotoluene	0.740	0.0134	0.6705	0	110	51.6	136				
4-Chlorotoluene	0.746	0.0134	0.6705	0	111	50.1	139				
tert-Butylbenzene	0.773	0.0134	0.6705	0	115	50.5	135				
1,2,3-Trichloropropane	0.678	0.0134	0.6705	0	101	50.5	131				
1,2,4-Trichlorobenzene	0.711	0.0335	0.6705	0	106	50.8	130				
sec-Butylbenzene	0.785	0.0134	0.6705	0	117	52.6	141				
4-Isopropyltoluene	0.773	0.0134	0.6705	0	115	52.9	134				
1,3-Dichlorobenzene	0.720	0.0134	0.6705	0	107	52.6	131				
1,4-Dichlorobenzene	0.711	0.0134	0.6705	0	106	52.9	129				
n-Butylbenzene	0.767	0.0134	0.6705	0	114	52.6	130				
1,2-Dichlorobenzene	0.696	0.0134	0.6705	0	104	55.8	129				
1,2-Dibromo-3-chloropropane	0.640	0.335	0.6705	0	95.4	40.5	131				
1,2,4-Trimethylbenzene	0.653	0.0134	0.6705	0	97.4	50.6	137				
Hexachlorobutadiene	0.788	0.0671	0.6705	0	118	40.6	158				
Naphthalene	0.597	0.0201	0.6705	0	89.0	52.3	124				
1,2,3-Trichlorobenzene	0.675	0.0134	0.6705	0	101	54.4	124				
Surr: Dibromofluoromethane	0.876		0.8381		105	56.5	129				
Surr: Toluene-d8	0.822		0.8381		98.0	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	0.826		0.8381		98.6	63.1	141				



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-013BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	GP-6-15:14.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471726		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:

S - Outlying QC recoveries were observed. The method is in control as indicated by the LCS.

Sample ID	1509270-014BDUP	SampType: DUP		Units: mg/Kg		Prep Date: 9/22/2015			RunNo: 25038		
Client ID:	GP-7-15:5.0	Batch ID: 11914		Analysis Date: 9/23/2015						SeqNo: 471728	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.044						0		30	
Chloromethane	ND	0.044						0		30	
Vinyl chloride	ND	0.0015						0		30	
Bromomethane	ND	0.065						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.036						0		30	
Chloroethane	ND	0.044						0		30	
1,1-Dichloroethene	ND	0.036						0		30	
Methylene chloride	ND	0.015						0		30	
trans-1,2-Dichloroethene	ND	0.015						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.036						0		30	
1,1-Dichloroethane	ND	0.015						0		30	
2,2-Dichloropropane	ND	0.036						0		30	
cis-1,2-Dichloroethene	ND	0.015						0		30	
Chloroform	ND	0.015						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.015						0		30	
1,1-Dichloropropene	ND	0.015						0		30	
Carbon tetrachloride	ND	0.015						0		30	
1,2-Dichloroethane (EDC)	ND	0.022						0		30	
Benzene	ND	0.015						0		30	
Trichloroethene (TCE)	ND	0.015						0		30	
1,2-Dichloropropane	ND	0.015						0		30	
Bromodichloromethane	ND	0.015						0		30	
Dibromomethane	ND	0.029						0		30	
cis-1,3-Dichloropropene	ND	0.015						0		30	
Toluene	ND	0.015						0		30	



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-014BDUP	SampType:	DUP		Units:	mg/Kg		Prep Date:	9/22/2015		RunNo:	25038
Client ID:	GP-7-15:5.0	Batch ID:	11914					Analysis Date:	9/23/2015		SeqNo:	471728
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
trans-1,3-Dichloropropylene	ND	0.022						0		30		
1,1,2-Trichloroethane	ND	0.022						0		30		
1,3-Dichloropropane	ND	0.036						0		30		
Tetrachloroethene (PCE)	0.022	0.015						0.02203	1.90	30		
Dibromochloromethane	ND	0.022						0		30		
1,2-Dibromoethane (EDB)	ND	0.0036						0		30		
Chlorobenzene	ND	0.015						0		30		
1,1,1,2-Tetrachloroethane	ND	0.022						0		30		
Ethylbenzene	ND	0.022						0		30		
m,p-Xylene	ND	0.015						0		30		
o-Xylene	ND	0.015						0		30		
Styrene	ND	0.015						0		30		
Isopropylbenzene	ND	0.058						0		30		
Bromoform	ND	0.015						0		30		
1,1,2,2-Tetrachloroethane	ND	0.015						0		30		
n-Propylbenzene	ND	0.015						0		30		
Bromobenzene	ND	0.022						0		30		
1,3,5-Trimethylbenzene	ND	0.015						0		30		
2-Chlorotoluene	ND	0.015						0		30		
4-Chlorotoluene	ND	0.015						0		30		
tert-Butylbenzene	ND	0.015						0		30		
1,2,3-Trichloropropane	ND	0.015						0		30		
1,2,4-Trichlorobenzene	ND	0.036						0		30		
sec-Butylbenzene	ND	0.015						0		30		
4-Isopropyltoluene	ND	0.015						0		30		
1,3-Dichlorobenzene	ND	0.015						0		30		
1,4-Dichlorobenzene	ND	0.015						0		30		
n-Butylbenzene	ND	0.015						0		30		
1,2-Dichlorobenzene	ND	0.015						0		30		
1,2-Dibromo-3-chloropropane	ND	0.36						0		30		
1,2,4-Trimethylbenzene	ND	0.015						0		30		



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-014BDUP	SampType:	DUP	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	GP-7-15:5.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471728		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.073						0		30	
Naphthalene	ND	0.022						0		30	
1,2,3-Trichlorobenzene	ND	0.015						0		30	
Surr: Dibromofluoromethane	0.84		0.9083		92.5	56.5	129		0		
Surr: Toluene-d8	0.90		0.9083		98.8	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.91		0.9083		100	63.1	141		0		

Sample ID	LCS-11930	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	LCSS	Batch ID:	11930			Analysis Date:	9/23/2015	SeqNo:	472414		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.49	0.0600	1.000	0	149	37.2	139				S
Chloromethane	1.06	0.0600	1.000	0	106	38.8	132				
Vinyl chloride	1.15	0.00200	1.000	0	115	56.1	130				
Bromomethane	1.14	0.0900	1.000	0	114	41.3	148				
Trichlorofluoromethane (CFC-11)	1.18	0.0500	1.000	0	118	42.9	147				
Chloroethane	1.22	0.0600	1.000	0	122	37.1	144				
1,1-Dichloroethene	1.13	0.0500	1.000	0	113	49.7	142				
Methylene chloride	0.938	0.0200	1.000	0	93.8	46.3	140				
trans-1,2-Dichloroethene	1.10	0.0200	1.000	0	110	68	130				
Methyl tert-butyl ether (MTBE)	0.922	0.0500	1.000	0	92.2	59.1	138				
1,1-Dichloroethane	1.07	0.0200	1.000	0	107	61.9	137				
2,2-Dichloropropane	1.49	0.0500	1.000	0	149	28.1	149				
cis-1,2-Dichloroethene	1.06	0.0200	1.000	0	106	71.3	135				
Chloroform	1.01	0.0200	1.000	0	101	67.5	129				
1,1,1-Trichloroethane (TCA)	1.17	0.0200	1.000	0	117	69	132				
1,1-Dichloropropene	1.04	0.0200	1.000	0	104	72.7	131				
Carbon tetrachloride	1.05	0.0200	1.000	0	105	63.4	137				
1,2-Dichloroethane (EDC)	0.981	0.0300	1.000	0	98.1	61.9	136				
Benzene	0.993	0.0200	1.000	0	99.3	64.3	133				
Trichloroethene (TCE)	1.06	0.0200	1.000	0	106	65.5	137				



Date: 10/3/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11930	SampType: LCS		Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25067		
Client ID:	LCSS	Batch ID: 11930					Analysis Date: 9/23/2015			SeqNo: 472414	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	1.05	0.0200	1.000	0	105	63.2	142				
Bromodichloromethane	0.925	0.0200	1.000	0	92.5	73.2	131				
Dibromomethane	1.13	0.0400	1.000	0	113	70	130				
cis-1,3-Dichloropropene	0.961	0.0200	1.000	0	96.1	59.1	143				
Toluene	0.960	0.0200	1.000	0	96.0	67.3	138				
trans-1,3-Dichloropropylene	1.00	0.0300	1.000	0	100	49.2	149				
1,1,2-Trichloroethane	1.07	0.0300	1.000	0	107	74.5	129				
1,3-Dichloropropane	1.03	0.0500	1.000	0	103	70	130				
Tetrachloroethene (PCE)	1.07	0.0200	1.000	0	107	52.7	150				
Dibromochloromethane	1.04	0.0300	1.000	0	104	70.6	144				
1,2-Dibromoethane (EDB)	1.15	0.00500	1.000	0	115	70	130				
Chlorobenzene	1.05	0.0200	1.000	0	105	76.1	123				
1,1,1,2-Tetrachloroethane	1.04	0.0300	1.000	0	104	74.8	131				
Ethylbenzene	0.973	0.0300	1.000	0	97.3	74	129				
m,p-Xylene	1.94	0.0200	2.000	0	97.1	79.8	128				
o-Xylene	0.940	0.0200	1.000	0	94.0	72.7	124				
Styrene	1.12	0.0200	1.000	0	112	76.8	130				
Isopropylbenzene	1.09	0.0800	1.000	0	109	70	130				
Bromoform	1.06	0.0200	1.000	0	106	67	154				
1,1,1,2,2-Tetrachloroethane	1.14	0.0200	1.000	0	114	60	130				
n-Propylbenzene	1.09	0.0200	1.000	0	109	74.8	125				
Bromobenzene	1.08	0.0300	1.000	0	108	49.2	144				
1,3,5-Trimethylbenzene	1.05	0.0200	1.000	0	105	74.6	123				
2-Chlorotoluene	1.07	0.0200	1.000	0	107	76.7	129				
4-Chlorotoluene	1.09	0.0200	1.000	0	109	77.5	125				
tert-Butylbenzene	1.10	0.0200	1.000	0	110	66.2	130				
1,2,3-Trichloropropane	1.10	0.0200	1.000	0	110	67.9	136				
1,2,4-Trichlorobenzene	1.07	0.0500	1.000	0	107	65.6	137				
sec-Butylbenzene	1.11	0.0200	1.000	0	111	75.6	133				
4-Isopropyltoluene	1.11	0.0200	1.000	0	111	76.8	131				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	128				



Date: 10/3/2015

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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11930	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	LCSS	Batch ID:	11930			Analysis Date:	9/23/2015	SeqNo:	472414		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	72.6	126				
n-Butylbenzene	1.08	0.0200	1.000	0	108	65.3	136				
1,2-Dichlorobenzene	1.01	0.0200	1.000	0	101	72.8	126				
1,2-Dibromo-3-chloropropane	1.03	0.500	1.000	0	103	61.2	139				
1,2,4-Trimethylbenzene	0.957	0.0200	1.000	0	95.7	77.5	129				
Hexachlorobutadiene	1.11	0.100	1.000	0	111	42	151				
Naphthalene	0.915	0.0300	1.000	0	91.5	62.3	134				
1,2,3-Trichlorobenzene	1.01	0.0200	1.000	0	101	62.1	140				
Surr: Dibromofluoromethane	1.28		1.250		102	56.5	129				
Surr: Toluene-d8	1.24		1.250		99.4	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		100	63.1	141				

NOTES:

S - Outlying QC recoveries were observed (High bias). There were no detections of this analyte in the following samples. No further action is required.

Sample ID	MB-11930	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/23/2015		RunNo:	25067	
Client ID:	MBLKS	Batch ID:	11930					Analysis Date:	9/23/2015		SeqNo:	472415	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)		ND	0.0600										
Chloromethane		ND	0.0600										
Vinyl chloride		ND	0.00200										
Bromomethane		ND	0.0900										
Trichlorofluoromethane (CFC-11)		ND	0.0500										
Chloroethane		ND	0.0600										
1,1-Dichloroethene		ND	0.0500										
Methylene chloride		ND	0.0200										
trans-1,2-Dichloroethene		ND	0.0200										
Methyl tert-butyl ether (MTBE)		ND	0.0500										
1,1-Dichloroethane		ND	0.0200										
2,2-Dichloropropane		ND	0.0500										
cis-1,2-Dichloroethene		ND	0.0200										
Chloroform		ND	0.0200										



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11930	SampType:	MBLK	Units:	mg/Kg	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	MBLKS	Batch ID:	11930			Analysis Date:	9/23/2015	SeqNo:	472415		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1-Trichloroethane (TCA)	ND	0.0200
1,1-Dichloropropene	ND	0.0200
Carbon tetrachloride	ND	0.0200
1,2-Dichloroethane (EDC)	ND	0.0300
Benzene	ND	0.0200
Trichloroethene (TCE)	ND	0.0200
1,2-Dichloropropane	ND	0.0200
Bromodichloromethane	ND	0.0200
Dibromomethane	ND	0.0400
cis-1,3-Dichloropropene	ND	0.0200
Toluene	ND	0.0200
trans-1,3-Dichloropropylene	ND	0.0300
1,1,2-Trichloroethane	ND	0.0300
1,3-Dichloropropane	ND	0.0500
Tetrachloroethene (PCE)	ND	0.0200
Dibromochloromethane	ND	0.0300
1,2-Dibromoethane (EDB)	ND	0.00500
Chlorobenzene	ND	0.0200
1,1,1,2-Tetrachloroethane	ND	0.0300
Ethylbenzene	ND	0.0300
m,p-Xylene	ND	0.0200
o-Xylene	ND	0.0200
Styrene	ND	0.0200
Isopropylbenzene	ND	0.0800
Bromoform	ND	0.0200
1,1,1,2,2-Tetrachloroethane	ND	0.0200
n-Propylbenzene	ND	0.0200
Bromobenzene	ND	0.0300
1,3,5-Trimethylbenzene	ND	0.0200
2-Chlorotoluene	ND	0.0200
4-Chlorotoluene	ND	0.0200



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11930	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/23/2015		RunNo:	25067	
Client ID:	MBLKS	Batch ID:	11930					Analysis Date:	9/23/2015		SeqNo:	472415	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
tert-Butylbenzene	ND	0.0200											
1,2,3-Trichloropropane	ND	0.0200											
1,2,4-Trichlorobenzene	ND	0.0500											
sec-Butylbenzene	ND	0.0200											
4-Isopropyltoluene	ND	0.0200											
1,3-Dichlorobenzene	ND	0.0200											
1,4-Dichlorobenzene	ND	0.0200											
n-Butylbenzene	ND	0.0200											
1,2-Dichlorobenzene	ND	0.0200											
1,2-Dibromo-3-chloropropane	ND	0.500											
1,2,4-Trimethylbenzene	ND	0.0200											
Hexachlorobutadiene	ND	0.100											
Naphthalene	ND	0.0300											
1,2,3-Trichlorobenzene	ND	0.0200											
Surr: Dibromofluoromethane	1.17		1.250		93.3	56.5	129						
Surr: Toluene-d8	1.24		1.250		98.9	64.3	131						
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.4	63.1	141						

Sample ID	1509270-024BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	GP-11-15:14.5	Batch ID:	11930			Analysis Date:	9/23/2015	SeqNo:	472416		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0808						0		30	
Chloromethane	ND	0.0808						0		30	
Vinyl chloride	ND	0.00269						0		30	
Bromomethane	ND	0.121						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0673						0		30	
Chloroethane	ND	0.0808						0		30	
1,1-Dichloroethene	ND	0.0673						0		30	
Methylene chloride	ND	0.0269						0		30	
trans-1,2-Dichloroethene	ND	0.0269						0		30	



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-024BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	GP-11-15:14.5	Batch ID:	11930			Analysis Date:	9/23/2015	SeqNo:	472416		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0673						0		30	
1,1-Dichloroethane	ND	0.0269						0		30	
2,2-Dichloropropane	ND	0.0673						0		30	
cis-1,2-Dichloroethene	ND	0.0269						0		30	
Chloroform	ND	0.0269						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0269						0		30	
1,1-Dichloropropene	ND	0.0269						0		30	
Carbon tetrachloride	ND	0.0269						0		30	
1,2-Dichloroethane (EDC)	ND	0.0404						0		30	
Benzene	ND	0.0269						0		30	
Trichloroethene (TCE)	ND	0.0269						0		30	
1,2-Dichloropropane	ND	0.0269						0		30	
Bromodichloromethane	ND	0.0269						0		30	
Dibromomethane	ND	0.0539						0		30	
cis-1,3-Dichloropropene	ND	0.0269						0		30	
Toluene	ND	0.0269						0		30	
trans-1,3-Dichloropropylene	ND	0.0404						0		30	
1,1,2-Trichloroethane	ND	0.0404						0		30	
1,3-Dichloropropane	ND	0.0673						0		30	
Tetrachloroethene (PCE)	ND	0.0269						0		30	
Dibromochloromethane	ND	0.0404						0		30	
1,2-Dibromoethane (EDB)	ND	0.00673						0		30	
Chlorobenzene	ND	0.0269						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0404						0		30	
Ethylbenzene	ND	0.0404						0		30	
m,p-Xylene	ND	0.0269						0		30	
o-Xylene	ND	0.0269						0		30	
Styrene	ND	0.0269						0		30	
Isopropylbenzene	ND	0.108						0		30	
Bromoform	ND	0.0269						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0269						0		30	



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Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-024BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	GP-11-15:14.5	Batch ID:	11930			Analysis Date:	9/23/2015	SeqNo:	472416		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Propylbenzene	ND	0.0269						0		30	
Bromobenzene	ND	0.0404						0		30	
1,3,5-Trimethylbenzene	ND	0.0269						0		30	
2-Chlorotoluene	ND	0.0269						0		30	
4-Chlorotoluene	ND	0.0269						0		30	
tert-Butylbenzene	ND	0.0269						0		30	
1,2,3-Trichloropropane	ND	0.0269						0		30	
1,2,4-Trichlorobenzene	ND	0.0673						0		30	
sec-Butylbenzene	ND	0.0269						0		30	
4-Isopropyltoluene	ND	0.0269						0		30	
1,3-Dichlorobenzene	ND	0.0269						0		30	
1,4-Dichlorobenzene	ND	0.0269						0		30	
n-Butylbenzene	ND	0.0269						0		30	
1,2-Dichlorobenzene	ND	0.0269						0		30	
1,2-Dibromo-3-chloropropane	ND	0.673						0		30	
1,2,4-Trimethylbenzene	ND	0.0269						0		30	
Hexachlorobutadiene	ND	0.135						0		30	
Naphthalene	ND	0.0404						0		30	
1,2,3-Trichlorobenzene	ND	0.0269						0		30	
Surr: Dibromofluoromethane	1.62		1.683		96.1	56.5	129		0		
Surr: Toluene-d8	1.64		1.683		97.5	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	1.64		1.683		97.2	63.1	141		0		

Sample ID	1509270-031BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	MW-2-15:13.0	Batch ID:	11930			Analysis Date:	9/24/2015	SeqNo:	472417		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.82	0.0661	1.101	0	165	43.5	121				S
Chloromethane	1.24	0.0661	1.101	0.006264	112	45	130				
Vinyl chloride	1.39	0.00220	1.101	0	126	51.2	146				
Bromomethane	1.31	0.0991	1.101	0	119	21.3	120				



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-031BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	MW-2-15:13.0	Batch ID:	11930			Analysis Date:	9/24/2015	SeqNo:	472417		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Trichlorofluoromethane (CFC-11)	3.57	0.0550	1.101	0	324	35	131				S
Chloroethane	1.43	0.0661	1.101	0	130	43.8	117				S
1,1-Dichloroethene	1.39	0.0550	1.101	0	127	61.9	141				
Methylene chloride	1.05	0.0220	1.101	0	95.4	54.7	142				
trans-1,2-Dichloroethene	1.33	0.0220	1.101	0	121	52	136				
Methyl tert-butyl ether (MTBE)	1.08	0.0550	1.101	0.02699	95.8	54.4	132				
1,1-Dichloroethane	1.27	0.0220	1.101	0	115	51.8	141				
2,2-Dichloropropane	1.37	0.0550	1.101	0	125	36	123				S
cis-1,2-Dichloroethene	1.25	0.0220	1.101	0	114	58.6	136				
Chloroform	1.20	0.0220	1.101	0.003969	109	53.2	129				
1,1,1-Trichloroethane (TCA)	1.46	0.0220	1.101	0	132	58.3	145				
1,1-Dichloropropene	1.28	0.0220	1.101	0	116	55.1	138				
Carbon tetrachloride	1.28	0.0220	1.101	0	117	53.3	144				
1,2-Dichloroethane (EDC)	1.16	0.0330	1.101	0	105	51.3	139				
Benzene	1.19	0.0220	1.101	0	108	63.5	133				
Trichloroethene (TCE)	1.27	0.0220	1.101	0	116	68.6	132				
1,2-Dichloropropane	1.24	0.0220	1.101	0	113	59	136				
Bromodichloromethane	1.09	0.0220	1.101	0	99.1	50.7	141				
Dibromomethane	1.31	0.0440	1.101	0	119	50.6	137				
cis-1,3-Dichloropropene	1.09	0.0220	1.101	0	98.6	50.4	138				
Toluene	1.12	0.0220	1.101	0.006105	101	63.4	132				
trans-1,3-Dichloropropylene	1.18	0.0330	1.101	0	107	44.1	147				
1,1,2-Trichloroethane	1.25	0.0330	1.101	0	114	51.6	137				
1,3-Dichloropropane	1.21	0.0550	1.101	0	110	53.1	134				
Tetrachloroethene (PCE)	1.28	0.0220	1.101	0	116	35.6	158				
Dibromochloromethane	1.21	0.0330	1.101	0	109	55.3	140				
1,2-Dibromoethane (EDB)	1.34	0.00550	1.101	0	122	50.4	136				
Chlorobenzene	1.23	0.0220	1.101	0	112	60	133				
1,1,1,2-Tetrachloroethane	1.24	0.0330	1.101	0	112	53.1	142				
Ethylbenzene	1.16	0.0330	1.101	0.002730	105	54.5	134				
m,p-Xylene	2.26	0.0220	2.202	0.009974	102	53.1	132				B



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Work Order: 1509270
CLIENT: Shannon & Wilson
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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-031BMS	SampType: MS	Units: mg/Kg-dry			Prep Date: 9/23/2015			RunNo: 25067		
Client ID:	MW-2-15:13.0	Batch ID:	11930				Analysis Date: 9/24/2015			SeqNo: 472417	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	1.10	0.0220	1.101	0.004349	99.4	53.3	139				
Styrene	1.27	0.0220	1.101	0	116	51.1	132				
Isopropylbenzene	1.28	0.0881	1.101	0	116	58.9	138				
Bromoform	1.19	0.0220	1.101	0	108	57.9	130				
1,1,2,2-Tetrachloroethane	1.35	0.0220	1.101	0	123	51.9	131				
n-Propylbenzene	1.27	0.0220	1.101	0	115	53.6	140				
Bromobenzene	1.25	0.0330	1.101	0	114	54.2	140				
1,3,5-Trimethylbenzene	1.22	0.0220	1.101	0	111	51.8	136				
2-Chlorotoluene	1.24	0.0220	1.101	0	113	51.6	136				
4-Chlorotoluene	1.26	0.0220	1.101	0	114	50.1	139				
tert-Butylbenzene	1.29	0.0220	1.101	0	117	50.5	135				
1,2,3-Trichloropropane	1.26	0.0220	1.101	0	115	50.5	131				
1,2,4-Trichlorobenzene	1.16	0.0550	1.101	0	105	50.8	130				
sec-Butylbenzene	1.31	0.0220	1.101	0	119	52.6	141				
4-Isopropyltoluene	1.29	0.0220	1.101	0	117	52.9	134				
1,3-Dichlorobenzene	1.16	0.0220	1.101	0	105	52.6	131				
1,4-Dichlorobenzene	1.15	0.0220	1.101	0	105	52.9	129				
n-Butylbenzene	1.21	0.0220	1.101	0	110	52.6	130				
1,2-Dichlorobenzene	1.14	0.0220	1.101	0	104	55.8	129				
1,2-Dibromo-3-chloropropane	1.13	0.550	1.101	0	102	40.5	131				
1,2,4-Trimethylbenzene	1.10	0.0220	1.101	0.003110	99.7	50.6	137				
Hexachlorobutadiene	1.23	0.110	1.101	0	112	40.6	158				
Naphthalene	1.01	0.0330	1.101	0	91.5	52.3	124				
1,2,3-Trichlorobenzene	1.11	0.0220	1.101	0	101	54.4	124				
Surr: Dibromofluoromethane	1.43		1.376		104	56.5	129				
Surr: Toluene-d8	1.35		1.376		98.4	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.40		1.376		102	63.1	141				

NOTES:

S - Outlying QC recoveries were observed.



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-033BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	MW-3-15:6.5	Batch ID:	11930			Analysis Date:	9/24/2015	SeqNo:	472418		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0465						0		30	
Chloromethane	ND	0.0465						0		30	
Vinyl chloride	ND	0.00155						0		30	
Bromomethane	ND	0.0698						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0388						0		30	
Chloroethane	ND	0.0465						0		30	
1,1-Dichloroethene	ND	0.0388						0		30	
Methylene chloride	ND	0.0155						0		30	
trans-1,2-Dichloroethene	ND	0.0155						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0388						0		30	
1,1-Dichloroethane	ND	0.0155						0		30	
2,2-Dichloropropane	ND	0.0388						0		30	
cis-1,2-Dichloroethene	ND	0.0155						0		30	
Chloroform	ND	0.0155						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0155						0		30	
1,1-Dichloropropene	ND	0.0155						0		30	
Carbon tetrachloride	ND	0.0155						0		30	
1,2-Dichloroethane (EDC)	ND	0.0233						0		30	
Benzene	ND	0.0155						0		30	
Trichloroethene (TCE)	ND	0.0155						0		30	
1,2-Dichloropropane	ND	0.0155						0		30	
Bromodichloromethane	ND	0.0155						0		30	
Dibromomethane	ND	0.0310						0		30	
cis-1,3-Dichloropropene	ND	0.0155						0		30	
Toluene	ND	0.0155						0		30	
trans-1,3-Dichloropropylene	ND	0.0233						0		30	
1,1,2-Trichloroethane	ND	0.0233						0		30	
1,3-Dichloropropane	ND	0.0388						0		30	
Tetrachloroethene (PCE)	ND	0.0155						0		30	
Dibromochloromethane	ND	0.0233						0		30	
1,2-Dibromoethane (EDB)	ND	0.00388						0		30	



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Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-033BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	MW-3-15:6.5	Batch ID:	11930			Analysis Date:	9/24/2015	SeqNo:	472418		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	ND	0.0155						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0233						0		30	
Ethylbenzene	ND	0.0233						0		30	
m,p-Xylene	ND	0.0155						0		30	
o-Xylene	ND	0.0155						0		30	
Styrene	ND	0.0155						0		30	
Isopropylbenzene	ND	0.0620						0		30	
Bromoform	ND	0.0155						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0155						0		30	
n-Propylbenzene	ND	0.0155						0		30	
Bromobenzene	ND	0.0233						0		30	
1,3,5-Trimethylbenzene	ND	0.0155						0		30	
2-Chlorotoluene	ND	0.0155						0		30	
4-Chlorotoluene	ND	0.0155						0		30	
tert-Butylbenzene	ND	0.0155						0		30	
1,2,3-Trichloropropane	ND	0.0155						0		30	
1,2,4-Trichlorobenzene	ND	0.0388						0		30	
sec-Butylbenzene	ND	0.0155						0		30	
4-Isopropyltoluene	ND	0.0155						0		30	
1,3-Dichlorobenzene	ND	0.0155						0		30	
1,4-Dichlorobenzene	ND	0.0155						0		30	
n-Butylbenzene	ND	0.0155						0		30	
1,2-Dichlorobenzene	ND	0.0155						0		30	
1,2-Dibromo-3-chloropropane	ND	0.388						0		30	
1,2,4-Trimethylbenzene	ND	0.0155						0		30	
Hexachlorobutadiene	ND	0.0775						0		30	
Naphthalene	ND	0.0233						0		30	
1,2,3-Trichlorobenzene	ND	0.0155						0		30	
Surr: Dibromofluoromethane	0.921		0.9689		95.0	56.5	129		0		
Surr: Toluene-d8	0.946		0.9689		97.6	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.950		0.9689		98.0	63.1	141		0		



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Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-033BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	MW-3-15:6.5	Batch ID:	11930			Analysis Date:	9/24/2015	SeqNo:	472418		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual



Date: 10/3/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-R25020	SampType: LCS		Units: µg/L		Prep Date: 9/22/2015			RunNo: 25020		
Client ID:	LCSW	Batch ID: R25020					Analysis Date: 9/22/2015			SeqNo: 471348	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	17.2	1.00	20.00	0	86.0	43	136				
Chloromethane	19.5	1.00	20.00	0	97.6	43.9	139				
Vinyl chloride	21.2	0.200	20.00	0	106	53.6	139				
Bromomethane	22.6	1.00	20.00	0	113	42.5	152				
Trichlorofluoromethane (CFC-11)	21.6	1.00	20.00	0	108	63.7	133				
Chloroethane	19.5	1.00	20.00	0	97.6	53	141				
1,1-Dichloroethene	18.0	1.00	20.00	0	89.8	65.6	136				
Methylene chloride	19.9	1.00	20.00	0	99.3	67.1	131				
trans-1,2-Dichloroethene	19.6	1.00	20.00	0	98.2	71.7	129				
Methyl tert-butyl ether (MTBE)	19.0	1.00	20.00	0	94.8	67.7	131				
1,1-Dichloroethane	20.2	1.00	20.00	0	101	67.9	134				
2,2-Dichloropropane	16.4	2.00	20.00	0	82.0	33.7	152				
cis-1,2-Dichloroethene	19.8	1.00	20.00	0	98.8	71.1	130				
Chloroform	20.1	1.00	20.00	0	100	66.3	131				
1,1,1-Trichloroethane (TCA)	21.0	1.00	20.00	0	105	71	131				
1,1-Dichloropropene	19.0	1.00	20.00	0	94.8	74.5	126				
Carbon tetrachloride	20.2	1.00	20.00	0	101	66.2	134				
1,2-Dichloroethane (EDC)	19.2	1.00	20.00	0	96.0	68.8	123				
Benzene	19.8	1.00	20.00	0	98.8	69.3	132				
Trichloroethene (TCE)	21.0	0.500	20.00	0	105	65.2	136				
1,2-Dichloropropane	19.4	1.00	20.00	0	96.8	70.5	130				
Bromodichloromethane	21.5	1.00	20.00	0	108	67.2	137				
Dibromomethane	20.9	1.00	20.00	0	105	75.5	126				
cis-1,3-Dichloropropene	22.9	1.00	20.00	0	114	62.6	137				
Toluene	18.7	1.00	20.00	0	93.6	61.3	145				
trans-1,3-Dichloropropene	21.6	1.00	20.00	0	108	58.5	142				
1,1,2-Trichloroethane	19.5	1.00	20.00	0	97.4	71.7	131				
1,3-Dichloropropane	19.4	1.00	20.00	0	96.9	73.5	127				
Tetrachloroethene (PCE)	20.8	1.00	20.00	0	104	47.5	147				
Dibromochloromethane	23.1	1.00	20.00	0	116	67.2	134				
1,2-Dibromoethane (EDB)	20.2	0.0600	20.00	0	101	73.6	125				



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-R25020	SampType: LCS		Units: µg/L		Prep Date: 9/22/2015			RunNo: 25020		
Client ID:	LCSW	Batch ID: R25020		Analysis Date: 9/22/2015					SeqNo: 471348		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	20.7	1.00	20.00	0	103	73.9	126				
1,1,1,2-Tetrachloroethane	17.8	1.00	20.00	0	89.2	76.8	124				
Ethylbenzene	19.2	1.00	20.00	0	95.8	72	130				
m,p-Xylene	38.4	1.00	40.00	0	96.0	70.3	134				
o-Xylene	18.6	1.00	20.00	0	93.0	72.1	131				
Styrene	20.8	1.00	20.00	0	104	64.3	140				
Isopropylbenzene	19.8	1.00	20.00	0	99.0	73.9	128				
Bromoform	23.4	1.00	20.00	0	117	63.8	135				
1,1,2,2-Tetrachloroethane	19.4	1.00	20.00	0	97.2	62.9	132				
n-Propylbenzene	18.6	1.00	20.00	0	93.2	74.5	127				
Bromobenzene	18.0	1.00	20.00	0	89.8	71	131				
1,3,5-Trimethylbenzene	19.2	1.00	20.00	0	95.8	73.1	128				
2-Chlorotoluene	19.2	1.00	20.00	0	96.0	70.8	130				
4-Chlorotoluene	19.3	1.00	20.00	0	96.6	70.1	131				
tert-Butylbenzene	18.8	1.00	20.00	0	93.8	68.2	131				
1,2,3-Trichloropropane	17.9	1.00	20.00	0	89.6	67.7	131				
1,2,4-Trichlorobenzene	17.6	2.00	20.00	0	87.9	51.8	152				Q
sec-Butylbenzene	19.4	1.00	20.00	0	96.8	72	129				
4-Isopropyltoluene	18.3	1.00	20.00	0	91.4	69.2	130				
1,3-Dichlorobenzene	20.9	1.00	20.00	0	104	72.4	129				
1,4-Dichlorobenzene	20.3	1.00	20.00	0	102	70.6	128				
n-Butylbenzene	21.4	1.00	20.00	0	107	73.8	127				
1,2-Dichlorobenzene	21.2	1.00	20.00	0	106	74.2	129				
1,2-Dibromo-3-chloropropane	17.0	1.00	20.00	0	84.9	63.1	136				
1,2,4-Trimethylbenzene	18.2	1.00	20.00	0	91.1	73.4	127				
Hexachlorobutadiene	17.6	4.00	20.00	0	88.2	58.6	138				
Naphthalene	16.0	1.00	20.00	0	79.8	41.8	165				Q
1,2,3-Trichlorobenzene	18.7	4.00	20.00	0	93.6	48.7	156				Q
Surr: Dibromofluoromethane	25.6		25.00		102	45.4	152				
Surr: Toluene-d8	25.9		25.00		103	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.1		25.00		96.4	64.2	128				



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-R25020	SampType:	LCS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25020		
Client ID:	LCSW	Batch ID:	R25020			Analysis Date:	9/22/2015	SeqNo:	471348		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID	MB-R25020	SampType:	MBLK			Units:	µg/L			Prep Date:	9/22/2015		RunNo:	25020	
Client ID:	MBLKW	Batch ID:	R25020						Analysis Date:	9/22/2015		SeqNo:	471349		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	1.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-R25020	SampType:	MBLK		Units:	µg/L		Prep Date:	9/22/2015		RunNo:	25020	
Client ID:	MBLKW	Batch ID:	R25020					Analysis Date:	9/22/2015		SeqNo:	471349	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
trans-1,3-Dichloropropene	ND	1.00											
1,1,2-Trichloroethane	ND	1.00											
1,3-Dichloropropane	ND	1.00											
Tetrachloroethene (PCE)	ND	1.00											
Dibromochloromethane	ND	1.00											
1,2-Dibromoethane (EDB)	ND	0.0600											
Chlorobenzene	ND	1.00											
1,1,1,2-Tetrachloroethane	ND	1.00											
Ethylbenzene	ND	1.00											
m,p-Xylene	ND	1.00											
o-Xylene	ND	1.00											
Styrene	ND	1.00											
Isopropylbenzene	ND	1.00											
Bromoform	ND	1.00											
1,1,2,2-Tetrachloroethane	ND	1.00											
n-Propylbenzene	ND	1.00											
Bromobenzene	ND	1.00											
1,3,5-Trimethylbenzene	ND	1.00											
2-Chlorotoluene	ND	1.00											
4-Chlorotoluene	ND	1.00											
tert-Butylbenzene	ND	1.00											
1,2,3-Trichloropropane	ND	1.00											
1,2,4-Trichlorobenzene	ND	2.00											Q
sec-Butylbenzene	ND	1.00											
4-Isopropyltoluene	ND	1.00											
1,3-Dichlorobenzene	ND	1.00											
1,4-Dichlorobenzene	ND	1.00											
n-Butylbenzene	ND	1.00											
1,2-Dichlorobenzene	ND	1.00											
1,2-Dibromo-3-chloropropane	ND	1.00											
1,2,4-Trimethylbenzene	ND	1.00											

Q



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-R25020	SampType:	MBLK	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25020		
Client ID:	MBLKW	Batch ID:	R25020			Analysis Date:	9/22/2015	SeqNo:	471349		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	4.00									
Naphthalene	ND	1.00									Q
1,2,3-Trichlorobenzene	ND	4.00									Q
Surr: Dibromofluoromethane	26.3		25.00		105	45.4	152				
Surr: Toluene-d8	25.2		25.00		101	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.3		25.00		101	64.2	128				

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID	1509270-027ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25020		
Client ID:	GP-12-15:GW	Batch ID:	R25020			Analysis Date:	9/22/2015	SeqNo:	471338		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	2.04	1.00						2.020	0.985	30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-027ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25020		
Client ID:	GP-12-15:GW	Batch ID:	R25020			Analysis Date:	9/22/2015	SeqNo:	471338		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	1.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	Q
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	



Date: 10/3/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-027ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25020		
Client ID:	GP-12-15:GW	Batch ID:	R25020			Analysis Date:	9/22/2015	SeqNo:	471338		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachlorobutadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	Q
1,2,3-Trichlorobenzene	ND	4.00						0		30	Q
Surr: Dibromofluoromethane	25.6		25.00		102	45.4	152		0		
Surr: Toluene-d8	25.1		25.00		100	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	25.1		25.00		100	64.2	128		0		

Sample ID	1509263-005BMS	SampType: MS			Units: µg/L	Prep Date: 9/22/2015			RunNo: 25020		
Client ID:	BATCH	Batch ID: R25020			Analysis Date: 9/22/2015			SeqNo: 471334			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	17.9	1.00	20.00	0	89.6	33.3	122				
Chloromethane	19.7	1.00	20.00	0.9300	94.0	48.2	145				
Vinyl chloride	25.0	0.200	20.00	0	125	58.1	158				
Bromomethane	32.0	1.00	20.00	3.040	145	31.5	135				S
Trichlorofluoromethane (CFC-11)	23.8	1.00	20.00	0	119	54.7	138				
Chloroethane	21.8	1.00	20.00	0	109	49.9	143				
1,1-Dichloroethene	19.6	1.00	20.00	0	98.0	63	141				
Methylene chloride	19.7	1.00	20.00	0	98.6	61.6	135				
trans-1,2-Dichloroethene	21.0	1.00	20.00	0	105	63.5	138				
Methyl tert-butyl ether (MTBE)	19.2	1.00	20.00	0	96.2	60.9	132				
1,1-Dichloroethane	20.8	1.00	20.00	0	104	67.8	136				
2,2-Dichloropropane	15.7	2.00	20.00	0	78.5	31.5	121				
cis-1,2-Dichloroethene	20.0	1.00	20.00	0.2000	99.2	67.1	123				
Chloroform	20.5	1.00	20.00	0	103	66.7	136				



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509263-005BMS	SampType: MS		Units: µg/L	Prep Date: 9/22/2015			RunNo: 25020			
Client ID:	BATCH	Batch ID: R25020		Analysis Date: 9/22/2015			SeqNo: 471334				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane (TCA)	23.3	1.00	20.00	0	117	64.2	146				
1,1-Dichloropropene	21.4	1.00	20.00	0	107	73.8	136				
Carbon tetrachloride	26.7	1.00	20.00	1.190	128	62.7	146				
1,2-Dichloroethane (EDC)	20.1	1.00	20.00	0	100	63.4	137				
Benzene	21.3	1.00	20.00	0	106	65.4	138				
Trichloroethene (TCE)	22.4	0.500	20.00	0	112	60.4	134				
1,2-Dichloropropane	20.7	1.00	20.00	0	104	62.6	138				
Bromodichloromethane	23.2	1.00	20.00	0	116	59.4	139				
Dibromomethane	23.5	1.00	20.00	0	118	63.6	139				
cis-1,3-Dichloropropene	24.6	1.00	20.00	0	123	63.8	132				
Toluene	20.0	1.00	20.00	0	100	64	139				
trans-1,3-Dichloropropene	23.3	1.00	20.00	0	117	57.7	125				
1,1,2-Trichloroethane	20.9	1.00	20.00	0	104	59.4	127				
1,3-Dichloropropane	20.1	1.00	20.00	0	101	64.3	135				
Tetrachloroethene (PCE)	22.2	1.00	20.00	0	111	50.3	133				
Dibromochloromethane	25.5	1.00	20.00	0	127	61.6	139				
1,2-Dibromoethane (EDB)	22.2	0.0600	20.00	0	111	63.2	134				
Chlorobenzene	22.0	1.00	20.00	0	110	65.8	134				
1,1,1,2-Tetrachloroethane	19.9	1.00	20.00	0.1400	98.6	65.4	135				
Ethylbenzene	21.1	1.00	20.00	0	105	64.5	136				
m,p-Xylene	41.8	1.00	40.00	0	104	63.3	135				
o-Xylene	20.0	1.00	20.00	0	100	65.4	134				
Styrene	22.9	1.00	20.00	0	114	59.1	134				
Isopropylbenzene	22.1	1.00	20.00	0	110	56	147				
Bromoform	27.7	1.00	20.00	0	139	57.7	139				
1,1,2,2-Tetrachloroethane	21.0	1.00	20.00	0	105	59.8	146				
n-Propylbenzene	20.5	1.00	20.00	0	102	57.6	142				
Bromobenzene	20.0	1.00	20.00	0	100	63.6	130				
1,3,5-Trimethylbenzene	20.8	1.00	20.00	0	104	59.9	136				
2-Chlorotoluene	20.5	1.00	20.00	0	103	61.7	134				
4-Chlorotoluene	21.1	1.00	20.00	0	106	58.4	134				

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509263-005BMS	SampType:	MS		Units:	µg/L		Prep Date:	9/22/2015		RunNo:	25020	
Client ID:	BATCH	Batch ID:	R25020		Analysis Date:				9/22/2015		SeqNo:	471334	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
tert-Butylbenzene	21.5	1.00	20.00	0	107	66.8	141						
1,2,3-Trichloropropane	18.8	1.00	20.00	0	94.0	62.4	129						
1,2,4-Trichlorobenzene	15.0	2.00	20.00	0.7300	71.4	50.9	133					Q	
sec-Butylbenzene	21.0	1.00	20.00	0	105	56	146						
4-Isopropyltoluene	20.0	1.00	20.00	0	100	56.4	136						
1,3-Dichlorobenzene	21.7	1.00	20.00	0	109	58.2	128						
1,4-Dichlorobenzene	21.2	1.00	20.00	0	106	60.1	123						
n-Butylbenzene	20.5	1.00	20.00	0	102	54.6	135						
1,2-Dichlorobenzene	21.8	1.00	20.00	0	109	65.4	133						
1,2-Dibromo-3-chloropropane	17.5	1.00	20.00	0	87.6	51.8	142						
1,2,4-Trimethylbenzene	19.7	1.00	20.00	0.1100	97.8	63.7	132						
Hexachlorobutadiene	17.6	4.00	20.00	0	87.9	58.1	130						
Naphthalene	14.2	1.00	20.00	0.7900	67.2	54.5	132					Q	
1,2,3-Trichlorobenzene	12.4	4.00	20.00	0	62.2	57	131					Q	
Surr: Dibromofluoromethane	24.8		25.00		99.1	45.4	152						
Surr: Toluene-d8	24.8		25.00		99.1	40.1	139						
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.5	64.2	128						

NOTES:

S - Outlying QC recoveries were observed. The method is in control as indicated by the LCS.

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).



Date: 10/3/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID	1509317-001ADUP	SampType:	DUP	Units:	wt%	Prep Date:	9/23/2015	RunNo:	25044		
Client ID:	BATCH	Batch ID:	R25044			Analysis Date:	9/23/2015	SeqNo:	471982		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	11.4	0.500						10.57	7.93	20	

Sample ID	1509270-007ADUP	SampType:	DUP	Units:	wt%	Prep Date:	9/23/2015	RunNo:	25044		
Client ID:	GP-4-15:5.0	Batch ID:	R25044			Analysis Date:	9/23/2015	SeqNo:	471994		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	16.1	0.500						16.55	2.96	20	

Sample ID	1509270-022ADUP			SampType:	DUP		Units:	wt%		Prep Date:	9/23/2015		RunNo:	25044	
Client ID:	GP-10-15:13.0			Batch ID:	R25044					Analysis Date:	9/23/2015		SeqNo:	472010	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		
Percent Moisture		27.8	0.500						22.43		21.3	20	R		

Client Name: **SW**

 Work Order Number: **1509270**

 Logged by: **Clare Griggs**

 Date Received: **9/18/2015 5:55:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of $>0^{\circ}\text{C}$ to 10.0°C * Yes ☐ No ☒ NA ☐
- Please refer to item information.
8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☒ No ☐ NA ☐

Person Notified:	Ed Ptak	Date:	9/22/2015
By Whom:	Clare Griggs	Via:	☐ eMail ☒ Phone ☐ Fax ☐ In Person
Regarding:	Confirming analyses.		
Client Instructions:	Add PAH to water the 3 water samples.		

19. Additional remarks:

Item Information

Item #	Temp °C
Cooler 1	6.2
Cooler 2	8.8
Cooler 3	10.1
Sample 1	8.1
Sample 2	6.1
Sample 3	11.4

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



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Chain of Custody Record

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Tel: 206-352-3790
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Date: 9/18/15

Page: 1 of 4

Laboratory Project No (Internal): 150927D

Client: Shawny & Wilson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-8020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 31-1-20055-009 Collected by: EVP
Location: City of Pacific, WA
Report To (PM): Edwin Mok
PM Email: empesthuvil.com

*Matrix Codes: A = Air, AQ = Aerosols, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOG (EPA 8260 / 8241)	GLV/STX	BTX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Distill/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 825)	PAHs (EPA 8270 / 825)	PCBs (EPA 8270 / 825)	Metal** (EPA 8210 / 608)	Total (T) / Dissolved (D)	Anions (IC)***	FOB (8011)	Herbicides / Pesticides	Comments
GP-1-15:5.0	9/17/15	0910	S															
GP-1-15:13.5	0915	S																
GP-2-15:4.5	1010																	
GP-2-15:14.0	1020																	
GP-3-15:9.0	1110																	
GP-3-15:12.5	1100																	
GP-4-15:5.0	1130																	
GP-4-15:13.0	1140																	
GP-5-15:5.0	1215																	
GP-5-15:13.0	1225																	



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Chain of Custody Record

Laboratory Project No. (Internal):

3500 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 7/10/15

Page: 2 of 4

Client: Shannon & Wilson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle, WA 98103
Telephone: 206-630-8000 Fax: 206-635-6777

Project Name: Pacific Park
Project No: 07-122055-009 Collected by: EVP
Location: City of Pacific WA
Report To (PM): Edna Park
PM Email: evpeshaw@l.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)	VOG (EPA 8260 / 624)	GVBTX	ETEX	Gasoline Range Organics (GVO)	Hydrocarbon Identification (HCOI)	Diesel/Heavy Oil Range Organics (DHO)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - 504)	PCBs (EPA 8062 / 606)	Metals** (EPA 6020 / 200.8)	Total (T) (EPA 6020 / 200.8)	Anions (IC)***	EDS (8011)	Herbicides	Pesticides	Comments
GP-5-15: DWP	7/7/15	1155	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-6-15: 7.5		1250		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-6-15: 14.0		1305		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-7-15: 5.0		1355		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-7-15: 14.0		1340		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-8-15: 5.0		1405		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-8-15: 14.5		1410		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-8-15: DWP		1306		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-9-15: 5.0		1445		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-9-15: 12.5		1450		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Iodide Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (A fee may be assessed if samples are retained after 30 days.)

Turn-around times for samples received after 4:00pm will begin on the following business day.

Special Remarks:

Reanalysis: 7/10/15 1530 Date/Time 7/10/15 1530 Date/Time

Requester: Shannon & Wilson Inc. Received: Edna Park Date/Time: 7/10/15 1530

Requester: Shannon & Wilson Inc. Received: Edna Park Date/Time: 7/10/15 1530

TAT → SameDay* NextDay* 2 Day 3 Day 5th

*Please coordinate with the lab in advance.

Distribution: White - Lab, Yellow - File, Pink - Originator

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Laboratory Project No (internal): _____

Page: 3 of 4

Chain of Custody Record

Project Name: Pacific Park
Project No: 21-P-22055-009 Collected by: EUP
Location: City of Pacific, WA
Report To (PM): Edwin Pak
PM Email: eup@shawyl.com

*Material Codes: A = Air, AQ = Aqueous, B = Bulk, C = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GVBTX	BTX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DO)	SVOs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) + Dissolved (D)	Arions (IC)***	COB (8031)	Herbicides Pesticides	Comments
GP-10-15:4.5	7/7/15	1510	S															
GP-10-15:13.0		1520																
GP-11-15:4.5		1545																
GP-11-15:14.5		1550																
GP-12-15:4.0	7/16/15	0850																
GP-12-15:13.5		0855																
GP-12-15:6W		0915	GW															
MW-1-15:6.0		1005	S															
MW-1-15:12.0		1010																
MW-2-15:3.0		1205																

Requisition # 918115 Date/Time 1530

Requested By 9/8/15 1755 Date/Time 1530

Received 9/8/15 1530 Date/Time 17:55

Special Remarks: GP-12-15:6W not grid filtered for PPL method.

Sample Disposal: ☐ Return to Client ☒ Disposed by Lab (A use may be assessed if samples are returned after 30 days.)

Turn-around times for samples received after 4:00pm will begin on the following business day.

TAAT → SameDay* NextDay* 2 Day 3 Day STD

Please coordinate with the lab in advance

Distributions: White - Lab, Yellow - File, Pink - Originator

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Chain of Custody Record

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Date: 9/18/15

Page 4 of 4

Client: Shannon & Wilson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle, WA 98103
Telephone: 206-632-8020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 20152055-009 Collected by: EVP
Location: City of Pacific, WA
Report To (PM): Blair Park
PM Email: evp@shannonwil.com

*Matrix Codes: A = Air, AQ = Aquatic, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOG (EPA 8260 / 824)	OV/TEX	8TEX	Gasoline Range Organics (GRO)	Hydrocarbon Identification (HICID)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8270 / 625)	Metals** (EPA 8210 / 608)	Total (T) (EPA 8210 / 608)	Anions (IC)*	EDS (8211)	Heavy Metals (EPA 8210 / 608)	Potential Metals	Comments
1 MW-2-15:13.0	9/17/15	1215	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 MW-2-15:6W		1220		X	X	X	X	X	X	X	X	X	X	X	X	X		
3 MW-3-15:6.5		1355		X	X	X	X	X	X	X	X	X	X	X	X	X		
4 MW-3-15:15D		1405		X	X	X	X	X	X	X	X	X	X	X	X	X		
5 MW-3-15:6W		1455	GW	X	X	X	X	X	X	X	X	X	X	X	X	X		
6																		
7																		
8																		
9																		
10																		

**Metals Analysis (Circle): MTCA-5 nickel-8 priority pollutants TAL individual Ag Al As B Br Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Nb Ni Pb Sb Se Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Necate-Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposed by Lab (a fee may be assessed if samples are retained after 30 days.)

Relinquished: 9/18/15 1330 Date/Time 9/18/15 1330 Date/Time 9/18/15 1330 Date/Time

Received: 9/18/15 1355 Date/Time 9/18/15 1355 Date/Time 9/18/15 1355 Date/Time

TAT → SameDay[®] NextDay[®] 2 Day 3 Day 5 Day

*Please coordinate with the lab in advance.

Special Remarks: MW-3-15:6W and MW-2-15:6W not field filtered for PRL metals.

Distribution: White - Lab, Yellow - File, Pink - Originator

17:55 www.fremontanalytical.com



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Date: 9/18/15

Page: 1 of 4

Laboratory Project No (Internal):

Chain of Custody Record
1509270

Client: Shawna & Wilson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-8020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 21-1-22055-029 Collected by: EVP
Location: City of Pacific, WA
Report To (PM): Edna Pak
PM Email: epeshaw@com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 8241)	GV/RTX	BTEX	Gasoline Range Organics (GXI)	Hydrocarbon Identification (HCD)	Distillate/Oil Range Organics (DRI)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8082 / 608)	Metals** (EPA 8210 / 608)	Total (T) Dissolved (D)	Anions (IC)***	EDS (8011)	H-Blocker (HSA)	Post-Blocker (HSA)	Comments
1 GP-1-15:5.0	9/17/15	0910	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 GP-1-15:13.5		0915	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3 GP-2-15:4.5		1010	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
4 GP-2-15:14.0		1020	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5 GP-3-15:9.0		1110	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
6 GP-3-15:12.5		1100	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
7 GP-4-15:5.0		1130	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
8 GP-4-15:13.0		1140	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
9 GP-5-15:5.0		1215	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
10 GP-5-15:13.0		1225	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

***Metals Analysis (Circle): MTCA-5 (CDA-8) Priority Pollutants: TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Cyanide Fluoride Nitrate-Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (a fee may be assessed if samples are returned after 30 days.)

Reinjection: 9/18/15 1530 Received: 9/18/15 1530 Date/Time: 9/18/15 1530

Resubmit: 9/18/15 1535 Received: 9/18/15 1535 Date/Time: 9/18/15 1535

AT: Sample Day: Next Day: 2 Day 3 Day: STP

*Send coordinate with the lab in advance



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Date: 7/19/15

Laboratory Project No (Internal):

Page: 2 of 4

Chain of Custody Record

Client: Shuman & Wiser Inc.
Address: 400 N 39th St. Suite 100
City, State, Zip: Seattle, WA 98103
Telephone: 206-675-8000 Fax: 206-675-6777

Project Name: Pacific Park
Project No: 201-00055-009 Collected by: EVP
Location: City of Pacific WA
Report To (PM): Edna Park
PM Email: cupschawil.com

*Notations: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	6X/BTEX	BTEX	Gasoline Range Organics (GK)	Hydrocarbon Identification (HCD)	Dispersible Oil Range Organics (DOR)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SW)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)***	EDs (8011)	Herbicides 8011A	Pesticides 8011B	Comments
1 GP-5-15: DWP	7/17/15	1155	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 GP-6-15: 2.5		1250		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3 GP-6-15: 14.0		1305		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
4 GP-7-15: 5.0		1355		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5 GP-7-15: 14.0		1340		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
6 GP-8-15: 5.0		1405		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
7 GP-8-15: 14.5		1410		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
8 GP-8-15: DWP		1306		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
9 GP-9-15: 5.0		1445		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
10 GP-9-15: 12.5		1450		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

**Metals Analysis (Circle): MTCA-5 ☒ MCL-5 ☐ Priority Pollutants ☐ TAL ☐ Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Ni Pb Po Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ C-phosphate ☐ Fluoride ☐ Nitrate+Nitrite ☐ Turn-around times for samples received after 4:00pm will begin on the following business day.

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (A fee may be assessed if samples are retained after 30 days.)

Relinquished: [Signature] Date/Time: 7/18/15 1530 Received: [Signature] Date/Time: 7/18/15 1530

Relinquished: [Signature] Date/Time: 7/18/15 1755 Received: [Signature] Date/Time: 07/19/15 17:55

TAT → SameDaySM NextDaySM 2 Day 3 Day ☒ 5th

*Increase coordinate with the lab in advance.

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Laboratory Project No (Internal):

Chain of Custody Record

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Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-2178

Date: 9/18/15

Page: 3 of 4

Client: Shaw & Wilson Inc.
Address: 400 N 39th St, Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-8020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 21-22055-009 Collected by: EVP
Location: City of Pacific, WA
Report To (PM): Edwin Pak
PM Email: evp@shawwil.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOG (EPA 8260 / 624)	GV/RTX	BTEX	Gasoline Range Organics (GRO)	Hydrocarbon Identification (HID)	Distillate/Range Organics (DRO)	SVOCs (EPA 8270 / 825)	FAHs (EPA 8270 / 825)	PCBs (EPA 8280 / 608)	Alkyls** (EPA 8280 / 608)	Total (T) (EPA 8280 / 608)	Ambis (IC)*** (EPA 8280 / 200.8)	TDH (601.1)	Comments
GP-10-15:4.5	9/7/14	1510	S														
GP-10-15:13.0		1520															
GP-11-15:4.5		1545															
GP-11-15:14.5		1550															
GP-12-15:4.0	9/14/15	0850															
GP-12-15:13.5		0855															
GP-12-15:6W		0915	GW														
MW-1-15:6.0		1005															
MW-1-15:12.0		1010															
MW-2-15:3.0		1205															

***Metals Analysis (Circle): MTCA-5 ☒ PCBs-8 ☒ Heavy Metals ☐ TAL ☐ Inducted: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Ni Pb Sb Se Si Sr Sn Ti U V Zn

***Antimony (Circle): Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ O-Phosphate ☐ Fluoride ☐ Nitrate/Nitrite ☐ Turn-around times for samples received after 4:00pm will begin on the following business day.

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (a fee may be assessed if samples are retained after 30 days.)

Refrigerated: 9/18/15 1520 Date/Time 9/18/15 1530 Date/Time
Refrigerated: 9/18/15 1755 Date/Time 9/18/15 17:55 Date/Time

Special Remarks: GP-12-15:6W not field filtered for PTL metals.

edit for EPA 91215

Distribution: White - Lab, Yellow - File, Pink - Originator

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Laboratory Project 10 (Interns):

Page: 4 of 4

Project Name: Pacific Park Collected by: EVP
Project No: SH-2005-009
Location: City of Pacific, WA
Report To (PM): Avala Park
PM Email: evp@shawill.com

*Matrix Codes: A = Air, AQ = Aqueduct, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Special Remarks: MW = 30/55 and
MW-215.5W not field
filtered for PQL metals.

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Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Shannon & Wilson

Ed Ptak
400 N. 34th Street, Suite 100
Seattle, WA 98103

RE: Pacific Park
Lab ID: 1509270

October 29, 2015

Attention Ed Ptak:

Fremont Analytical, Inc. received 36 sample(s) on 9/18/2015 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Dissolved Mercury by EPA Method 245.1
Dissolved Metals by EPA Method 200.8
Gasoline by NWTPH-Gx
Herbicides by EPA Method 8151A
Mercury (SW7470) with TCLP Extraction (EPA 1311)
Mercury by EPA Method 245.1
Mercury by EPA Method 7471
Metals (SW6020) with TCLP Extraction (EPA 1311)
Organochlorine Pesticides by EPA Method 8081
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)
Polychlorinated Biphenyls (PCB) by EPA 8082
Sample Moisture (Percent Moisture)
Semi-Volatile Organic Compounds by EPA Method 8270
Total Metals by EPA Method 200.8
Total Metals by EPA Method 6020
Volatile Organic Compounds by EPA Method 8260

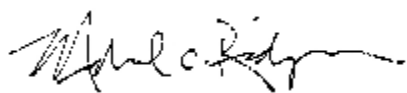
This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Ridgeway". The signature is fluid and cursive, with a prominent initial "M" and a long, sweeping underline.

Mike Ridgeway
President

CLIENT: Shannon & Wilson
Project: Pacific Park
Lab Order: 1509270

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1509270-001	GP-1-15:5.0	09/17/2015 9:40 AM	09/18/2015 5:55 PM
1509270-002	GP-1-15:13.5	09/17/2015 9:45 AM	09/18/2015 5:55 PM
1509270-003	GP-2-15:4.5	09/17/2015 10:10 AM	09/18/2015 5:55 PM
1509270-004	GP-2-15:14.0	09/17/2015 10:20 AM	09/18/2015 5:55 PM
1509270-005	GP-3-15:9.0	09/17/2015 11:10 AM	09/18/2015 5:55 PM
1509270-006	GP-3-15:12.5	09/17/2015 11:00 AM	09/18/2015 5:55 PM
1509270-007	GP-4-15:5.0	09/17/2015 11:30 AM	09/18/2015 5:55 PM
1509270-008	GP-4-15:13.0	09/17/2015 11:40 AM	09/18/2015 5:55 PM
1509270-009	GP-5-15:5.0	09/17/2015 12:15 PM	09/18/2015 5:55 PM
1509270-010	GP-5-15:13.0	09/17/2015 12:25 PM	09/18/2015 5:55 PM
1509270-011	GP-5-15:DUP	09/17/2015 11:55 AM	09/18/2015 5:55 PM
1509270-012	GP-6-15:7.5	09/17/2015 12:50 PM	09/18/2015 5:55 PM
1509270-013	GP-6-15:14.0	09/17/2015 1:05 PM	09/18/2015 5:55 PM
1509270-014	GP-7-15:5.0	09/17/2015 1:55 PM	09/18/2015 5:55 PM
1509270-015	GP-7-15:14.0	09/17/2015 1:40 PM	09/18/2015 5:55 PM
1509270-016	GP-8-15:5.0	09/17/2015 2:05 PM	09/18/2015 5:55 PM
1509270-017	GP-8-15:14.5	09/17/2015 2:10 PM	09/18/2015 5:55 PM
1509270-018	GP-8-15:DUP	09/17/2015 1:06 PM	09/18/2015 5:55 PM
1509270-019	GP-9-15:5.0	09/17/2015 2:45 PM	09/18/2015 5:55 PM
1509270-020	GP-9-15:12.5	09/17/2015 2:50 PM	09/18/2015 5:55 PM
1509270-021	GP-10-15:4.5	09/17/2015 3:10 PM	09/18/2015 5:55 PM
1509270-022	GP-10-15:13.0	09/17/2015 3:20 PM	09/18/2015 5:55 PM
1509270-023	GP-11-15:4.5	09/17/2015 3:45 PM	09/18/2015 5:55 PM
1509270-024	GP-11-15:14.5	09/17/2015 3:50 PM	09/18/2015 5:55 PM
1509270-025	GP-12-15:4.0	09/18/2015 8:50 AM	09/18/2015 5:55 PM
1509270-026	GP-12-15:13.5	09/18/2015 8:55 AM	09/18/2015 5:55 PM
1509270-027	GP-12-15:GW	09/18/2015 9:15 AM	09/18/2015 5:55 PM
1509270-028	MW-1-15:6.0	09/18/2015 10:05 AM	09/18/2015 5:55 PM
1509270-029	MW-1-15:12.0	09/18/2015 10:10 AM	09/18/2015 5:55 PM
1509270-030	MW-2-15:3.0	09/18/2015 12:05 PM	09/18/2015 5:55 PM
1509270-031	MW-2-15:13.0	09/18/2015 12:15 PM	09/18/2015 5:55 PM
1509270-032	MW-2-15:GW	09/18/2015 12:20 PM	09/18/2015 5:55 PM
1509270-033	MW-3-15:6.5	09/18/2015 1:55 PM	09/18/2015 5:55 PM
1509270-034	MW-3-15:15.0	09/18/2015 2:05 PM	09/18/2015 5:55 PM
1509270-035	MW-3-15:GW	09/18/2015 2:55 PM	09/18/2015 5:55 PM
1509270-036	Trip Blank	09/10/2015 9:10 AM	09/18/2015 5:55 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: Shannon & Wilson**Project:** Pacific Park

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509270-001

Matrix: Soil

Client Sample ID: GP-1-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	41.2		µg/Kg-dry	1	9/29/2015 7:47:00 PM
2,4-D	ND	35.3		µg/Kg-dry	1	9/29/2015 7:47:00 PM
2,4-DP	ND	29.4		µg/Kg-dry	1	9/29/2015 7:47:00 PM
2,4,5-TP (Silvex)	ND	23.5		µg/Kg-dry	1	9/29/2015 7:47:00 PM
2,4,5-T	ND	58.9		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Dinoseb	ND	35.3		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Dalapon	ND	235		µg/Kg-dry	1	9/29/2015 7:47:00 PM
2,4-DB	ND	29.4		µg/Kg-dry	1	9/29/2015 7:47:00 PM
MCP	ND	5,180		µg/Kg-dry	1	9/29/2015 7:47:00 PM
MCPA	ND	330		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Picloram	ND	58.9		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Bentazon	ND	41.2		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Chloramben	ND	23.5		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Acifluorfen	ND	94.2		µg/Kg-dry	1	9/29/2015 7:47:00 PM
3,5-Dichlorobenzoic acid	ND	47.1		µg/Kg-dry	1	9/29/2015 7:47:00 PM
4-Nitrophenol	ND	35.3		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Dacthal (DCPA)	ND	35.3		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Surr: 2,4-Dichlorophenylacetic acid	96.9	20.1-168		%REC	1	9/29/2015 7:47:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:45:00 AM

Project: Pacific Park

Lab ID: 1509270-002

Matrix: Soil

Client Sample ID: GP-1-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	43.7		µg/Kg-dry	1	9/29/2015 8:21:00 PM
2,4-D	ND	37.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
2,4-DP	ND	31.2		µg/Kg-dry	1	9/29/2015 8:21:00 PM
2,4,5-TP (Silvex)	ND	25.0		µg/Kg-dry	1	9/29/2015 8:21:00 PM
2,4,5-T	ND	62.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Dinoseb	ND	37.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Dalapon	ND	250		µg/Kg-dry	1	9/29/2015 8:21:00 PM
2,4-DB	ND	31.2		µg/Kg-dry	1	9/29/2015 8:21:00 PM
MCP	ND	5,500		µg/Kg-dry	1	9/29/2015 8:21:00 PM
MCPA	ND	350		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Picloram	ND	62.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Bentazon	ND	43.7		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Chloramben	ND	25.0		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Acifluorfen	ND	100		µg/Kg-dry	1	9/29/2015 8:21:00 PM
3,5-Dichlorobenzoic acid	ND	50.0		µg/Kg-dry	1	9/29/2015 8:21:00 PM
4-Nitrophenol	ND	37.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Dacthal (DCPA)	ND	37.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Surr: 2,4-Dichlorophenylacetic acid	96.6	20.1-168		%REC	1	9/29/2015 8:21:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-003

Matrix: Soil

Client Sample ID: GP-2-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	36.4		µg/Kg-dry	1	9/29/2015 8:54:00 PM
2,4-D	ND	31.2		µg/Kg-dry	1	9/29/2015 8:54:00 PM
2,4-DP	ND	26.0		µg/Kg-dry	1	9/29/2015 8:54:00 PM
2,4,5-TP (Silvex)	ND	20.8		µg/Kg-dry	1	9/29/2015 8:54:00 PM
2,4,5-T	ND	52.0		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Dinoseb	ND	31.2		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Dalapon	ND	208		µg/Kg-dry	1	9/29/2015 8:54:00 PM
2,4-DB	ND	26.0		µg/Kg-dry	1	9/29/2015 8:54:00 PM
MCP	ND	4,580		µg/Kg-dry	1	9/29/2015 8:54:00 PM
MCPA	ND	291		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Picloram	ND	52.0		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Bentazon	ND	36.4		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Chloramben	23.0	20.8		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Acifluorfen	ND	83.2		µg/Kg-dry	1	9/29/2015 8:54:00 PM
3,5-Dichlorobenzoic acid	ND	41.6		µg/Kg-dry	1	9/29/2015 8:54:00 PM
4-Nitrophenol	ND	31.2		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Dacthal (DCPA)	ND	31.2		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Surr: 2,4-Dichlorophenylacetic acid	98.4	20.1-168		%REC	1	9/29/2015 8:54:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:20:00 AM

Project: Pacific Park

Lab ID: 1509270-004

Matrix: Soil

Client Sample ID: GP-2-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	41.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
2,4-D	ND	35.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
2,4-DP	ND	29.7		µg/Kg-dry	1	9/29/2015 9:11:00 PM
2,4,5-TP (Silvex)	ND	23.8		µg/Kg-dry	1	9/29/2015 9:11:00 PM
2,4,5-T	ND	59.4		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Dinoseb	ND	35.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Dalapon	ND	238		µg/Kg-dry	1	9/29/2015 9:11:00 PM
2,4-DB	ND	29.7		µg/Kg-dry	1	9/29/2015 9:11:00 PM
MCP	ND	5,230		µg/Kg-dry	1	9/29/2015 9:11:00 PM
MCPA	ND	333		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Picloram	ND	59.4		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Bentazon	ND	41.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Chloramben	ND	23.8		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Acifluorfen	ND	95.0		µg/Kg-dry	1	9/29/2015 9:11:00 PM
3,5-Dichlorobenzoic acid	ND	47.5		µg/Kg-dry	1	9/29/2015 9:11:00 PM
4-Nitrophenol	ND	35.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Dacthal (DCPA)	ND	35.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Surr: 2,4-Dichlorophenylacetic acid	98.4	20.1-168		%REC	1	9/29/2015 9:11:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:10:00 AM

Project: Pacific Park

Lab ID: 1509270-005

Matrix: Soil

Client Sample ID: GP-3-15:9.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	41.2		µg/Kg-dry	1	9/30/2015 5:46:00 PM
2,4-D	ND	35.3		µg/Kg-dry	1	9/30/2015 5:46:00 PM
2,4-DP	ND	29.5		µg/Kg-dry	1	9/30/2015 5:46:00 PM
2,4,5-TP (Silvex)	ND	23.6		µg/Kg-dry	1	9/30/2015 5:46:00 PM
2,4,5-T	ND	58.9		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Dinoseb	ND	35.3		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Dalapon	ND	236		µg/Kg-dry	1	9/30/2015 5:46:00 PM
2,4-DB	ND	29.5		µg/Kg-dry	1	9/30/2015 5:46:00 PM
MCPP	ND	330		µg/Kg-dry	1	9/30/2015 5:46:00 PM
MCPA	ND	330		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Picloram	ND	58.9		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Bentazon	ND	41.2		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Chloramben	ND	23.6		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Acifluorfen	ND	94.3		µg/Kg-dry	1	9/30/2015 5:46:00 PM
3,5-Dichlorobenzoic acid	ND	47.1		µg/Kg-dry	1	9/30/2015 5:46:00 PM
4-Nitrophenol	ND	35.3		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Dacthal (DCPA)	ND	35.3		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Surr: 2,4-Dichlorophenylacetic acid	25.1	20.1-168		%REC	1	9/30/2015 5:46:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509270-006

Matrix: Soil

Client Sample ID: GP-3-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	71.3		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-D	ND	61.1		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-DP	ND	50.9		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4,5-TP (Silvex)	ND	40.8		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4,5-T	ND	102		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Dinoseb	ND	61.1		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Dalapon	ND	408		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-DB	ND	50.9		µg/Kg-dry	1	9/29/2015 9:45:00 PM
MCPP	ND	8,970		µg/Kg-dry	1	9/29/2015 9:45:00 PM
MCPA	ND	571		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Picloram	ND	102		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Bentazon	ND	71.3		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Chloramben	ND	40.8		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Acifluorfen	170	163		µg/Kg-dry	1	9/29/2015 9:45:00 PM
3,5-Dichlorobenzoic acid	ND	81.5		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4-Nitrophenol	ND	61.1		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Dacthal (DCPA)	ND	61.1		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Surr: 2,4-Dichlorophenylacetic acid	92.8	20.1-168		%REC	1	9/29/2015 9:45:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509270-007

Matrix: Soil

Client Sample ID: GP-4-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	40.6		µg/Kg-dry	1	9/29/2015 10:02:00 PM
2,4-D	ND	34.8		µg/Kg-dry	1	9/29/2015 10:02:00 PM
2,4-DP	ND	29.0		µg/Kg-dry	1	9/29/2015 10:02:00 PM
2,4,5-TP (Silvex)	ND	23.2		µg/Kg-dry	1	9/29/2015 10:02:00 PM
2,4,5-T	ND	58.0		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Dinoseb	ND	34.8		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Dalapon	ND	232		µg/Kg-dry	1	9/29/2015 10:02:00 PM
2,4-DB	ND	29.0		µg/Kg-dry	1	9/29/2015 10:02:00 PM
MCPP	ND	5,110		µg/Kg-dry	1	9/29/2015 10:02:00 PM
MCPA	ND	325		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Picloram	ND	58.0		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Bentazon	ND	40.6		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Chloramben	24.6	23.2		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Acifluorfen	ND	92.9		µg/Kg-dry	1	9/29/2015 10:02:00 PM
3,5-Dichlorobenzoic acid	ND	46.4		µg/Kg-dry	1	9/29/2015 10:02:00 PM
4-Nitrophenol	ND	34.8		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Dacthal (DCPA)	ND	34.8		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Surr: 2,4-Dichlorophenylacetic acid	102	20.1-168		%REC	1	9/29/2015 10:02:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509270-008

Matrix: Soil

Client Sample ID: GP-4-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	45.2		µg/Kg-dry	1	9/29/2015 10:19:00 PM
2,4-D	ND	38.7		µg/Kg-dry	1	9/29/2015 10:19:00 PM
2,4-DP	ND	32.3		µg/Kg-dry	1	9/29/2015 10:19:00 PM
2,4,5-TP (Silvex)	ND	25.8		µg/Kg-dry	1	9/29/2015 10:19:00 PM
2,4,5-T	ND	64.6		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Dinoseb	ND	38.7		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Dalapon	ND	258		µg/Kg-dry	1	9/29/2015 10:19:00 PM
2,4-DB	ND	32.3		µg/Kg-dry	1	9/29/2015 10:19:00 PM
MCPP	ND	5,680		µg/Kg-dry	1	9/29/2015 10:19:00 PM
MCPA	ND	362		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Picloram	ND	64.6		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Bentazon	ND	45.2		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Chloramben	ND	25.8		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Acifluorfen	ND	103		µg/Kg-dry	1	9/29/2015 10:19:00 PM
3,5-Dichlorobenzoic acid	ND	51.7		µg/Kg-dry	1	9/29/2015 10:19:00 PM
4-Nitrophenol	ND	38.7		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Dacthal (DCPA)	ND	38.7		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Surr: 2,4-Dichlorophenylacetic acid	100	20.1-168		%REC	1	9/29/2015 10:19:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-009

Matrix: Soil

Client Sample ID: GP-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	42.5		µg/Kg-dry	1	9/29/2015 10:36:00 PM
2,4-D	ND	36.4		µg/Kg-dry	1	9/29/2015 10:36:00 PM
2,4-DP	ND	30.3		µg/Kg-dry	1	9/29/2015 10:36:00 PM
2,4,5-TP (Silvex)	ND	24.3		µg/Kg-dry	1	9/29/2015 10:36:00 PM
2,4,5-T	ND	60.7		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Dinoseb	ND	36.4		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Dalapon	ND	243		µg/Kg-dry	1	9/29/2015 10:36:00 PM
2,4-DB	ND	30.3		µg/Kg-dry	1	9/29/2015 10:36:00 PM
MCPP	ND	5,340		µg/Kg-dry	1	9/29/2015 10:36:00 PM
MCPA	ND	340		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Picloram	ND	60.7		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Bentazon	ND	42.5		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Chloramben	24.4	24.3		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Acifluorfen	ND	97.0		µg/Kg-dry	1	9/29/2015 10:36:00 PM
3,5-Dichlorobenzoic acid	ND	48.5		µg/Kg-dry	1	9/29/2015 10:36:00 PM
4-Nitrophenol	ND	36.4		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Dacthal (DCPA)	ND	36.4		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Surr: 2,4-Dichlorophenylacetic acid	105	20.1-168		%REC	1	9/29/2015 10:36:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1509270-010

Matrix: Soil

Client Sample ID: GP-5-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	42.2		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-D	ND	36.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-DP	ND	30.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4,5-TP (Silvex)	ND	24.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4,5-T	ND	60.2		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Dinoseb	ND	36.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Dalapon	ND	241		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-DB	ND	30.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
MCPP	ND	5,300		µg/Kg-dry	1	9/29/2015 10:52:00 PM
MCPA	ND	337		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Picloram	ND	60.2		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Bentazon	ND	42.2		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Chloramben	ND	24.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Acifluorfen	ND	96.4		µg/Kg-dry	1	9/29/2015 10:52:00 PM
3,5-Dichlorobenzoic acid	ND	48.2		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4-Nitrophenol	ND	36.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Dacthal (DCPA)	ND	36.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Surr: 2,4-Dichlorophenylacetic acid	102	20.1-168		%REC	1	9/29/2015 10:52:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509270-011

Matrix: Soil

Client Sample ID: GP-5-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	40.8		µg/Kg-dry	1	9/29/2015 11:09:00 PM
2,4-D	ND	35.0		µg/Kg-dry	1	9/29/2015 11:09:00 PM
2,4-DP	ND	29.1		µg/Kg-dry	1	9/29/2015 11:09:00 PM
2,4,5-TP (Silvex)	ND	23.3		µg/Kg-dry	1	9/29/2015 11:09:00 PM
2,4,5-T	ND	58.3		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Dinoseb	ND	35.0		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Dalapon	ND	233		µg/Kg-dry	1	9/29/2015 11:09:00 PM
2,4-DB	ND	29.1		µg/Kg-dry	1	9/29/2015 11:09:00 PM
MCP	ND	5,130		µg/Kg-dry	1	9/29/2015 11:09:00 PM
MCPA	ND	326		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Picloram	ND	58.3		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Bentazon	ND	40.8		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Chloramben	ND	23.3		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Acifluorfen	ND	93.2		µg/Kg-dry	1	9/29/2015 11:09:00 PM
3,5-Dichlorobenzoic acid	ND	46.6		µg/Kg-dry	1	9/29/2015 11:09:00 PM
4-Nitrophenol	ND	35.0		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Dacthal (DCPA)	ND	35.0		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Surr: 2,4-Dichlorophenylacetic acid	106	20.1-168		%REC	1	9/29/2015 11:09:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509270-012

Matrix: Soil

Client Sample ID: GP-6-15:7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	59.4		µg/Kg-dry	1	9/29/2015 11:26:00 PM
2,4-D	ND	50.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
2,4-DP	ND	42.4		µg/Kg-dry	1	9/29/2015 11:26:00 PM
2,4,5-TP (Silvex)	ND	34.0		µg/Kg-dry	1	9/29/2015 11:26:00 PM
2,4,5-T	ND	84.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Dinoseb	ND	50.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Dalapon	ND	340		µg/Kg-dry	1	9/29/2015 11:26:00 PM
2,4-DB	ND	42.4		µg/Kg-dry	1	9/29/2015 11:26:00 PM
MCPP	ND	7,470		µg/Kg-dry	1	9/29/2015 11:26:00 PM
MCPA	ND	475		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Picloram	ND	84.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Bentazon	ND	59.4		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Chloramben	ND	34.0		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Acifluorfen	ND	136		µg/Kg-dry	1	9/29/2015 11:26:00 PM
3,5-Dichlorobenzoic acid	ND	67.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
4-Nitrophenol	ND	50.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Dacthal (DCPA)	ND	50.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Surr: 2,4-Dichlorophenylacetic acid	97.4	20.1-168		%REC	1	9/29/2015 11:26:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:05:00 PM

Project: Pacific Park

Lab ID: 1509270-013

Matrix: Soil

Client Sample ID: GP-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	41.1		µg/Kg-dry	1	9/29/2015 11:43:00 PM
2,4-D	ND	35.3		µg/Kg-dry	1	9/29/2015 11:43:00 PM
2,4-DP	ND	29.4		µg/Kg-dry	1	9/29/2015 11:43:00 PM
2,4,5-TP (Silvex)	ND	23.5		µg/Kg-dry	1	9/29/2015 11:43:00 PM
2,4,5-T	ND	58.8		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Dinoseb	ND	35.3		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Dalapon	ND	235		µg/Kg-dry	1	9/29/2015 11:43:00 PM
2,4-DB	ND	29.4		µg/Kg-dry	1	9/29/2015 11:43:00 PM
MCPP	ND	5,170		µg/Kg-dry	1	9/29/2015 11:43:00 PM
MCPA	ND	329		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Picloram	ND	58.8		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Bentazon	ND	41.1		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Chloramben	ND	23.5		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Acifluorfen	ND	94.0		µg/Kg-dry	1	9/29/2015 11:43:00 PM
3,5-Dichlorobenzoic acid	ND	47.0		µg/Kg-dry	1	9/29/2015 11:43:00 PM
4-Nitrophenol	ND	35.3		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Dacthal (DCPA)	ND	35.3		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Surr: 2,4-Dichlorophenylacetic acid	96.6	20.1-168		%REC	1	9/29/2015 11:43:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-014

Matrix: Soil

Client Sample ID: GP-7-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	35.9		µg/Kg-dry	1	9/29/2015 11:59:00 PM
2,4-D	ND	30.7		µg/Kg-dry	1	9/29/2015 11:59:00 PM
2,4-DP	ND	25.6		µg/Kg-dry	1	9/29/2015 11:59:00 PM
2,4,5-TP (Silvex)	ND	20.5		µg/Kg-dry	1	9/29/2015 11:59:00 PM
2,4,5-T	ND	51.2		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Dinoseb	ND	30.7		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Dalapon	ND	205		µg/Kg-dry	1	9/29/2015 11:59:00 PM
2,4-DB	ND	25.6		µg/Kg-dry	1	9/29/2015 11:59:00 PM
MCP	ND	4,510		µg/Kg-dry	1	9/29/2015 11:59:00 PM
MCPA	ND	287		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Picloram	ND	51.2		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Bentazon	ND	35.9		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Chloramben	ND	20.5		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Acifluorfen	ND	82.0		µg/Kg-dry	1	9/29/2015 11:59:00 PM
3,5-Dichlorobenzoic acid	ND	41.0		µg/Kg-dry	1	9/29/2015 11:59:00 PM
4-Nitrophenol	ND	30.7		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Dacthal (DCPA)	ND	30.7		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Surr: 2,4-Dichlorophenylacetic acid	93.3	20.1-168		%REC	1	9/29/2015 11:59:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:40:00 PM

Project: Pacific Park

Lab ID: 1509270-015

Matrix: Soil

Client Sample ID: GP-7-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	41.0		µg/Kg-dry	1	9/30/2015 12:16:00 AM
2,4-D	ND	35.1		µg/Kg-dry	1	9/30/2015 12:16:00 AM
2,4-DP	ND	29.3		µg/Kg-dry	1	9/30/2015 12:16:00 AM
2,4,5-TP (Silvex)	ND	23.4		µg/Kg-dry	1	9/30/2015 12:16:00 AM
2,4,5-T	ND	58.6		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Dinoseb	ND	35.1		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Dalapon	ND	234		µg/Kg-dry	1	9/30/2015 12:16:00 AM
2,4-DB	ND	29.3		µg/Kg-dry	1	9/30/2015 12:16:00 AM
MCP	ND	5,150		µg/Kg-dry	1	9/30/2015 12:16:00 AM
MCPA	ND	328		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Picloram	ND	58.6		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Bentazon	ND	41.0		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Chloramben	ND	23.4		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Acifluorfen	ND	93.7		µg/Kg-dry	1	9/30/2015 12:16:00 AM
3,5-Dichlorobenzoic acid	ND	46.9		µg/Kg-dry	1	9/30/2015 12:16:00 AM
4-Nitrophenol	ND	35.1		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Dacthal (DCPA)	ND	35.1		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Surr: 2,4-Dichlorophenylacetic acid	83.9	20.1-168		%REC	1	9/30/2015 12:16:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-016

Matrix: Soil

Client Sample ID: GP-8-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	41.6		µg/Kg-dry	1	9/30/2015 12:33:00 AM
2,4-D	ND	35.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
2,4-DP	ND	29.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
2,4,5-TP (Silvex)	ND	23.8		µg/Kg-dry	1	9/30/2015 12:33:00 AM
2,4,5-T	ND	59.5		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Dinoseb	ND	35.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Dalapon	ND	238		µg/Kg-dry	1	9/30/2015 12:33:00 AM
2,4-DB	ND	29.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
MCPP	ND	5,230		µg/Kg-dry	1	9/30/2015 12:33:00 AM
MCPA	ND	333		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Picloram	ND	59.5		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Bentazon	ND	41.6		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Chloramben	25.9	23.8		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Acifluorfen	ND	95.1		µg/Kg-dry	1	9/30/2015 12:33:00 AM
3,5-Dichlorobenzoic acid	ND	47.6		µg/Kg-dry	1	9/30/2015 12:33:00 AM
4-Nitrophenol	ND	35.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Dacthal (DCPA)	ND	35.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Surr: 2,4-Dichlorophenylacetic acid	115	20.1-168		%REC	1	9/30/2015 12:33:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:10:00 PM

Project: Pacific Park

Lab ID: 1509270-017

Matrix: Soil

Client Sample ID: GP-8-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	47.6		µg/Kg-dry	1	9/30/2015 4:03:00 PM
2,4-D	ND	40.8		µg/Kg-dry	1	9/30/2015 4:03:00 PM
2,4-DP	ND	34.0		µg/Kg-dry	1	9/30/2015 4:03:00 PM
2,4,5-TP (Silvex)	ND	27.2		µg/Kg-dry	1	9/30/2015 4:03:00 PM
2,4,5-T	ND	68.1		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Dinoseb	ND	40.8		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Dalapon	ND	272		µg/Kg-dry	1	9/30/2015 4:03:00 PM
2,4-DB	ND	34.0		µg/Kg-dry	1	9/30/2015 4:03:00 PM
MCPP	ND	381		µg/Kg-dry	1	9/30/2015 4:03:00 PM
MCPA	ND	381		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Picloram	ND	68.1		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Bentazon	ND	47.6		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Chloramben	ND	27.2		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Acifluorfen	ND	109		µg/Kg-dry	1	9/30/2015 4:03:00 PM
3,5-Dichlorobenzoic acid	ND	54.5		µg/Kg-dry	1	9/30/2015 4:03:00 PM
4-Nitrophenol	ND	40.8		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Dacthal (DCPA)	ND	40.8		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Surr: 2,4-Dichlorophenylacetic acid	103	20.1-168		%REC	1	9/30/2015 4:03:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:06:00 PM

Project: Pacific Park

Lab ID: 1509270-018

Matrix: Soil

Client Sample ID: GP-8-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	44.5		µg/Kg-dry	1	9/30/2015 4:20:00 PM
2,4-D	ND	38.2		µg/Kg-dry	1	9/30/2015 4:20:00 PM
2,4-DP	ND	31.8		µg/Kg-dry	1	9/30/2015 4:20:00 PM
2,4,5-TP (Silvex)	ND	25.4		µg/Kg-dry	1	9/30/2015 4:20:00 PM
2,4,5-T	ND	63.6		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Dinoseb	ND	38.2		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Dalapon	ND	254		µg/Kg-dry	1	9/30/2015 4:20:00 PM
2,4-DB	ND	31.8		µg/Kg-dry	1	9/30/2015 4:20:00 PM
MCPP	ND	356		µg/Kg-dry	1	9/30/2015 4:20:00 PM
MCPA	ND	356		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Picloram	ND	63.6		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Bentazon	ND	44.5		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Chloramben	ND	25.4		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Acifluorfen	ND	102		µg/Kg-dry	1	9/30/2015 4:20:00 PM
3,5-Dichlorobenzoic acid	ND	50.9		µg/Kg-dry	1	9/30/2015 4:20:00 PM
4-Nitrophenol	ND	38.2		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Dacthal (DCPA)	ND	38.2		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Surr: 2,4-Dichlorophenylacetic acid	107	20.1-168		%REC	1	9/30/2015 4:20:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:45:00 PM

Project: Pacific Park

Lab ID: 1509270-019

Matrix: Soil

Client Sample ID: GP-9-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	42.4		µg/Kg-dry	1	9/30/2015 4:37:00 PM
2,4-D	ND	36.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
2,4-DP	ND	30.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
2,4,5-TP (Silvex)	ND	24.2		µg/Kg-dry	1	9/30/2015 4:37:00 PM
2,4,5-T	ND	60.5		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Dinoseb	ND	36.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Dalapon	ND	242		µg/Kg-dry	1	9/30/2015 4:37:00 PM
2,4-DB	ND	30.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
MCPP	ND	339		µg/Kg-dry	1	9/30/2015 4:37:00 PM
MCPA	ND	339		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Picloram	ND	60.5		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Bentazon	ND	42.4		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Chloramben	ND	24.2		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Acifluorfen	ND	96.8		µg/Kg-dry	1	9/30/2015 4:37:00 PM
3,5-Dichlorobenzoic acid	ND	48.4		µg/Kg-dry	1	9/30/2015 4:37:00 PM
4-Nitrophenol	ND	36.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Dacthal (DCPA)	ND	36.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Surr: 2,4-Dichlorophenylacetic acid	108	20.1-168		%REC	1	9/30/2015 4:37:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509270-020

Matrix: Soil

Client Sample ID: GP-9-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	46.8		µg/Kg-dry	1	9/30/2015 4:54:00 PM
2,4-D	ND	40.1		µg/Kg-dry	1	9/30/2015 4:54:00 PM
2,4-DP	ND	33.4		µg/Kg-dry	1	9/30/2015 4:54:00 PM
2,4,5-TP (Silvex)	ND	26.7		µg/Kg-dry	1	9/30/2015 4:54:00 PM
2,4,5-T	ND	66.9		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Dinoseb	ND	40.1		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Dalapon	ND	267		µg/Kg-dry	1	9/30/2015 4:54:00 PM
2,4-DB	ND	33.4		µg/Kg-dry	1	9/30/2015 4:54:00 PM
MCPP	ND	374		µg/Kg-dry	1	9/30/2015 4:54:00 PM
MCPA	ND	374		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Picloram	ND	66.9		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Bentazon	ND	46.8		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Chloramben	ND	26.7		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Acifluorfen	ND	107		µg/Kg-dry	1	9/30/2015 4:54:00 PM
3,5-Dichlorobenzoic acid	ND	53.5		µg/Kg-dry	1	9/30/2015 4:54:00 PM
4-Nitrophenol	ND	40.1		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Dacthal (DCPA)	ND	40.1		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Surr: 2,4-Dichlorophenylacetic acid	109	20.1-168		%REC	1	9/30/2015 4:54:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:10:00 PM

Project: Pacific Park

Lab ID: 1509270-021

Matrix: Soil

Client Sample ID: GP-10-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	47.4		µg/Kg-dry	1	9/30/2015 5:12:00 PM
2,4-D	ND	40.6		µg/Kg-dry	1	9/30/2015 5:12:00 PM
2,4-DP	ND	33.8		µg/Kg-dry	1	9/30/2015 5:12:00 PM
2,4,5-TP (Silvex)	ND	27.1		µg/Kg-dry	1	9/30/2015 5:12:00 PM
2,4,5-T	ND	67.7		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Dinoseb	ND	40.6		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Dalapon	ND	271		µg/Kg-dry	1	9/30/2015 5:12:00 PM
2,4-DB	ND	33.8		µg/Kg-dry	1	9/30/2015 5:12:00 PM
MCPP	ND	379		µg/Kg-dry	1	9/30/2015 5:12:00 PM
MCPA	ND	379		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Picloram	ND	67.7		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Bentazon	ND	47.4		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Chloramben	ND	27.1		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Acifluorfen	ND	108		µg/Kg-dry	1	9/30/2015 5:12:00 PM
3,5-Dichlorobenzoic acid	ND	54.2		µg/Kg-dry	1	9/30/2015 5:12:00 PM
4-Nitrophenol	ND	40.6		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Dacthal (DCPA)	ND	40.6		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Surr: 2,4-Dichlorophenylacetic acid	84.5	20.1-168		%REC	1	9/30/2015 5:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1509270-022

Matrix: Soil

Client Sample ID: GP-10-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	44.4		µg/Kg-dry	1	9/30/2015 6:12:00 PM
2,4-D	ND	38.1		µg/Kg-dry	1	9/30/2015 6:12:00 PM
2,4-DP	ND	31.7		µg/Kg-dry	1	9/30/2015 6:12:00 PM
2,4,5-TP (Silvex)	ND	25.4		µg/Kg-dry	1	9/30/2015 6:12:00 PM
2,4,5-T	ND	63.5		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Dinoseb	ND	38.1		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Dalapon	ND	254		µg/Kg-dry	1	9/30/2015 6:12:00 PM
2,4-DB	ND	31.7		µg/Kg-dry	1	9/30/2015 6:12:00 PM
MCPP	ND	355		µg/Kg-dry	1	9/30/2015 6:12:00 PM
MCPA	ND	355		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Picloram	ND	63.5		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Bentazon	ND	44.4		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Chloramben	ND	25.4		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Acifluorfen	ND	102		µg/Kg-dry	1	9/30/2015 6:12:00 PM
3,5-Dichlorobenzoic acid	ND	50.8		µg/Kg-dry	1	9/30/2015 6:12:00 PM
4-Nitrophenol	ND	38.1		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Dacthal (DCPA)	ND	38.1		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Surr: 2,4-Dichlorophenylacetic acid	130	20.1-168		%REC	1	9/30/2015 6:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:45:00 PM

Project: Pacific Park

Lab ID: 1509270-023

Matrix: Soil

Client Sample ID: GP-11-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	37.6		µg/Kg-dry	1	10/1/2015 12:34:00 AM
2,4-D	ND	32.2		µg/Kg-dry	1	10/1/2015 12:34:00 AM
2,4-DP	ND	26.8		µg/Kg-dry	1	10/1/2015 12:34:00 AM
2,4,5-TP (Silvex)	ND	21.5		µg/Kg-dry	1	10/1/2015 12:34:00 AM
2,4,5-T	ND	53.7		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Dinoseb	ND	32.2		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Dalapon	ND	215		µg/Kg-dry	1	10/1/2015 12:34:00 AM
2,4-DB	ND	26.8		µg/Kg-dry	1	10/1/2015 12:34:00 AM
MCPP	ND	4,720		µg/Kg-dry	1	10/1/2015 12:34:00 AM
MCPA	ND	300		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Picloram	ND	53.7		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Bentazon	ND	37.6		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Chloramben	ND	21.5		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Acifluorfen	ND	85.8		µg/Kg-dry	1	10/1/2015 12:34:00 AM
3,5-Dichlorobenzoic acid	ND	42.9		µg/Kg-dry	1	10/1/2015 12:34:00 AM
4-Nitrophenol	ND	32.2		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Dacthal (DCPA)	ND	32.2		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Surr: 2,4-Dichlorophenylacetic acid	110	20.1-168		%REC	1	10/1/2015 12:34:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:50:00 PM

Project: Pacific Park

Lab ID: 1509270-024

Matrix: Soil

Client Sample ID: GP-11-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	65.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
2,4-D	ND	56.0		µg/Kg-dry	1	10/1/2015 12:51:00 AM
2,4-DP	ND	46.6		µg/Kg-dry	1	10/1/2015 12:51:00 AM
2,4,5-TP (Silvex)	ND	37.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
2,4,5-T	ND	93.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Dinoseb	ND	56.0		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Dalapon	ND	373		µg/Kg-dry	1	10/1/2015 12:51:00 AM
2,4-DB	ND	46.6		µg/Kg-dry	1	10/1/2015 12:51:00 AM
MCP	ND	8,210		µg/Kg-dry	1	10/1/2015 12:51:00 AM
MCPA	ND	522		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Picloram	ND	93.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Bentazon	ND	65.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Chloramben	ND	37.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Acifluorfen	ND	149		µg/Kg-dry	1	10/1/2015 12:51:00 AM
3,5-Dichlorobenzoic acid	ND	74.6		µg/Kg-dry	1	10/1/2015 12:51:00 AM
4-Nitrophenol	ND	56.0		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Dacthal (DCPA)	ND	56.0		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Surr: 2,4-Dichlorophenylacetic acid	110	20.1-168		%REC	1	10/1/2015 12:51:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:50:00 AM

Project: Pacific Park

Lab ID: 1509270-025

Matrix: Soil

Client Sample ID: GP-12-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	43.3		µg/Kg-dry	1	10/1/2015 1:07:00 AM
2,4-D	ND	37.1		µg/Kg-dry	1	10/1/2015 1:07:00 AM
2,4-DP	ND	30.9		µg/Kg-dry	1	10/1/2015 1:07:00 AM
2,4,5-TP (Silvex)	ND	24.7		µg/Kg-dry	1	10/1/2015 1:07:00 AM
2,4,5-T	ND	61.9		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Dinoseb	ND	37.1		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Dalapon	ND	247		µg/Kg-dry	1	10/1/2015 1:07:00 AM
2,4-DB	ND	30.9		µg/Kg-dry	1	10/1/2015 1:07:00 AM
MCP	ND	5,440		µg/Kg-dry	1	10/1/2015 1:07:00 AM
MCPA	ND	346		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Picloram	ND	61.9		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Bentazon	ND	43.3		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Chloramben	ND	24.7		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Acifluorfen	ND	99.0		µg/Kg-dry	1	10/1/2015 1:07:00 AM
3,5-Dichlorobenzoic acid	ND	49.5		µg/Kg-dry	1	10/1/2015 1:07:00 AM
4-Nitrophenol	ND	37.1		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Dacthal (DCPA)	ND	37.1		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Surr: 2,4-Dichlorophenylacetic acid	111	20.1-168		%REC	1	10/1/2015 1:07:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509270-026

Matrix: Soil

Client Sample ID: GP-12-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	43.6		µg/Kg-dry	1	10/1/2015 1:24:00 AM
2,4-D	ND	37.3		µg/Kg-dry	1	10/1/2015 1:24:00 AM
2,4-DP	ND	31.1		µg/Kg-dry	1	10/1/2015 1:24:00 AM
2,4,5-TP (Silvex)	ND	24.9		µg/Kg-dry	1	10/1/2015 1:24:00 AM
2,4,5-T	ND	62.2		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Dinoseb	ND	37.3		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Dalapon	ND	249		µg/Kg-dry	1	10/1/2015 1:24:00 AM
2,4-DB	ND	31.1		µg/Kg-dry	1	10/1/2015 1:24:00 AM
MCPP	ND	5,480		µg/Kg-dry	1	10/1/2015 1:24:00 AM
MCPA	ND	348		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Picloram	ND	62.2		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Bentazon	ND	43.6		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Chloramben	ND	24.9		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Acifluorfen	ND	99.6		µg/Kg-dry	1	10/1/2015 1:24:00 AM
3,5-Dichlorobenzoic acid	ND	49.8		µg/Kg-dry	1	10/1/2015 1:24:00 AM
4-Nitrophenol	ND	37.3		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Dacthal (DCPA)	ND	37.3		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Surr: 2,4-Dichlorophenylacetic acid	104	20.1-168		%REC	1	10/1/2015 1:24:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:05:00 AM

Project: Pacific Park

Lab ID: 1509270-028

Matrix: Soil

Client Sample ID: MW-1-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	39.3		µg/Kg-dry	1	10/1/2015 1:41:00 AM
2,4-D	ND	33.7		µg/Kg-dry	1	10/1/2015 1:41:00 AM
2,4-DP	ND	28.1		µg/Kg-dry	1	10/1/2015 1:41:00 AM
2,4,5-TP (Silvex)	ND	22.5		µg/Kg-dry	1	10/1/2015 1:41:00 AM
2,4,5-T	ND	56.1		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Dinoseb	ND	33.7		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Dalapon	ND	225		µg/Kg-dry	1	10/1/2015 1:41:00 AM
2,4-DB	ND	28.1		µg/Kg-dry	1	10/1/2015 1:41:00 AM
MCP	ND	4,940		µg/Kg-dry	1	10/1/2015 1:41:00 AM
MCPA	ND	314		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Picloram	ND	56.1		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Bentazon	ND	39.3		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Chloramben	ND	22.5		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Acifluorfen	ND	89.8		µg/Kg-dry	1	10/1/2015 1:41:00 AM
3,5-Dichlorobenzoic acid	ND	44.9		µg/Kg-dry	1	10/1/2015 1:41:00 AM
4-Nitrophenol	ND	33.7		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Dacthal (DCPA)	ND	33.7		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Surr: 2,4-Dichlorophenylacetic acid	99.9	20.1-168		%REC	1	10/1/2015 1:41:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-029

Matrix: Soil

Client Sample ID: MW-1-15:12.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	41.4		µg/Kg-dry	1	10/1/2015 1:58:00 AM
2,4-D	ND	35.5		µg/Kg-dry	1	10/1/2015 1:58:00 AM
2,4-DP	ND	29.6		µg/Kg-dry	1	10/1/2015 1:58:00 AM
2,4,5-TP (Silvex)	ND	23.6		µg/Kg-dry	1	10/1/2015 1:58:00 AM
2,4,5-T	ND	59.1		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Dinoseb	ND	35.5		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Dalapon	ND	236		µg/Kg-dry	1	10/1/2015 1:58:00 AM
2,4-DB	ND	29.6		µg/Kg-dry	1	10/1/2015 1:58:00 AM
MCPP	ND	5,200		µg/Kg-dry	1	10/1/2015 1:58:00 AM
MCPA	ND	331		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Picloram	ND	59.1		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Bentazon	ND	41.4		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Chloramben	ND	23.6		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Acifluorfen	ND	94.6		µg/Kg-dry	1	10/1/2015 1:58:00 AM
3,5-Dichlorobenzoic acid	ND	47.3		µg/Kg-dry	1	10/1/2015 1:58:00 AM
4-Nitrophenol	ND	35.5		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Dacthal (DCPA)	ND	35.5		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Surr: 2,4-Dichlorophenylacetic acid	92.7	20.1-168		%REC	1	10/1/2015 1:58:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:05:00 PM

Project: Pacific Park

Lab ID: 1509270-030

Matrix: Soil

Client Sample ID: MW-2-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	38.9		µg/Kg-dry	1	10/1/2015 2:14:00 AM
2,4-D	ND	33.3		µg/Kg-dry	1	10/1/2015 2:14:00 AM
2,4-DP	ND	27.8		µg/Kg-dry	1	10/1/2015 2:14:00 AM
2,4,5-TP (Silvex)	ND	22.2		µg/Kg-dry	1	10/1/2015 2:14:00 AM
2,4,5-T	ND	55.5		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Dinoseb	ND	33.3		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Dalapon	ND	222		µg/Kg-dry	1	10/1/2015 2:14:00 AM
2,4-DB	ND	27.8		µg/Kg-dry	1	10/1/2015 2:14:00 AM
MCPP	ND	4,890		µg/Kg-dry	1	10/1/2015 2:14:00 AM
MCPA	ND	311		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Picloram	ND	55.5		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Bentazon	ND	38.9		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Chloramben	ND	22.2		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Acifluorfen	ND	88.8		µg/Kg-dry	1	10/1/2015 2:14:00 AM
3,5-Dichlorobenzoic acid	ND	44.4		µg/Kg-dry	1	10/1/2015 2:14:00 AM
4-Nitrophenol	ND	33.3		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Dacthal (DCPA)	ND	33.3		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Surr: 2,4-Dichlorophenylacetic acid	87.6	20.1-168		%REC	1	10/1/2015 2:14:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-031

Matrix: Soil

Client Sample ID: MW-2-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	66.0		µg/Kg-dry	1	10/1/2015 2:31:00 AM
2,4-D	ND	56.6		µg/Kg-dry	1	10/1/2015 2:31:00 AM
2,4-DP	ND	47.2		µg/Kg-dry	1	10/1/2015 2:31:00 AM
2,4,5-TP (Silvex)	ND	37.7		µg/Kg-dry	1	10/1/2015 2:31:00 AM
2,4,5-T	ND	94.3		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Dinoseb	ND	56.6		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Dalapon	ND	377		µg/Kg-dry	1	10/1/2015 2:31:00 AM
2,4-DB	ND	47.2		µg/Kg-dry	1	10/1/2015 2:31:00 AM
MCPP	ND	8,300		µg/Kg-dry	1	10/1/2015 2:31:00 AM
MCPA	ND	528		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Picloram	ND	94.3		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Bentazon	ND	66.0		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Chloramben	ND	37.7		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Acifluorfen	ND	151		µg/Kg-dry	1	10/1/2015 2:31:00 AM
3,5-Dichlorobenzoic acid	ND	75.5		µg/Kg-dry	1	10/1/2015 2:31:00 AM
4-Nitrophenol	ND	56.6		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Dacthal (DCPA)	ND	56.6		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Surr: 2,4-Dichlorophenylacetic acid	113	20.1-168		%REC	1	10/1/2015 2:31:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-033

Matrix: Soil

Client Sample ID: MW-3-15:6.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	43.8		µg/Kg-dry	1	10/1/2015 2:48:00 AM
2,4-D	ND	37.5		µg/Kg-dry	1	10/1/2015 2:48:00 AM
2,4-DP	ND	31.3		µg/Kg-dry	1	10/1/2015 2:48:00 AM
2,4,5-TP (Silvex)	ND	25.0		µg/Kg-dry	1	10/1/2015 2:48:00 AM
2,4,5-T	ND	62.6		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Dinoseb	ND	37.5		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Dalapon	ND	250		µg/Kg-dry	1	10/1/2015 2:48:00 AM
2,4-DB	ND	31.3		µg/Kg-dry	1	10/1/2015 2:48:00 AM
MCPP	ND	5,510		µg/Kg-dry	1	10/1/2015 2:48:00 AM
MCPA	ND	350		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Picloram	ND	62.6		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Bentazon	ND	43.8		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Chloramben	ND	25.0		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Acifluorfen	ND	100		µg/Kg-dry	1	10/1/2015 2:48:00 AM
3,5-Dichlorobenzoic acid	ND	50.1		µg/Kg-dry	1	10/1/2015 2:48:00 AM
4-Nitrophenol	ND	37.5		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Dacthal (DCPA)	ND	37.5		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Surr: 2,4-Dichlorophenylacetic acid	82.9	20.1-168		%REC	1	10/1/2015 2:48:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-034

Matrix: Soil

Client Sample ID: MW-3-15:15.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	47.7		µg/Kg-dry	1	10/1/2015 3:05:00 AM
2,4-D	ND	40.9		µg/Kg-dry	1	10/1/2015 3:05:00 AM
2,4-DP	ND	34.1		µg/Kg-dry	1	10/1/2015 3:05:00 AM
2,4,5-TP (Silvex)	ND	27.3		µg/Kg-dry	1	10/1/2015 3:05:00 AM
2,4,5-T	ND	68.1		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Dinoseb	ND	40.9		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Dalapon	ND	273		µg/Kg-dry	1	10/1/2015 3:05:00 AM
2,4-DB	ND	34.1		µg/Kg-dry	1	10/1/2015 3:05:00 AM
MCP	ND	6,000		µg/Kg-dry	1	10/1/2015 3:05:00 AM
MCPA	ND	382		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Picloram	ND	68.1		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Bentazon	ND	47.7		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Chloramben	ND	27.3		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Acifluorfen	ND	109		µg/Kg-dry	1	10/1/2015 3:05:00 AM
3,5-Dichlorobenzoic acid	ND	54.5		µg/Kg-dry	1	10/1/2015 3:05:00 AM
4-Nitrophenol	ND	40.9		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Dacthal (DCPA)	ND	40.9		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Surr: 2,4-Dichlorophenylacetic acid	97.6	20.1-168		%REC	1	10/1/2015 3:05:00 AM



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	MB-11922	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/23/2015		RunNo:	25219	
Client ID:	MBLKS	Batch ID:	11922					Analysis Date:	9/29/2015		SeqNo:	475625	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Dicamba	ND	35.0											
2,4-D	ND	30.0											
2,4-DP	ND	25.0											
2,4,5-TP (Silvex)	ND	20.0											
2,4,5-T	ND	50.0											
Dinoseb	ND	30.0											
Dalapon	ND	200											
2,4-DB	ND	25.0											
MCPP	ND	4,400											
MCPA	ND	280											
Picloram	ND	50.0											
Bentazon	ND	35.0											
Chloramben	ND	20.0											
Acifluorfen	ND	80.0											
3,5-Dichlorobenzoic acid	ND	40.0											
4-Nitrophenol	ND	30.0											
Dacthal (DCPA)	ND	30.0											
Surr: 2,4-Dichlorophenylacetic acid	55.8		50.00		112	20.1	168						

Sample ID	LCS-11922	SampType: LCS		Units: µg/Kg		Prep Date: 9/23/2015			RunNo: 25219		
Client ID:	LCSS	Batch ID: 11922					Analysis Date: 9/29/2015			SeqNo: 475623	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	119	35.0	100.0	0	119	32.1	135				
2,4-D	122	30.0	100.0	0	122	22.4	130				
2,4-DP	117	25.0	100.0	0	117	26.4	130				
2,4,5-TP (Silvex)	110	20.0	100.0	0	110	21.2	138				
2,4,5-T	111	50.0	100.0	0	111	39	117				
Dinoseb	105	30.0	100.0	0	105	5	165				
Dalapon	9,840	200	10,000	0	98.4	18.4	162				
2,4-DB	113	25.0	100.0	0	113	5	164				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	LCS-11922	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/23/2015	RunNo:	25219		
Client ID:	LCSS	Batch ID:	11922			Analysis Date:	9/29/2015	SeqNo:	475623		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MCPP	1170	4,400	1,000	0	117	22.2	157				
MCPA	2,210	280	1,000	0	221	47.4	128				S
Picloram	109	50.0	100.0	0	109	5	175				
Bentazon	102	35.0	100.0	0	102	7.59	162				
Chloramben	56.7	20.0	100.0	0	56.7	5	147				
Acifluorfen	94.1	80.0	100.0	0	94.1	5	163				
3,5-Dichlorobenzoic acid	124	40.0	100.0	0	124	18.7	139				
4-Nitrophenol	94.0	30.0	100.0	0	94.0	5	163				
Dacthal (DCPA)	111	30.0	100.0	0	111	5	164				
Surr: 2,4-Dichlorophenylacetic acid	99.5		100.0		99.5	20.1	168				

NOTES:

S - Outlying spike recovery observed for MCPA - High bias. There were no detections in the batch samples. No further action is required.

Sample ID	1509270-001ADUP	SampType:	DUP			Units:	µg/Kg-dry			Prep Date:	9/23/2015			RunNo:	25219		
Client ID:	GP-1-15:5.0	Batch ID:	11922							Analysis Date:	9/29/2015			SeqNo:	475598		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val				%RPD	RPDLimit	Qual		
Dicamba		ND	41.0						0					30			
2,4-D		ND	35.2						0					30			
2,4-DP		ND	29.3						0					30			
2,4,5-TP (Silvex)		ND	23.4						0					30			
2,4,5-T		ND	58.6						0					30			
Dinoseb		ND	35.2						0					30			
Dalapon		ND	234						0					30			
2,4-DB		ND	29.3						0					30			
MCPP		ND	5,160						0					30			
MCPA		ND	328						0					30			
Picloram		ND	58.6						0					30			
Bentazon		ND	41.0						0					30			
Chloramben		ND	23.4						0					30			
Acifluorfen		ND	93.7						0					30			
3,5-Dichlorobenzoic acid		ND	46.9						0					30			



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Herbicides by EPA Method 8151A

Sample ID	1509270-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25219		
Client ID:	GP-1-15:5.0	Batch ID:	11922			Analysis Date:	9/29/2015	SeqNo:	475598		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

4-Nitrophenol	ND	35.2						0		30	
Dacthal (DCPA)	ND	35.2						0		30	
Surr: 2,4-Dichlorophenylacetic acid	110		117.2		93.5	20.1	168		0		

Sample ID	1509270-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25219		
Client ID:	GP-1-15:13.5	Batch ID:	11922			Analysis Date:	9/29/2015	SeqNo:	475600		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	140	43.9	125.4	0	112	31.9	118				
2,4-D	150	37.6	125.4	8.523	113	12.4	134				
2,4-DP	137	31.3	125.4	0	109	27.2	129				
2,4,5-TP (Silvex)	133	25.1	125.4	8.510	99.5	28.6	134				
2,4,5-T	139	62.7	125.4	0	111	13.1	147				
Dinoseb	126	37.6	125.4	0	100	10	179				
Dalapon	7,600	251	12,540	0	60.6	24.9	139				
2,4-DB	141	31.3	125.4	20.49	96.0	50.2	152				
MCPP	1380	5,520	1,254	0	110	37.8	140				
MCPA	2,560	351	1,254	0	204	13.7	147				S
Picloram	148	62.7	125.4	31.34	92.7	5	153				
Bentazon	132	43.9	125.4	18.23	90.4	15	140				
Chloramben	110	25.1	125.4	21.69	70.7	5	162				
Acifluorfen	117	100	125.4	17.13	79.9	15	140				
3,5-Dichlorobenzoic acid	141	50.2	125.4	12.43	102	10	164				
4-Nitrophenol	131	37.6	125.4	13.88	93.3	44.8	125				
Dacthal (DCPA)	88.5	37.6	125.4	17.71	56.5	5	132				
Surr: 2,4-Dichlorophenylacetic acid	119		125.4		94.8	20.1	168				

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	1509270-022AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25230		
Client ID:	GP-10-15:13.0	Batch ID:	11938			Analysis Date:	9/30/2015	SeqNo:	475820		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	121	45.1	128.9	0	93.7	31.9	118				
2,4-D	126	38.7	128.9	0	97.7	12.4	134				
2,4-DP	121	32.2	128.9	0	93.6	27.2	129				
2,4,5-TP (Silvex)	107	25.8	128.9	0	83.3	28.6	134				
2,4,5-T	115	64.5	128.9	0	89.4	13.1	147				
Dinoseb	116	38.7	128.9	0	90.2	10	179				
Dalapon	1,200	258	1,289	0	93.1	24.9	139				
2,4-DB	110	32.2	128.9	0	85.6	50.2	152				
MCP	251	361	644.5	0	39.0	37.8	140				
MCPA	541	361	644.5	0	84.0	13.7	147				
Picloram	107	64.5	128.9	0	83.1	5	153				
Bentazon	119	45.1	128.9	0	92.3	15	140				
Chloramben	118	25.8	128.9	10.45	83.5	5	162				
Acifluorfen	93.8	103	128.9	0	72.8	15	140				
3,5-Dichlorobenzoic acid	119	51.6	128.9	0	92.4	10	164				
4-Nitrophenol	118	38.7	128.9	8.524	84.7	44.8	125				
Dacthal (DCPA)	106	38.7	128.9	15.85	69.8	5	132				
Surr: 2,4-Dichlorophenylacetic acid	156		128.9		121	20.1	168				

Sample ID	MB-11938	SampType: MBLK			Units: µg/Kg	Prep Date: 9/24/2015			RunNo: 25230		
Client ID:	MBLKS	Batch ID: 11938				Analysis Date: 9/30/2015			SeqNo: 475823		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	ND	35.0									
2,4-D	ND	30.0									
2,4-DP	ND	25.0									
2,4,5-TP (Silvex)	ND	20.0									
2,4,5-T	ND	50.0									
Dinoseb	ND	30.0									
Dalapon	ND	200									
2,4-DB	ND	25.0									



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	MB-11938	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/24/2015		RunNo:	25230	
Client ID:	MBLKS	Batch ID:	11938					Analysis Date:	9/30/2015		SeqNo:	475823	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
MCPP		ND	280										
MCPA		ND	280										
Picloram		ND	50.0										
Bentazon		ND	35.0										
Chloramben		ND	20.0										
Acifluorfen		ND	80.0										
3,5-Dichlorobenzoic acid		ND	40.0										
4-Nitrophenol		ND	30.0										
Dacthal (DCPA)		ND	30.0										
Surr: 2,4-Dichlorophenylacetic acid		119		100.0		119	20.1	168					

Sample ID	LCS-11938	SampType: LCS		Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25230		
Client ID:	LCSS	Batch ID: 11938					Analysis Date: 9/30/2015			SeqNo: 475822	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	64.3	35.0	100.0	0	64.3	32.1	135				
2,4-D	67.1	30.0	100.0	0	67.1	22.4	130				
2,4-DP	63.6	25.0	100.0	0	63.6	26.4	130				
2,4,5-TP (Silvex)	56.7	20.0	100.0	0	56.7	21.2	138				
2,4,5-T	61.3	50.0	100.0	0	61.3	39	117				
Dinoseb	68.6	30.0	100.0	0	68.6	5	165				
Dalapon	4,880	200	10,000	0	48.8	18.4	162				
2,4-DB	56.3	25.0	100.0	0	56.3	5	164				
MCPP	721	280	1,000	0	72.1	22.2	157				
MCPA	842	280	1,000	0	84.2	47.4	128				
Picloram	50.0	50.0	100.0	0	50.0	5	175				
Bentazon	58.3	35.0	100.0	0	58.3	7.59	162				
Chloramben	73.2	20.0	100.0	0	73.2	5	147				
Acifluorfen	53.3	80.0	100.0	0	53.3	5	163				
3,5-Dichlorobenzoic acid	61.8	40.0	100.0	0	61.8	18.7	139				
4-Nitrophenol	56.1	30.0	100.0	0	56.1	5	163				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	LCS-11938	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/24/2015	RunNo:	25230		
Client ID:	LCSS	Batch ID:	11938			Analysis Date:	9/30/2015	SeqNo:	475822		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dacthal (DCPA)	57.3	30.0	100.0	0	57.3	5	164				
Surr: 2,4-Dichlorophenylacetic acid	93.5		100.0		93.5	20.1	168				

Sample ID	1509270-021ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25230		
Client ID:	GP-10-15:4.5	Batch ID:	11938			Analysis Date:	9/30/2015	SeqNo:	475818		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	ND	46.1						0		30	
2,4-D	ND	39.5						0		30	
2,4-DP	ND	32.9						0		30	
2,4,5-TP (Silvex)	ND	26.3						0		30	
2,4,5-T	ND	65.8						0		30	
Dinoseb	ND	39.5						0		30	
Dalapon	ND	263						0		30	
2,4-DB	ND	32.9						0		30	
MCP	ND	369						0		30	
MCPA	ND	369						0		30	
Picloram	ND	65.8						0		30	
Bentazon	ND	46.1						0		30	
Chloramben	ND	26.3						0		30	
Acifluorfen	ND	105						0		30	
3,5-Dichlorobenzoic acid	ND	52.7						0		30	
4-Nitrophenol	ND	39.5						0		30	
Dacthal (DCPA)	ND	39.5						0		30	
Surr: 2,4-Dichlorophenylacetic acid	0		131.6		0	20.1	168		0		S

NOTES:

S - Outlying surrogate recovery observed. The method is in control as indicated by the LCS.

Client Name: **SW**

 Work Order Number: **1509270**

 Logged by: **Clare Griggs**

 Date Received: **9/18/2015 5:55:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of >0°C to 10.0°C * Yes ☐ No ☒ NA ☐
- Please refer to item information.
8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☒ No ☐ NA ☐

Person Notified:	Ed Ptak	Date:	9/22/2015
By Whom:	Clare Griggs	Via:	☐ eMail ☒ Phone ☐ Fax ☐ In Person
Regarding:	Confirming analyses.		
Client Instructions:	Add PAH to water the 3 water samples.		

19. Additional remarks:

Item Information

Item #	Temp °C
Cooler 1	6.2
Cooler 2	8.8
Cooler 3	10.1
Sample 1	8.1
Sample 2	6.1
Sample 3	11.4

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



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Chain of Custody Record

Laboratory Project No (Internal):

1509270

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/18/15

Page: 1 of 4

Client: Shawny & Wilson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-8020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 31-1-20055-009 Collected by: EVP
Location: City of Pacific, WA
Report To (PM): Edwin Mok
PM Email: emok@pacifi.com

*Matrix Codes: A = Air, AQ = Aerosols, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOG (EPA 8260 / 8241)	GLV/STX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 825)	PAHs (EPA 8270 / 825)	PCBs (EPA 8270 / 825)	Mutals** (EPA 8212 / 608)	Total (T) (EPA 8212 / 608)	Anions (IC)***	FOB (8011)	Hard Metals (MSA)	Soft Metals (MSA)	Comments
GP-1-15:5.0	9/17/15	0910	S																
GP-1-15:13.5	0915	S																	
GP-2-15:4.5	1010																		
GP-2-15:14.0	1020																		
GP-3-15:9.0	1110																		
GP-3-15:12.5	1100																		
GP-4-15:5.0	1130																		
GP-4-15:13.0	1140																		
GP-5-15:5.0	1215																		
GP-5-15:13.0	1225																		

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Chain of Custody Record

Laboratory Project No. (internal):

3500 Fremont Ave. N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 7/10/15

Page: 2 of 4

Client: Shannon & Wilson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle, WA 98103
Telephone: 206-630-8000 Fax: 206-635-6777

Project Name: Pacific Park
Project No: 07-122055-009 Collected by: EVP
Location: City of Pacific WA
Report To (PM): Edna Park
PM Email: evpeshaw@l.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)	VOG (EPA 8260 / 624)	GVBTX	ETEX	Gasoline Range Organics (GVO)	Hydrocarbon Identification (HCOI)	Diesel/Heavy Oil Range Organics (DHO)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - 504)	PCBs (EPA 8062 / 606)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDS (8011)	Herbicides	Pesticides	Comments
GP-5-15: DWP	7/7/15	1155	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-6-15: 7.5		1250		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-6-15: 14.0		1305		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-7-15: 5.0		1355		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-7-15: 14.0		1340		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-8-15: 5.0		1405		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-8-15: 14.5		1410		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-8-15: DWP		1306		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-9-15: 5.0		1445		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-9-15: 12.5		1450		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

*** Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Iodide Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (A fee may be assessed if samples are returned after 30 days.)

Turn-around times for samples received after 4:00pm will begin on the following business day.

Special Remarks:

Reanalysis: 7/10/15 1530 Date/Time 7/10/15 1530 Date/Time

Requester: Shannon & Wilson Inc. Received: Edna Park Date/Time: 7/10/15 1530

Requester: Shannon & Wilson Inc. Received: Edna Park Date/Time: 7/10/15 1530

TAT → SameDay* NextDay* 2 Day 3 Day 5th

*Please coordinate with the lab in advance.

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Date: 9/18/15

Laboratory Project No. Internal: _____
Page: 3 of 4

Chain of Custody Record

Client: Skann & Wilson Inc.
Address: 400 N 39th St. Suite 100
City, State, Zip: Seattle, WA 98103
Telephone: 206-632-8620 Fax: 206-695-0777

Project Name: Pacific Park
Project No: 31-22055-009 Collected by: EVP
Location: City of Pacific, WA
Report To (PM): Edwin Pak
PM Email: evp@skanwil.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, D = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)	VOCs (EPA 8260 / 624)	GV/BTEX	BTEX	Gasoline Range Organics (GK)	Hydrocarbon Identification (HCID)	Diethylhexyl Sebacate (DEHS)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8270 / 625)	Metals ** (EPA 8210 / 608)	Total (T) / Dissolved (D)	Anions (IC) ***	EDS (8011)	Heavy Metals (IC) ****	Comments																	
GP-10-15:4.5	7/7/15	1510	S																																
GP-10-15:13.0		1520																																	
GP-11-15:4.5		1545																																	
GP-11-15:14.5		1550																																	
GP-12-15:4.0	7/16/15	0850																																	
GP-12-15:13.5		0855																																	
GP-12-15:6W		0915	GW																																
MW-1-15:6.0		1005																																	
MW-1-15:12.0		1010																																	
MW-2-15:3.0		1205																																	
** Metals Analysis (Circle): MTCA-5				SCRA-8				Heavy Metals				TAL				Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Si Sn Ti Tl U V Zn																			
*** Anions (Circle): Nitrate				Nitrite				Chloride				Sulfate				Bromide				O-Phosphate				Fluoride				Nitrate-Nitrite				Turn-around times for samples received after 4:00pm will begin on the following business day.			
Sample Disposal: ☐ Return to Client				☒ Disposed by Lab (A fee may be assessed if samples are retained after 30 days.)																															
Retained		Date/Time		9/18/15 1520		Received		Date/Time		9/18/15 1530		TAT		SameDay* NextDay* 2 Day 3 Day STD		Special Remarks:																			
Relinquished		Date/Time		9/18/15 1755		Received		Date/Time		9/18/15 1755		TAT		SameDay* NextDay* 2 Day 3 Day STD		Special Remarks:																			

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Chain of Custody Record

Laboratory Project No. (Internally):

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Tel: 206-352-3790
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Date: 9/18/15

Page 4 of 4

Client: Shannon & Wilson Inc.
Address: 400 N 34th St, Suite 100
City, State, Zip: Seattle, WA 98103
Telephone: 206-632-8020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 20152055-009 Collected by: EVP
Location: City of Pacific, WA
Report To (PM): Blair Park
PM Email: evp@shannonwil.com

*Matrix Codes: A = Air, AQ = Aquatic, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOG (EPA 8260 / 824)	OV/TEX	8TEX	Gasoline Range Organics (GRO)	Hydrocarbon Identification (HICID)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8270 / 625)	Metals** (EPA 8210 / 605)	Total (T) (EPA 8210 / 605)	Anions (IC)*	EDS (8211)	Heavy Metals (EPA 8211)	Potential Metals	Comments
1 MW-2-15:13.0	9/17/15	1215	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 MW-2-15:6W		1220		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3 MW-3-15:6.5		1355		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
4 MW-3-15:15D		1405		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5 MW-3-15:6W		1455	GW	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
6																		
7																		
8																		
9																		
10																		

***Metals Analysis (Circle): MTCA-5 MTCA-5 Priority Pollutants MTCA-5 TAIL Individual: Ag Al As B Ba Br Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrate Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposed by Lab (a fee may be assessed if samples are retained after 30 days.)

Relinquished: 9/18/15 1330 Date/Time 9/18/15 1330 Date/Time 9/18/15 1330 Date/Time

Received: 9/18/15 1355 Date/Time 9/18/15 1355 Date/Time 9/18/15 1355 Date/Time

Special Remarks: MW-3-15:6W not field filtered for PRL metals.

TAT → SameDay[®] NextDay[®] 2 Day 3 Day 5 Day

*Please coordinate with the lab in advance



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Date: 9/18/15

Page: 1 of 4

Laboratory Project No (Internal):

Chain of Custody Record
1509270

Client: Shawna & Wilson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-8020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 21-1-22055-029 Collected by: EVP
Location: City of Pacific, WA
Report To (PM): Edna Pak
PM Email: epeshaw@comcast.net

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 8241)	GV/RTX	BTEX	Gasoline Range Organics (GXI)	Hydrocarbon Identification (HCD)	Distillate/Oil Range Organics (DOR)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8082 / 608)	Metals** (EPA 8210 / 608)	Total (T) Dissolved (D)	Anions (IC)***	EDS (8011)	H-Blocker (HSA)	Post-Blocker (HSA)	Comments
1 GP-1-15:5.0	9/17/15	0910	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 GP-1-15:13.5		0915	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3 GP-2-15:4.5		1010		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
4 GP-2-15:14.0		1020		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5 GP-3-15:9.0		1110		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
6 GP-3-15:12.5		1100		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
7 GP-4-15:5.0		1130		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
8 GP-4-15:13.0		1140		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
9 GP-5-15:5.0		1215		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
10 GP-5-15:13.0		1225		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

***Metals Analysis (Circle): MTCA-5 (Circle: B) Priority Pollutants: TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl Ti U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Cyanide Fluoride Nitrate-Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (a fee may be assessed if samples are returned after 30 days.)

Reinjection: 9/18/15 1530 Received: 9/18/15 1530 Date/Time: 9/18/15 1530

Resubmit: 9/18/15 1535 Received: 9/18/15 1535 Date/Time: 9/18/15 1535

AT: Sample Day: Next Day: 2 Day 3 Day: STP

*Repeat coordinate with the lab in advance



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Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 7/19/15

Laboratory Project No (Internal):

Page: 2 of 4

Chain of Custody Record

Client: Shuman & Wiser Inc.
Address: 400 N 39th St. Suite 100
City, State, Zip: Seattle, WA 98103
Telephone: 206-675-8000 Fax: 206-675-6777

Project Name: Pacific Park
Project No: 201-00055-009 Collected by: EVP
Location: City of Pacific WA
Report To (PM): Edna Park
PM Email: cupeshawil.com

*Notations: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	6X/BTEX	BTEX	Gasoline Range Organics (GK)	Hydrocarbon Identification (HCD)	Dispersible Oil Range Organics (DOR)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SW)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)***	EDs (8011)	Herbicides 8011A 8011B	Comments
1 GP-5-15: DWP	7/17/15	1155	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 GP-6-15: 2.5		1250		X	X	X	X	X	X	X	X	X	X	X	X	X		
3 GP-6-15: 14.0		1305		X	X	X	X	X	X	X	X	X	X	X	X	X		
4 GP-7-15: 5.0		1355		X	X	X	X	X	X	X	X	X	X	X	X	X		
5 GP-7-15: 14.0		1340		X	X	X	X	X	X	X	X	X	X	X	X	X		
6 GP-8-15: 5.0		1405		X	X	X	X	X	X	X	X	X	X	X	X	X		
7 GP-8-15: 14.5		1410		X	X	X	X	X	X	X	X	X	X	X	X	X		
8 GP-8-15: DWP		1306		X	X	X	X	X	X	X	X	X	X	X	X	X		
9 GP-9-15: 5.0		1445		X	X	X	X	X	X	X	X	X	X	X	X	X		
10 GP-9-15: 12.5		1450		X	X	X	X	X	X	X	X	X	X	X	X	X		

**Metals Analysis (Circle): MTCA-5 MCRA-9 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Ni Pb Po Sb Se Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide C-phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposed by Lab (A fee may be assessed if samples are returned after 30 days.)

Turn-around times for samples received after 4:00pm will begin on the following business day.

Special Remarks:

Relinquished: 7/18/15 1530 Received: 7/18/15 1530

Relinquished: 7/18/15 1755 Received: 7/18/15 1755

TAT → SameDaySM NextDaySM 2 Day 3 Day 5th

*Increase coordinate with the lab in advance.

Distribution: White - Lab, Yellow - File, Pink - Originator

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Laboratory Project No (Internal):

Chain of Custody Record

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Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-2178

Date: 9/18/15

Page: 3 of 4

Client: Sharon & Wilson Inc.
Address: 400 N 39th St, Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-8020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 21-22055-009 Collected by: EVP
Location: City of Pacific, WA
Report To (PM): Edwin Pak
PM Email: evp@shawi.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOG (EPA 8260 / 624)	GV/BTEX	BTEX	Gasoline Range Organics (GRO)	Hydrocarbon Identification (HCO)	Distillate/Range Organics (DRO)	SVOCs (EPA 8270 / 825)	FAHs (EPA 8270 / 825)	PCBs (EPA 8280 / 608)	Alkyls** (EPA 8280 / 608)	Total (T) (EPA 8280 / 608)	Ambis (IC)*** (EPA 8280 / 200.8)	TDH (IC)*** (EPA 8280 / 200.8)	Comments
GP-10-15:4.5	9/7/14	1510	S														
GP-10-15:13.0		1520															
GP-11-15:4.5		1545															
GP-11-15:14.5		1550															
GP-12-15:4.0	9/14/15	0850															
GP-12-15:13.5		0855															
GP-12-15:6W		0915	GW														
MW-1-15:6.0		1005															
MW-1-15:12.0		1010															
MW-2-15:3.0		1205															

***Metals Analysis (Circle): MTCA-5 (RCRA-8) (CERCLA-8) TAL Inducted: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Ni Pb Sb Se Si Sr Sn Ti U V Zn

***Antimony (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate/Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (a fee may be assessed if samples are retained after 30 days.)

Refrigerated: 9/18/15 1520 Date/Time 9/18/15 1530 Date/Time

Refrigerated: 9/18/15 1755 Date/Time 9/18/15 17:55 Date/Time

Special Remarks: GP-12-15:6W not field filtered for PPA metals.

edit for EPA 9/21/15

Distribution: White - Lab, Yellow - File, Pink - Originator

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Laboratory Project No. Internally

1509270

Date: 9/18/15

Page: 1 of 4

Project Name: Pacific Park
Project No: 21-1-22055-009 Collected by: EJP
Location: City of Pacific, WA
Report To (PM): Edna Pak
PM Email: enpeshavi1.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, C = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WTW = Waste Water

Distribution: White - Lab, Yellow - File, Pink - Originator



Fremont

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-353-3790
Fax: 206-353-7178

Date: 1/19/15

Laboratory Project No (Internal):

Chain of Custody Record

Client: Shawn & Wileen Inc.
Address: 400 N 39th St. Suite 100
City, State, Zip: Seattle, WA 98103
Telephone: 206-675-8000 Fax: 206-675-6777

Project Name: Pacific Park
Project No: 07-132055-009 Collected by: EVP
Location: City of Pacific WA
Report To (PM): Edna Park
PM Email: evp@shawnw.com

*Matrix Codes: A = Air, AQ = Aquifer, B = Bulk, C = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOG (EPA 8260 / GC)	GV/RTX	6TEX	Gasoline Range Organics (GRO)	Hydrocarbon Identification (HID)	Distilled/Heavy Oil Range Organics (DRO)	SVOCs (EPA 8270 / GC)	PAHs (EPA 8270 / GC)	PCBs (EPA 8270 / GC)	Metals** (EPA 8210 / SW)	Total (T) (EPA 8210 / SW)	Antimony (HCL)***	EDS (HCL)***	Comments	
GP-5-15: DWP	1/15	1155	S															
GP-6-15: 2.5		1250																TRC Cd, Cr, Pb, Hg
GP-6-15: 14.0		1305																
GP-7-15: 5.0		1355																
GP-7-15: 14.0		1340																
GP-8-15: 5.0		1405																
GP-8-15: 14.5		1410																TRC Pb
GP-8-15: DWP		1306																
GP-9-15: 5.0		1445																
GP-9-15: 12.5		1450																

***Metals Analysis (Crede): MTCAS ☒ Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Ni Pb Sg Se Sr Sn Ti Tl U V Zn

***Anions (Crede): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (a fee may be assessed if samples are retained after 30 days)

Retention Time: 9/18/15 1530 Received: 9/18/15 1530 Date/TIME: 9/18/15 1530

Reference: Edna Park Date/TIME: 9/18/15 1530

TAT → SameDay* NextDay* 2 Day 3 Day ☒

Please coordinate with the lab in advance

Distribution: White - Lab, Yellow - File, Pink - Originator

www.fremontanalytical.com



Date: 9/18/15

Laboratory Project No. (in Arabic): 1012
 Pages: 3 of 4

Chain of Custody Record

Client: Sharon & Wilson Inc.
Address: 400 N 39th St. Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-8020 Fax: 206-645-6777

Project Name: Pacific Park
Project No: 21-22055-009 Collected by: EUP
Location: City of Pacific, WA
Report To (pm): Edison Park
PM Email: eup@shawi.com

Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Sol, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

[illegible]

Distribution: White - Lab, Yellow - File, Pink - Originator

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Laboratory Project No (interns):
Page: 4

Chain of Custody Record

Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, L = Lick, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water.

Ad by: **EVP**

cydeshenbi.com

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

[illegible]

Distributions: White = Lab, Yellow = File, Pink = Originator

15:25

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3600 Fremont Ave. N.

Seattle, WA 98103

T: (206) 352-3790

F: (206) 352-7178

info@fremontanalytical.com

Shannon & Wilson

Ed Ptak

400 N. 34th Street, Suite 100

Seattle, WA 98103

RE: Pacific Park

Lab ID: 1509270

October 29, 2015

Attention Ed Ptak:

Fremont Analytical, Inc. received 36 sample(s) on 9/18/2015 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Dissolved Mercury by EPA Method 245.1

Dissolved Metals by EPA Method 200.8

Gasoline by NWTPH-Gx

Herbicides by EPA Method 8151A

Mercury (SW7470) with TCLP Extraction (EPA 1311)

Mercury by EPA Method 245.1

Mercury by EPA Method 7471

Metals (SW6020) with TCLP Extraction (EPA 1311)

Organochlorine Pesticides by EPA Method 8081

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample Moisture (Percent Moisture)

Semi-Volatile Organic Compounds by EPA Method 8270

Total Metals by EPA Method 200.8

Total Metals by EPA Method 6020

Volatile Organic Compounds by EPA Method 8260

This report consists of the following:

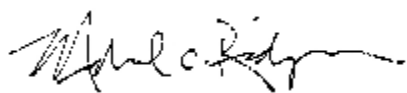
- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

www.fremontanalytical.com

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Ridgeway". The signature is fluid and cursive, with a prominent initial "M" and a long, sweeping underline.

Mike Ridgeway
President

CLIENT: Shannon & Wilson
Project: Pacific Park
Lab Order: 1509270

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1509270-001	GP-1-15:5.0	09/17/2015 9:40 AM	09/18/2015 5:55 PM
1509270-002	GP-1-15:13.5	09/17/2015 9:45 AM	09/18/2015 5:55 PM
1509270-003	GP-2-15:4.5	09/17/2015 10:10 AM	09/18/2015 5:55 PM
1509270-004	GP-2-15:14.0	09/17/2015 10:20 AM	09/18/2015 5:55 PM
1509270-005	GP-3-15:9.0	09/17/2015 11:10 AM	09/18/2015 5:55 PM
1509270-006	GP-3-15:12.5	09/17/2015 11:00 AM	09/18/2015 5:55 PM
1509270-007	GP-4-15:5.0	09/17/2015 11:30 AM	09/18/2015 5:55 PM
1509270-008	GP-4-15:13.0	09/17/2015 11:40 AM	09/18/2015 5:55 PM
1509270-009	GP-5-15:5.0	09/17/2015 12:15 PM	09/18/2015 5:55 PM
1509270-010	GP-5-15:13.0	09/17/2015 12:25 PM	09/18/2015 5:55 PM
1509270-011	GP-5-15:DUP	09/17/2015 11:55 AM	09/18/2015 5:55 PM
1509270-012	GP-6-15:7.5	09/17/2015 12:50 PM	09/18/2015 5:55 PM
1509270-013	GP-6-15:14.0	09/17/2015 1:05 PM	09/18/2015 5:55 PM
1509270-014	GP-7-15:5.0	09/17/2015 1:55 PM	09/18/2015 5:55 PM
1509270-015	GP-7-15:14.0	09/17/2015 1:40 PM	09/18/2015 5:55 PM
1509270-016	GP-8-15:5.0	09/17/2015 2:05 PM	09/18/2015 5:55 PM
1509270-017	GP-8-15:14.5	09/17/2015 2:10 PM	09/18/2015 5:55 PM
1509270-018	GP-8-15:DUP	09/17/2015 1:06 PM	09/18/2015 5:55 PM
1509270-019	GP-9-15:5.0	09/17/2015 2:45 PM	09/18/2015 5:55 PM
1509270-020	GP-9-15:12.5	09/17/2015 2:50 PM	09/18/2015 5:55 PM
1509270-021	GP-10-15:4.5	09/17/2015 3:10 PM	09/18/2015 5:55 PM
1509270-022	GP-10-15:13.0	09/17/2015 3:20 PM	09/18/2015 5:55 PM
1509270-023	GP-11-15:4.5	09/17/2015 3:45 PM	09/18/2015 5:55 PM
1509270-024	GP-11-15:14.5	09/17/2015 3:50 PM	09/18/2015 5:55 PM
1509270-025	GP-12-15:4.0	09/18/2015 8:50 AM	09/18/2015 5:55 PM
1509270-026	GP-12-15:13.5	09/18/2015 8:55 AM	09/18/2015 5:55 PM
1509270-027	GP-12-15:GW	09/18/2015 9:15 AM	09/18/2015 5:55 PM
1509270-028	MW-1-15:6.0	09/18/2015 10:05 AM	09/18/2015 5:55 PM
1509270-029	MW-1-15:12.0	09/18/2015 10:10 AM	09/18/2015 5:55 PM
1509270-030	MW-2-15:3.0	09/18/2015 12:05 PM	09/18/2015 5:55 PM
1509270-031	MW-2-15:13.0	09/18/2015 12:15 PM	09/18/2015 5:55 PM
1509270-032	MW-2-15:GW	09/18/2015 12:20 PM	09/18/2015 5:55 PM
1509270-033	MW-3-15:6.5	09/18/2015 1:55 PM	09/18/2015 5:55 PM
1509270-034	MW-3-15:15.0	09/18/2015 2:05 PM	09/18/2015 5:55 PM
1509270-035	MW-3-15:GW	09/18/2015 2:55 PM	09/18/2015 5:55 PM
1509270-036	Trip Blank	09/10/2015 9:10 AM	09/18/2015 5:55 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: Shannon & Wilson**Project:** Pacific Park

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509270-001

Matrix: Soil

Client Sample ID: GP-1-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	41.2		µg/Kg-dry	1	9/29/2015 7:47:00 PM
2,4-D	ND	35.3		µg/Kg-dry	1	9/29/2015 7:47:00 PM
2,4-DP	ND	29.4		µg/Kg-dry	1	9/29/2015 7:47:00 PM
2,4,5-TP (Silvex)	ND	23.5		µg/Kg-dry	1	9/29/2015 7:47:00 PM
2,4,5-T	ND	58.9		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Dinoseb	ND	35.3		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Dalapon	ND	235		µg/Kg-dry	1	9/29/2015 7:47:00 PM
2,4-DB	ND	29.4		µg/Kg-dry	1	9/29/2015 7:47:00 PM
MCPP	ND	5,180		µg/Kg-dry	1	9/29/2015 7:47:00 PM
MCPA	ND	330		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Picloram	ND	58.9		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Bentazon	ND	41.2		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Chloramben	ND	23.5		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Acifluorfen	ND	94.2		µg/Kg-dry	1	9/29/2015 7:47:00 PM
3,5-Dichlorobenzoic acid	ND	47.1		µg/Kg-dry	1	9/29/2015 7:47:00 PM
4-Nitrophenol	ND	35.3		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Dacthal (DCPA)	ND	35.3		µg/Kg-dry	1	9/29/2015 7:47:00 PM
Surr: 2,4-Dichlorophenylacetic acid	96.9	20.1-168		%REC	1	9/29/2015 7:47:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Alpha BHC	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Beta BHC	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Gamma BHC (Lindane)	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Delta BHC	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Heptachlor	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Aldrin	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Heptachlor epoxide	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
gamma-Chlordane	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Endosulfan I	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
alpha-Chlordane	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Dieldrin	ND	0.0114		mg/Kg-dry	1	9/24/2015 7:32:00 AM
4,4'-DDE	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Endrin	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Endosulfan II	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM
4,4'-DDD	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Endrin aldehyde	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Endosulfan sulfate	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509270-001

Matrix: Soil

Client Sample ID: GP-1-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Endrin ketone	ND	0.0229		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Methoxychlor	ND	0.0572		mg/Kg-dry	1	9/24/2015 7:32:00 AM
Surr: Decachlorobiphenyl	90.0	26.5-158		%REC	1	9/24/2015 7:32:00 AM
Surr: Tetrachloro-m-xylene	59.9	11-150		%REC	1	9/24/2015 7:32:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11903		Analyst: AK
Diesel (Fuel Oil)	ND	23.0		mg/Kg-dry	1	9/23/2015 1:51:00 AM
Heavy Oil	ND	57.4		mg/Kg-dry	1	9/23/2015 1:51:00 AM
Surr: 2-Fluorobiphenyl	89.9	50-150		%REC	1	9/23/2015 1:51:00 AM
Surr: o-Terphenyl	87.9	50-150		%REC	1	9/23/2015 1:51:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Phenol	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Bis(2-chloroethyl) ether	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2-Chlorophenol	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
1,3-Dichlorobenzene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
1,4-Dichlorobenzene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
1,2-Dichlorobenzene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Benzyl alcohol	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2-Methylphenol (o-cresol)	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Hexachloroethane	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
N-Nitrosodi-n-propylamine	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Nitrobenzene	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Isophorone	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
4-Methylphenol (p-cresol)	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2-Nitrophenol	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2,4-Dimethylphenol	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Bis(2-chloroethoxy)methane	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2,4-Dichlorophenol	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
1,2,4-Trichlorobenzene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Naphthalene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
4-Chloroaniline	ND	553		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Hexachlorobutadiene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
4-Chloro-3-methylphenol	ND	553		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2-Methylnaphthalene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
1-Methylnaphthalene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509270-001

Matrix: Soil

Client Sample ID: GP-1-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904	Analyst: NG	
Hexachlorocyclopentadiene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2,4,6-Trichlorophenol	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2,4,5-Trichlorophenol	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2-Chloronaphthalene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2-Nitroaniline	ND	553		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Acenaphthene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Dimethylphthalate	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2,6-Dinitrotoluene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Acenaphthylene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2,4-Dinitrophenol	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Dibenzofuran	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
2,4-Dinitrotoluene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
4-Nitrophenol	ND	553		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Fluorene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
4-Chlorophenyl phenyl ether	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Diethylphthalate	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
4,6-Dinitro-2-methylphenol	ND	221		µg/Kg-dry	1	9/23/2015 9:28:00 PM
4-Bromophenyl phenyl ether	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Hexachlorobenzene	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Pentachlorophenol	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Phenanthrene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Anthracene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Carbazole	ND	553		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Di-n-butylphthalate	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Fluoranthene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Pyrene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Butyl Benzylphthalate	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
bis(2-Ethylhexyl)adipate	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Benz (a) anthracene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Chrysene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
bis (2-Ethylhexyl) phthalate	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Di-n-octyl phthalate	ND	111		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Benzo (b) fluoranthene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Benzo (k) fluoranthene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Benzo (a) pyrene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Indeno (1,2,3-cd) pyrene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Dibenz (a,h) anthracene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Benzo (g,h,i) perylene	ND	88.5		µg/Kg-dry	1	9/23/2015 9:28:00 PM
Surr: 2,4,6-Tribromophenol	63.6	11.1-127		%REC	1	9/23/2015 9:28:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509270-001

Matrix: Soil

Client Sample ID: GP-1-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	20.3	16.1-150		%REC	1	9/23/2015 9:28:00 PM
Surr: Nitrobenzene-d5	9.18	10-133	S	%REC	1	9/23/2015 9:28:00 PM
Surr: Phenol-d6	51.0	11.6-133		%REC	1	9/23/2015 9:28:00 PM
Surr: p-Terphenyl	91.9	21.8-150		%REC	1	9/23/2015 9:28:00 PM

NOTES:

S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Gasoline by NWTPH-Gx

Batch ID: 11902

Analyst: BC

Gasoline	ND	2.96		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Surr: Toluene-d8	98.6	65-135		%REC	1	9/22/2015 5:44:00 PM
Surr: 4-Bromofluorobenzene	103	65-135		%REC	1	9/22/2015 5:44:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11902

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0355		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Chloromethane	ND	0.0355		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Vinyl chloride	ND	0.00118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Bromomethane	ND	0.0533		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Chloroethane	ND	0.0355		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,1-Dichloroethene	ND	0.0296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Methylene chloride	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
trans-1,2-Dichloroethene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,1-Dichloroethane	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
2,2-Dichloropropane	ND	0.0296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
cis-1,2-Dichloroethene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Chloroform	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,1-Dichloropropene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Carbon tetrachloride	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2-Dichloroethane (EDC)	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Benzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Trichloroethene (TCE)	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2-Dichloropropane	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Bromodichloromethane	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Dibromomethane	ND	0.0237		mg/Kg-dry	1	9/22/2015 5:44:00 PM
cis-1,3-Dichloropropene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509270-001

Matrix: Soil

Client Sample ID: GP-1-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11902		Analyst: BC
Toluene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
trans-1,3-Dichloropropylene	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,1,2-Trichloroethane	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,3-Dichloropropane	ND	0.0296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Tetrachloroethene (PCE)	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Dibromochloromethane	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2-Dibromoethane (EDB)	ND	0.00296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Chlorobenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Ethylbenzene	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
m,p-Xylene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
o-Xylene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Styrene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Isopropylbenzene	ND	0.0474		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Bromoform	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
n-Propylbenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Bromobenzene	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,3,5-Trimethylbenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
2-Chlorotoluene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
4-Chlorotoluene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
tert-Butylbenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2,3-Trichloropropane	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2,4-Trichlorobenzene	ND	0.0296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
sec-Butylbenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
4-Isopropyltoluene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,3-Dichlorobenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,4-Dichlorobenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
n-Butylbenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2-Dichlorobenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2-Dibromo-3-chloropropane	ND	0.296		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2,4-Trimethylbenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Hexachlorobutadiene	ND	0.0592		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Naphthalene	ND	0.0178		mg/Kg-dry	1	9/22/2015 5:44:00 PM
1,2,3-Trichlorobenzene	ND	0.0118		mg/Kg-dry	1	9/22/2015 5:44:00 PM
Surr: Dibromofluoromethane	94.0	56.5-129		%REC	1	9/22/2015 5:44:00 PM
Surr: Toluene-d8	98.8	64.3-131		%REC	1	9/22/2015 5:44:00 PM
Surr: 1-Bromo-4-fluorobenzene	99.0	63.1-141		%REC	1	9/22/2015 5:44:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509270-001

Matrix: Soil

Client Sample ID: GP-1-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.289		mg/Kg-dry	1	9/22/2015 12:54:22 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	1.69	0.0866		mg/Kg-dry	1	9/21/2015 5:57:17 PM
Barium	22.9	0.433		mg/Kg-dry	1	9/21/2015 5:57:17 PM
Cadmium	ND	0.173		mg/Kg-dry	1	9/21/2015 5:57:17 PM
Chromium	9.79	0.0866		mg/Kg-dry	1	9/21/2015 5:57:17 PM
Lead	1.28	0.173		mg/Kg-dry	1	9/21/2015 5:57:17 PM
Selenium	1.18	0.433		mg/Kg-dry	1	9/21/2015 5:57:17 PM
Silver	ND	0.0866		mg/Kg-dry	1	9/21/2015 5:57:17 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	16.9			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:45:00 AM

Project: Pacific Park

Lab ID: 1509270-002

Matrix: Soil

Client Sample ID: GP-1-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>				Batch ID: 11922		Analyst: MD
Dicamba	ND	43.7		µg/Kg-dry	1	9/29/2015 8:21:00 PM
2,4-D	ND	37.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
2,4-DP	ND	31.2		µg/Kg-dry	1	9/29/2015 8:21:00 PM
2,4,5-TP (Silvex)	ND	25.0		µg/Kg-dry	1	9/29/2015 8:21:00 PM
2,4,5-T	ND	62.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Dinoseb	ND	37.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Dalapon	ND	250		µg/Kg-dry	1	9/29/2015 8:21:00 PM
2,4-DB	ND	31.2		µg/Kg-dry	1	9/29/2015 8:21:00 PM
MCPP	ND	5,500		µg/Kg-dry	1	9/29/2015 8:21:00 PM
MCPA	ND	350		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Picloram	ND	62.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Bentazon	ND	43.7		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Chloramben	ND	25.0		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Acifluorfen	ND	100		µg/Kg-dry	1	9/29/2015 8:21:00 PM
3,5-Dichlorobenzoic acid	ND	50.0		µg/Kg-dry	1	9/29/2015 8:21:00 PM
4-Nitrophenol	ND	37.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Dacthal (DCPA)	ND	37.5		µg/Kg-dry	1	9/29/2015 8:21:00 PM
Surr: 2,4-Dichlorophenylacetic acid	96.6	20.1-168		%REC	1	9/29/2015 8:21:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932 Analyst: MD

Toxaphene	ND	0.123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Alpha BHC	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Beta BHC	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Gamma BHC (Lindane)	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Delta BHC	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Heptachlor	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Aldrin	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Heptachlor epoxide	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
gamma-Chlordane	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Endosulfan I	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
alpha-Chlordane	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Dieldrin	ND	0.0123		mg/Kg-dry	1	9/24/2015 7:43:00 AM
4,4'-DDE	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Endrin	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Endosulfan II	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM
4,4'-DDD	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Endrin aldehyde	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Endosulfan sulfate	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:45:00 AM

Project: Pacific Park

Lab ID: 1509270-002

Matrix: Soil

Client Sample ID: GP-1-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

4,4'-DDT	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Endrin ketone	ND	0.0246		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Methoxychlor	ND	0.0615		mg/Kg-dry	1	9/24/2015 7:43:00 AM
Surr: Decachlorobiphenyl	88.8	26.5-158		%REC	1	9/24/2015 7:43:00 AM
Surr: Tetrachloro-m-xylene	60.3	11-150		%REC	1	9/24/2015 7:43:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	25.1		mg/Kg-dry	1	9/23/2015 8:26:00 AM
Heavy Oil	ND	62.8		mg/Kg-dry	1	9/23/2015 8:26:00 AM
Surr: 2-Fluorobiphenyl	81.6	50-150		%REC	1	9/23/2015 8:26:00 AM
Surr: o-Terphenyl	77.2	50-150		%REC	1	9/23/2015 8:26:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Bis(2-chloroethyl) ether	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2-Chlorophenol	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
1,3-Dichlorobenzene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
1,4-Dichlorobenzene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
1,2-Dichlorobenzene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Benzyl alcohol	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2-Methylphenol (o-cresol)	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Hexachloroethane	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
N-Nitrosodi-n-propylamine	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Nitrobenzene	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Isophorone	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
4-Methylphenol (p-cresol)	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2-Nitrophenol	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2,4-Dimethylphenol	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Bis(2-chloroethoxy)methane	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2,4-Dichlorophenol	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
1,2,4-Trichlorobenzene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Naphthalene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
4-Chloroaniline	ND	630		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Hexachlorobutadiene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
4-Chloro-3-methylphenol	ND	630		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2-Methylnaphthalene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
1-Methylnaphthalene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:45:00 AM

Project: Pacific Park

Lab ID: 1509270-002

Matrix: Soil

Client Sample ID: GP-1-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
Hexachlorocyclopentadiene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2,4,6-Trichlorophenol	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2,4,5-Trichlorophenol	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2-Chloronaphthalene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2-Nitroaniline	ND	630		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Acenaphthene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Dimethylphthalate	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2,6-Dinitrotoluene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Acenaphthylene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2,4-Dinitrophenol	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Dibenzofuran	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
2,4-Dinitrotoluene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
4-Nitrophenol	ND	630		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Fluorene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
4-Chlorophenyl phenyl ether	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Diethylphthalate	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
4,6-Dinitro-2-methylphenol	ND	252		µg/Kg-dry	1	9/23/2015 10:12:00 PM
4-Bromophenyl phenyl ether	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Hexachlorobenzene	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Pentachlorophenol	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Phenanthrene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Anthracene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Carbazole	ND	630		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Di-n-butylphthalate	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Fluoranthene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Pyrene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Butyl Benzylphthalate	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
bis(2-Ethylhexyl)adipate	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Benz (a) anthracene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Chrysene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
bis (2-Ethylhexyl) phthalate	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Di-n-octyl phthalate	ND	126		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Benzo (b) fluoranthene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Benzo (k) fluoranthene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Benzo (a) pyrene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Indeno (1,2,3-cd) pyrene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Dibenz (a,h) anthracene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Benzo (g,h,i) perylene	ND	101		µg/Kg-dry	1	9/23/2015 10:12:00 PM
Surr: 2,4,6-Tribromophenol	62.8	11.1-127		%REC	1	9/23/2015 10:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:45:00 AM

Project: Pacific Park

Lab ID: 1509270-002

Matrix: Soil

Client Sample ID: GP-1-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Surr: 2-Fluorobiphenyl	60.7	16.1-150		%REC	1	9/23/2015 10:12:00 PM
Surr: Nitrobenzene-d5	26.3	10-133		%REC	1	9/23/2015 10:12:00 PM
Surr: Phenol-d6	65.8	11.6-133		%REC	1	9/23/2015 10:12:00 PM
Surr: p-Terphenyl	90.3	21.8-150		%REC	1	9/23/2015 10:12:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11902		Analyst: BC
Gasoline	ND	3.44		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Surr: Toluene-d8	98.8	65-135		%REC	1	9/22/2015 6:12:00 PM
Surr: 4-Bromofluorobenzene	103	65-135		%REC	1	9/22/2015 6:12:00 PM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11902		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0413		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Chloromethane	ND	0.0413		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Vinyl chloride	ND	0.00138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Bromomethane	ND	0.0619		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Chloroethane	ND	0.0413		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,1-Dichloroethene	ND	0.0344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Methylene chloride	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
trans-1,2-Dichloroethene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,1-Dichloroethane	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
2,2-Dichloropropane	ND	0.0344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
cis-1,2-Dichloroethene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Chloroform	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,1-Dichloropropene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Carbon tetrachloride	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2-Dichloroethane (EDC)	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Benzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Trichloroethene (TCE)	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2-Dichloropropane	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Bromodichloromethane	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Dibromomethane	ND	0.0275		mg/Kg-dry	1	9/22/2015 6:12:00 PM
cis-1,3-Dichloropropene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Toluene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
trans-1,3-Dichloropropylene	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:45:00 AM

Project: Pacific Park

Lab ID: 1509270-002

Matrix: Soil

Client Sample ID: GP-1-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11902	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,3-Dichloropropane	ND	0.0344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Tetrachloroethene (PCE)	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Dibromochloromethane	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2-Dibromoethane (EDB)	ND	0.00344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Chlorobenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Ethylbenzene	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM
m,p-Xylene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
o-Xylene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Styrene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Isopropylbenzene	ND	0.0550		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Bromoform	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
n-Propylbenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Bromobenzene	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,3,5-Trimethylbenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
2-Chlorotoluene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
4-Chlorotoluene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
tert-Butylbenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2,3-Trichloropropane	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2,4-Trichlorobenzene	ND	0.0344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
sec-Butylbenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
4-Isopropyltoluene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,3-Dichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,4-Dichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
n-Butylbenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2-Dichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2-Dibromo-3-chloropropane	ND	0.344		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2,4-Trimethylbenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Hexachlorobutadiene	ND	0.0688		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Naphthalene	ND	0.0206		mg/Kg-dry	1	9/22/2015 6:12:00 PM
1,2,3-Trichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/22/2015 6:12:00 PM
Surr: Dibromofluoromethane	94.9	56.5-129		%REC	1	9/22/2015 6:12:00 PM
Surr: Toluene-d8	99.4	64.3-131		%REC	1	9/22/2015 6:12:00 PM
Surr: 1-Bromo-4-fluorobenzene	99.3	63.1-141		%REC	1	9/22/2015 6:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 9:45:00 AM

Project: Pacific Park

Lab ID: 1509270-002

Matrix: Soil

Client Sample ID: GP-1-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.299		mg/Kg-dry	1	9/22/2015 12:55:58 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	1.40	0.0911		mg/Kg-dry	1	9/21/2015 6:00:49 PM
Barium	15.4	0.456		mg/Kg-dry	1	9/21/2015 6:00:49 PM
Cadmium	ND	0.182		mg/Kg-dry	1	9/21/2015 6:00:49 PM
Chromium	12.6	0.0911		mg/Kg-dry	1	9/21/2015 6:00:49 PM
Lead	1.22	0.182		mg/Kg-dry	1	9/21/2015 6:00:49 PM
Selenium	1.26	0.456		mg/Kg-dry	1	9/21/2015 6:00:49 PM
Silver	ND	0.0911		mg/Kg-dry	1	9/21/2015 6:00:49 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	21.0			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-003

Matrix: Soil

Client Sample ID: GP-2-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	36.4		µg/Kg-dry	1	9/29/2015 8:54:00 PM
2,4-D	ND	31.2		µg/Kg-dry	1	9/29/2015 8:54:00 PM
2,4-DP	ND	26.0		µg/Kg-dry	1	9/29/2015 8:54:00 PM
2,4,5-TP (Silvex)	ND	20.8		µg/Kg-dry	1	9/29/2015 8:54:00 PM
2,4,5-T	ND	52.0		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Dinoseb	ND	31.2		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Dalapon	ND	208		µg/Kg-dry	1	9/29/2015 8:54:00 PM
2,4-DB	ND	26.0		µg/Kg-dry	1	9/29/2015 8:54:00 PM
MCPP	ND	4,580		µg/Kg-dry	1	9/29/2015 8:54:00 PM
MCPA	ND	291		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Picloram	ND	52.0		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Bentazon	ND	36.4		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Chloramben	23.0	20.8		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Acifluorfen	ND	83.2		µg/Kg-dry	1	9/29/2015 8:54:00 PM
3,5-Dichlorobenzoic acid	ND	41.6		µg/Kg-dry	1	9/29/2015 8:54:00 PM
4-Nitrophenol	ND	31.2		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Dacthal (DCPA)	ND	31.2		µg/Kg-dry	1	9/29/2015 8:54:00 PM
Surr: 2,4-Dichlorophenylacetic acid	98.4	20.1-168		%REC	1	9/29/2015 8:54:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Alpha BHC	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Beta BHC	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Gamma BHC (Lindane)	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Delta BHC	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Heptachlor	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Aldrin	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Heptachlor epoxide	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
gamma-Chlordane	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Endosulfan I	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
alpha-Chlordane	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Dieldrin	ND	0.0102		mg/Kg-dry	1	9/24/2015 7:54:00 AM
4,4'-DDE	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Endrin	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Endosulfan II	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM
4,4'-DDD	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Endrin aldehyde	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Endosulfan sulfate	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-003

Matrix: Soil

Client Sample ID: GP-2-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

4,4'-DDT	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Endrin ketone	ND	0.0205		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Methoxychlor	ND	0.0511		mg/Kg-dry	1	9/24/2015 7:54:00 AM
Surr: Decachlorobiphenyl	72.6	26.5-158		%REC	1	9/24/2015 7:54:00 AM
Surr: Tetrachloro-m-xylene	55.3	11-150		%REC	1	9/24/2015 7:54:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	19.8		mg/Kg-dry	1	9/23/2015 8:56:00 AM
Heavy Oil	74.8	49.4		mg/Kg-dry	1	9/23/2015 8:56:00 AM
Surr: 2-Fluorobiphenyl	123	50-150		%REC	1	9/23/2015 8:56:00 AM
Surr: o-Terphenyl	120	50-150		%REC	1	9/23/2015 8:56:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Bis(2-chloroethyl) ether	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2-Chlorophenol	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
1,3-Dichlorobenzene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
1,4-Dichlorobenzene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
1,2-Dichlorobenzene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Benzyl alcohol	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2-Methylphenol (o-cresol)	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Hexachloroethane	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
N-Nitrosodi-n-propylamine	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Nitrobenzene	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Isophorone	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
4-Methylphenol (p-cresol)	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2-Nitrophenol	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2,4-Dimethylphenol	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Bis(2-chloroethoxy)methane	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2,4-Dichlorophenol	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
1,2,4-Trichlorobenzene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Naphthalene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
4-Chloroaniline	ND	538		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Hexachlorobutadiene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
4-Chloro-3-methylphenol	ND	538		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2-Methylnaphthalene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
1-Methylnaphthalene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-003

Matrix: Soil

Client Sample ID: GP-2-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
Hexachlorocyclopentadiene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2,4,6-Trichlorophenol	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2,4,5-Trichlorophenol	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2-Chloronaphthalene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2-Nitroaniline	ND	538		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Acenaphthene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Dimethylphthalate	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2,6-Dinitrotoluene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Acenaphthylene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2,4-Dinitrophenol	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Dibenzofuran	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
2,4-Dinitrotoluene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
4-Nitrophenol	ND	538		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Fluorene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
4-Chlorophenyl phenyl ether	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Diethylphthalate	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
4,6-Dinitro-2-methylphenol	ND	215		µg/Kg-dry	1	9/23/2015 10:57:00 PM
4-Bromophenyl phenyl ether	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Hexachlorobenzene	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Pentachlorophenol	197	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Phenanthrene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Anthracene	90.9	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Carbazole	ND	538		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Di-n-butylphthalate	133	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Fluoranthene	127	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Pyrene	157	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Butyl Benzylphthalate	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
bis(2-Ethylhexyl)adipate	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Benz (a) anthracene	137	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Chrysene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
bis (2-Ethylhexyl) phthalate	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Di-n-octyl phthalate	ND	108		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Benzo (b) fluoranthene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Benzo (k) fluoranthene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Benzo (a) pyrene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Indeno (1,2,3-cd) pyrene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Dibenz (a,h) anthracene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Benzo (g,h,i) perylene	ND	86.0		µg/Kg-dry	1	9/23/2015 10:57:00 PM
Surr: 2,4,6-Tribromophenol	68.1	11.1-127		%REC	1	9/23/2015 10:57:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-003

Matrix: Soil

Client Sample ID: GP-2-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Surr: 2-Fluorobiphenyl	69.8	16.1-150		%REC	1	9/23/2015 10:57:00 PM
Surr: Nitrobenzene-d5	45.0	10-133		%REC	1	9/23/2015 10:57:00 PM
Surr: Phenol-d6	58.9	11.6-133		%REC	1	9/23/2015 10:57:00 PM
Surr: p-Terphenyl	94.2	21.8-150		%REC	1	9/23/2015 10:57:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11902		Analyst: BC
Gasoline	ND	3.19		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Surr: Toluene-d8	98.3	65-135		%REC	1	9/22/2015 6:41:00 PM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/22/2015 6:41:00 PM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11902		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0383		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Chloromethane	ND	0.0383		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Vinyl chloride	ND	0.00128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Bromomethane	ND	0.0574		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0319		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Chloroethane	ND	0.0383		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,1-Dichloroethene	ND	0.0319		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Methylene chloride	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
trans-1,2-Dichloroethene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0319		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,1-Dichloroethane	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
2,2-Dichloropropane	ND	0.0319		mg/Kg-dry	1	9/22/2015 6:41:00 PM
cis-1,2-Dichloroethene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Chloroform	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,1-Dichloropropene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Carbon tetrachloride	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2-Dichloroethane (EDC)	ND	0.0191		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Benzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Trichloroethene (TCE)	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2-Dichloropropane	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Bromodichloromethane	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Dibromomethane	ND	0.0255		mg/Kg-dry	1	9/22/2015 6:41:00 PM
cis-1,3-Dichloropropene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Toluene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
trans-1,3-Dichloropropylene	ND	0.0191		mg/Kg-dry	1	9/22/2015 6:41:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-003

Matrix: Soil

Client Sample ID: GP-2-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11902		Analyst: BC
1,1,2-Trichloroethane	ND	0.0191		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,3-Dichloropropane	ND	0.0319		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Tetrachloroethene (PCE)	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Dibromochloromethane	ND	0.0191		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2-Dibromoethane (EDB)	ND	0.00319		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Chlorobenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0191		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Ethylbenzene	ND	0.0191		mg/Kg-dry	1	9/22/2015 6:41:00 PM
m,p-Xylene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
o-Xylene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Styrene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Isopropylbenzene	ND	0.0510		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Bromoform	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
n-Propylbenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Bromobenzene	ND	0.0191		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,3,5-Trimethylbenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
2-Chlorotoluene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
4-Chlorotoluene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
tert-Butylbenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2,3-Trichloropropane	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2,4-Trichlorobenzene	ND	0.0319		mg/Kg-dry	1	9/22/2015 6:41:00 PM
sec-Butylbenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
4-Isopropyltoluene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,3-Dichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,4-Dichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
n-Butylbenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2-Dichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2-Dibromo-3-chloropropane	ND	0.319		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2,4-Trimethylbenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Hexachlorobutadiene	ND	0.0638		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Naphthalene	ND	0.0191		mg/Kg-dry	1	9/22/2015 6:41:00 PM
1,2,3-Trichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/22/2015 6:41:00 PM
Surr: Dibromofluoromethane	94.6	56.5-129		%REC	1	9/22/2015 6:41:00 PM
Surr: Toluene-d8	98.9	64.3-131		%REC	1	9/22/2015 6:41:00 PM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/22/2015 6:41:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-003

Matrix: Soil

Client Sample ID: GP-2-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.232		mg/Kg-dry	1	9/22/2015 12:57:33 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	3.13	0.0835		mg/Kg-dry	1	9/21/2015 6:04:20 PM
Barium	38.0	0.417		mg/Kg-dry	1	9/21/2015 6:04:20 PM
Cadmium	0.253	0.167		mg/Kg-dry	1	9/21/2015 6:04:20 PM
Chromium	17.5	0.0835		mg/Kg-dry	1	9/21/2015 6:04:20 PM
Lead	22.1	0.167		mg/Kg-dry	1	9/21/2015 6:04:20 PM
Selenium	1.48	0.417		mg/Kg-dry	1	9/21/2015 6:04:20 PM
Silver	ND	0.0835		mg/Kg-dry	1	9/21/2015 6:04:20 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	7.15			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:20:00 AM

Project: Pacific Park

Lab ID: 1509270-004

Matrix: Soil

Client Sample ID: GP-2-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	41.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
2,4-D	ND	35.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
2,4-DP	ND	29.7		µg/Kg-dry	1	9/29/2015 9:11:00 PM
2,4,5-TP (Silvex)	ND	23.8		µg/Kg-dry	1	9/29/2015 9:11:00 PM
2,4,5-T	ND	59.4		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Dinoseb	ND	35.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Dalapon	ND	238		µg/Kg-dry	1	9/29/2015 9:11:00 PM
2,4-DB	ND	29.7		µg/Kg-dry	1	9/29/2015 9:11:00 PM
MCPP	ND	5,230		µg/Kg-dry	1	9/29/2015 9:11:00 PM
MCPA	ND	333		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Picloram	ND	59.4		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Bentazon	ND	41.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Chloramben	ND	23.8		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Acifluorfen	ND	95.0		µg/Kg-dry	1	9/29/2015 9:11:00 PM
3,5-Dichlorobenzoic acid	ND	47.5		µg/Kg-dry	1	9/29/2015 9:11:00 PM
4-Nitrophenol	ND	35.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Dacthal (DCPA)	ND	35.6		µg/Kg-dry	1	9/29/2015 9:11:00 PM
Surr: 2,4-Dichlorophenylacetic acid	98.4	20.1-168		%REC	1	9/29/2015 9:11:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Alpha BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Beta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Gamma BHC (Lindane)	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Delta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Heptachlor	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Aldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Heptachlor epoxide	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
gamma-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Endosulfan I	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
alpha-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Dieldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:05:00 AM
4,4'-DDE	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Endrin	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Endosulfan II	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM
4,4'-DDD	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Endrin aldehyde	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Endosulfan sulfate	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:20:00 AM

Project: Pacific Park

Lab ID: 1509270-004

Matrix: Soil

Client Sample ID: GP-2-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Endrin ketone	ND	0.0231		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Methoxychlor	ND	0.0579		mg/Kg-dry	1	9/24/2015 8:05:00 AM
Surr: Decachlorobiphenyl	89.2	26.5-158		%REC	1	9/24/2015 8:05:00 AM
Surr: Tetrachloro-m-xylene	61.1	11-150		%REC	1	9/24/2015 8:05:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11903		Analyst: AK
Diesel (Fuel Oil)	ND	21.2		mg/Kg-dry	1	9/23/2015 9:27:00 AM
Heavy Oil	ND	53.0		mg/Kg-dry	1	9/23/2015 9:27:00 AM
Surr: 2-Fluorobiphenyl	89.7	50-150		%REC	1	9/23/2015 9:27:00 AM
Surr: o-Terphenyl	88.9	50-150		%REC	1	9/23/2015 9:27:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Phenol	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Bis(2-chloroethyl) ether	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2-Chlorophenol	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
1,3-Dichlorobenzene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
1,4-Dichlorobenzene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
1,2-Dichlorobenzene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Benzyl alcohol	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2-Methylphenol (o-cresol)	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Hexachloroethane	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
N-Nitrosodi-n-propylamine	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Nitrobenzene	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Isophorone	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
4-Methylphenol (p-cresol)	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2-Nitrophenol	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2,4-Dimethylphenol	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Bis(2-chloroethoxy)methane	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2,4-Dichlorophenol	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
1,2,4-Trichlorobenzene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Naphthalene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
4-Chloroaniline	ND	578		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Hexachlorobutadiene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
4-Chloro-3-methylphenol	ND	578		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2-Methylnaphthalene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
1-Methylnaphthalene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:20:00 AM

Project: Pacific Park

Lab ID: 1509270-004

Matrix: Soil

Client Sample ID: GP-2-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
Hexachlorocyclopentadiene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2,4,6-Trichlorophenol	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2,4,5-Trichlorophenol	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2-Chloronaphthalene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2-Nitroaniline	ND	578		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Acenaphthene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Dimethylphthalate	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2,6-Dinitrotoluene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Acenaphthylene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2,4-Dinitrophenol	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Dibenzofuran	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
2,4-Dinitrotoluene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
4-Nitrophenol	ND	578		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Fluorene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
4-Chlorophenyl phenyl ether	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Diethylphthalate	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
4,6-Dinitro-2-methylphenol	ND	231		µg/Kg-dry	1	9/23/2015 11:19:00 PM
4-Bromophenyl phenyl ether	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Hexachlorobenzene	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Pentachlorophenol	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Phenanthrene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Anthracene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Carbazole	ND	578		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Di-n-butylphthalate	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Fluoranthene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Pyrene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Butyl Benzylphthalate	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
bis(2-Ethylhexyl)adipate	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Benz (a) anthracene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Chrysene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
bis (2-Ethylhexyl) phthalate	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Di-n-octyl phthalate	ND	116		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Benzo (b) fluoranthene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Benzo (k) fluoranthene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Benzo (a) pyrene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Indeno (1,2,3-cd) pyrene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Dibenz (a,h) anthracene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Benzo (g,h,i) perylene	ND	92.5		µg/Kg-dry	1	9/23/2015 11:19:00 PM
Surr: 2,4,6-Tribromophenol	62.0	11.1-127		%REC	1	9/23/2015 11:19:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:20:00 AM

Project: Pacific Park

Lab ID: 1509270-004

Matrix: Soil

Client Sample ID: GP-2-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Surr: 2-Fluorobiphenyl	56.7	16.1-150		%REC	1	9/23/2015 11:19:00 PM
Surr: Nitrobenzene-d5	31.1	10-133		%REC	1	9/23/2015 11:19:00 PM
Surr: Phenol-d6	55.1	11.6-133		%REC	1	9/23/2015 11:19:00 PM
Surr: p-Terphenyl	87.4	21.8-150		%REC	1	9/23/2015 11:19:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11914		Analyst: BC
Gasoline	ND	3.13		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Surr: Toluene-d8	99.4	65-135		%REC	1	9/23/2015 1:50:00 AM
Surr: 4-Bromofluorobenzene	101	65-135		%REC	1	9/23/2015 1:50:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0375		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Chloromethane	ND	0.0375		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Vinyl chloride	ND	0.00125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Bromomethane	ND	0.0563		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Chloroethane	ND	0.0375		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,1-Dichloroethene	ND	0.0313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Methylene chloride	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
trans-1,2-Dichloroethene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,1-Dichloroethane	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
2,2-Dichloropropane	ND	0.0313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
cis-1,2-Dichloroethene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Chloroform	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,1-Dichloropropene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Carbon tetrachloride	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2-Dichloroethane (EDC)	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Benzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Trichloroethene (TCE)	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2-Dichloropropane	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Bromodichloromethane	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Dibromomethane	ND	0.0250		mg/Kg-dry	1	9/23/2015 1:50:00 AM
cis-1,3-Dichloropropene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Toluene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
trans-1,3-Dichloropropylene	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:20:00 AM

Project: Pacific Park

Lab ID: 1509270-004

Matrix: Soil

Client Sample ID: GP-2-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,3-Dichloropropane	ND	0.0313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Tetrachloroethene (PCE)	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Dibromochloromethane	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2-Dibromoethane (EDB)	ND	0.00313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Chlorobenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Ethylbenzene	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM
m,p-Xylene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
o-Xylene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Styrene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Isopropylbenzene	ND	0.0501		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Bromoform	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
n-Propylbenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Bromobenzene	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,3,5-Trimethylbenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
2-Chlorotoluene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
4-Chlorotoluene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
tert-Butylbenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2,3-Trichloropropane	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2,4-Trichlorobenzene	ND	0.0313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
sec-Butylbenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
4-Isopropyltoluene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,3-Dichlorobenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,4-Dichlorobenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
n-Butylbenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2-Dichlorobenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2-Dibromo-3-chloropropane	ND	0.313		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2,4-Trimethylbenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Hexachlorobutadiene	ND	0.0626		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Naphthalene	ND	0.0188		mg/Kg-dry	1	9/23/2015 1:50:00 AM
1,2,3-Trichlorobenzene	ND	0.0125		mg/Kg-dry	1	9/23/2015 1:50:00 AM
Surr: Dibromofluoromethane	96.4	56.5-129		%REC	1	9/23/2015 1:50:00 AM
Surr: Toluene-d8	97.0	64.3-131		%REC	1	9/23/2015 1:50:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.2	63.1-141		%REC	1	9/23/2015 1:50:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 10:20:00 AM

Project: Pacific Park

Lab ID: 1509270-004

Matrix: Soil

Client Sample ID: GP-2-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.290		mg/Kg-dry	1	9/22/2015 12:59:09 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	2.88	0.0981		mg/Kg-dry	1	9/21/2015 6:07:51 PM
Barium	20.5	0.491		mg/Kg-dry	1	9/21/2015 6:07:51 PM
Cadmium	ND	0.196		mg/Kg-dry	1	9/21/2015 6:07:51 PM
Chromium	16.6	0.0981		mg/Kg-dry	1	9/21/2015 6:07:51 PM
Lead	1.35	0.196		mg/Kg-dry	1	9/21/2015 6:07:51 PM
Selenium	1.24	0.491		mg/Kg-dry	1	9/21/2015 6:07:51 PM
Silver	ND	0.0981		mg/Kg-dry	1	9/21/2015 6:07:51 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	17.2			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:10:00 AM

Project: Pacific Park

Lab ID: 1509270-005

Matrix: Soil

Client Sample ID: GP-3-15:9.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	41.2		µg/Kg-dry	1	9/30/2015 5:46:00 PM
2,4-D	ND	35.3		µg/Kg-dry	1	9/30/2015 5:46:00 PM
2,4-DP	ND	29.5		µg/Kg-dry	1	9/30/2015 5:46:00 PM
2,4,5-TP (Silvex)	ND	23.6		µg/Kg-dry	1	9/30/2015 5:46:00 PM
2,4,5-T	ND	58.9		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Dinoseb	ND	35.3		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Dalapon	ND	236		µg/Kg-dry	1	9/30/2015 5:46:00 PM
2,4-DB	ND	29.5		µg/Kg-dry	1	9/30/2015 5:46:00 PM
MCPP	ND	330		µg/Kg-dry	1	9/30/2015 5:46:00 PM
MCPA	ND	330		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Picloram	ND	58.9		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Bentazon	ND	41.2		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Chloramben	ND	23.6		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Acifluorfen	ND	94.3		µg/Kg-dry	1	9/30/2015 5:46:00 PM
3,5-Dichlorobenzoic acid	ND	47.1		µg/Kg-dry	1	9/30/2015 5:46:00 PM
4-Nitrophenol	ND	35.3		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Dacthal (DCPA)	ND	35.3		µg/Kg-dry	1	9/30/2015 5:46:00 PM
Surr: 2,4-Dichlorophenylacetic acid	25.1	20.1-168		%REC	1	9/30/2015 5:46:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Alpha BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Beta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Gamma BHC (Lindane)	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Delta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Heptachlor	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Aldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Heptachlor epoxide	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
gamma-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Endosulfan I	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
alpha-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Dieldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:15:00 AM
4,4'-DDE	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Endrin	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Endosulfan II	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM
4,4'-DDD	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Endrin aldehyde	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Endosulfan sulfate	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:10:00 AM

Project: Pacific Park

Lab ID: 1509270-005

Matrix: Soil

Client Sample ID: GP-3-15:9.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Endrin ketone	ND	0.0232		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Methoxychlor	ND	0.0581		mg/Kg-dry	1	9/24/2015 8:15:00 AM
Surr: Decachlorobiphenyl	88.2	26.5-158		%REC	1	9/24/2015 8:15:00 AM
Surr: Tetrachloro-m-xylene	72.2	11-150		%REC	1	9/24/2015 8:15:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11903		Analyst: AK
Diesel (Fuel Oil)	ND	24.4		mg/Kg-dry	1	9/23/2015 9:58:00 AM
Heavy Oil	ND	61.1		mg/Kg-dry	1	9/23/2015 9:58:00 AM
Surr: 2-Fluorobiphenyl	122	50-150		%REC	1	9/23/2015 9:58:00 AM
Surr: o-Terphenyl	119	50-150		%REC	1	9/23/2015 9:58:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Phenol	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Bis(2-chloroethyl) ether	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2-Chlorophenol	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
1,3-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
1,4-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
1,2-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Benzyl alcohol	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2-Methylphenol (o-cresol)	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Hexachloroethane	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
N-Nitrosodi-n-propylamine	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Nitrobenzene	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Isophorone	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
4-Methylphenol (p-cresol)	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2-Nitrophenol	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2,4-Dimethylphenol	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Bis(2-chloroethoxy)methane	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2,4-Dichlorophenol	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
1,2,4-Trichlorobenzene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Naphthalene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
4-Chloroaniline	ND	594		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Hexachlorobutadiene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
4-Chloro-3-methylphenol	ND	594		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2-Methylnaphthalene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
1-Methylnaphthalene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:10:00 AM

Project: Pacific Park

Lab ID: 1509270-005

Matrix: Soil

Client Sample ID: GP-3-15:9.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
Hexachlorocyclopentadiene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2,4,6-Trichlorophenol	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2,4,5-Trichlorophenol	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2-Chloronaphthalene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2-Nitroaniline	ND	594		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Acenaphthene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Dimethylphthalate	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2,6-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Acenaphthylene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2,4-Dinitrophenol	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Dibenzofuran	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
2,4-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
4-Nitrophenol	ND	594		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Fluorene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
4-Chlorophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Diethylphthalate	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
4,6-Dinitro-2-methylphenol	ND	238		µg/Kg-dry	1	9/23/2015 11:41:00 PM
4-Bromophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Hexachlorobenzene	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Pentachlorophenol	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Phenanthrene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Anthracene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Carbazole	ND	594		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Di-n-butylphthalate	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Fluoranthene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Pyrene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Butyl Benzylphthalate	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
bis(2-Ethylhexyl)adipate	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Benz (a) anthracene	108	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Chrysene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
bis (2-Ethylhexyl) phthalate	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Di-n-octyl phthalate	ND	119		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Benzo (b) fluoranthene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Benzo (k) fluoranthene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Benzo (a) pyrene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Indeno (1,2,3-cd) pyrene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Dibenz (a,h) anthracene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Benzo (g,h,i) perylene	ND	95.1		µg/Kg-dry	1	9/23/2015 11:41:00 PM
Surr: 2,4,6-Tribromophenol	53.7	11.1-127		%REC	1	9/23/2015 11:41:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:10:00 AM

Project: Pacific Park

Lab ID: 1509270-005

Matrix: Soil

Client Sample ID: GP-3-15:9.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Surr: 2-Fluorobiphenyl	31.1	16.1-150		%REC	1	9/23/2015 11:41:00 PM
Surr: Nitrobenzene-d5	19.0	10-133		%REC	1	9/23/2015 11:41:00 PM
Surr: Phenol-d6	50.6	11.6-133		%REC	1	9/23/2015 11:41:00 PM
Surr: p-Terphenyl	82.5	21.8-150		%REC	1	9/23/2015 11:41:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11914		Analyst: BC
Gasoline	ND	3.33		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Surr: Toluene-d8	99.9	65-135		%REC	1	9/23/2015 2:47:00 AM
Surr: 4-Bromofluorobenzene	102	65-135		%REC	1	9/23/2015 2:47:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0400		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Chloromethane	ND	0.0400		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Vinyl chloride	ND	0.00133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Bromomethane	ND	0.0599		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0333		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Chloroethane	ND	0.0400		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,1-Dichloroethene	ND	0.0333		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Methylene chloride	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
trans-1,2-Dichloroethene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0333		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,1-Dichloroethane	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
2,2-Dichloropropane	ND	0.0333		mg/Kg-dry	1	9/23/2015 2:47:00 AM
cis-1,2-Dichloroethene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Chloroform	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,1-Dichloropropene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Carbon tetrachloride	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2-Dichloroethane (EDC)	ND	0.0200		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Benzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Trichloroethene (TCE)	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2-Dichloropropane	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Bromodichloromethane	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Dibromomethane	ND	0.0266		mg/Kg-dry	1	9/23/2015 2:47:00 AM
cis-1,3-Dichloropropene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Toluene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
trans-1,3-Dichloropropylene	ND	0.0200		mg/Kg-dry	1	9/23/2015 2:47:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:10:00 AM

Project: Pacific Park

Lab ID: 1509270-005

Matrix: Soil

Client Sample ID: GP-3-15:9.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0200		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,3-Dichloropropane	ND	0.0333		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Tetrachloroethene (PCE)	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Dibromochloromethane	ND	0.0200		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2-Dibromoethane (EDB)	ND	0.00333		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Chlorobenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0200		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Ethylbenzene	ND	0.0200		mg/Kg-dry	1	9/23/2015 2:47:00 AM
m,p-Xylene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
o-Xylene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Styrene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Isopropylbenzene	ND	0.0533		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Bromoform	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
n-Propylbenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Bromobenzene	ND	0.0200		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,3,5-Trimethylbenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
2-Chlorotoluene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
4-Chlorotoluene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
tert-Butylbenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2,3-Trichloropropane	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2,4-Trichlorobenzene	ND	0.0333		mg/Kg-dry	1	9/23/2015 2:47:00 AM
sec-Butylbenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
4-Isopropyltoluene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,3-Dichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,4-Dichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
n-Butylbenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2-Dichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2-Dibromo-3-chloropropane	ND	0.333		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2,4-Trimethylbenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Hexachlorobutadiene	ND	0.0666		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Naphthalene	ND	0.0200		mg/Kg-dry	1	9/23/2015 2:47:00 AM
1,2,3-Trichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/23/2015 2:47:00 AM
Surr: Dibromofluoromethane	95.0	56.5-129		%REC	1	9/23/2015 2:47:00 AM
Surr: Toluene-d8	98.5	64.3-131		%REC	1	9/23/2015 2:47:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.5	63.1-141		%REC	1	9/23/2015 2:47:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:10:00 AM

Project: Pacific Park

Lab ID: 1509270-005

Matrix: Soil

Client Sample ID: GP-3-15:9.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.296		mg/Kg-dry	1	9/22/2015 1:04:07 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	3.42	0.102		mg/Kg-dry	1	9/21/2015 6:11:23 PM
Barium	23.5	0.509		mg/Kg-dry	1	9/21/2015 6:11:23 PM
Cadmium	ND	0.204		mg/Kg-dry	1	9/21/2015 6:11:23 PM
Chromium	10.6	0.102		mg/Kg-dry	1	9/21/2015 6:11:23 PM
Lead	22.0	0.204		mg/Kg-dry	1	9/21/2015 6:11:23 PM
Selenium	1.12	0.509		mg/Kg-dry	1	9/21/2015 6:11:23 PM
Silver	ND	0.102		mg/Kg-dry	1	9/21/2015 6:11:23 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	18.8			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509270-006

Matrix: Soil

Client Sample ID: GP-3-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>				Batch ID: 11922		Analyst: MD
Dicamba	ND	71.3		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-D	ND	61.1		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-DP	ND	50.9		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4,5-TP (Silvex)	ND	40.8		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4,5-T	ND	102		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Dinoseb	ND	61.1		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Dalapon	ND	408		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-DB	ND	50.9		µg/Kg-dry	1	9/29/2015 9:45:00 PM
MCPP	ND	8,970		µg/Kg-dry	1	9/29/2015 9:45:00 PM
MCPA	ND	571		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Picloram	ND	102		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Bentazon	ND	71.3		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Chloramben	ND	40.8		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Acifluorfen	170	163		µg/Kg-dry	1	9/29/2015 9:45:00 PM
3,5-Dichlorobenzoic acid	ND	81.5		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4-Nitrophenol	ND	61.1		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Dacthal (DCPA)	ND	61.1		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Surr: 2,4-Dichlorophenylacetic acid	92.8	20.1-168		%REC	1	9/29/2015 9:45:00 PM
<u>Polychlorinated Biphenyls (PCB) by EPA 8082</u>				Batch ID: 12180		Analyst: CM
Aroclor 1016	ND	0.196		mg/Kg-dry	1	10/22/2015 4:29:00 PM
Aroclor 1221	ND	0.196		mg/Kg-dry	1	10/22/2015 4:29:00 PM
Aroclor 1232	ND	0.196		mg/Kg-dry	1	10/22/2015 4:29:00 PM
Aroclor 1242	ND	0.196		mg/Kg-dry	1	10/22/2015 4:29:00 PM
Aroclor 1248	ND	0.196		mg/Kg-dry	1	10/22/2015 4:29:00 PM
Aroclor 1254	ND	0.196		mg/Kg-dry	1	10/22/2015 4:29:00 PM
Aroclor 1260	ND	0.196		mg/Kg-dry	1	10/22/2015 4:29:00 PM
Aroclor 1262	ND	0.196		mg/Kg-dry	1	10/22/2015 4:29:00 PM
Aroclor 1268	ND	0.196		mg/Kg-dry	1	10/22/2015 4:29:00 PM
Total PCBs	ND	0.196		mg/Kg-dry	1	10/22/2015 4:29:00 PM
Surr: Decachlorobiphenyl	63.7	41.2-143		%REC	1	10/22/2015 4:29:00 PM
Surr: Tetrachloro-m-xylene	76.9	26-140		%REC	1	10/22/2015 4:29:00 PM
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11932		Analyst: MD
Toxaphene	ND	0.197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Alpha BHC	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Beta BHC	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509270-006

Matrix: Soil

Client Sample ID: GP-3-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Gamma BHC (Lindane)	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Delta BHC	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Heptachlor	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Aldrin	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Heptachlor epoxide	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
gamma-Chlordane	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Endosulfan I	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
alpha-Chlordane	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Dieldrin	ND	0.0197		mg/Kg-dry	1	9/24/2015 8:26:00 AM
4,4'-DDE	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Endrin	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Endosulfan II	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM
4,4'-DDD	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Endrin aldehyde	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Endosulfan sulfate	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM
4,4'-DDT	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Endrin ketone	ND	0.0394		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Methoxychlor	ND	0.0986		mg/Kg-dry	1	9/24/2015 8:26:00 AM
Surr: Decachlorobiphenyl	86.9	26.5-158		%REC	1	9/24/2015 8:26:00 AM
Surr: Tetrachloro-m-xylene	69.8	11-150		%REC	1	9/24/2015 8:26:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	38.9		mg/Kg-dry	1	9/23/2015 10:29:00 AM
Heavy Oil	275	97.4		mg/Kg-dry	1	9/23/2015 10:29:00 AM
Surr: 2-Fluorobiphenyl	85.1	50-150		%REC	1	9/23/2015 10:29:00 AM
Surr: o-Terphenyl	89.0	50-150		%REC	1	9/23/2015 10:29:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Bis(2-chloroethyl) ether	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2-Chlorophenol	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
1,3-Dichlorobenzene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
1,4-Dichlorobenzene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2-Dichlorobenzene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Benzyl alcohol	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2-Methylphenol (o-cresol)	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Hexachloroethane	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509270-006

Matrix: Soil

Client Sample ID: GP-3-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
N-Nitrosodi-n-propylamine	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Nitrobenzene	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Isophorone	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Methylphenol (p-cresol)	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2-Nitrophenol	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2,4-Dimethylphenol	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Bis(2-chloroethoxy)methane	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2,4-Dichlorophenol	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2,4-Trichlorobenzene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Naphthalene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Chloroaniline	ND	974		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Hexachlorobutadiene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Chloro-3-methylphenol	ND	974		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2-Methylnaphthalene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
1-Methylnaphthalene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Hexachlorocyclopentadiene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2,4,6-Trichlorophenol	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2,4,5-Trichlorophenol	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2-Chloronaphthalene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2-Nitroaniline	ND	974		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Acenaphthene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Dimethylphthalate	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2,6-Dinitrotoluene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Acenaphthylene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2,4-Dinitrophenol	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Dibenzofuran	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
2,4-Dinitrotoluene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Nitrophenol	ND	974		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Fluorene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Chlorophenyl phenyl ether	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Diethylphthalate	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
4,6-Dinitro-2-methylphenol	ND	389		µg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Bromophenyl phenyl ether	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Hexachlorobenzene	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Pentachlorophenol	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Phenanthrene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Anthracene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Carbazole	ND	974		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Di-n-butylphthalate	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509270-006

Matrix: Soil

Client Sample ID: GP-3-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Fluoranthene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Pyrene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Butyl Benzylphthalate	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
bis(2-Ethylhexyl)adipate	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Benz (a) anthracene	192	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Chrysene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
bis (2-Ethylhexyl) phthalate	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Di-n-octyl phthalate	ND	195		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Benzo (b) fluoranthene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Benzo (k) fluoranthene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Benzo (a) pyrene	284	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Indeno (1,2,3-cd) pyrene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Dibenz (a,h) anthracene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Benzo (g,h,i) perylene	ND	156		µg/Kg-dry	1	9/24/2015 12:03:00 AM
Surr: 2,4,6-Tribromophenol	62.9	11.1-127		%REC	1	9/24/2015 12:03:00 AM
Surr: 2-Fluorobiphenyl	24.7	16.1-150		%REC	1	9/24/2015 12:03:00 AM
Surr: Nitrobenzene-d5	13.5	10-133		%REC	1	9/24/2015 12:03:00 AM
Surr: Phenol-d6	35.8	11.6-133		%REC	1	9/24/2015 12:03:00 AM
Surr: p-Terphenyl	91.1	21.8-150		%REC	1	9/24/2015 12:03:00 AM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11914		Analyst: BC
Gasoline	ND	7.99		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Surr: Toluene-d8	99.4	65-135		%REC	1	9/23/2015 3:15:00 AM
Surr: 4-Bromofluorobenzene	99.6	65-135		%REC	1	9/23/2015 3:15:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0959		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Chloromethane	ND	0.0959		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Vinyl chloride	ND	0.00320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Bromomethane	ND	0.144		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0799		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Chloroethane	ND	0.0959		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,1-Dichloroethene	ND	0.0799		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Methylene chloride	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
trans-1,2-Dichloroethene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0799		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,1-Dichloroethane	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509270-006

Matrix: Soil

Client Sample ID: GP-3-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
2,2-Dichloropropane	ND	0.0799		mg/Kg-dry	1	9/23/2015 3:15:00 AM
cis-1,2-Dichloroethene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Chloroform	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,1-Dichloropropene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Carbon tetrachloride	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2-Dichloroethane (EDC)	ND	0.0479		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Benzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Trichloroethene (TCE)	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2-Dichloropropane	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Bromodichloromethane	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Dibromomethane	ND	0.0639		mg/Kg-dry	1	9/23/2015 3:15:00 AM
cis-1,3-Dichloropropene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Toluene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
trans-1,3-Dichloropropylene	ND	0.0479		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,1,2-Trichloroethane	ND	0.0479		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,3-Dichloropropane	ND	0.0799		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Tetrachloroethene (PCE)	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Dibromochloromethane	ND	0.0479		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2-Dibromoethane (EDB)	ND	0.00799		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Chlorobenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0479		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Ethylbenzene	ND	0.0479		mg/Kg-dry	1	9/23/2015 3:15:00 AM
m,p-Xylene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
o-Xylene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Styrene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Isopropylbenzene	ND	0.128		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Bromoform	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
n-Propylbenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Bromobenzene	ND	0.0479		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,3,5-Trimethylbenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
2-Chlorotoluene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
4-Chlorotoluene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
tert-Butylbenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2,3-Trichloropropane	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2,4-Trichlorobenzene	ND	0.0799		mg/Kg-dry	1	9/23/2015 3:15:00 AM
sec-Butylbenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
4-Isopropyltoluene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509270-006

Matrix: Soil

Client Sample ID: GP-3-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
1,3-Dichlorobenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,4-Dichlorobenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
n-Butylbenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2-Dichlorobenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2-Dibromo-3-chloropropane	ND	0.799		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2,4-Trimethylbenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Hexachlorobutadiene	ND	0.160		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Naphthalene	ND	0.0479		mg/Kg-dry	1	9/23/2015 3:15:00 AM
1,2,3-Trichlorobenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 3:15:00 AM
Surr: Dibromofluoromethane	97.3	56.5-129		%REC	1	9/23/2015 3:15:00 AM
Surr: Toluene-d8	97.3	64.3-131		%REC	1	9/23/2015 3:15:00 AM
Surr: 1-Bromo-4-fluorobenzene	96.1	63.1-141		%REC	1	9/23/2015 3:15:00 AM
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	0.552	0.440		mg/Kg-dry	1	9/22/2015 1:05:44 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	102	0.165		mg/Kg-dry	1	9/21/2015 6:14:54 PM
Barium	154	0.824		mg/Kg-dry	1	9/21/2015 6:14:54 PM
Cadmium	3.84	0.329		mg/Kg-dry	1	9/21/2015 6:14:54 PM
Chromium	143	0.165		mg/Kg-dry	1	9/21/2015 6:14:54 PM
Lead	2,780	0.329		mg/Kg-dry	1	9/21/2015 6:14:54 PM
Selenium	1.16	0.824		mg/Kg-dry	1	9/21/2015 6:14:54 PM
Silver	2.46	0.165		mg/Kg-dry	1	9/21/2015 6:14:54 PM
<u>Metals (SW6020) with TCLP Extraction (EPA 1311)</u>				Batch ID: 12222		Analyst: TN
Arsenic	ND	0.100		mg/L	1	10/26/2015 6:28:04 PM
Chromium	ND	0.100		mg/L	1	10/26/2015 6:28:04 PM
Lead	0.719	0.200		mg/L	1	10/26/2015 6:28:04 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	51.0			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509270-007

Matrix: Soil

Client Sample ID: GP-4-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Herbicides by EPA Method 8151A						
				Batch ID: 11922	Analyst: MD	
Dicamba	ND	40.6		µg/Kg-dry	1	9/29/2015 10:02:00 PM
2,4-D	ND	34.8		µg/Kg-dry	1	9/29/2015 10:02:00 PM
2,4-DP	ND	29.0		µg/Kg-dry	1	9/29/2015 10:02:00 PM
2,4,5-TP (Silvex)	ND	23.2		µg/Kg-dry	1	9/29/2015 10:02:00 PM
2,4,5-T	ND	58.0		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Dinoseb	ND	34.8		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Dalapon	ND	232		µg/Kg-dry	1	9/29/2015 10:02:00 PM
2,4-DB	ND	29.0		µg/Kg-dry	1	9/29/2015 10:02:00 PM
MCPP	ND	5,110		µg/Kg-dry	1	9/29/2015 10:02:00 PM
MCPA	ND	325		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Picloram	ND	58.0		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Bentazon	ND	40.6		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Chloramben	24.6	23.2		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Acifluorfen	ND	92.9		µg/Kg-dry	1	9/29/2015 10:02:00 PM
3,5-Dichlorobenzoic acid	ND	46.4		µg/Kg-dry	1	9/29/2015 10:02:00 PM
4-Nitrophenol	ND	34.8		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Dacthal (DCPA)	ND	34.8		µg/Kg-dry	1	9/29/2015 10:02:00 PM
Surr: 2,4-Dichlorophenylacetic acid	102	20.1-168		%REC	1	9/29/2015 10:02:00 PM
Polychlorinated Biphenyls (PCB) by EPA 8082						
				Batch ID: 12180	Analyst: CM	
Aroclor 1016	ND	0.108		mg/Kg-dry	1	10/22/2015 5:01:00 PM
Aroclor 1221	ND	0.108		mg/Kg-dry	1	10/22/2015 5:01:00 PM
Aroclor 1232	ND	0.108		mg/Kg-dry	1	10/22/2015 5:01:00 PM
Aroclor 1242	ND	0.108		mg/Kg-dry	1	10/22/2015 5:01:00 PM
Aroclor 1248	ND	0.108		mg/Kg-dry	1	10/22/2015 5:01:00 PM
Aroclor 1254	ND	0.108		mg/Kg-dry	1	10/22/2015 5:01:00 PM
Aroclor 1260	ND	0.108		mg/Kg-dry	1	10/22/2015 5:01:00 PM
Aroclor 1262	ND	0.108		mg/Kg-dry	1	10/22/2015 5:01:00 PM
Aroclor 1268	ND	0.108		mg/Kg-dry	1	10/22/2015 5:01:00 PM
Total PCBs	ND	0.108		mg/Kg-dry	1	10/22/2015 5:01:00 PM
Surr: Decachlorobiphenyl	65.0	41.2-143		%REC	1	10/22/2015 5:01:00 PM
Surr: Tetrachloro-m-xylene	67.2	26-140		%REC	1	10/22/2015 5:01:00 PM
Organochlorine Pesticides by EPA Method 8081						
				Batch ID: 11932	Analyst: MD	
Toxaphene	ND	0.116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Alpha BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Beta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509270-007

Matrix: Soil

Client Sample ID: GP-4-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Gamma BHC (Lindane)	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Delta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Heptachlor	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Aldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Heptachlor epoxide	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
gamma-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Endosulfan I	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
alpha-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Dieldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 8:37:00 AM
4,4'-DDE	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Endrin	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Endosulfan II	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM
4,4'-DDD	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Endrin aldehyde	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Endosulfan sulfate	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM
4,4'-DDT	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Endrin ketone	ND	0.0233		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Methoxychlor	ND	0.0582		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Surr: Decachlorobiphenyl	83.1	26.5-158		%REC	1	9/24/2015 8:37:00 AM
Surr: Tetrachloro-m-xylene	66.4	11-150		%REC	1	9/24/2015 8:37:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	23.8		mg/Kg-dry	1	9/23/2015 3:11:00 PM
Heavy Oil	182	59.4		mg/Kg-dry	1	9/23/2015 3:11:00 PM
Surr: 2-Fluorobiphenyl	107	50-150		%REC	1	9/23/2015 3:11:00 PM
Surr: o-Terphenyl	106	50-150		%REC	1	9/23/2015 3:11:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Bis(2-chloroethyl) ether	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2-Chlorophenol	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
1,3-Dichlorobenzene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
1,4-Dichlorobenzene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
1,2-Dichlorobenzene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Benzyl alcohol	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2-Methylphenol (o-cresol)	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Hexachloroethane	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509270-007

Matrix: Soil

Client Sample ID: GP-4-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904	Analyst: NG	
N-Nitrosodi-n-propylamine	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Nitrobenzene	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Isophorone	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
4-Methylphenol (p-cresol)	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2-Nitrophenol	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2,4-Dimethylphenol	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Bis(2-chloroethoxy)methane	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2,4-Dichlorophenol	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
1,2,4-Trichlorobenzene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Naphthalene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
4-Chloroaniline	ND	566		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Hexachlorobutadiene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
4-Chloro-3-methylphenol	ND	566		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2-Methylnaphthalene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
1-Methylnaphthalene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Hexachlorocyclopentadiene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2,4,6-Trichlorophenol	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2,4,5-Trichlorophenol	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2-Chloronaphthalene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2-Nitroaniline	ND	566		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Acenaphthene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Dimethylphthalate	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2,6-Dinitrotoluene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Acenaphthylene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2,4-Dinitrophenol	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Dibenzofuran	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
2,4-Dinitrotoluene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
4-Nitrophenol	ND	566		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Fluorene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
4-Chlorophenyl phenyl ether	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Diethylphthalate	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
4,6-Dinitro-2-methylphenol	ND	226		µg/Kg-dry	1	9/24/2015 12:25:00 AM
4-Bromophenyl phenyl ether	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Hexachlorobenzene	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Pentachlorophenol	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Phenanthrene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Anthracene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Carbazole	ND	566		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Di-n-butylphthalate	118	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509270-007

Matrix: Soil

Client Sample ID: GP-4-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Fluoranthene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Pyrene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Butyl Benzylphthalate	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
bis(2-Ethylhexyl)adipate	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Benz (a) anthracene	115	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Chrysene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
bis (2-Ethylhexyl) phthalate	250	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Di-n-octyl phthalate	ND	113		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Benzo (b) fluoranthene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Benzo (k) fluoranthene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Benzo (a) pyrene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Indeno (1,2,3-cd) pyrene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Dibenz (a,h) anthracene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Benzo (g,h,i) perylene	ND	90.5		µg/Kg-dry	1	9/24/2015 12:25:00 AM
Surr: 2,4,6-Tribromophenol	68.2	11.1-127		%REC	1	9/24/2015 12:25:00 AM
Surr: 2-Fluorobiphenyl	49.1	16.1-150		%REC	1	9/24/2015 12:25:00 AM
Surr: Nitrobenzene-d5	40.4	10-133		%REC	1	9/24/2015 12:25:00 AM
Surr: Phenol-d6	47.7	11.6-133		%REC	1	9/24/2015 12:25:00 AM
Surr: p-Terphenyl	90.0	21.8-150		%REC	1	9/24/2015 12:25:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	2.87		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Surr: Toluene-d8	100	65-135		%REC	1	9/23/2015 3:44:00 AM
Surr: 4-Bromofluorobenzene	100	65-135		%REC	1	9/23/2015 3:44:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0344		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Chloromethane	ND	0.0344		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Vinyl chloride	ND	0.00115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Bromomethane	ND	0.0516		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0287		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Chloroethane	ND	0.0344		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,1-Dichloroethene	ND	0.0287		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Methylene chloride	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
trans-1,2-Dichloroethene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0287		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,1-Dichloroethane	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509270-007

Matrix: Soil

Client Sample ID: GP-4-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
2,2-Dichloropropane	ND	0.0287		mg/Kg-dry	1	9/23/2015 3:44:00 AM
cis-1,2-Dichloroethene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Chloroform	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,1-Dichloropropene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Carbon tetrachloride	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2-Dichloroethane (EDC)	ND	0.0172		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Benzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Trichloroethene (TCE)	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2-Dichloropropane	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Bromodichloromethane	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Dibromomethane	ND	0.0229		mg/Kg-dry	1	9/23/2015 3:44:00 AM
cis-1,3-Dichloropropene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Toluene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
trans-1,3-Dichloropropylene	ND	0.0172		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,1,2-Trichloroethane	ND	0.0172		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,3-Dichloropropane	ND	0.0287		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Tetrachloroethene (PCE)	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Dibromochloromethane	ND	0.0172		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2-Dibromoethane (EDB)	ND	0.00287		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Chlorobenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0172		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Ethylbenzene	ND	0.0172		mg/Kg-dry	1	9/23/2015 3:44:00 AM
m,p-Xylene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
o-Xylene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Styrene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Isopropylbenzene	ND	0.0459		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Bromoform	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
n-Propylbenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Bromobenzene	ND	0.0172		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,3,5-Trimethylbenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
2-Chlorotoluene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
4-Chlorotoluene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
tert-Butylbenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2,3-Trichloropropane	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2,4-Trichlorobenzene	ND	0.0287		mg/Kg-dry	1	9/23/2015 3:44:00 AM
sec-Butylbenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
4-Isopropyltoluene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509270-007

Matrix: Soil

Client Sample ID: GP-4-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
1,3-Dichlorobenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,4-Dichlorobenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
n-Butylbenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2-Dichlorobenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2-Dibromo-3-chloropropane	ND	0.287		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2,4-Trimethylbenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Hexachlorobutadiene	ND	0.0573		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Naphthalene	ND	0.0172		mg/Kg-dry	1	9/23/2015 3:44:00 AM
1,2,3-Trichlorobenzene	ND	0.0115		mg/Kg-dry	1	9/23/2015 3:44:00 AM
Surr: Dibromofluoromethane	95.9	56.5-129		%REC	1	9/23/2015 3:44:00 AM
Surr: Toluene-d8	98.1	64.3-131		%REC	1	9/23/2015 3:44:00 AM
Surr: 1-Bromo-4-fluorobenzene	96.7	63.1-141		%REC	1	9/23/2015 3:44:00 AM
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.283		mg/Kg-dry	1	9/22/2015 1:07:22 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	3.82	0.0929		mg/Kg-dry	1	9/21/2015 6:18:25 PM
Barium	35.8	0.464		mg/Kg-dry	1	9/21/2015 6:18:25 PM
Cadmium	0.195	0.186		mg/Kg-dry	1	9/21/2015 6:18:25 PM
Chromium	11.5	0.0929		mg/Kg-dry	1	9/21/2015 6:18:25 PM
Lead	19.4	0.186		mg/Kg-dry	1	9/21/2015 6:18:25 PM
Selenium	1.49	0.464		mg/Kg-dry	1	9/21/2015 6:18:25 PM
Silver	ND	0.0929		mg/Kg-dry	1	9/21/2015 6:18:25 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	16.6			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509270-008

Matrix: Soil

Client Sample ID: GP-4-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11922		Analyst: MD	
Dicamba	ND	45.2		µg/Kg-dry	1	9/29/2015 10:19:00 PM
2,4-D	ND	38.7		µg/Kg-dry	1	9/29/2015 10:19:00 PM
2,4-DP	ND	32.3		µg/Kg-dry	1	9/29/2015 10:19:00 PM
2,4,5-TP (Silvex)	ND	25.8		µg/Kg-dry	1	9/29/2015 10:19:00 PM
2,4,5-T	ND	64.6		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Dinoseb	ND	38.7		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Dalapon	ND	258		µg/Kg-dry	1	9/29/2015 10:19:00 PM
2,4-DB	ND	32.3		µg/Kg-dry	1	9/29/2015 10:19:00 PM
MCPP	ND	5,680		µg/Kg-dry	1	9/29/2015 10:19:00 PM
MCPA	ND	362		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Picloram	ND	64.6		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Bentazon	ND	45.2		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Chloramben	ND	25.8		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Acifluorfen	ND	103		µg/Kg-dry	1	9/29/2015 10:19:00 PM
3,5-Dichlorobenzoic acid	ND	51.7		µg/Kg-dry	1	9/29/2015 10:19:00 PM
4-Nitrophenol	ND	38.7		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Dacthal (DCPA)	ND	38.7		µg/Kg-dry	1	9/29/2015 10:19:00 PM
Surr: 2,4-Dichlorophenylacetic acid	100	20.1-168		%REC	1	9/29/2015 10:19:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932 Analyst: MD

Toxaphene	ND	0.127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Alpha BHC	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Beta BHC	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Gamma BHC (Lindane)	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Delta BHC	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Heptachlor	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Aldrin	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Heptachlor epoxide	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
gamma-Chlordane	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Endosulfan I	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
alpha-Chlordane	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Dieldrin	ND	0.0127		mg/Kg-dry	1	9/24/2015 8:48:00 AM
4,4'-DDE	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Endrin	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Endosulfan II	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM
4,4'-DDD	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Endrin aldehyde	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Endosulfan sulfate	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509270-008

Matrix: Soil

Client Sample ID: GP-4-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Endrin ketone	ND	0.0253		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Methoxychlor	ND	0.0633		mg/Kg-dry	1	9/24/2015 8:48:00 AM
Surr: Decachlorobiphenyl	119	26.5-158		%REC	1	9/24/2015 8:48:00 AM
Surr: Tetrachloro-m-xylene	91.2	11-150		%REC	1	9/24/2015 8:48:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11903		Analyst: AK
Diesel (Fuel Oil)	ND	25.0		mg/Kg-dry	1	9/23/2015 3:43:00 PM
Heavy Oil	ND	62.5		mg/Kg-dry	1	9/23/2015 3:43:00 PM
Surr: 2-Fluorobiphenyl	89.0	50-150		%REC	1	9/23/2015 3:43:00 PM
Surr: o-Terphenyl	88.5	50-150		%REC	1	9/23/2015 3:43:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Phenol	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Bis(2-chloroethyl) ether	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2-Chlorophenol	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
1,3-Dichlorobenzene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
1,4-Dichlorobenzene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
1,2-Dichlorobenzene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Benzyl alcohol	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2-Methylphenol (o-cresol)	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Hexachloroethane	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
N-Nitrosodi-n-propylamine	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Nitrobenzene	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Isophorone	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
4-Methylphenol (p-cresol)	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2-Nitrophenol	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2,4-Dimethylphenol	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Bis(2-chloroethoxy)methane	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2,4-Dichlorophenol	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
1,2,4-Trichlorobenzene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Naphthalene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
4-Chloroaniline	ND	602		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Hexachlorobutadiene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
4-Chloro-3-methylphenol	ND	602		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2-Methylnaphthalene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
1-Methylnaphthalene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509270-008

Matrix: Soil

Client Sample ID: GP-4-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904	Analyst: NG	
Hexachlorocyclopentadiene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2,4,6-Trichlorophenol	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2,4,5-Trichlorophenol	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2-Chloronaphthalene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2-Nitroaniline	ND	602		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Acenaphthene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Dimethylphthalate	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2,6-Dinitrotoluene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Acenaphthylene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2,4-Dinitrophenol	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Dibenzofuran	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
2,4-Dinitrotoluene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
4-Nitrophenol	ND	602		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Fluorene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
4-Chlorophenyl phenyl ether	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Diethylphthalate	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
4,6-Dinitro-2-methylphenol	ND	241		µg/Kg-dry	1	9/24/2015 12:48:00 AM
4-Bromophenyl phenyl ether	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Hexachlorobenzene	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Pentachlorophenol	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Phenanthrene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Anthracene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Carbazole	ND	602		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Di-n-butylphthalate	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Fluoranthene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Pyrene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Butyl Benzylphthalate	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
bis(2-Ethylhexyl)adipate	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Benz (a) anthracene	109	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Chrysene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
bis (2-Ethylhexyl) phthalate	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Di-n-octyl phthalate	ND	120		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Benzo (b) fluoranthene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Benzo (k) fluoranthene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Benzo (a) pyrene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Indeno (1,2,3-cd) pyrene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Dibenz (a,h) anthracene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Benzo (g,h,i) perylene	ND	96.4		µg/Kg-dry	1	9/24/2015 12:48:00 AM
Surr: 2,4,6-Tribromophenol	63.4	11.1-127		%REC	1	9/24/2015 12:48:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509270-008

Matrix: Soil

Client Sample ID: GP-4-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Surr: 2-Fluorobiphenyl	28.4	16.1-150		%REC	1	9/24/2015 12:48:00 AM
Surr: Nitrobenzene-d5	19.2	10-133		%REC	1	9/24/2015 12:48:00 AM
Surr: Phenol-d6	51.1	11.6-133		%REC	1	9/24/2015 12:48:00 AM
Surr: p-Terphenyl	92.2	21.8-150		%REC	1	9/24/2015 12:48:00 AM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11914		Analyst: BC
Gasoline	ND	3.41		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Surr: Toluene-d8	98.9	65-135		%REC	1	9/23/2015 4:12:00 AM
Surr: 4-Bromofluorobenzene	101	65-135		%REC	1	9/23/2015 4:12:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0409		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Chloromethane	ND	0.0409		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Vinyl chloride	ND	0.00136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Bromomethane	ND	0.0613		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0341		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Chloroethane	ND	0.0409		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,1-Dichloroethene	ND	0.0341		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Methylene chloride	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
trans-1,2-Dichloroethene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0341		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,1-Dichloroethane	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
2,2-Dichloropropane	ND	0.0341		mg/Kg-dry	1	9/23/2015 4:12:00 AM
cis-1,2-Dichloroethene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Chloroform	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,1-Dichloropropene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Carbon tetrachloride	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2-Dichloroethane (EDC)	ND	0.0204		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Benzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Trichloroethene (TCE)	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2-Dichloropropane	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Bromodichloromethane	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Dibromomethane	ND	0.0273		mg/Kg-dry	1	9/23/2015 4:12:00 AM
cis-1,3-Dichloropropene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Toluene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
trans-1,3-Dichloropropylene	ND	0.0204		mg/Kg-dry	1	9/23/2015 4:12:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509270-008

Matrix: Soil

Client Sample ID: GP-4-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0204		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,3-Dichloropropane	ND	0.0341		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Tetrachloroethene (PCE)	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Dibromochloromethane	ND	0.0204		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2-Dibromoethane (EDB)	ND	0.00341		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Chlorobenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0204		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Ethylbenzene	ND	0.0204		mg/Kg-dry	1	9/23/2015 4:12:00 AM
m,p-Xylene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
o-Xylene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Styrene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Isopropylbenzene	ND	0.0545		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Bromoform	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
n-Propylbenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Bromobenzene	ND	0.0204		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,3,5-Trimethylbenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
2-Chlorotoluene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
4-Chlorotoluene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
tert-Butylbenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2,3-Trichloropropane	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2,4-Trichlorobenzene	ND	0.0341		mg/Kg-dry	1	9/23/2015 4:12:00 AM
sec-Butylbenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
4-Isopropyltoluene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,3-Dichlorobenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,4-Dichlorobenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
n-Butylbenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2-Dichlorobenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2-Dibromo-3-chloropropane	ND	0.341		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2,4-Trimethylbenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Hexachlorobutadiene	ND	0.0682		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Naphthalene	ND	0.0204		mg/Kg-dry	1	9/23/2015 4:12:00 AM
1,2,3-Trichlorobenzene	ND	0.0136		mg/Kg-dry	1	9/23/2015 4:12:00 AM
Surr: Dibromofluoromethane	94.9	56.5-129		%REC	1	9/23/2015 4:12:00 AM
Surr: Toluene-d8	97.2	64.3-131		%REC	1	9/23/2015 4:12:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.9	63.1-141		%REC	1	9/23/2015 4:12:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509270-008

Matrix: Soil

Client Sample ID: GP-4-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.319		mg/Kg-dry	1	9/22/2015 1:09:00 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	1.35	0.107		mg/Kg-dry	1	9/21/2015 6:21:57 PM
Barium	16.6	0.534		mg/Kg-dry	1	9/21/2015 6:21:57 PM
Cadmium	ND	0.213		mg/Kg-dry	1	9/21/2015 6:21:57 PM
Chromium	10.8	0.107		mg/Kg-dry	1	9/21/2015 6:21:57 PM
Lead	1.33	0.213		mg/Kg-dry	1	9/21/2015 6:21:57 PM
Selenium	1.14	0.534		mg/Kg-dry	1	9/21/2015 6:21:57 PM
Silver	ND	0.107		mg/Kg-dry	1	9/21/2015 6:21:57 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	23.2			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-009

Matrix: Soil

Client Sample ID: GP-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	42.5		µg/Kg-dry	1	9/29/2015 10:36:00 PM
2,4-D	ND	36.4		µg/Kg-dry	1	9/29/2015 10:36:00 PM
2,4-DP	ND	30.3		µg/Kg-dry	1	9/29/2015 10:36:00 PM
2,4,5-TP (Silvex)	ND	24.3		µg/Kg-dry	1	9/29/2015 10:36:00 PM
2,4,5-T	ND	60.7		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Dinoseb	ND	36.4		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Dalapon	ND	243		µg/Kg-dry	1	9/29/2015 10:36:00 PM
2,4-DB	ND	30.3		µg/Kg-dry	1	9/29/2015 10:36:00 PM
MCPP	ND	5,340		µg/Kg-dry	1	9/29/2015 10:36:00 PM
MCPA	ND	340		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Picloram	ND	60.7		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Bentazon	ND	42.5		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Chloramben	24.4	24.3		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Acifluorfen	ND	97.0		µg/Kg-dry	1	9/29/2015 10:36:00 PM
3,5-Dichlorobenzoic acid	ND	48.5		µg/Kg-dry	1	9/29/2015 10:36:00 PM
4-Nitrophenol	ND	36.4		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Dacthal (DCPA)	ND	36.4		µg/Kg-dry	1	9/29/2015 10:36:00 PM
Surr: 2,4-Dichlorophenylacetic acid	105	20.1-168		%REC	1	9/29/2015 10:36:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Alpha BHC	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Beta BHC	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Gamma BHC (Lindane)	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Delta BHC	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Heptachlor	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Aldrin	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Heptachlor epoxide	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
gamma-Chlordane	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Endosulfan I	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
alpha-Chlordane	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Dieldrin	ND	0.0115		mg/Kg-dry	1	9/24/2015 8:59:00 AM
4,4'-DDE	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Endrin	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Endosulfan II	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM
4,4'-DDD	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Endrin aldehyde	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Endosulfan sulfate	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-009

Matrix: Soil

Client Sample ID: GP-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Endrin ketone	ND	0.0230		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Methoxychlor	ND	0.0576		mg/Kg-dry	1	9/24/2015 8:59:00 AM
Surr: Decachlorobiphenyl	92.9	26.5-158		%REC	1	9/24/2015 8:59:00 AM
Surr: Tetrachloro-m-xylene	71.8	11-150		%REC	1	9/24/2015 8:59:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11903		Analyst: AK
Diesel (Fuel Oil)	ND	23.7		mg/Kg-dry	1	9/23/2015 4:15:00 PM
Heavy Oil	ND	59.3		mg/Kg-dry	1	9/23/2015 4:15:00 PM
Surr: 2-Fluorobiphenyl	114	50-150		%REC	1	9/23/2015 4:15:00 PM
Surr: o-Terphenyl	116	50-150		%REC	1	9/23/2015 4:15:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Phenol	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Bis(2-chloroethyl) ether	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2-Chlorophenol	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
1,3-Dichlorobenzene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
1,4-Dichlorobenzene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
1,2-Dichlorobenzene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Benzyl alcohol	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2-Methylphenol (o-cresol)	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Hexachloroethane	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
N-Nitrosodi-n-propylamine	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Nitrobenzene	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Isophorone	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
4-Methylphenol (p-cresol)	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2-Nitrophenol	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2,4-Dimethylphenol	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Bis(2-chloroethoxy)methane	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2,4-Dichlorophenol	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
1,2,4-Trichlorobenzene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Naphthalene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
4-Chloroaniline	ND	571		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Hexachlorobutadiene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
4-Chloro-3-methylphenol	ND	571		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2-Methylnaphthalene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
1-Methylnaphthalene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-009

Matrix: Soil

Client Sample ID: GP-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
Hexachlorocyclopentadiene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2,4,6-Trichlorophenol	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2,4,5-Trichlorophenol	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2-Chloronaphthalene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2-Nitroaniline	ND	571		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Acenaphthene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Dimethylphthalate	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2,6-Dinitrotoluene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Acenaphthylene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2,4-Dinitrophenol	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Dibenzofuran	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
2,4-Dinitrotoluene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
4-Nitrophenol	ND	571		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Fluorene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
4-Chlorophenyl phenyl ether	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Diethylphthalate	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
4,6-Dinitro-2-methylphenol	ND	228		µg/Kg-dry	1	9/24/2015 1:10:00 AM
4-Bromophenyl phenyl ether	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Hexachlorobenzene	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Pentachlorophenol	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Phenanthrene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Anthracene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Carbazole	ND	571		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Di-n-butylphthalate	283	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Fluoranthene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Pyrene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Butyl Benzylphthalate	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
bis(2-Ethylhexyl)adipate	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Benz (a) anthracene	129	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Chrysene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
bis (2-Ethylhexyl) phthalate	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Di-n-octyl phthalate	ND	114		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Benzo (b) fluoranthene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Benzo (k) fluoranthene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Benzo (a) pyrene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Indeno (1,2,3-cd) pyrene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Dibenz (a,h) anthracene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Benzo (g,h,i) perylene	ND	91.3		µg/Kg-dry	1	9/24/2015 1:10:00 AM
Surr: 2,4,6-Tribromophenol	64.0	11.1-127		%REC	1	9/24/2015 1:10:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-009

Matrix: Soil

Client Sample ID: GP-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Surr: 2-Fluorobiphenyl	59.5	16.1-150		%REC	1	9/24/2015 1:10:00 AM
Surr: Nitrobenzene-d5	36.9	10-133		%REC	1	9/24/2015 1:10:00 AM
Surr: Phenol-d6	75.0	11.6-133		%REC	1	9/24/2015 1:10:00 AM
Surr: p-Terphenyl	85.5	21.8-150		%REC	1	9/24/2015 1:10:00 AM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11914		Analyst: BC
Gasoline	ND	4.31		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Surr: Toluene-d8	100	65-135		%REC	1	9/23/2015 4:41:00 AM
Surr: 4-Bromofluorobenzene	102	65-135		%REC	1	9/23/2015 4:41:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0518		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Chloromethane	ND	0.0518		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Vinyl chloride	ND	0.00173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Bromomethane	ND	0.0776		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0431		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Chloroethane	ND	0.0518		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,1-Dichloroethene	ND	0.0431		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Methylene chloride	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
trans-1,2-Dichloroethene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0431		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,1-Dichloroethane	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
2,2-Dichloropropane	ND	0.0431		mg/Kg-dry	1	9/23/2015 4:41:00 AM
cis-1,2-Dichloroethene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Chloroform	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,1-Dichloropropene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Carbon tetrachloride	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2-Dichloroethane (EDC)	ND	0.0259		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Benzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Trichloroethene (TCE)	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2-Dichloropropane	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Bromodichloromethane	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Dibromomethane	ND	0.0345		mg/Kg-dry	1	9/23/2015 4:41:00 AM
cis-1,3-Dichloropropene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Toluene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
trans-1,3-Dichloropropylene	ND	0.0259		mg/Kg-dry	1	9/23/2015 4:41:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-009

Matrix: Soil

Client Sample ID: GP-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
1,1,2-Trichloroethane	ND	0.0259		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,3-Dichloropropane	ND	0.0431		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Tetrachloroethene (PCE)	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Dibromochloromethane	ND	0.0259		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2-Dibromoethane (EDB)	ND	0.00431		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Chlorobenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0259		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Ethylbenzene	ND	0.0259		mg/Kg-dry	1	9/23/2015 4:41:00 AM
m,p-Xylene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
o-Xylene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Styrene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Isopropylbenzene	ND	0.0690		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Bromoform	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
n-Propylbenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Bromobenzene	ND	0.0259		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,3,5-Trimethylbenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
2-Chlorotoluene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
4-Chlorotoluene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
tert-Butylbenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2,3-Trichloropropane	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2,4-Trichlorobenzene	ND	0.0431		mg/Kg-dry	1	9/23/2015 4:41:00 AM
sec-Butylbenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
4-Isopropyltoluene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,3-Dichlorobenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,4-Dichlorobenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
n-Butylbenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2-Dichlorobenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2-Dibromo-3-chloropropane	ND	0.431		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2,4-Trimethylbenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Hexachlorobutadiene	ND	0.0863		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Naphthalene	ND	0.0259		mg/Kg-dry	1	9/23/2015 4:41:00 AM
1,2,3-Trichlorobenzene	ND	0.0173		mg/Kg-dry	1	9/23/2015 4:41:00 AM
Surr: Dibromofluoromethane	93.6	56.5-129		%REC	1	9/23/2015 4:41:00 AM
Surr: Toluene-d8	98.8	64.3-131		%REC	1	9/23/2015 4:41:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.3	63.1-141		%REC	1	9/23/2015 4:41:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-009

Matrix: Soil

Client Sample ID: GP-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.303		mg/Kg-dry	1	9/22/2015 1:10:36 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	7.63	0.0974		mg/Kg-dry	1	9/21/2015 6:25:28 PM
Barium	85.0	0.487		mg/Kg-dry	1	9/21/2015 6:25:28 PM
Cadmium	1.43	0.195		mg/Kg-dry	1	9/21/2015 6:25:28 PM
Chromium	20.0	0.0974		mg/Kg-dry	1	9/21/2015 6:25:28 PM
Lead	44.9	0.195		mg/Kg-dry	1	9/21/2015 6:25:28 PM
Selenium	1.55	0.487		mg/Kg-dry	1	9/21/2015 6:25:28 PM
Silver	0.119	0.0974		mg/Kg-dry	1	9/21/2015 6:25:28 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	19.2			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1509270-010

Matrix: Soil

Client Sample ID: GP-5-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>				Batch ID: 11922		Analyst: MD
Dicamba	ND	42.2		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-D	ND	36.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-DP	ND	30.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4,5-TP (Silvex)	ND	24.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4,5-T	ND	60.2		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Dinoseb	ND	36.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Dalapon	ND	241		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-DB	ND	30.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
MCPP	ND	5,300		µg/Kg-dry	1	9/29/2015 10:52:00 PM
MCPA	ND	337		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Picloram	ND	60.2		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Bentazon	ND	42.2		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Chloramben	ND	24.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Acifluorfen	ND	96.4		µg/Kg-dry	1	9/29/2015 10:52:00 PM
3,5-Dichlorobenzoic acid	ND	48.2		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4-Nitrophenol	ND	36.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Dacthal (DCPA)	ND	36.1		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Surr: 2,4-Dichlorophenylacetic acid	102	20.1-168		%REC	1	9/29/2015 10:52:00 PM
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11932		Analyst: MD
Toxaphene	ND	0.120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Alpha BHC	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Beta BHC	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Gamma BHC (Lindane)	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Delta BHC	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Heptachlor	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Aldrin	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Heptachlor epoxide	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
gamma-Chlordane	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Endosulfan I	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
alpha-Chlordane	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Dieldrin	ND	0.0120		mg/Kg-dry	1	9/24/2015 9:09:00 AM
4,4'-DDE	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Endrin	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Endosulfan II	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM
4,4'-DDD	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Endrin aldehyde	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Endosulfan sulfate	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1509270-010

Matrix: Soil

Client Sample ID: GP-5-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Endrin ketone	ND	0.0239		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Methoxychlor	ND	0.0598		mg/Kg-dry	1	9/24/2015 9:09:00 AM
Surr: Decachlorobiphenyl	99.0	26.5-158		%REC	1	9/24/2015 9:09:00 AM
Surr: Tetrachloro-m-xylene	75.8	11-150		%REC	1	9/24/2015 9:09:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11903		Analyst: AK
Diesel (Fuel Oil)	ND	23.2		mg/Kg-dry	1	9/23/2015 4:46:00 PM
Heavy Oil	ND	58.1		mg/Kg-dry	1	9/23/2015 4:46:00 PM
Surr: 2-Fluorobiphenyl	94.1	50-150		%REC	1	9/23/2015 4:46:00 PM
Surr: o-Terphenyl	93.7	50-150		%REC	1	9/23/2015 4:46:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Phenol	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Bis(2-chloroethyl) ether	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2-Chlorophenol	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
1,3-Dichlorobenzene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
1,4-Dichlorobenzene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
1,2-Dichlorobenzene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Benzyl alcohol	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2-Methylphenol (o-cresol)	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Hexachloroethane	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
N-Nitrosodi-n-propylamine	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Nitrobenzene	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Isophorone	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
4-Methylphenol (p-cresol)	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2-Nitrophenol	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2,4-Dimethylphenol	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Bis(2-chloroethoxy)methane	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2,4-Dichlorophenol	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
1,2,4-Trichlorobenzene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Naphthalene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
4-Chloroaniline	ND	586		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Hexachlorobutadiene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
4-Chloro-3-methylphenol	ND	586		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2-Methylnaphthalene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
1-Methylnaphthalene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM



Analytical Report

WO#: 1509270

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Client: Shannon & Wilson

Collection Date: 9/17/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1509270-010

Matrix: Soil

Client Sample ID: GP-5-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
Hexachlorocyclopentadiene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2,4,6-Trichlorophenol	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2,4,5-Trichlorophenol	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2-Chloronaphthalene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2-Nitroaniline	ND	586		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Acenaphthene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Dimethylphthalate	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2,6-Dinitrotoluene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Acenaphthylene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2,4-Dinitrophenol	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Dibenzofuran	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
2,4-Dinitrotoluene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
4-Nitrophenol	ND	586		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Fluorene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
4-Chlorophenyl phenyl ether	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Diethylphthalate	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
4,6-Dinitro-2-methylphenol	ND	234		µg/Kg-dry	1	9/24/2015 1:32:00 AM
4-Bromophenyl phenyl ether	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Hexachlorobenzene	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Pentachlorophenol	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Phenanthrene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Anthracene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Carbazole	ND	586		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Di-n-butylphthalate	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Fluoranthene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Pyrene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Butyl Benzylphthalate	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
bis(2-Ethylhexyl)adipate	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Benz (a) anthracene	106	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Chrysene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
bis (2-Ethylhexyl) phthalate	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Di-n-octyl phthalate	ND	117		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Benzo (b) fluoranthene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Benzo (k) fluoranthene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Benzo (a) pyrene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Indeno (1,2,3-cd) pyrene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Dibenz (a,h) anthracene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Benzo (g,h,i) perylene	ND	93.7		µg/Kg-dry	1	9/24/2015 1:32:00 AM
Surr: 2,4,6-Tribromophenol	43.1	11.1-127		%REC	1	9/24/2015 1:32:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1509270-010

Matrix: Soil

Client Sample ID: GP-5-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	33.5	16.1-150	%REC	1	9/24/2015 1:32:00 AM
Surr: Nitrobenzene-d5	13.8	10-133	%REC	1	9/24/2015 1:32:00 AM
Surr: Phenol-d6	49.2	11.6-133	%REC	1	9/24/2015 1:32:00 AM
Surr: p-Terphenyl	50.3	21.8-150	%REC	1	9/24/2015 1:32:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	3.20	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Surr: Toluene-d8	99.0	65-135	%REC	1	9/23/2015 5:10:00 AM
Surr: 4-Bromofluorobenzene	101	65-135	%REC	1	9/23/2015 5:10:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0383	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Chloromethane	ND	0.0383	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Vinyl chloride	ND	0.00128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Bromomethane	ND	0.0575	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0320	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Chloroethane	ND	0.0383	mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,1-Dichloroethene	ND	0.0320	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Methylene chloride	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
trans-1,2-Dichloroethene	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0320	mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,1-Dichloroethane	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
2,2-Dichloropropane	ND	0.0320	mg/Kg-dry	1	9/23/2015 5:10:00 AM
cis-1,2-Dichloroethene	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Chloroform	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,1-Dichloropropene	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Carbon tetrachloride	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2-Dichloroethane (EDC)	ND	0.0192	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Benzene	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Trichloroethene (TCE)	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2-Dichloropropane	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Bromodichloromethane	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Dibromomethane	ND	0.0256	mg/Kg-dry	1	9/23/2015 5:10:00 AM
cis-1,3-Dichloropropene	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
Toluene	ND	0.0128	mg/Kg-dry	1	9/23/2015 5:10:00 AM
trans-1,3-Dichloropropylene	ND	0.0192	mg/Kg-dry	1	9/23/2015 5:10:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1509270-010

Matrix: Soil

Client Sample ID: GP-5-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0192		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,3-Dichloropropane	ND	0.0320		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Tetrachloroethene (PCE)	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Dibromochloromethane	ND	0.0192		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2-Dibromoethane (EDB)	ND	0.00320		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Chlorobenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0192		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Ethylbenzene	ND	0.0192		mg/Kg-dry	1	9/23/2015 5:10:00 AM
m,p-Xylene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
o-Xylene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Styrene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Isopropylbenzene	ND	0.0511		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Bromoform	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
n-Propylbenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Bromobenzene	ND	0.0192		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,3,5-Trimethylbenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
2-Chlorotoluene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
4-Chlorotoluene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
tert-Butylbenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2,3-Trichloropropane	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2,4-Trichlorobenzene	ND	0.0320		mg/Kg-dry	1	9/23/2015 5:10:00 AM
sec-Butylbenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
4-Isopropyltoluene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,3-Dichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,4-Dichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
n-Butylbenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2-Dichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2-Dibromo-3-chloropropane	ND	0.320		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2,4-Trimethylbenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Hexachlorobutadiene	ND	0.0639		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Naphthalene	ND	0.0192		mg/Kg-dry	1	9/23/2015 5:10:00 AM
1,2,3-Trichlorobenzene	ND	0.0128		mg/Kg-dry	1	9/23/2015 5:10:00 AM
Surr: Dibromofluoromethane	95.8	56.5-129		%REC	1	9/23/2015 5:10:00 AM
Surr: Toluene-d8	98.1	64.3-131		%REC	1	9/23/2015 5:10:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.2	63.1-141		%REC	1	9/23/2015 5:10:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1509270-010

Matrix: Soil

Client Sample ID: GP-5-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.278		mg/Kg-dry	1	9/22/2015 1:12:12 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	2.26	0.0945		mg/Kg-dry	1	9/21/2015 6:28:59 PM
Barium	22.9	0.472		mg/Kg-dry	1	9/21/2015 6:28:59 PM
Cadmium	ND	0.189		mg/Kg-dry	1	9/21/2015 6:28:59 PM
Chromium	12.2	0.0945		mg/Kg-dry	1	9/21/2015 6:28:59 PM
Lead	1.94	0.189		mg/Kg-dry	1	9/21/2015 6:28:59 PM
Selenium	1.12	0.472		mg/Kg-dry	1	9/21/2015 6:28:59 PM
Silver	ND	0.0945		mg/Kg-dry	1	9/21/2015 6:28:59 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	19.8			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509270-011

Matrix: Soil

Client Sample ID: GP-5-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	40.8		µg/Kg-dry	1	9/29/2015 11:09:00 PM
2,4-D	ND	35.0		µg/Kg-dry	1	9/29/2015 11:09:00 PM
2,4-DP	ND	29.1		µg/Kg-dry	1	9/29/2015 11:09:00 PM
2,4,5-TP (Silvex)	ND	23.3		µg/Kg-dry	1	9/29/2015 11:09:00 PM
2,4,5-T	ND	58.3		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Dinoseb	ND	35.0		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Dalapon	ND	233		µg/Kg-dry	1	9/29/2015 11:09:00 PM
2,4-DB	ND	29.1		µg/Kg-dry	1	9/29/2015 11:09:00 PM
MCPP	ND	5,130		µg/Kg-dry	1	9/29/2015 11:09:00 PM
MCPA	ND	326		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Picloram	ND	58.3		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Bentazon	ND	40.8		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Chloramben	ND	23.3		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Acifluorfen	ND	93.2		µg/Kg-dry	1	9/29/2015 11:09:00 PM
3,5-Dichlorobenzoic acid	ND	46.6		µg/Kg-dry	1	9/29/2015 11:09:00 PM
4-Nitrophenol	ND	35.0		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Dacthal (DCPA)	ND	35.0		µg/Kg-dry	1	9/29/2015 11:09:00 PM
Surr: 2,4-Dichlorophenylacetic acid	106	20.1-168		%REC	1	9/29/2015 11:09:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Alpha BHC	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Beta BHC	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Gamma BHC (Lindane)	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Delta BHC	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Heptachlor	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Aldrin	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Heptachlor epoxide	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
gamma-Chlordane	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Endosulfan I	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
alpha-Chlordane	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Dieldrin	ND	0.0111		mg/Kg-dry	1	9/24/2015 9:20:00 AM
4,4'-DDE	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Endrin	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Endosulfan II	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM
4,4'-DDD	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Endrin aldehyde	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Endosulfan sulfate	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509270-011

Matrix: Soil

Client Sample ID: GP-5-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Endrin ketone	ND	0.0223		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Methoxychlor	ND	0.0557		mg/Kg-dry	1	9/24/2015 9:20:00 AM
Surr: Decachlorobiphenyl	109	26.5-158		%REC	1	9/24/2015 9:20:00 AM
Surr: Tetrachloro-m-xylene	73.4	11-150		%REC	1	9/24/2015 9:20:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11903		Analyst: AK
Diesel (Fuel Oil)	ND	21.9		mg/Kg-dry	1	9/23/2015 5:52:00 PM
Heavy Oil	ND	54.8		mg/Kg-dry	1	9/23/2015 5:52:00 PM
Surr: 2-Fluorobiphenyl	91.4	50-150		%REC	1	9/23/2015 5:52:00 PM
Surr: o-Terphenyl	88.4	50-150		%REC	1	9/23/2015 5:52:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Phenol	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Bis(2-chloroethyl) ether	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2-Chlorophenol	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
1,3-Dichlorobenzene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
1,4-Dichlorobenzene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
1,2-Dichlorobenzene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Benzyl alcohol	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2-Methylphenol (o-cresol)	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Hexachloroethane	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
N-Nitrosodi-n-propylamine	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Nitrobenzene	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Isophorone	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
4-Methylphenol (p-cresol)	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2-Nitrophenol	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2,4-Dimethylphenol	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Bis(2-chloroethoxy)methane	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2,4-Dichlorophenol	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
1,2,4-Trichlorobenzene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Naphthalene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
4-Chloroaniline	ND	560		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Hexachlorobutadiene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
4-Chloro-3-methylphenol	ND	560		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2-Methylnaphthalene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
1-Methylnaphthalene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509270-011

Matrix: Soil

Client Sample ID: GP-5-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904	Analyst: NG	
Hexachlorocyclopentadiene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2,4,6-Trichlorophenol	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2,4,5-Trichlorophenol	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2-Chloronaphthalene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2-Nitroaniline	ND	560		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Acenaphthene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Dimethylphthalate	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2,6-Dinitrotoluene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Acenaphthylene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2,4-Dinitrophenol	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Dibenzofuran	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
2,4-Dinitrotoluene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
4-Nitrophenol	ND	560		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Fluorene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
4-Chlorophenyl phenyl ether	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Diethylphthalate	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
4,6-Dinitro-2-methylphenol	ND	224		µg/Kg-dry	1	9/24/2015 1:54:00 AM
4-Bromophenyl phenyl ether	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Hexachlorobenzene	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Pentachlorophenol	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Phenanthrene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Anthracene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Carbazole	ND	560		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Di-n-butylphthalate	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Fluoranthene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Pyrene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Butyl Benzylphthalate	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
bis(2-Ethylhexyl)adipate	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Benz (a) anthracene	101	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Chrysene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
bis (2-Ethylhexyl) phthalate	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Di-n-octyl phthalate	ND	112		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Benzo (b) fluoranthene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Benzo (k) fluoranthene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Benzo (a) pyrene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Indeno (1,2,3-cd) pyrene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Dibenz (a,h) anthracene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Benzo (g,h,i) perylene	ND	89.5		µg/Kg-dry	1	9/24/2015 1:54:00 AM
Surr: 2,4,6-Tribromophenol	57.5	11.1-127		%REC	1	9/24/2015 1:54:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509270-011

Matrix: Soil

Client Sample ID: GP-5-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Surr: 2-Fluorobiphenyl	57.3	16.1-150		%REC	1	9/24/2015 1:54:00 AM
Surr: Nitrobenzene-d5	29.3	10-133		%REC	1	9/24/2015 1:54:00 AM
Surr: Phenol-d6	62.4	11.6-133		%REC	1	9/24/2015 1:54:00 AM
Surr: p-Terphenyl	82.0	21.8-150		%REC	1	9/24/2015 1:54:00 AM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11914		Analyst: BC
Gasoline	ND	3.60		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Surr: Toluene-d8	98.2	65-135		%REC	1	9/23/2015 5:38:00 AM
Surr: 4-Bromofluorobenzene	103	65-135		%REC	1	9/23/2015 5:38:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0432		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Chloromethane	ND	0.0432		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Vinyl chloride	ND	0.00144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Bromomethane	ND	0.0648		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0360		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Chloroethane	ND	0.0432		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,1-Dichloroethene	ND	0.0360		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Methylene chloride	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
trans-1,2-Dichloroethene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0360		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,1-Dichloroethane	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
2,2-Dichloropropane	ND	0.0360		mg/Kg-dry	1	9/23/2015 5:38:00 AM
cis-1,2-Dichloroethene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Chloroform	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,1-Dichloropropene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Carbon tetrachloride	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2-Dichloroethane (EDC)	ND	0.0216		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Benzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Trichloroethene (TCE)	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2-Dichloropropane	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Bromodichloromethane	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Dibromomethane	ND	0.0288		mg/Kg-dry	1	9/23/2015 5:38:00 AM
cis-1,3-Dichloropropene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Toluene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
trans-1,3-Dichloropropylene	ND	0.0216		mg/Kg-dry	1	9/23/2015 5:38:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509270-011

Matrix: Soil

Client Sample ID: GP-5-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0216		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,3-Dichloropropane	ND	0.0360		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Tetrachloroethene (PCE)	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Dibromochloromethane	ND	0.0216		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2-Dibromoethane (EDB)	ND	0.00360		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Chlorobenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0216		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Ethylbenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 5:38:00 AM
m,p-Xylene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
o-Xylene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Styrene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Isopropylbenzene	ND	0.0576		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Bromoform	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
n-Propylbenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Bromobenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,3,5-Trimethylbenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
2-Chlorotoluene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
4-Chlorotoluene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
tert-Butylbenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2,3-Trichloropropane	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2,4-Trichlorobenzene	ND	0.0360		mg/Kg-dry	1	9/23/2015 5:38:00 AM
sec-Butylbenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
4-Isopropyltoluene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,3-Dichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,4-Dichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
n-Butylbenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2-Dichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2-Dibromo-3-chloropropane	ND	0.360		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2,4-Trimethylbenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Hexachlorobutadiene	ND	0.0720		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Naphthalene	ND	0.0216		mg/Kg-dry	1	9/23/2015 5:38:00 AM
1,2,3-Trichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/23/2015 5:38:00 AM
Surr: Dibromofluoromethane	93.9	56.5-129		%REC	1	9/23/2015 5:38:00 AM
Surr: Toluene-d8	97.5	64.3-131		%REC	1	9/23/2015 5:38:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.0	63.1-141		%REC	1	9/23/2015 5:38:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509270-011

Matrix: Soil

Client Sample ID: GP-5-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.273		mg/Kg-dry	1	9/22/2015 1:13:48 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	4.02	0.0915		mg/Kg-dry	1	9/21/2015 6:39:36 PM
Barium	19.0	0.458		mg/Kg-dry	1	9/21/2015 6:39:36 PM
Cadmium	ND	0.183		mg/Kg-dry	1	9/21/2015 6:39:36 PM
Chromium	14.3	0.0915		mg/Kg-dry	1	9/21/2015 6:39:36 PM
Lead	1.96	0.183		mg/Kg-dry	1	9/21/2015 6:39:36 PM
Selenium	1.41	0.458		mg/Kg-dry	1	9/21/2015 6:39:36 PM
Silver	ND	0.0915		mg/Kg-dry	1	9/21/2015 6:39:36 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	15.3			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509270-012

Matrix: Soil

Client Sample ID: GP-6-15:7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>				Batch ID: 11922		Analyst: MD
Dicamba	ND	59.4		µg/Kg-dry	1	9/29/2015 11:26:00 PM
2,4-D	ND	50.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
2,4-DP	ND	42.4		µg/Kg-dry	1	9/29/2015 11:26:00 PM
2,4,5-TP (Silvex)	ND	34.0		µg/Kg-dry	1	9/29/2015 11:26:00 PM
2,4,5-T	ND	84.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Dinoseb	ND	50.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Dalapon	ND	340		µg/Kg-dry	1	9/29/2015 11:26:00 PM
2,4-DB	ND	42.4		µg/Kg-dry	1	9/29/2015 11:26:00 PM
MCPP	ND	7,470		µg/Kg-dry	1	9/29/2015 11:26:00 PM
MCPA	ND	475		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Picloram	ND	84.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Bentazon	ND	59.4		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Chloramben	ND	34.0		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Acifluorfen	ND	136		µg/Kg-dry	1	9/29/2015 11:26:00 PM
3,5-Dichlorobenzoic acid	ND	67.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
4-Nitrophenol	ND	50.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Dacthal (DCPA)	ND	50.9		µg/Kg-dry	1	9/29/2015 11:26:00 PM
Surr: 2,4-Dichlorophenylacetic acid	97.4	20.1-168		%REC	1	9/29/2015 11:26:00 PM
<u>Polychlorinated Biphenyls (PCB) by EPA 8082</u>				Batch ID: 12180		Analyst: CM
Aroclor 1016	ND	0.166		mg/Kg-dry	1	10/22/2015 5:12:00 PM
Aroclor 1221	ND	0.166		mg/Kg-dry	1	10/22/2015 5:12:00 PM
Aroclor 1232	ND	0.166		mg/Kg-dry	1	10/22/2015 5:12:00 PM
Aroclor 1242	ND	0.166		mg/Kg-dry	1	10/22/2015 5:12:00 PM
Aroclor 1248	ND	0.166		mg/Kg-dry	1	10/22/2015 5:12:00 PM
Aroclor 1254	ND	0.166		mg/Kg-dry	1	10/22/2015 5:12:00 PM
Aroclor 1260	ND	0.166		mg/Kg-dry	1	10/22/2015 5:12:00 PM
Aroclor 1262	ND	0.166		mg/Kg-dry	1	10/22/2015 5:12:00 PM
Aroclor 1268	ND	0.166		mg/Kg-dry	1	10/22/2015 5:12:00 PM
Total PCBs	ND	0.166		mg/Kg-dry	1	10/22/2015 5:12:00 PM
Surr: Decachlorobiphenyl	74.0	41.2-143		%REC	1	10/22/2015 5:12:00 PM
Surr: Tetrachloro-m-xylene	70.5	26-140		%REC	1	10/22/2015 5:12:00 PM
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11932		Analyst: MD
Toxaphene	ND	0.157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Alpha BHC	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Beta BHC	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509270-012

Matrix: Soil

Client Sample ID: GP-6-15:7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Gamma BHC (Lindane)	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Delta BHC	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Heptachlor	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Aldrin	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Heptachlor epoxide	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
gamma-Chlordane	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Endosulfan I	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
alpha-Chlordane	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Dieldrin	ND	0.0157		mg/Kg-dry	1	9/24/2015 9:31:00 AM
4,4'-DDE	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Endrin	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Endosulfan II	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM
4,4'-DDD	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Endrin aldehyde	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Endosulfan sulfate	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM
4,4'-DDT	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Endrin ketone	ND	0.0314		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Methoxychlor	ND	0.0785		mg/Kg-dry	1	9/24/2015 9:31:00 AM
Surr: Decachlorobiphenyl	126	26.5-158		%REC	1	9/24/2015 9:31:00 AM
Surr: Tetrachloro-m-xylene	73.0	11-150		%REC	1	9/24/2015 9:31:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	33.7		mg/Kg-dry	1	9/23/2015 6:24:00 PM
Heavy Oil	217	84.2		mg/Kg-dry	1	9/23/2015 6:24:00 PM
Surr: 2-Fluorobiphenyl	94.7	50-150		%REC	1	9/23/2015 6:24:00 PM
Surr: o-Terphenyl	98.8	50-150		%REC	1	9/23/2015 6:24:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Bis(2-chloroethyl) ether	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2-Chlorophenol	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
1,3-Dichlorobenzene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
1,4-Dichlorobenzene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
1,2-Dichlorobenzene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Benzyl alcohol	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2-Methylphenol (o-cresol)	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Hexachloroethane	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509270-012

Matrix: Soil

Client Sample ID: GP-6-15:7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
N-Nitrosodi-n-propylamine	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Nitrobenzene	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Isophorone	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
4-Methylphenol (p-cresol)	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2-Nitrophenol	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2,4-Dimethylphenol	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Bis(2-chloroethoxy)methane	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2,4-Dichlorophenol	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
1,2,4-Trichlorobenzene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Naphthalene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
4-Chloroaniline	ND	843		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Hexachlorobutadiene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
4-Chloro-3-methylphenol	ND	843		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2-Methylnaphthalene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
1-Methylnaphthalene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Hexachlorocyclopentadiene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2,4,6-Trichlorophenol	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2,4,5-Trichlorophenol	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2-Chloronaphthalene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2-Nitroaniline	ND	843		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Acenaphthene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Dimethylphthalate	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2,6-Dinitrotoluene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Acenaphthylene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2,4-Dinitrophenol	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Dibenzofuran	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
2,4-Dinitrotoluene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
4-Nitrophenol	ND	843		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Fluorene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
4-Chlorophenyl phenyl ether	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Diethylphthalate	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
4,6-Dinitro-2-methylphenol	ND	337		µg/Kg-dry	1	9/24/2015 2:16:00 AM
4-Bromophenyl phenyl ether	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Hexachlorobenzene	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Pentachlorophenol	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Phenanthrene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Anthracene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Carbazole	ND	843		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Di-n-butylphthalate	174	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509270-012

Matrix: Soil

Client Sample ID: GP-6-15:7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Fluoranthene	150	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Pyrene	288	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Butyl Benzylphthalate	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
bis(2-Ethylhexyl)adipate	210	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Benz (a) anthracene	619	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Chrysene	246	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
bis (2-Ethylhexyl) phthalate	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Di-n-octyl phthalate	ND	169		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Benzo (b) fluoranthene	508	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Benzo (k) fluoranthene	186	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Benzo (a) pyrene	927	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Indeno (1,2,3-cd) pyrene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Dibenz (a,h) anthracene	ND	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Benzo (g,h,i) perylene	1,190	135		µg/Kg-dry	1	9/24/2015 2:16:00 AM
Surr: 2,4,6-Tribromophenol	60.2	11.1-127		%REC	1	9/24/2015 2:16:00 AM
Surr: 2-Fluorobiphenyl	48.7	16.1-150		%REC	1	9/24/2015 2:16:00 AM
Surr: Nitrobenzene-d5	40.3	10-133		%REC	1	9/24/2015 2:16:00 AM
Surr: Phenol-d6	64.7	11.6-133		%REC	1	9/24/2015 2:16:00 AM
Surr: p-Terphenyl	80.8	21.8-150		%REC	1	9/24/2015 2:16:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	5.40		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Surr: Toluene-d8	99.5	65-135		%REC	1	9/23/2015 6:07:00 AM
Surr: 4-Bromofluorobenzene	102	65-135		%REC	1	9/23/2015 6:07:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0648		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Chloromethane	ND	0.0648		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Vinyl chloride	ND	0.00216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Bromomethane	ND	0.0972		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0540		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Chloroethane	ND	0.0648		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,1-Dichloroethene	ND	0.0540		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Methylene chloride	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
trans-1,2-Dichloroethene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0540		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,1-Dichloroethane	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509270-012

Matrix: Soil

Client Sample ID: GP-6-15:7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
2,2-Dichloropropane	ND	0.0540		mg/Kg-dry	1	9/23/2015 6:07:00 AM
cis-1,2-Dichloroethene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Chloroform	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,1-Dichloropropene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Carbon tetrachloride	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2-Dichloroethane (EDC)	ND	0.0324		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Benzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Trichloroethene (TCE)	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2-Dichloropropane	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Bromodichloromethane	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Dibromomethane	ND	0.0432		mg/Kg-dry	1	9/23/2015 6:07:00 AM
cis-1,3-Dichloropropene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Toluene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
trans-1,3-Dichloropropylene	ND	0.0324		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,1,2-Trichloroethane	ND	0.0324		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,3-Dichloropropane	ND	0.0540		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Tetrachloroethene (PCE)	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Dibromochloromethane	ND	0.0324		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2-Dibromoethane (EDB)	ND	0.00540		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Chlorobenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0324		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Ethylbenzene	ND	0.0324		mg/Kg-dry	1	9/23/2015 6:07:00 AM
m,p-Xylene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
o-Xylene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Styrene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Isopropylbenzene	ND	0.0864		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Bromoform	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
n-Propylbenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Bromobenzene	ND	0.0324		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,3,5-Trimethylbenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
2-Chlorotoluene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
4-Chlorotoluene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
tert-Butylbenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2,3-Trichloropropane	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2,4-Trichlorobenzene	ND	0.0540		mg/Kg-dry	1	9/23/2015 6:07:00 AM
sec-Butylbenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
4-Isopropyltoluene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509270-012

Matrix: Soil

Client Sample ID: GP-6-15:7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
1,3-Dichlorobenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,4-Dichlorobenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
n-Butylbenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2-Dichlorobenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2-Dibromo-3-chloropropane	ND	0.540		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2,4-Trimethylbenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Hexachlorobutadiene	ND	0.108		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Naphthalene	ND	0.0324		mg/Kg-dry	1	9/23/2015 6:07:00 AM
1,2,3-Trichlorobenzene	ND	0.0216		mg/Kg-dry	1	9/23/2015 6:07:00 AM
Surr: Dibromofluoromethane	95.3	56.5-129		%REC	1	9/23/2015 6:07:00 AM
Surr: Toluene-d8	97.2	64.3-131		%REC	1	9/23/2015 6:07:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.2	63.1-141		%REC	1	9/23/2015 6:07:00 AM
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	9.14	3.96	D	mg/Kg-dry	10	9/22/2015 2:11:30 PM
<u>Mercury (SW7470) with TCLP Extraction (EPA 1311)</u>				Batch ID: 12219		Analyst: MW
Mercury	ND	0.00200	H	mg/L	1	10/26/2015 2:26:00 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	50.3	0.137		mg/Kg-dry	1	9/21/2015 6:43:07 PM
Barium	631	0.685		mg/Kg-dry	1	9/21/2015 6:43:07 PM
Cadmium	36.5	0.274		mg/Kg-dry	1	9/21/2015 6:43:07 PM
Chromium	115	0.137		mg/Kg-dry	1	9/21/2015 6:43:07 PM
Lead	2,180	0.274		mg/Kg-dry	1	9/21/2015 6:43:07 PM
Selenium	1.74	0.685		mg/Kg-dry	1	9/21/2015 6:43:07 PM
Silver	2.60	0.137		mg/Kg-dry	1	9/21/2015 6:43:07 PM
<u>Metals (SW6020) with TCLP Extraction (EPA 1311)</u>				Batch ID: 12222		Analyst: TN
Cadmium	0.207	0.200		mg/L	1	10/26/2015 6:42:10 PM
Chromium	ND	0.100		mg/L	1	10/26/2015 6:42:10 PM
Lead	0.700	0.200		mg/L	1	10/26/2015 6:42:10 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509270-012

Matrix: Soil

Client Sample ID: GP-6-15:7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Sample Moisture (Percent Moisture)

Batch ID: R25044 Analyst: CG

Percent Moisture	41.6			wt%	1	9/23/2015 12:48:56 PM
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Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:05:00 PM

Project: Pacific Park

Lab ID: 1509270-013

Matrix: Soil

Client Sample ID: GP-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11922			Analyst: MD
Dicamba	ND	41.1		µg/Kg-dry	1	9/29/2015 11:43:00 PM
2,4-D	ND	35.3		µg/Kg-dry	1	9/29/2015 11:43:00 PM
2,4-DP	ND	29.4		µg/Kg-dry	1	9/29/2015 11:43:00 PM
2,4,5-TP (Silvex)	ND	23.5		µg/Kg-dry	1	9/29/2015 11:43:00 PM
2,4,5-T	ND	58.8		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Dinoseb	ND	35.3		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Dalapon	ND	235		µg/Kg-dry	1	9/29/2015 11:43:00 PM
2,4-DB	ND	29.4		µg/Kg-dry	1	9/29/2015 11:43:00 PM
MCPP	ND	5,170		µg/Kg-dry	1	9/29/2015 11:43:00 PM
MCPA	ND	329		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Picloram	ND	58.8		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Bentazon	ND	41.1		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Chloramben	ND	23.5		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Acifluorfen	ND	94.0		µg/Kg-dry	1	9/29/2015 11:43:00 PM
3,5-Dichlorobenzoic acid	ND	47.0		µg/Kg-dry	1	9/29/2015 11:43:00 PM
4-Nitrophenol	ND	35.3		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Dacthal (DCPA)	ND	35.3		µg/Kg-dry	1	9/29/2015 11:43:00 PM
Surr: 2,4-Dichlorophenylacetic acid	96.6	20.1-168		%REC	1	9/29/2015 11:43:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932 Analyst: MD

Toxaphene	ND	0.116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Alpha BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Beta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Gamma BHC (Lindane)	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Delta BHC	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Heptachlor	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Aldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Heptachlor epoxide	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
gamma-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Endosulfan I	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
alpha-Chlordane	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Dieldrin	ND	0.0116		mg/Kg-dry	1	9/24/2015 9:42:00 AM
4,4'-DDE	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Endrin	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Endosulfan II	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM
4,4'-DDD	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Endrin aldehyde	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Endosulfan sulfate	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:05:00 PM

Project: Pacific Park

Lab ID: 1509270-013

Matrix: Soil

Client Sample ID: GP-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Endrin ketone	ND	0.0232		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Methoxychlor	ND	0.0580		mg/Kg-dry	1	9/24/2015 9:42:00 AM
Surr: Decachlorobiphenyl	106	26.5-158		%REC	1	9/24/2015 9:42:00 AM
Surr: Tetrachloro-m-xylene	75.2	11-150		%REC	1	9/24/2015 9:42:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11903		Analyst: AK
Diesel (Fuel Oil)	ND	22.5		mg/Kg-dry	1	9/23/2015 6:55:00 PM
Heavy Oil	ND	56.3		mg/Kg-dry	1	9/23/2015 6:55:00 PM
Surr: 2-Fluorobiphenyl	92.9	50-150		%REC	1	9/23/2015 6:55:00 PM
Surr: o-Terphenyl	91.2	50-150		%REC	1	9/23/2015 6:55:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Phenol	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Bis(2-chloroethyl) ether	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2-Chlorophenol	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
1,3-Dichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
1,4-Dichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
1,2-Dichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Benzyl alcohol	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2-Methylphenol (o-cresol)	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Hexachloroethane	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
N-Nitrosodi-n-propylamine	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Nitrobenzene	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Isophorone	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
4-Methylphenol (p-cresol)	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2-Nitrophenol	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2,4-Dimethylphenol	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Bis(2-chloroethoxy)methane	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2,4-Dichlorophenol	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
1,2,4-Trichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Naphthalene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
4-Chloroaniline	ND	608		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Hexachlorobutadiene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
4-Chloro-3-methylphenol	ND	608		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2-Methylnaphthalene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
1-Methylnaphthalene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:05:00 PM

Project: Pacific Park

Lab ID: 1509270-013

Matrix: Soil

Client Sample ID: GP-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
Hexachlorocyclopentadiene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2,4,6-Trichlorophenol	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2,4,5-Trichlorophenol	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2-Chloronaphthalene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2-Nitroaniline	ND	608		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Acenaphthene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Dimethylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2,6-Dinitrotoluene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Acenaphthylene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2,4-Dinitrophenol	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Dibenzofuran	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
2,4-Dinitrotoluene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
4-Nitrophenol	ND	608		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Fluorene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
4-Chlorophenyl phenyl ether	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Diethylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
4,6-Dinitro-2-methylphenol	ND	243		µg/Kg-dry	1	9/24/2015 2:38:00 AM
4-Bromophenyl phenyl ether	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Hexachlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Pentachlorophenol	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Phenanthrene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Anthracene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Carbazole	ND	608		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Di-n-butylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Fluoranthene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Pyrene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Butyl Benzylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
bis(2-Ethylhexyl)adipate	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Benz (a) anthracene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Chrysene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
bis (2-Ethylhexyl) phthalate	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Di-n-octyl phthalate	ND	122		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Benzo (b) fluoranthene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Benzo (k) fluoranthene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Benzo (a) pyrene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Indeno (1,2,3-cd) pyrene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Dibenz (a,h) anthracene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Benzo (g,h,i) perylene	ND	97.2		µg/Kg-dry	1	9/24/2015 2:38:00 AM
Surr: 2,4,6-Tribromophenol	63.3	11.1-127		%REC	1	9/24/2015 2:38:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:05:00 PM

Project: Pacific Park

Lab ID: 1509270-013

Matrix: Soil

Client Sample ID: GP-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Surr: 2-Fluorobiphenyl	41.7	16.1-150		%REC	1	9/24/2015 2:38:00 AM
Surr: Nitrobenzene-d5	12.4	10-133		%REC	1	9/24/2015 2:38:00 AM
Surr: Phenol-d6	59.0	11.6-133		%REC	1	9/24/2015 2:38:00 AM
Surr: p-Terphenyl	87.3	21.8-150		%REC	1	9/24/2015 2:38:00 AM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11914		Analyst: BC
Gasoline	ND	3.35		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Surr: Toluene-d8	99.1	65-135		%REC	1	9/23/2015 6:35:00 AM
Surr: 4-Bromofluorobenzene	100	65-135		%REC	1	9/23/2015 6:35:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0402		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Chloromethane	ND	0.0402		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Vinyl chloride	ND	0.00134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Bromomethane	ND	0.0603		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0335		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Chloroethane	ND	0.0402		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,1-Dichloroethene	ND	0.0335		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Methylene chloride	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
trans-1,2-Dichloroethene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0335		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,1-Dichloroethane	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
2,2-Dichloropropane	ND	0.0335		mg/Kg-dry	1	9/23/2015 6:35:00 AM
cis-1,2-Dichloroethene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Chloroform	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,1-Dichloropropene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Carbon tetrachloride	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2-Dichloroethane (EDC)	ND	0.0201		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Benzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Trichloroethene (TCE)	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2-Dichloropropane	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Bromodichloromethane	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Dibromomethane	ND	0.0268		mg/Kg-dry	1	9/23/2015 6:35:00 AM
cis-1,3-Dichloropropene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Toluene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
trans-1,3-Dichloropropylene	ND	0.0201		mg/Kg-dry	1	9/23/2015 6:35:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:05:00 PM

Project: Pacific Park

Lab ID: 1509270-013

Matrix: Soil

Client Sample ID: GP-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0201		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,3-Dichloropropane	ND	0.0335		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Tetrachloroethene (PCE)	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Dibromochloromethane	ND	0.0201		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2-Dibromoethane (EDB)	ND	0.00335		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Chlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0201		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Ethylbenzene	ND	0.0201		mg/Kg-dry	1	9/23/2015 6:35:00 AM
m,p-Xylene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
o-Xylene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Styrene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Isopropylbenzene	ND	0.0536		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Bromoform	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
n-Propylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Bromobenzene	ND	0.0201		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,3,5-Trimethylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
2-Chlorotoluene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
4-Chlorotoluene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
tert-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2,3-Trichloropropane	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2,4-Trichlorobenzene	ND	0.0335		mg/Kg-dry	1	9/23/2015 6:35:00 AM
sec-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
4-Isopropyltoluene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,3-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,4-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
n-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2-Dibromo-3-chloropropane	ND	0.335		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2,4-Trimethylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Hexachlorobutadiene	ND	0.0671		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Naphthalene	ND	0.0201		mg/Kg-dry	1	9/23/2015 6:35:00 AM
1,2,3-Trichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 6:35:00 AM
Surr: Dibromofluoromethane	93.9	56.5-129		%REC	1	9/23/2015 6:35:00 AM
Surr: Toluene-d8	96.6	64.3-131		%REC	1	9/23/2015 6:35:00 AM
Surr: 1-Bromo-4-fluorobenzene	96.7	63.1-141		%REC	1	9/23/2015 6:35:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:05:00 PM

Project: Pacific Park

Lab ID: 1509270-013

Matrix: Soil

Client Sample ID: GP-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.298		mg/Kg-dry	1	9/22/2015 1:17:08 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	2.15	0.0958		mg/Kg-dry	1	9/21/2015 6:46:39 PM
Barium	23.2	0.479		mg/Kg-dry	1	9/21/2015 6:46:39 PM
Cadmium	ND	0.192		mg/Kg-dry	1	9/21/2015 6:46:39 PM
Chromium	9.67	0.0958		mg/Kg-dry	1	9/21/2015 6:46:39 PM
Lead	1.50	0.192		mg/Kg-dry	1	9/21/2015 6:46:39 PM
Selenium	1.11	0.479		mg/Kg-dry	1	9/21/2015 6:46:39 PM
Silver	ND	0.0958		mg/Kg-dry	1	9/21/2015 6:46:39 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	17.8			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-014

Matrix: Soil

Client Sample ID: GP-7-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11922		Analyst: MD	
Dicamba	ND	35.9		µg/Kg-dry	1	9/29/2015 11:59:00 PM
2,4-D	ND	30.7		µg/Kg-dry	1	9/29/2015 11:59:00 PM
2,4-DP	ND	25.6		µg/Kg-dry	1	9/29/2015 11:59:00 PM
2,4,5-TP (Silvex)	ND	20.5		µg/Kg-dry	1	9/29/2015 11:59:00 PM
2,4,5-T	ND	51.2		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Dinoseb	ND	30.7		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Dalapon	ND	205		µg/Kg-dry	1	9/29/2015 11:59:00 PM
2,4-DB	ND	25.6		µg/Kg-dry	1	9/29/2015 11:59:00 PM
MCPP	ND	4,510		µg/Kg-dry	1	9/29/2015 11:59:00 PM
MCPA	ND	287		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Picloram	ND	51.2		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Bentazon	ND	35.9		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Chloramben	ND	20.5		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Acifluorfen	ND	82.0		µg/Kg-dry	1	9/29/2015 11:59:00 PM
3,5-Dichlorobenzoic acid	ND	41.0		µg/Kg-dry	1	9/29/2015 11:59:00 PM
4-Nitrophenol	ND	30.7		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Dacthal (DCPA)	ND	30.7		µg/Kg-dry	1	9/29/2015 11:59:00 PM
Surr: 2,4-Dichlorophenylacetic acid	93.3	20.1-168		%REC	1	9/29/2015 11:59:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932 Analyst: MD

Toxaphene	ND	0.0094		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Alpha BHC	ND	0.0094		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Beta BHC	ND	0.0094		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Gamma BHC (Lindane)	ND	0.0094		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Delta BHC	ND	0.0094		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Heptachlor	ND	0.0094		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Aldrin	ND	0.0094		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Heptachlor epoxide	ND	0.0094		mg/Kg-dry	1	9/24/2015 9:53:00 AM
gamma-Chlordane	ND	0.0094		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Endosulfan I	ND	0.0094		mg/Kg-dry	1	9/24/2015 9:53:00 AM
alpha-Chlordane	ND	0.0094		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Dieldrin	ND	0.0094		mg/Kg-dry	1	9/24/2015 9:53:00 AM
4,4'-DDE	ND	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Endrin	0.0618	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Endosulfan II	0.0625	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM
4,4'-DDD	0.0742	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Endrin aldehyde	ND	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Endosulfan sulfate	ND	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-014

Matrix: Soil

Client Sample ID: GP-7-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

4,4'-DDT	ND	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Endrin ketone	ND	0.0199		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Methoxychlor	ND	0.0497		mg/Kg-dry	1	9/24/2015 9:53:00 AM
Surr: Decachlorobiphenyl	118	26.5-158		%REC	1	9/24/2015 9:53:00 AM
Surr: Tetrachloro-m-xylene	89.0	11-150		%REC	1	9/24/2015 9:53:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	19.1		mg/Kg-dry	1	9/23/2015 7:27:00 PM
Heavy Oil	ND	47.6		mg/Kg-dry	1	9/23/2015 7:27:00 PM
Surr: 2-Fluorobiphenyl	117	50-150		%REC	1	9/23/2015 7:27:00 PM
Surr: o-Terphenyl	120	50-150		%REC	1	9/23/2015 7:27:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Bis(2-chloroethyl) ether	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2-Chlorophenol	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
1,3-Dichlorobenzene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
1,4-Dichlorobenzene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
1,2-Dichlorobenzene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Benzyl alcohol	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2-Methylphenol (o-cresol)	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Hexachloroethane	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
N-Nitrosodi-n-propylamine	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Nitrobenzene	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Isophorone	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
4-Methylphenol (p-cresol)	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2-Nitrophenol	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2,4-Dimethylphenol	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Bis(2-chloroethoxy)methane	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2,4-Dichlorophenol	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
1,2,4-Trichlorobenzene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Naphthalene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
4-Chloroaniline	ND	517		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Hexachlorobutadiene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
4-Chloro-3-methylphenol	ND	517		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2-Methylnaphthalene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
1-Methylnaphthalene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-014

Matrix: Soil

Client Sample ID: GP-7-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
Hexachlorocyclopentadiene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2,4,6-Trichlorophenol	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2,4,5-Trichlorophenol	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2-Chloronaphthalene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2-Nitroaniline	ND	517		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Acenaphthene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Dimethylphthalate	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2,6-Dinitrotoluene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Acenaphthylene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2,4-Dinitrophenol	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Dibenzofuran	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
2,4-Dinitrotoluene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
4-Nitrophenol	ND	517		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Fluorene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
4-Chlorophenyl phenyl ether	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Diethylphthalate	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
4,6-Dinitro-2-methylphenol	ND	207		µg/Kg-dry	1	9/24/2015 3:00:00 AM
4-Bromophenyl phenyl ether	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Hexachlorobenzene	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Pentachlorophenol	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Phenanthrene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Anthracene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Carbazole	ND	517		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Di-n-butylphthalate	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Fluoranthene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Pyrene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Butyl Benzylphthalate	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
bis(2-Ethylhexyl)adipate	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Benz (a) anthracene	108	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Chrysene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
bis (2-Ethylhexyl) phthalate	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Di-n-octyl phthalate	ND	103		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Benzo (b) fluoranthene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Benzo (k) fluoranthene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Benzo (a) pyrene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Indeno (1,2,3-cd) pyrene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Dibenz (a,h) anthracene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Benzo (g,h,i) perylene	ND	82.7		µg/Kg-dry	1	9/24/2015 3:00:00 AM
Surr: 2,4,6-Tribromophenol	43.0	11.1-127		%REC	1	9/24/2015 3:00:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-014

Matrix: Soil

Client Sample ID: GP-7-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Surr: 2-Fluorobiphenyl	60.5	16.1-150	%REC	1	9/24/2015 3:00:00 AM
Surr: Nitrobenzene-d5	37.9	10-133	%REC	1	9/24/2015 3:00:00 AM
Surr: Phenol-d6	54.2	11.6-133	%REC	1	9/24/2015 3:00:00 AM
Surr: p-Terphenyl	73.1	21.8-150	%REC	1	9/24/2015 3:00:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	3.79	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Surr: Toluene-d8	98.7	65-135	%REC	1	9/23/2015 8:58:00 AM
Surr: 4-Bromofluorobenzene	101	65-135	%REC	1	9/23/2015 8:58:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0454	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Chloromethane	ND	0.0454	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Vinyl chloride	ND	0.00151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Bromomethane	ND	0.0682	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0379	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Chloroethane	ND	0.0454	mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,1-Dichloroethene	ND	0.0379	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Methylene chloride	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
trans-1,2-Dichloroethene	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0379	mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,1-Dichloroethane	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
2,2-Dichloropropane	ND	0.0379	mg/Kg-dry	1	9/23/2015 8:58:00 AM
cis-1,2-Dichloroethene	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Chloroform	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,1-Dichloropropene	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Carbon tetrachloride	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2-Dichloroethane (EDC)	ND	0.0227	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Benzene	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Trichloroethene (TCE)	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2-Dichloropropane	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Bromodichloromethane	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Dibromomethane	ND	0.0303	mg/Kg-dry	1	9/23/2015 8:58:00 AM
cis-1,3-Dichloropropene	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
Toluene	ND	0.0151	mg/Kg-dry	1	9/23/2015 8:58:00 AM
trans-1,3-Dichloropropylene	ND	0.0227	mg/Kg-dry	1	9/23/2015 8:58:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-014

Matrix: Soil

Client Sample ID: GP-7-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0227		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,3-Dichloropropane	ND	0.0379		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Tetrachloroethene (PCE)	0.0230	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Dibromochloromethane	ND	0.0227		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2-Dibromoethane (EDB)	ND	0.00379		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Chlorobenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0227		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Ethylbenzene	ND	0.0227		mg/Kg-dry	1	9/23/2015 8:58:00 AM
m,p-Xylene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
o-Xylene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Styrene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Isopropylbenzene	ND	0.0606		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Bromoform	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
n-Propylbenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Bromobenzene	ND	0.0227		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,3,5-Trimethylbenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
2-Chlorotoluene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
4-Chlorotoluene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
tert-Butylbenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2,3-Trichloropropane	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2,4-Trichlorobenzene	ND	0.0379		mg/Kg-dry	1	9/23/2015 8:58:00 AM
sec-Butylbenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
4-Isopropyltoluene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,3-Dichlorobenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,4-Dichlorobenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
n-Butylbenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2-Dichlorobenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2-Dibromo-3-chloropropane	ND	0.379		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2,4-Trimethylbenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Hexachlorobutadiene	ND	0.0757		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Naphthalene	ND	0.0227		mg/Kg-dry	1	9/23/2015 8:58:00 AM
1,2,3-Trichlorobenzene	ND	0.0151		mg/Kg-dry	1	9/23/2015 8:58:00 AM
Surr: Dibromofluoromethane	94.0	56.5-129		%REC	1	9/23/2015 8:58:00 AM
Surr: Toluene-d8	97.4	64.3-131		%REC	1	9/23/2015 8:58:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.5	63.1-141		%REC	1	9/23/2015 8:58:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-014

Matrix: Soil

Client Sample ID: GP-7-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	2.45	2.21	D	mg/Kg-dry	10	9/22/2015 2:13:07 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	6.10	0.0847		mg/Kg-dry	1	9/21/2015 6:50:10 PM
Barium	148	0.424		mg/Kg-dry	1	9/21/2015 6:50:10 PM
Cadmium	0.789	0.169		mg/Kg-dry	1	9/21/2015 6:50:10 PM
Chromium	22.6	0.0847		mg/Kg-dry	1	9/21/2015 6:50:10 PM
Lead	62.9	0.169		mg/Kg-dry	1	9/21/2015 6:50:10 PM
Selenium	1.27	0.424		mg/Kg-dry	1	9/21/2015 6:50:10 PM
Silver	0.138	0.0847		mg/Kg-dry	1	9/21/2015 6:50:10 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	4.07			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:40:00 PM

Project: Pacific Park

Lab ID: 1509270-015

Matrix: Soil

Client Sample ID: GP-7-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11922			Analyst: MD
Dicamba	ND	41.0		µg/Kg-dry	1	9/30/2015 12:16:00 AM
2,4-D	ND	35.1		µg/Kg-dry	1	9/30/2015 12:16:00 AM
2,4-DP	ND	29.3		µg/Kg-dry	1	9/30/2015 12:16:00 AM
2,4,5-TP (Silvex)	ND	23.4		µg/Kg-dry	1	9/30/2015 12:16:00 AM
2,4,5-T	ND	58.6		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Dinoseb	ND	35.1		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Dalapon	ND	234		µg/Kg-dry	1	9/30/2015 12:16:00 AM
2,4-DB	ND	29.3		µg/Kg-dry	1	9/30/2015 12:16:00 AM
MCPP	ND	5,150		µg/Kg-dry	1	9/30/2015 12:16:00 AM
MCPA	ND	328		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Picloram	ND	58.6		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Bentazon	ND	41.0		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Chloramben	ND	23.4		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Acifluorfen	ND	93.7		µg/Kg-dry	1	9/30/2015 12:16:00 AM
3,5-Dichlorobenzoic acid	ND	46.9		µg/Kg-dry	1	9/30/2015 12:16:00 AM
4-Nitrophenol	ND	35.1		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Dacthal (DCPA)	ND	35.1		µg/Kg-dry	1	9/30/2015 12:16:00 AM
Surr: 2,4-Dichlorophenylacetic acid	83.9	20.1-168		%REC	1	9/30/2015 12:16:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932 Analyst: MD

Toxaphene	ND	0.113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Alpha BHC	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Beta BHC	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Gamma BHC (Lindane)	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Delta BHC	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Heptachlor	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Aldrin	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Heptachlor epoxide	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
gamma-Chlordane	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Endosulfan I	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
alpha-Chlordane	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Dieldrin	ND	0.0113		mg/Kg-dry	1	9/24/2015 10:04:00 AM
4,4'-DDE	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Endrin	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Endosulfan II	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM
4,4'-DDD	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Endrin aldehyde	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Endosulfan sulfate	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:40:00 PM

Project: Pacific Park

Lab ID: 1509270-015

Matrix: Soil

Client Sample ID: GP-7-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

4,4'-DDT	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Endrin ketone	ND	0.0227		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Methoxychlor	ND	0.0567		mg/Kg-dry	1	9/24/2015 10:04:00 AM
Surr: Decachlorobiphenyl	59.7	26.5-158		%REC	1	9/24/2015 10:04:00 AM
Surr: Tetrachloro-m-xylene	66.6	11-150		%REC	1	9/24/2015 10:04:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	22.2		mg/Kg-dry	1	9/23/2015 7:58:00 PM
Heavy Oil	ND	55.5		mg/Kg-dry	1	9/23/2015 7:58:00 PM
Surr: 2-Fluorobiphenyl	99.4	50-150		%REC	1	9/23/2015 7:58:00 PM
Surr: o-Terphenyl	95.3	50-150		%REC	1	9/23/2015 7:58:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Bis(2-chloroethyl) ether	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2-Chlorophenol	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
1,3-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
1,4-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
1,2-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Benzyl alcohol	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2-Methylphenol (o-cresol)	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Hexachloroethane	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
N-Nitrosodi-n-propylamine	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Nitrobenzene	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Isophorone	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
4-Methylphenol (p-cresol)	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2-Nitrophenol	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2,4-Dimethylphenol	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Bis(2-chloroethoxy)methane	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2,4-Dichlorophenol	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
1,2,4-Trichlorobenzene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Naphthalene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
4-Chloroaniline	ND	576		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Hexachlorobutadiene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
4-Chloro-3-methylphenol	ND	576		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2-Methylnaphthalene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
1-Methylnaphthalene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:40:00 PM

Project: Pacific Park

Lab ID: 1509270-015

Matrix: Soil

Client Sample ID: GP-7-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
Hexachlorocyclopentadiene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2,4,6-Trichlorophenol	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2,4,5-Trichlorophenol	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2-Chloronaphthalene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2-Nitroaniline	ND	576		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Acenaphthene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Dimethylphthalate	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2,6-Dinitrotoluene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Acenaphthylene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2,4-Dinitrophenol	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Dibenzofuran	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
2,4-Dinitrotoluene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
4-Nitrophenol	ND	576		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Fluorene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
4-Chlorophenyl phenyl ether	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Diethylphthalate	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
4,6-Dinitro-2-methylphenol	ND	230		µg/Kg-dry	1	9/24/2015 3:22:00 AM
4-Bromophenyl phenyl ether	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Hexachlorobenzene	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Pentachlorophenol	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Phenanthrene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Anthracene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Carbazole	ND	576		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Di-n-butylphthalate	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Fluoranthene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Pyrene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Butyl Benzylphthalate	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
bis(2-Ethylhexyl)adipate	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Benz (a) anthracene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Chrysene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
bis (2-Ethylhexyl) phthalate	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Di-n-octyl phthalate	ND	115		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Benzo (b) fluoranthene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Benzo (k) fluoranthene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Benzo (a) pyrene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Indeno (1,2,3-cd) pyrene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Dibenz (a,h) anthracene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Benzo (g,h,i) perylene	ND	92.1		µg/Kg-dry	1	9/24/2015 3:22:00 AM
Surr: 2,4,6-Tribromophenol	57.5	11.1-127		%REC	1	9/24/2015 3:22:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:40:00 PM

Project: Pacific Park

Lab ID: 1509270-015

Matrix: Soil

Client Sample ID: GP-7-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Surr: 2-Fluorobiphenyl	34.1	16.1-150		%REC	1	9/24/2015 3:22:00 AM
Surr: Nitrobenzene-d5	13.2	10-133		%REC	1	9/24/2015 3:22:00 AM
Surr: Phenol-d6	45.4	11.6-133		%REC	1	9/24/2015 3:22:00 AM
Surr: p-Terphenyl	70.9	21.8-150		%REC	1	9/24/2015 3:22:00 AM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11914		Analyst: BC
Gasoline	ND	3.74		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Surr: Toluene-d8	99.9	65-135		%REC	1	9/23/2015 9:55:00 AM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/23/2015 9:55:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0449		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Chloromethane	ND	0.0449		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Vinyl chloride	ND	0.00150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Bromomethane	ND	0.0673		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0374		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Chloroethane	ND	0.0449		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,1-Dichloroethene	ND	0.0374		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Methylene chloride	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
trans-1,2-Dichloroethene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0374		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,1-Dichloroethane	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
2,2-Dichloropropane	ND	0.0374		mg/Kg-dry	1	9/23/2015 9:55:00 AM
cis-1,2-Dichloroethene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Chloroform	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,1-Dichloropropene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Carbon tetrachloride	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2-Dichloroethane (EDC)	ND	0.0224		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Benzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Trichloroethene (TCE)	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2-Dichloropropane	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Bromodichloromethane	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Dibromomethane	ND	0.0299		mg/Kg-dry	1	9/23/2015 9:55:00 AM
cis-1,3-Dichloropropene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Toluene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
trans-1,3-Dichloropropylene	ND	0.0224		mg/Kg-dry	1	9/23/2015 9:55:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:40:00 PM

Project: Pacific Park

Lab ID: 1509270-015

Matrix: Soil

Client Sample ID: GP-7-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
1,1,2-Trichloroethane	ND	0.0224		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,3-Dichloropropane	ND	0.0374		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Tetrachloroethene (PCE)	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Dibromochloromethane	ND	0.0224		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2-Dibromoethane (EDB)	ND	0.00374		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Chlorobenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0224		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Ethylbenzene	ND	0.0224		mg/Kg-dry	1	9/23/2015 9:55:00 AM
m,p-Xylene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
o-Xylene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Styrene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Isopropylbenzene	ND	0.0598		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Bromoform	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
n-Propylbenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Bromobenzene	ND	0.0224		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,3,5-Trimethylbenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
2-Chlorotoluene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
4-Chlorotoluene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
tert-Butylbenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2,3-Trichloropropane	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2,4-Trichlorobenzene	ND	0.0374		mg/Kg-dry	1	9/23/2015 9:55:00 AM
sec-Butylbenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
4-Isopropyltoluene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,3-Dichlorobenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,4-Dichlorobenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
n-Butylbenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2-Dichlorobenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2-Dibromo-3-chloropropane	ND	0.374		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2,4-Trimethylbenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Hexachlorobutadiene	ND	0.0748		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Naphthalene	ND	0.0224		mg/Kg-dry	1	9/23/2015 9:55:00 AM
1,2,3-Trichlorobenzene	ND	0.0150		mg/Kg-dry	1	9/23/2015 9:55:00 AM
Surr: Dibromofluoromethane	94.2	56.5-129		%REC	1	9/23/2015 9:55:00 AM
Surr: Toluene-d8	98.8	64.3-131		%REC	1	9/23/2015 9:55:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/23/2015 9:55:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:40:00 PM

Project: Pacific Park

Lab ID: 1509270-015

Matrix: Soil

Client Sample ID: GP-7-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.279		mg/Kg-dry	1	9/22/2015 1:23:40 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11888		Analyst: TN
Arsenic	2.36	0.0905		mg/Kg-dry	1	9/21/2015 6:53:41 PM
Barium	17.3	0.453		mg/Kg-dry	1	9/21/2015 6:53:41 PM
Cadmium	ND	0.181		mg/Kg-dry	1	9/21/2015 6:53:41 PM
Chromium	9.59	0.0905		mg/Kg-dry	1	9/21/2015 6:53:41 PM
Lead	1.51	0.181		mg/Kg-dry	1	9/21/2015 6:53:41 PM
Selenium	1.14	0.453		mg/Kg-dry	1	9/21/2015 6:53:41 PM
Silver	ND	0.0905		mg/Kg-dry	1	9/21/2015 6:53:41 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	16.9			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-016

Matrix: Soil

Client Sample ID: GP-8-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Herbicides by EPA Method 8151A						
				Batch ID: 11922		Analyst: MD
Dicamba	ND	41.6		µg/Kg-dry	1	9/30/2015 12:33:00 AM
2,4-D	ND	35.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
2,4-DP	ND	29.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
2,4,5-TP (Silvex)	ND	23.8		µg/Kg-dry	1	9/30/2015 12:33:00 AM
2,4,5-T	ND	59.5		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Dinoseb	ND	35.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Dalapon	ND	238		µg/Kg-dry	1	9/30/2015 12:33:00 AM
2,4-DB	ND	29.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
MCPP	ND	5,230		µg/Kg-dry	1	9/30/2015 12:33:00 AM
MCPA	ND	333		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Picloram	ND	59.5		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Bentazon	ND	41.6		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Chloramben	25.9	23.8		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Acifluorfen	ND	95.1		µg/Kg-dry	1	9/30/2015 12:33:00 AM
3,5-Dichlorobenzoic acid	ND	47.6		µg/Kg-dry	1	9/30/2015 12:33:00 AM
4-Nitrophenol	ND	35.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Dacthal (DCPA)	ND	35.7		µg/Kg-dry	1	9/30/2015 12:33:00 AM
Surr: 2,4-Dichlorophenylacetic acid	115	20.1-168		%REC	1	9/30/2015 12:33:00 AM
Polychlorinated Biphenyls (PCB) by EPA 8082						
				Batch ID: 12180		Analyst: CM
Aroclor 1016	ND	0.113		mg/Kg-dry	1	10/22/2015 5:23:00 PM
Aroclor 1221	ND	0.113		mg/Kg-dry	1	10/22/2015 5:23:00 PM
Aroclor 1232	ND	0.113		mg/Kg-dry	1	10/22/2015 5:23:00 PM
Aroclor 1242	ND	0.113		mg/Kg-dry	1	10/22/2015 5:23:00 PM
Aroclor 1248	ND	0.113		mg/Kg-dry	1	10/22/2015 5:23:00 PM
Aroclor 1254	ND	0.113		mg/Kg-dry	1	10/22/2015 5:23:00 PM
Aroclor 1260	ND	0.113		mg/Kg-dry	1	10/22/2015 5:23:00 PM
Aroclor 1262	ND	0.113		mg/Kg-dry	1	10/22/2015 5:23:00 PM
Aroclor 1268	ND	0.113		mg/Kg-dry	1	10/22/2015 5:23:00 PM
Total PCBs	ND	0.113		mg/Kg-dry	1	10/22/2015 5:23:00 PM
Surr: Decachlorobiphenyl	94.3	41.2-143		%REC	1	10/22/2015 5:23:00 PM
Surr: Tetrachloro-m-xylene	109	26-140		%REC	1	10/22/2015 5:23:00 PM
Organochlorine Pesticides by EPA Method 8081						
				Batch ID: 11932		Analyst: MD
Toxaphene	ND	0.115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Alpha BHC	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Beta BHC	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-016

Matrix: Soil

Client Sample ID: GP-8-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Gamma BHC (Lindane)	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Delta BHC	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Heptachlor	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Aldrin	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Heptachlor epoxide	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
gamma-Chlordane	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Endosulfan I	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
alpha-Chlordane	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Dieldrin	ND	0.0115		mg/Kg-dry	1	9/24/2015 10:14:00 AM
4,4'-DDE	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Endrin	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Endosulfan II	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM
4,4'-DDD	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Endrin aldehyde	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Endosulfan sulfate	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM
4,4'-DDT	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Endrin ketone	ND	0.0229		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Methoxychlor	ND	0.0573		mg/Kg-dry	1	9/24/2015 10:14:00 AM
Surr: Decachlorobiphenyl	95.4	26.5-158		%REC	1	9/24/2015 10:14:00 AM
Surr: Tetrachloro-m-xylene	72.8	11-150		%REC	1	9/24/2015 10:14:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11903

Analyst: AK

Diesel (Fuel Oil)	ND	22.9		mg/Kg-dry	1	9/23/2015 8:30:00 PM
Heavy Oil	119	57.2		mg/Kg-dry	1	9/23/2015 8:30:00 PM
Surr: 2-Fluorobiphenyl	89.8	50-150		%REC	1	9/23/2015 8:30:00 PM
Surr: o-Terphenyl	87.5	50-150		%REC	1	9/23/2015 8:30:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Phenol	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Bis(2-chloroethyl) ether	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2-Chlorophenol	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
1,3-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
1,4-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
1,2-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Benzyl alcohol	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2-Methylphenol (o-cresol)	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Hexachloroethane	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-016

Matrix: Soil

Client Sample ID: GP-8-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
N-Nitrosodi-n-propylamine	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Nitrobenzene	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Isophorone	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
4-Methylphenol (p-cresol)	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2-Nitrophenol	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2,4-Dimethylphenol	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Bis(2-chloroethoxy)methane	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2,4-Dichlorophenol	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
1,2,4-Trichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Naphthalene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
4-Chloroaniline	ND	594		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Hexachlorobutadiene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
4-Chloro-3-methylphenol	ND	594		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2-Methylnaphthalene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
1-Methylnaphthalene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Hexachlorocyclopentadiene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2,4,6-Trichlorophenol	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2,4,5-Trichlorophenol	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2-Chloronaphthalene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2-Nitroaniline	ND	594		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Acenaphthene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Dimethylphthalate	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2,6-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Acenaphthylene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2,4-Dinitrophenol	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Dibenzofuran	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
2,4-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
4-Nitrophenol	ND	594		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Fluorene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
4-Chlorophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Diethylphthalate	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
4,6-Dinitro-2-methylphenol	ND	237		µg/Kg-dry	1	9/24/2015 3:44:00 AM
4-Bromophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Hexachlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Pentachlorophenol	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Phenanthrene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Anthracene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Carbazole	ND	594		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Di-n-butylphthalate	129	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-016

Matrix: Soil

Client Sample ID: GP-8-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11904

Analyst: NG

Fluoranthene	105	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Pyrene	109	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Butyl Benzylphthalate	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
bis(2-Ethylhexyl)adipate	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Benz (a) anthracene	128	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Chrysene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
bis (2-Ethylhexyl) phthalate	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Di-n-octyl phthalate	ND	119		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Benzo (b) fluoranthene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Benzo (k) fluoranthene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Benzo (a) pyrene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Indeno (1,2,3-cd) pyrene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Dibenz (a,h) anthracene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Benzo (g,h,i) perylene	ND	95.0		µg/Kg-dry	1	9/24/2015 3:44:00 AM
Surr: 2,4,6-Tribromophenol	60.0	11.1-127		%REC	1	9/24/2015 3:44:00 AM
Surr: 2-Fluorobiphenyl	58.6	16.1-150		%REC	1	9/24/2015 3:44:00 AM
Surr: Nitrobenzene-d5	38.6	10-133		%REC	1	9/24/2015 3:44:00 AM
Surr: Phenol-d6	46.2	11.6-133		%REC	1	9/24/2015 3:44:00 AM
Surr: p-Terphenyl	83.7	21.8-150		%REC	1	9/24/2015 3:44:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	3.05		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Surr: Toluene-d8	97.8	65-135		%REC	1	9/23/2015 10:23:00 AM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/23/2015 10:23:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0366		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Chloromethane	ND	0.0366		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Vinyl chloride	ND	0.00122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Bromomethane	ND	0.0550		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0305		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Chloroethane	ND	0.0366		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,1-Dichloroethene	ND	0.0305		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Methylene chloride	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
trans-1,2-Dichloroethene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0305		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,1-Dichloroethane	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-016

Matrix: Soil

Client Sample ID: GP-8-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
2,2-Dichloropropane	ND	0.0305		mg/Kg-dry	1	9/23/2015 10:23:00 AM
cis-1,2-Dichloroethene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Chloroform	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,1-Dichloropropene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Carbon tetrachloride	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2-Dichloroethane (EDC)	ND	0.0183		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Benzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Trichloroethene (TCE)	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2-Dichloropropane	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Bromodichloromethane	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Dibromomethane	ND	0.0244		mg/Kg-dry	1	9/23/2015 10:23:00 AM
cis-1,3-Dichloropropene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Toluene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
trans-1,3-Dichloropropylene	ND	0.0183		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,1,2-Trichloroethane	ND	0.0183		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,3-Dichloropropane	ND	0.0305		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Tetrachloroethene (PCE)	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Dibromochloromethane	ND	0.0183		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2-Dibromoethane (EDB)	ND	0.00305		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Chlorobenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0183		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Ethylbenzene	ND	0.0183		mg/Kg-dry	1	9/23/2015 10:23:00 AM
m,p-Xylene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
o-Xylene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Styrene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Isopropylbenzene	ND	0.0488		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Bromoform	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
n-Propylbenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Bromobenzene	ND	0.0183		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,3,5-Trimethylbenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
2-Chlorotoluene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
4-Chlorotoluene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
tert-Butylbenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2,3-Trichloropropane	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2,4-Trichlorobenzene	ND	0.0305		mg/Kg-dry	1	9/23/2015 10:23:00 AM
sec-Butylbenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
4-Isopropyltoluene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-016

Matrix: Soil

Client Sample ID: GP-8-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>						
				Batch ID: 11914	Analyst: BC	
1,3-Dichlorobenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,4-Dichlorobenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
n-Butylbenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2-Dichlorobenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2-Dibromo-3-chloropropane	ND	0.305		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2,4-Trimethylbenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Hexachlorobutadiene	ND	0.0611		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Naphthalene	ND	0.0183		mg/Kg-dry	1	9/23/2015 10:23:00 AM
1,2,3-Trichlorobenzene	ND	0.0122		mg/Kg-dry	1	9/23/2015 10:23:00 AM
Surr: Dibromofluoromethane	94.9	56.5-129		%REC	1	9/23/2015 10:23:00 AM
Surr: Toluene-d8	97.1	64.3-131		%REC	1	9/23/2015 10:23:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/23/2015 10:23:00 AM
<u>Mercury by EPA Method 7471</u>						
				Batch ID: 11895	Analyst: MW	
Mercury	ND	0.287		mg/Kg-dry	1	9/22/2015 1:25:18 PM
<u>Total Metals by EPA Method 6020</u>						
				Batch ID: 11888	Analyst: TN	
Arsenic	11.6	0.0900		mg/Kg-dry	1	9/21/2015 6:57:13 PM
Barium	224	0.450		mg/Kg-dry	1	9/21/2015 6:57:13 PM
Cadmium	0.706	0.180		mg/Kg-dry	1	9/21/2015 6:57:13 PM
Chromium	17.3	0.0900		mg/Kg-dry	1	9/21/2015 6:57:13 PM
Lead	370	0.180		mg/Kg-dry	1	9/21/2015 6:57:13 PM
Selenium	1.88	0.450		mg/Kg-dry	1	9/21/2015 6:57:13 PM
Silver	0.136	0.0900		mg/Kg-dry	1	9/21/2015 6:57:13 PM
<u>Metals (SW6020) with TCLP Extraction (EPA 1311)</u>						
				Batch ID: 12222	Analyst: TN	
Lead	ND	0.200		mg/L	1	10/26/2015 7:02:51 PM
<u>Sample Moisture (Percent Moisture)</u>						
				Batch ID: R25044	Analyst: CG	
Percent Moisture	17.7			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:10:00 PM

Project: Pacific Park

Lab ID: 1509270-017

Matrix: Soil

Client Sample ID: GP-8-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	47.6		µg/Kg-dry	1	9/30/2015 4:03:00 PM
2,4-D	ND	40.8		µg/Kg-dry	1	9/30/2015 4:03:00 PM
2,4-DP	ND	34.0		µg/Kg-dry	1	9/30/2015 4:03:00 PM
2,4,5-TP (Silvex)	ND	27.2		µg/Kg-dry	1	9/30/2015 4:03:00 PM
2,4,5-T	ND	68.1		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Dinoseb	ND	40.8		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Dalapon	ND	272		µg/Kg-dry	1	9/30/2015 4:03:00 PM
2,4-DB	ND	34.0		µg/Kg-dry	1	9/30/2015 4:03:00 PM
MCPP	ND	381		µg/Kg-dry	1	9/30/2015 4:03:00 PM
MCPA	ND	381		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Picloram	ND	68.1		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Bentazon	ND	47.6		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Chloramben	ND	27.2		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Acifluorfen	ND	109		µg/Kg-dry	1	9/30/2015 4:03:00 PM
3,5-Dichlorobenzoic acid	ND	54.5		µg/Kg-dry	1	9/30/2015 4:03:00 PM
4-Nitrophenol	ND	40.8		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Dacthal (DCPA)	ND	40.8		µg/Kg-dry	1	9/30/2015 4:03:00 PM
Surr: 2,4-Dichlorophenylacetic acid	103	20.1-168		%REC	1	9/30/2015 4:03:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11932

Analyst: MD

Toxaphene	ND	0.129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Alpha BHC	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Beta BHC	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Gamma BHC (Lindane)	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Delta BHC	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Heptachlor	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Aldrin	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Heptachlor epoxide	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
gamma-Chlordane	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Endosulfan I	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
alpha-Chlordane	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Dieldrin	ND	0.0129		mg/Kg-dry	1	9/24/2015 10:25:00 AM
4,4'-DDE	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Endrin	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Endosulfan II	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM
4,4'-DDD	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Endrin aldehyde	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Endosulfan sulfate	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:10:00 PM

Project: Pacific Park

Lab ID: 1509270-017

Matrix: Soil

Client Sample ID: GP-8-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11932		Analyst: MD
4,4'-DDT	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Endrin ketone	ND	0.0257		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Methoxychlor	ND	0.0644		mg/Kg-dry	1	9/24/2015 10:25:00 AM
Surr: Decachlorobiphenyl	97.8	26.5-158		%REC	1	9/24/2015 10:25:00 AM
Surr: Tetrachloro-m-xylene	67.7	11-150		%REC	1	9/24/2015 10:25:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11903		Analyst: AK
Diesel (Fuel Oil)	ND	24.9		mg/Kg-dry	1	9/23/2015 9:01:00 PM
Heavy Oil	ND	62.4		mg/Kg-dry	1	9/23/2015 9:01:00 PM
Surr: 2-Fluorobiphenyl	86.1	50-150		%REC	1	9/23/2015 9:01:00 PM
Surr: o-Terphenyl	82.0	50-150		%REC	1	9/23/2015 9:01:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Phenol	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Bis(2-chloroethyl) ether	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2-Chlorophenol	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
1,3-Dichlorobenzene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
1,4-Dichlorobenzene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
1,2-Dichlorobenzene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Benzyl alcohol	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2-Methylphenol (o-cresol)	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Hexachloroethane	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
N-Nitrosodi-n-propylamine	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Nitrobenzene	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Isophorone	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
4-Methylphenol (p-cresol)	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2-Nitrophenol	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2,4-Dimethylphenol	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Bis(2-chloroethoxy)methane	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2,4-Dichlorophenol	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
1,2,4-Trichlorobenzene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Naphthalene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
4-Chloroaniline	ND	681		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Hexachlorobutadiene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
4-Chloro-3-methylphenol	ND	681		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2-Methylnaphthalene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
1-Methylnaphthalene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:10:00 PM

Project: Pacific Park

Lab ID: 1509270-017

Matrix: Soil

Client Sample ID: GP-8-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904		Analyst: NG
Hexachlorocyclopentadiene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2,4,6-Trichlorophenol	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2,4,5-Trichlorophenol	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2-Chloronaphthalene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2-Nitroaniline	ND	681		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Acenaphthene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Dimethylphthalate	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2,6-Dinitrotoluene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Acenaphthylene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2,4-Dinitrophenol	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Dibenzofuran	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
2,4-Dinitrotoluene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
4-Nitrophenol	ND	681		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Fluorene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
4-Chlorophenyl phenyl ether	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Diethylphthalate	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
4,6-Dinitro-2-methylphenol	ND	272		µg/Kg-dry	1	9/24/2015 4:07:00 AM
4-Bromophenyl phenyl ether	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Hexachlorobenzene	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Pentachlorophenol	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Phenanthrene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Anthracene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Carbazole	ND	681		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Di-n-butylphthalate	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Fluoranthene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Pyrene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Butyl Benzylphthalate	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
bis(2-Ethylhexyl)adipate	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Benz (a) anthracene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Chrysene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
bis (2-Ethylhexyl) phthalate	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Di-n-octyl phthalate	ND	136		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Benzo (b) fluoranthene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Benzo (k) fluoranthene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Benzo (a) pyrene	552	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Indeno (1,2,3-cd) pyrene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Dibenz (a,h) anthracene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Benzo (g,h,i) perylene	ND	109		µg/Kg-dry	1	9/24/2015 4:07:00 AM
Surr: 2,4,6-Tribromophenol	58.1	11.1-127		%REC	1	9/24/2015 4:07:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:10:00 PM

Project: Pacific Park

Lab ID: 1509270-017

Matrix: Soil

Client Sample ID: GP-8-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Surr: 2-Fluorobiphenyl	33.8	16.1-150		%REC	1	9/24/2015 4:07:00 AM
Surr: Nitrobenzene-d5	26.0	10-133		%REC	1	9/24/2015 4:07:00 AM
Surr: Phenol-d6	37.0	11.6-133		%REC	1	9/24/2015 4:07:00 AM
Surr: p-Terphenyl	68.7	21.8-150		%REC	1	9/24/2015 4:07:00 AM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11914		Analyst: BC
Gasoline	ND	3.65		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Surr: Toluene-d8	99.4	65-135		%REC	1	9/23/2015 10:52:00 AM
Surr: 4-Bromofluorobenzene	103	65-135		%REC	1	9/23/2015 10:52:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0438		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Chloromethane	ND	0.0438		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Vinyl chloride	ND	0.00146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Bromomethane	ND	0.0657		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0365		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Chloroethane	ND	0.0438		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,1-Dichloroethene	ND	0.0365		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Methylene chloride	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
trans-1,2-Dichloroethene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0365		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,1-Dichloroethane	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
2,2-Dichloropropane	ND	0.0365		mg/Kg-dry	1	9/23/2015 10:52:00 AM
cis-1,2-Dichloroethene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Chloroform	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,1-Dichloropropene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Carbon tetrachloride	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2-Dichloroethane (EDC)	ND	0.0219		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Benzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Trichloroethene (TCE)	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2-Dichloropropane	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Bromodichloromethane	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Dibromomethane	ND	0.0292		mg/Kg-dry	1	9/23/2015 10:52:00 AM
cis-1,3-Dichloropropene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Toluene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
trans-1,3-Dichloropropylene	ND	0.0219		mg/Kg-dry	1	9/23/2015 10:52:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:10:00 PM

Project: Pacific Park

Lab ID: 1509270-017

Matrix: Soil

Client Sample ID: GP-8-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
1,1,2-Trichloroethane	ND	0.0219		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,3-Dichloropropane	ND	0.0365		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Tetrachloroethene (PCE)	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Dibromochloromethane	ND	0.0219		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2-Dibromoethane (EDB)	ND	0.00365		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Chlorobenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0219		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Ethylbenzene	ND	0.0219		mg/Kg-dry	1	9/23/2015 10:52:00 AM
m,p-Xylene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
o-Xylene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Styrene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Isopropylbenzene	ND	0.0584		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Bromoform	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
n-Propylbenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Bromobenzene	ND	0.0219		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,3,5-Trimethylbenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
2-Chlorotoluene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
4-Chlorotoluene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
tert-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2,3-Trichloropropane	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2,4-Trichlorobenzene	ND	0.0365		mg/Kg-dry	1	9/23/2015 10:52:00 AM
sec-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
4-Isopropyltoluene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,3-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,4-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
n-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2-Dibromo-3-chloropropane	ND	0.365		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2,4-Trimethylbenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Hexachlorobutadiene	ND	0.0730		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Naphthalene	ND	0.0219		mg/Kg-dry	1	9/23/2015 10:52:00 AM
1,2,3-Trichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/23/2015 10:52:00 AM
Surr: Dibromofluoromethane	94.2	56.5-129		%REC	1	9/23/2015 10:52:00 AM
Surr: Toluene-d8	98.0	64.3-131		%REC	1	9/23/2015 10:52:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.5	63.1-141		%REC	1	9/23/2015 10:52:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:10:00 PM

Project: Pacific Park

Lab ID: 1509270-017

Matrix: Soil

Client Sample ID: GP-8-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.295		mg/Kg-dry	1	9/22/2015 1:27:01 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	5.90	0.102		mg/Kg-dry	1	9/22/2015 4:03:55 PM
Barium	49.5	0.511		mg/Kg-dry	1	9/22/2015 4:03:55 PM
Cadmium	ND	0.204		mg/Kg-dry	1	9/22/2015 4:03:55 PM
Chromium	19.5	0.102		mg/Kg-dry	1	9/22/2015 4:03:55 PM
Lead	3.24	0.204		mg/Kg-dry	1	9/22/2015 4:03:55 PM
Selenium	1.54	0.511		mg/Kg-dry	1	9/22/2015 4:03:55 PM
Silver	ND	0.102		mg/Kg-dry	1	9/22/2015 4:03:55 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	27.0			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:06:00 PM

Project: Pacific Park

Lab ID: 1509270-018

Matrix: Soil

Client Sample ID: GP-8-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	44.5		µg/Kg-dry	1	9/30/2015 4:20:00 PM
2,4-D	ND	38.2		µg/Kg-dry	1	9/30/2015 4:20:00 PM
2,4-DP	ND	31.8		µg/Kg-dry	1	9/30/2015 4:20:00 PM
2,4,5-TP (Silvex)	ND	25.4		µg/Kg-dry	1	9/30/2015 4:20:00 PM
2,4,5-T	ND	63.6		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Dinoseb	ND	38.2		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Dalapon	ND	254		µg/Kg-dry	1	9/30/2015 4:20:00 PM
2,4-DB	ND	31.8		µg/Kg-dry	1	9/30/2015 4:20:00 PM
MCPP	ND	356		µg/Kg-dry	1	9/30/2015 4:20:00 PM
MCPA	ND	356		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Picloram	ND	63.6		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Bentazon	ND	44.5		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Chloramben	ND	25.4		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Acifluorfen	ND	102		µg/Kg-dry	1	9/30/2015 4:20:00 PM
3,5-Dichlorobenzoic acid	ND	50.9		µg/Kg-dry	1	9/30/2015 4:20:00 PM
4-Nitrophenol	ND	38.2		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Dacthal (DCPA)	ND	38.2		µg/Kg-dry	1	9/30/2015 4:20:00 PM
Surr: 2,4-Dichlorophenylacetic acid	107	20.1-168		%REC	1	9/30/2015 4:20:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Alpha BHC	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Beta BHC	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Gamma BHC (Lindane)	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Delta BHC	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Heptachlor	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Aldrin	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Heptachlor epoxide	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
gamma-Chlordane	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Endosulfan I	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
alpha-Chlordane	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Dieldrin	ND	0.0126		mg/Kg-dry	1	9/24/2015 12:27:00 AM
4,4'-DDE	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Endrin	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Endosulfan II	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM
4,4'-DDD	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Endrin aldehyde	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Endosulfan sulfate	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:06:00 PM

Project: Pacific Park

Lab ID: 1509270-018

Matrix: Soil

Client Sample ID: GP-8-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Endrin ketone	ND	0.0252		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Methoxychlor	ND	0.0631		mg/Kg-dry	1	9/24/2015 12:27:00 AM
Surr: Decachlorobiphenyl	95.0	26.5-158		%REC	1	9/24/2015 12:27:00 AM
Surr: Tetrachloro-m-xylene	107	11-150		%REC	1	9/24/2015 12:27:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11903		Analyst: AK
Diesel (Fuel Oil)	ND	24.7		mg/Kg-dry	1	9/23/2015 9:32:00 PM
Heavy Oil	ND	61.7		mg/Kg-dry	1	9/23/2015 9:32:00 PM
Surr: 2-Fluorobiphenyl	85.7	50-150		%REC	1	9/23/2015 9:32:00 PM
Surr: o-Terphenyl	87.0	50-150		%REC	1	9/23/2015 9:32:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Phenol	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Bis(2-chloroethyl) ether	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2-Chlorophenol	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
1,3-Dichlorobenzene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
1,4-Dichlorobenzene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
1,2-Dichlorobenzene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Benzyl alcohol	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2-Methylphenol (o-cresol)	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Hexachloroethane	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
N-Nitrosodi-n-propylamine	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Nitrobenzene	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Isophorone	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
4-Methylphenol (p-cresol)	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2-Nitrophenol	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2,4-Dimethylphenol	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Bis(2-chloroethoxy)methane	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2,4-Dichlorophenol	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
1,2,4-Trichlorobenzene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Naphthalene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
4-Chloroaniline	ND	643		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Hexachlorobutadiene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
4-Chloro-3-methylphenol	ND	643		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2-Methylnaphthalene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
1-Methylnaphthalene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:06:00 PM

Project: Pacific Park

Lab ID: 1509270-018

Matrix: Soil

Client Sample ID: GP-8-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904	Analyst: NG	
Hexachlorocyclopentadiene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2,4,6-Trichlorophenol	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2,4,5-Trichlorophenol	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2-Chloronaphthalene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2-Nitroaniline	ND	643		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Acenaphthene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Dimethylphthalate	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2,6-Dinitrotoluene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Acenaphthylene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2,4-Dinitrophenol	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Dibenzofuran	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
2,4-Dinitrotoluene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
4-Nitrophenol	ND	643		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Fluorene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
4-Chlorophenyl phenyl ether	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Diethylphthalate	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
4,6-Dinitro-2-methylphenol	ND	257		µg/Kg-dry	1	9/24/2015 4:29:00 AM
4-Bromophenyl phenyl ether	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Hexachlorobenzene	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Pentachlorophenol	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Phenanthrene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Anthracene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Carbazole	ND	643		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Di-n-butylphthalate	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Fluoranthene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Pyrene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Butyl Benzylphthalate	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
bis(2-Ethylhexyl)adipate	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Benz (a) anthracene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Chrysene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
bis (2-Ethylhexyl) phthalate	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Di-n-octyl phthalate	ND	129		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Benzo (b) fluoranthene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Benzo (k) fluoranthene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Benzo (a) pyrene	232	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Indeno (1,2,3-cd) pyrene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Dibenz (a,h) anthracene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Benzo (g,h,i) perylene	ND	103		µg/Kg-dry	1	9/24/2015 4:29:00 AM
Surr: 2,4,6-Tribromophenol	49.0	11.1-127		%REC	1	9/24/2015 4:29:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:06:00 PM

Project: Pacific Park

Lab ID: 1509270-018

Matrix: Soil

Client Sample ID: GP-8-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Surr: 2-Fluorobiphenyl	39.9	16.1-150		%REC	1	9/24/2015 4:29:00 AM
Surr: Nitrobenzene-d5	24.9	10-133		%REC	1	9/24/2015 4:29:00 AM
Surr: Phenol-d6	37.1	11.6-133		%REC	1	9/24/2015 4:29:00 AM
Surr: p-Terphenyl	69.2	21.8-150		%REC	1	9/24/2015 4:29:00 AM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11914		Analyst: BC
Gasoline	ND	3.25		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Surr: Toluene-d8	100	65-135		%REC	1	9/23/2015 11:21:00 AM
Surr: 4-Bromofluorobenzene	103	65-135		%REC	1	9/23/2015 11:21:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0390		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Chloromethane	ND	0.0390		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Vinyl chloride	ND	0.00130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Bromomethane	ND	0.0585		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0325		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Chloroethane	ND	0.0390		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,1-Dichloroethene	ND	0.0325		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Methylene chloride	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
trans-1,2-Dichloroethene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0325		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,1-Dichloroethane	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
2,2-Dichloropropane	ND	0.0325		mg/Kg-dry	1	9/23/2015 11:21:00 AM
cis-1,2-Dichloroethene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Chloroform	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,1-Dichloropropene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Carbon tetrachloride	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2-Dichloroethane (EDC)	ND	0.0195		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Benzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Trichloroethene (TCE)	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2-Dichloropropane	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Bromodichloromethane	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Dibromomethane	ND	0.0260		mg/Kg-dry	1	9/23/2015 11:21:00 AM
cis-1,3-Dichloropropene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Toluene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
trans-1,3-Dichloropropylene	ND	0.0195		mg/Kg-dry	1	9/23/2015 11:21:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:06:00 PM

Project: Pacific Park

Lab ID: 1509270-018

Matrix: Soil

Client Sample ID: GP-8-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0195		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,3-Dichloropropane	ND	0.0325		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Tetrachloroethene (PCE)	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Dibromochloromethane	ND	0.0195		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2-Dibromoethane (EDB)	ND	0.00325		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Chlorobenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0195		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Ethylbenzene	ND	0.0195		mg/Kg-dry	1	9/23/2015 11:21:00 AM
m,p-Xylene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
o-Xylene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Styrene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Isopropylbenzene	ND	0.0520		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Bromoform	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
n-Propylbenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Bromobenzene	ND	0.0195		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,3,5-Trimethylbenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
2-Chlorotoluene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
4-Chlorotoluene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
tert-Butylbenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2,3-Trichloropropane	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2,4-Trichlorobenzene	ND	0.0325		mg/Kg-dry	1	9/23/2015 11:21:00 AM
sec-Butylbenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
4-Isopropyltoluene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,3-Dichlorobenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,4-Dichlorobenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
n-Butylbenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2-Dichlorobenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2-Dibromo-3-chloropropane	ND	0.325		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2,4-Trimethylbenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Hexachlorobutadiene	ND	0.0650		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Naphthalene	ND	0.0195		mg/Kg-dry	1	9/23/2015 11:21:00 AM
1,2,3-Trichlorobenzene	ND	0.0130		mg/Kg-dry	1	9/23/2015 11:21:00 AM
Surr: Dibromofluoromethane	95.2	56.5-129		%REC	1	9/23/2015 11:21:00 AM
Surr: Toluene-d8	98.6	64.3-131		%REC	1	9/23/2015 11:21:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.6	63.1-141		%REC	1	9/23/2015 11:21:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 1:06:00 PM

Project: Pacific Park

Lab ID: 1509270-018

Matrix: Soil

Client Sample ID: GP-8-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11895		Analyst: MW
Mercury	ND	0.286		mg/Kg-dry	1	9/22/2015 1:28:43 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	3.27	0.100		mg/Kg-dry	1	9/22/2015 4:07:26 PM
Barium	35.9	0.501		mg/Kg-dry	1	9/22/2015 4:07:26 PM
Cadmium	ND	0.200		mg/Kg-dry	1	9/22/2015 4:07:26 PM
Chromium	15.4	0.100		mg/Kg-dry	1	9/22/2015 4:07:26 PM
Lead	2.05	0.200		mg/Kg-dry	1	9/22/2015 4:07:26 PM
Selenium	0.998	0.501		mg/Kg-dry	1	9/22/2015 4:07:26 PM
Silver	ND	0.100		mg/Kg-dry	1	9/22/2015 4:07:26 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	23.2			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:45:00 PM

Project: Pacific Park

Lab ID: 1509270-019

Matrix: Soil

Client Sample ID: GP-9-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11922

Analyst: MD

Dicamba	ND	42.4		µg/Kg-dry	1	9/30/2015 4:37:00 PM
2,4-D	ND	36.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
2,4-DP	ND	30.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
2,4,5-TP (Silvex)	ND	24.2		µg/Kg-dry	1	9/30/2015 4:37:00 PM
2,4,5-T	ND	60.5		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Dinoseb	ND	36.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Dalapon	ND	242		µg/Kg-dry	1	9/30/2015 4:37:00 PM
2,4-DB	ND	30.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
MCPP	ND	339		µg/Kg-dry	1	9/30/2015 4:37:00 PM
MCPA	ND	339		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Picloram	ND	60.5		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Bentazon	ND	42.4		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Chloramben	ND	24.2		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Acifluorfen	ND	96.8		µg/Kg-dry	1	9/30/2015 4:37:00 PM
3,5-Dichlorobenzoic acid	ND	48.4		µg/Kg-dry	1	9/30/2015 4:37:00 PM
4-Nitrophenol	ND	36.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Dacthal (DCPA)	ND	36.3		µg/Kg-dry	1	9/30/2015 4:37:00 PM
Surr: 2,4-Dichlorophenylacetic acid	108	20.1-168		%REC	1	9/30/2015 4:37:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Alpha BHC	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Beta BHC	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Gamma BHC (Lindane)	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Delta BHC	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Heptachlor	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Aldrin	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Heptachlor epoxide	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
gamma-Chlordane	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Endosulfan I	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
alpha-Chlordane	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Dieldrin	ND	0.0118		mg/Kg-dry	1	9/24/2015 12:49:00 AM
4,4'-DDE	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Endrin	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Endosulfan II	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM
4,4'-DDD	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Endrin aldehyde	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Endosulfan sulfate	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:45:00 PM

Project: Pacific Park

Lab ID: 1509270-019

Matrix: Soil

Client Sample ID: GP-9-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Endrin ketone	ND	0.0236		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Methoxychlor	ND	0.0590		mg/Kg-dry	1	9/24/2015 12:49:00 AM
Surr: Decachlorobiphenyl	79.9	26.5-158		%REC	1	9/24/2015 12:49:00 AM
Surr: Tetrachloro-m-xylene	77.9	11-150		%REC	1	9/24/2015 12:49:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11903		Analyst: AK
Diesel (Fuel Oil)	ND	24.7		mg/Kg-dry	1	9/23/2015 10:04:00 PM
Heavy Oil	ND	61.7		mg/Kg-dry	1	9/23/2015 10:04:00 PM
Surr: 2-Fluorobiphenyl	99.0	50-150		%REC	1	9/23/2015 10:04:00 PM
Surr: o-Terphenyl	97.4	50-150		%REC	1	9/23/2015 10:04:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Phenol	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Bis(2-chloroethyl) ether	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2-Chlorophenol	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
1,3-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
1,4-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
1,2-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Benzyl alcohol	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2-Methylphenol (o-cresol)	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Hexachloroethane	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
N-Nitrosodi-n-propylamine	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Nitrobenzene	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Isophorone	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
4-Methylphenol (p-cresol)	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2-Nitrophenol	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2,4-Dimethylphenol	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Bis(2-chloroethoxy)methane	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2,4-Dichlorophenol	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
1,2,4-Trichlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Naphthalene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
4-Chloroaniline	ND	595		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Hexachlorobutadiene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
4-Chloro-3-methylphenol	ND	595		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2-Methylnaphthalene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
1-Methylnaphthalene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:45:00 PM

Project: Pacific Park

Lab ID: 1509270-019

Matrix: Soil

Client Sample ID: GP-9-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904	Analyst: NG	
Hexachlorocyclopentadiene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2,4,6-Trichlorophenol	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2,4,5-Trichlorophenol	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2-Chloronaphthalene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2-Nitroaniline	ND	595		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Acenaphthene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Dimethylphthalate	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2,6-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Acenaphthylene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2,4-Dinitrophenol	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Dibenzofuran	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
2,4-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
4-Nitrophenol	ND	595		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Fluorene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
4-Chlorophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Diethylphthalate	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
4,6-Dinitro-2-methylphenol	ND	238		µg/Kg-dry	1	9/24/2015 4:51:00 AM
4-Bromophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Hexachlorobenzene	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Pentachlorophenol	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Phenanthrene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Anthracene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Carbazole	ND	595		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Di-n-butylphthalate	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Fluoranthene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Pyrene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Butyl Benzylphthalate	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
bis(2-Ethylhexyl)adipate	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Benz (a) anthracene	108	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Chrysene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
bis (2-Ethylhexyl) phthalate	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Di-n-octyl phthalate	ND	119		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Benzo (b) fluoranthene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Benzo (k) fluoranthene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Benzo (a) pyrene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Indeno (1,2,3-cd) pyrene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Dibenz (a,h) anthracene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Benzo (g,h,i) perylene	ND	95.2		µg/Kg-dry	1	9/24/2015 4:51:00 AM
Surr: 2,4,6-Tribromophenol	55.4	11.1-127		%REC	1	9/24/2015 4:51:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:45:00 PM

Project: Pacific Park

Lab ID: 1509270-019

Matrix: Soil

Client Sample ID: GP-9-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Surr: 2-Fluorobiphenyl	48.5	16.1-150		%REC	1	9/24/2015 4:51:00 AM
Surr: Nitrobenzene-d5	29.6	10-133		%REC	1	9/24/2015 4:51:00 AM
Surr: Phenol-d6	51.6	11.6-133		%REC	1	9/24/2015 4:51:00 AM
Surr: p-Terphenyl	83.6	21.8-150		%REC	1	9/24/2015 4:51:00 AM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11914		Analyst: BC
Gasoline	ND	2.98		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Surr: Toluene-d8	98.9	65-135		%REC	1	9/23/2015 11:50:00 AM
Surr: 4-Bromofluorobenzene	102	65-135		%REC	1	9/23/2015 11:50:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0357		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Chloromethane	ND	0.0357		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Vinyl chloride	ND	0.00119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Bromomethane	ND	0.0536		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0298		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Chloroethane	ND	0.0357		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,1-Dichloroethene	ND	0.0298		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Methylene chloride	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
trans-1,2-Dichloroethene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0298		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,1-Dichloroethane	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
2,2-Dichloropropane	ND	0.0298		mg/Kg-dry	1	9/23/2015 11:50:00 AM
cis-1,2-Dichloroethene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Chloroform	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,1-Dichloropropene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Carbon tetrachloride	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2-Dichloroethane (EDC)	ND	0.0179		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Benzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Trichloroethene (TCE)	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2-Dichloropropane	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Bromodichloromethane	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Dibromomethane	ND	0.0238		mg/Kg-dry	1	9/23/2015 11:50:00 AM
cis-1,3-Dichloropropene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Toluene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
trans-1,3-Dichloropropylene	ND	0.0179		mg/Kg-dry	1	9/23/2015 11:50:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:45:00 PM

Project: Pacific Park

Lab ID: 1509270-019

Matrix: Soil

Client Sample ID: GP-9-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0179		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,3-Dichloropropane	ND	0.0298		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Tetrachloroethene (PCE)	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Dibromochloromethane	ND	0.0179		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2-Dibromoethane (EDB)	ND	0.00298		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Chlorobenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0179		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Ethylbenzene	ND	0.0179		mg/Kg-dry	1	9/23/2015 11:50:00 AM
m,p-Xylene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
o-Xylene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Styrene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Isopropylbenzene	ND	0.0476		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Bromoform	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
n-Propylbenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Bromobenzene	ND	0.0179		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,3,5-Trimethylbenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
2-Chlorotoluene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
4-Chlorotoluene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
tert-Butylbenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2,3-Trichloropropane	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2,4-Trichlorobenzene	ND	0.0298		mg/Kg-dry	1	9/23/2015 11:50:00 AM
sec-Butylbenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
4-Isopropyltoluene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,3-Dichlorobenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,4-Dichlorobenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
n-Butylbenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2-Dichlorobenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2-Dibromo-3-chloropropane	ND	0.298		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2,4-Trimethylbenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Hexachlorobutadiene	ND	0.0595		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Naphthalene	ND	0.0179		mg/Kg-dry	1	9/23/2015 11:50:00 AM
1,2,3-Trichlorobenzene	ND	0.0119		mg/Kg-dry	1	9/23/2015 11:50:00 AM
Surr: Dibromofluoromethane	94.1	56.5-129		%REC	1	9/23/2015 11:50:00 AM
Surr: Toluene-d8	97.2	64.3-131		%REC	1	9/23/2015 11:50:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.1	63.1-141		%REC	1	9/23/2015 11:50:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:45:00 PM

Project: Pacific Park

Lab ID: 1509270-019

Matrix: Soil

Client Sample ID: GP-9-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11908		Analyst: MW
Mercury	ND	0.281		mg/Kg-dry	1	9/22/2015 5:02:34 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	1.85	0.0908		mg/Kg-dry	1	9/22/2015 4:10:57 PM
Barium	28.7	0.454		mg/Kg-dry	1	9/22/2015 4:10:57 PM
Cadmium	ND	0.182		mg/Kg-dry	1	9/22/2015 4:10:57 PM
Chromium	17.6	0.0908		mg/Kg-dry	1	9/22/2015 4:10:57 PM
Lead	8.25	0.182		mg/Kg-dry	1	9/22/2015 4:10:57 PM
Selenium	0.744	0.454		mg/Kg-dry	1	9/22/2015 4:10:57 PM
Silver	ND	0.0908		mg/Kg-dry	1	9/22/2015 4:10:57 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	19.0			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509270-020

Matrix: Soil

Client Sample ID: GP-9-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>				Batch ID: 11922		Analyst: MD
Dicamba	ND	46.8		µg/Kg-dry	1	9/30/2015 4:54:00 PM
2,4-D	ND	40.1		µg/Kg-dry	1	9/30/2015 4:54:00 PM
2,4-DP	ND	33.4		µg/Kg-dry	1	9/30/2015 4:54:00 PM
2,4,5-TP (Silvex)	ND	26.7		µg/Kg-dry	1	9/30/2015 4:54:00 PM
2,4,5-T	ND	66.9		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Dinoseb	ND	40.1		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Dalapon	ND	267		µg/Kg-dry	1	9/30/2015 4:54:00 PM
2,4-DB	ND	33.4		µg/Kg-dry	1	9/30/2015 4:54:00 PM
MCPP	ND	374		µg/Kg-dry	1	9/30/2015 4:54:00 PM
MCPA	ND	374		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Picloram	ND	66.9		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Bentazon	ND	46.8		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Chloramben	ND	26.7		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Acifluorfen	ND	107		µg/Kg-dry	1	9/30/2015 4:54:00 PM
3,5-Dichlorobenzoic acid	ND	53.5		µg/Kg-dry	1	9/30/2015 4:54:00 PM
4-Nitrophenol	ND	40.1		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Dacthal (DCPA)	ND	40.1		µg/Kg-dry	1	9/30/2015 4:54:00 PM
Surr: 2,4-Dichlorophenylacetic acid	109	20.1-168		%REC	1	9/30/2015 4:54:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935 Analyst: MD

Toxaphene	ND	0.133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Alpha BHC	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Beta BHC	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Gamma BHC (Lindane)	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Delta BHC	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Heptachlor	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Aldrin	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Heptachlor epoxide	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
gamma-Chlordane	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Endosulfan I	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
alpha-Chlordane	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Dieldrin	ND	0.0133		mg/Kg-dry	1	9/24/2015 1:11:00 AM
4,4'-DDE	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Endrin	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Endosulfan II	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM
4,4'-DDD	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Endrin aldehyde	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Endosulfan sulfate	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509270-020

Matrix: Soil

Client Sample ID: GP-9-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Endrin ketone	ND	0.0266		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Methoxychlor	ND	0.0664		mg/Kg-dry	1	9/24/2015 1:11:00 AM
Surr: Decachlorobiphenyl	87.7	26.5-158		%REC	1	9/24/2015 1:11:00 AM
Surr: Tetrachloro-m-xylene	87.2	11-150		%REC	1	9/24/2015 1:11:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11903		Analyst: AK
Diesel (Fuel Oil)	ND	25.3		mg/Kg-dry	1	9/24/2015 8:54:00 AM
Heavy Oil	ND	63.3		mg/Kg-dry	1	9/24/2015 8:54:00 AM
Surr: 2-Fluorobiphenyl	107	50-150		%REC	1	9/24/2015 8:54:00 AM
Surr: o-Terphenyl	104	50-150		%REC	1	9/24/2015 8:54:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Phenol	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Bis(2-chloroethyl) ether	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2-Chlorophenol	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
1,3-Dichlorobenzene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
1,4-Dichlorobenzene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
1,2-Dichlorobenzene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Benzyl alcohol	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2-Methylphenol (o-cresol)	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Hexachloroethane	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
N-Nitrosodi-n-propylamine	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Nitrobenzene	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Isophorone	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
4-Methylphenol (p-cresol)	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2-Nitrophenol	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2,4-Dimethylphenol	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Bis(2-chloroethoxy)methane	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2,4-Dichlorophenol	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
1,2,4-Trichlorobenzene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Naphthalene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
4-Chloroaniline	ND	675		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Hexachlorobutadiene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
4-Chloro-3-methylphenol	ND	675		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2-Methylnaphthalene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
1-Methylnaphthalene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509270-020

Matrix: Soil

Client Sample ID: GP-9-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11904	Analyst: NG	
Hexachlorocyclopentadiene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2,4,6-Trichlorophenol	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2,4,5-Trichlorophenol	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2-Chloronaphthalene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2-Nitroaniline	ND	675		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Acenaphthene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Dimethylphthalate	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2,6-Dinitrotoluene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Acenaphthylene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2,4-Dinitrophenol	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Dibenzofuran	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
2,4-Dinitrotoluene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
4-Nitrophenol	ND	675		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Fluorene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
4-Chlorophenyl phenyl ether	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Diethylphthalate	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
4,6-Dinitro-2-methylphenol	ND	270		µg/Kg-dry	1	9/24/2015 5:13:00 AM
4-Bromophenyl phenyl ether	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Hexachlorobenzene	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Pentachlorophenol	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Phenanthrene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Anthracene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Carbazole	ND	675		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Di-n-butylphthalate	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Fluoranthene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Pyrene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Butyl Benzylphthalate	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
bis(2-Ethylhexyl)adipate	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Benz (a) anthracene	122	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Chrysene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
bis (2-Ethylhexyl) phthalate	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Di-n-octyl phthalate	ND	135		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Benzo (b) fluoranthene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Benzo (k) fluoranthene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Benzo (a) pyrene	236	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Indeno (1,2,3-cd) pyrene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Dibenz (a,h) anthracene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Benzo (g,h,i) perylene	ND	108		µg/Kg-dry	1	9/24/2015 5:13:00 AM
Surr: 2,4,6-Tribromophenol	40.0	11.1-127		%REC	1	9/24/2015 5:13:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509270-020

Matrix: Soil

Client Sample ID: GP-9-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11904		Analyst: NG
Surr: 2-Fluorobiphenyl	32.6	16.1-150		%REC	1	9/24/2015 5:13:00 AM
Surr: Nitrobenzene-d5	20.9	10-133		%REC	1	9/24/2015 5:13:00 AM
Surr: Phenol-d6	29.6	11.6-133		%REC	1	9/24/2015 5:13:00 AM
Surr: p-Terphenyl	60.6	21.8-150		%REC	1	9/24/2015 5:13:00 AM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11914		Analyst: BC
Gasoline	ND	3.30		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Surr: Toluene-d8	100	65-135		%REC	1	9/23/2015 12:18:00 PM
Surr: 4-Bromofluorobenzene	103	65-135		%REC	1	9/23/2015 12:18:00 PM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0396		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Chloromethane	ND	0.0396		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Vinyl chloride	ND	0.00132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Bromomethane	ND	0.0594		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0330		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Chloroethane	ND	0.0396		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,1-Dichloroethene	ND	0.0330		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Methylene chloride	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
trans-1,2-Dichloroethene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0330		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,1-Dichloroethane	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
2,2-Dichloropropane	ND	0.0330		mg/Kg-dry	1	9/23/2015 12:18:00 PM
cis-1,2-Dichloroethene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Chloroform	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,1-Dichloropropene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Carbon tetrachloride	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2-Dichloroethane (EDC)	ND	0.0198		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Benzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Trichloroethene (TCE)	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2-Dichloropropane	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Bromodichloromethane	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Dibromomethane	ND	0.0264		mg/Kg-dry	1	9/23/2015 12:18:00 PM
cis-1,3-Dichloropropene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Toluene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
trans-1,3-Dichloropropylene	ND	0.0198		mg/Kg-dry	1	9/23/2015 12:18:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509270-020

Matrix: Soil

Client Sample ID: GP-9-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0198		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,3-Dichloropropane	ND	0.0330		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Tetrachloroethene (PCE)	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Dibromochloromethane	ND	0.0198		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2-Dibromoethane (EDB)	ND	0.00330		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Chlorobenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0198		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Ethylbenzene	ND	0.0198		mg/Kg-dry	1	9/23/2015 12:18:00 PM
m,p-Xylene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
o-Xylene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Styrene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Isopropylbenzene	ND	0.0528		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Bromoform	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
n-Propylbenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Bromobenzene	ND	0.0198		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,3,5-Trimethylbenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
2-Chlorotoluene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
4-Chlorotoluene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
tert-Butylbenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2,3-Trichloropropane	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2,4-Trichlorobenzene	ND	0.0330		mg/Kg-dry	1	9/23/2015 12:18:00 PM
sec-Butylbenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
4-Isopropyltoluene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,3-Dichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,4-Dichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
n-Butylbenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2-Dichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2-Dibromo-3-chloropropane	ND	0.330		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2,4-Trimethylbenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Hexachlorobutadiene	ND	0.0660		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Naphthalene	ND	0.0198		mg/Kg-dry	1	9/23/2015 12:18:00 PM
1,2,3-Trichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/23/2015 12:18:00 PM
Surr: Dibromofluoromethane	94.9	56.5-129		%REC	1	9/23/2015 12:18:00 PM
Surr: Toluene-d8	97.8	64.3-131		%REC	1	9/23/2015 12:18:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.9	63.1-141		%REC	1	9/23/2015 12:18:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509270-020

Matrix: Soil

Client Sample ID: GP-9-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11908		Analyst: MW
Mercury	ND	0.299		mg/Kg-dry	1	9/22/2015 5:09:04 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	2.71	0.109		mg/Kg-dry	1	9/22/2015 4:14:29 PM
Barium	58.7	0.545		mg/Kg-dry	1	9/22/2015 4:14:29 PM
Cadmium	ND	0.218		mg/Kg-dry	1	9/22/2015 4:14:29 PM
Chromium	20.6	0.109		mg/Kg-dry	1	9/22/2015 4:14:29 PM
Lead	3.59	0.218		mg/Kg-dry	1	9/22/2015 4:14:29 PM
Selenium	1.71	0.545		mg/Kg-dry	1	9/22/2015 4:14:29 PM
Silver	ND	0.109		mg/Kg-dry	1	9/22/2015 4:14:29 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	26.5			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:10:00 PM

Project: Pacific Park

Lab ID: 1509270-021

Matrix: Soil

Client Sample ID: GP-10-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>						
				Batch ID: 11938		Analyst: MD
Dicamba	ND	47.4		µg/Kg-dry	1	9/30/2015 5:12:00 PM
2,4-D	ND	40.6		µg/Kg-dry	1	9/30/2015 5:12:00 PM
2,4-DP	ND	33.8		µg/Kg-dry	1	9/30/2015 5:12:00 PM
2,4,5-TP (Silvex)	ND	27.1		µg/Kg-dry	1	9/30/2015 5:12:00 PM
2,4,5-T	ND	67.7		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Dinoseb	ND	40.6		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Dalapon	ND	271		µg/Kg-dry	1	9/30/2015 5:12:00 PM
2,4-DB	ND	33.8		µg/Kg-dry	1	9/30/2015 5:12:00 PM
MCP	ND	379		µg/Kg-dry	1	9/30/2015 5:12:00 PM
MCPA	ND	379		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Picloram	ND	67.7		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Bentazon	ND	47.4		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Chloramben	ND	27.1		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Acifluorfen	ND	108		µg/Kg-dry	1	9/30/2015 5:12:00 PM
3,5-Dichlorobenzoic acid	ND	54.2		µg/Kg-dry	1	9/30/2015 5:12:00 PM
4-Nitrophenol	ND	40.6		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Dacthal (DCPA)	ND	40.6		µg/Kg-dry	1	9/30/2015 5:12:00 PM
Surr: 2,4-Dichlorophenylacetic acid	84.5	20.1-168		%REC	1	9/30/2015 5:12:00 PM
<u>Polychlorinated Biphenyls (PCB) by EPA 8082</u>						
				Batch ID: 12180		Analyst: CM
Aroclor 1016	ND	0.134		mg/Kg-dry	1	10/22/2015 5:34:00 PM
Aroclor 1221	ND	0.134		mg/Kg-dry	1	10/22/2015 5:34:00 PM
Aroclor 1232	ND	0.134		mg/Kg-dry	1	10/22/2015 5:34:00 PM
Aroclor 1242	ND	0.134		mg/Kg-dry	1	10/22/2015 5:34:00 PM
Aroclor 1248	ND	0.134		mg/Kg-dry	1	10/22/2015 5:34:00 PM
Aroclor 1254	ND	0.134		mg/Kg-dry	1	10/28/2015 12:10:00 PM
Aroclor 1260	ND	0.134		mg/Kg-dry	1	10/22/2015 5:34:00 PM
Aroclor 1262	ND	0.134		mg/Kg-dry	1	10/22/2015 5:34:00 PM
Aroclor 1268	ND	0.134		mg/Kg-dry	1	10/22/2015 5:34:00 PM
Total PCBs	ND	0.134		mg/Kg-dry	1	10/28/2015 12:10:00 PM
Surr: Decachlorobiphenyl	93.9	41.2-143		%REC	1	10/22/2015 5:34:00 PM
Surr: Tetrachloro-m-xylene	91.4	26-140		%REC	1	10/22/2015 5:34:00 PM
<u>Organochlorine Pesticides by EPA Method 8081</u>						
				Batch ID: 11935		Analyst: MD
Toxaphene	ND	0.129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Alpha BHC	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Beta BHC	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:10:00 PM

Project: Pacific Park

Lab ID: 1509270-021

Matrix: Soil

Client Sample ID: GP-10-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Gamma BHC (Lindane)	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Delta BHC	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Heptachlor	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Aldrin	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Heptachlor epoxide	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
gamma-Chlordane	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Endosulfan I	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
alpha-Chlordane	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Dieldrin	ND	0.0129		mg/Kg-dry	1	9/24/2015 1:21:00 AM
4,4'-DDE	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Endrin	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Endosulfan II	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM
4,4'-DDD	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Endrin aldehyde	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Endosulfan sulfate	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM
4,4'-DDT	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Endrin ketone	ND	0.0258		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Methoxychlor	ND	0.0645		mg/Kg-dry	1	9/24/2015 1:21:00 AM
Surr: Decachlorobiphenyl	72.7	26.5-158		%REC	1	9/24/2015 1:21:00 AM
Surr: Tetrachloro-m-xylene	73.2	11-150		%REC	1	9/24/2015 1:21:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11918

Analyst: AK

Diesel (Fuel Oil)	ND	26.8		mg/Kg-dry	1	9/23/2015 8:40:00 PM
Heavy Oil	3,840	669	D	mg/Kg-dry	10	9/24/2015 11:18:00 AM
Surr: 2-Fluorobiphenyl	99.7	50-150		%REC	1	9/23/2015 8:40:00 PM
Surr: o-Terphenyl	115	50-150		%REC	1	9/23/2015 8:40:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Bis(2-chloroethyl) ether	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2-Chlorophenol	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
1,3-Dichlorobenzene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
1,4-Dichlorobenzene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
1,2-Dichlorobenzene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Benzyl alcohol	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2-Methylphenol (o-cresol)	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Hexachloroethane	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:10:00 PM

Project: Pacific Park

Lab ID: 1509270-021

Matrix: Soil

Client Sample ID: GP-10-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
N-Nitrosodi-n-propylamine	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Nitrobenzene	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Isophorone	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
4-Methylphenol (p-cresol)	202	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2-Nitrophenol	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2,4-Dimethylphenol	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Bis(2-chloroethoxy)methane	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2,4-Dichlorophenol	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
1,2,4-Trichlorobenzene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Naphthalene	4,420	110		µg/Kg-dry	1	9/24/2015 7:27:00 PM
4-Chloroaniline	ND	690		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Hexachlorobutadiene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
4-Chloro-3-methylphenol	ND	690		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2-Methylnaphthalene	3,100	110		µg/Kg-dry	1	9/24/2015 7:27:00 PM
1-Methylnaphthalene	6110	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Hexachlorocyclopentadiene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2,4,6-Trichlorophenol	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2,4,5-Trichlorophenol	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2-Chloronaphthalene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2-Nitroaniline	ND	690		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Acenaphthene	29,200	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Dimethylphthalate	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2,6-Dinitrotoluene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Acenaphthylene	127	110		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2,4-Dinitrophenol	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Dibenzofuran	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
2,4-Dinitrotoluene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
4-Nitrophenol	1,430	690	*	µg/Kg-dry	1	9/24/2015 7:27:00 PM
Fluorene	37,500	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
4-Chlorophenyl phenyl ether	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Diethylphthalate	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
4,6-Dinitro-2-methylphenol	ND	276		µg/Kg-dry	1	9/24/2015 7:27:00 PM
4-Bromophenyl phenyl ether	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Hexachlorobenzene	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Pentachlorophenol	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Phenanthrene	317,000	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Anthracene	106,000	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Carbazole	ND	69,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Di-n-butylphthalate	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:10:00 PM

Project: Pacific Park

Lab ID: 1509270-021

Matrix: Soil

Client Sample ID: GP-10-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Fluoranthene	365,000	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Pyrene	345,000	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Butyl Benzylphthalate	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
bis(2-Ethylhexyl)adipate	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Benz (a) anthracene	164,000	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Chrysene	193,000	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
bis (2-Ethylhexyl) phthalate	1,620	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Di-n-octyl phthalate	ND	138		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Benzo (b) fluoranthene	186,000	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Benzo (k) fluoranthene	29,000	110		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Benzo (a) pyrene	90,900	11,000	D	µg/Kg-dry	100	9/25/2015 4:32:00 PM
Indeno (1,2,3-cd) pyrene	61,500	110		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Dibenz (a,h) anthracene	52,500	110		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Benzo (g,h,i) perylene	56,600	110		µg/Kg-dry	1	9/24/2015 7:27:00 PM
Surr: 2,4,6-Tribromophenol	59.4	11.1-127		%REC	1	9/24/2015 7:27:00 PM
Surr: 2-Fluorobiphenyl	48.3	16.1-150		%REC	1	9/24/2015 7:27:00 PM
Surr: Nitrobenzene-d5	42.3	10-133		%REC	1	9/24/2015 7:27:00 PM
Surr: Phenol-d6	50.2	11.6-133		%REC	1	9/24/2015 7:27:00 PM
Surr: p-Terphenyl	107	21.8-150		%REC	1	9/24/2015 7:27:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	4.64	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Surr: Toluene-d8	100	65-135	%REC	1	9/23/2015 12:47:00 PM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/23/2015 12:47:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0557	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Chloromethane	ND	0.0557	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Vinyl chloride	ND	0.00186	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Bromomethane	ND	0.0835	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0464	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Chloroethane	ND	0.0557	mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,1-Dichloroethene	ND	0.0464	mg/Kg-dry	1	9/23/2015 12:47:00 PM
Methylene chloride	ND	0.0186	mg/Kg-dry	1	9/23/2015 12:47:00 PM
trans-1,2-Dichloroethene	ND	0.0186	mg/Kg-dry	1	9/23/2015 12:47:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:10:00 PM

Project: Pacific Park

Lab ID: 1509270-021

Matrix: Soil

Client Sample ID: GP-10-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
Methyl tert-butyl ether (MTBE)	ND	0.0464		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,1-Dichloroethane	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
2,2-Dichloropropane	ND	0.0464		mg/Kg-dry	1	9/23/2015 12:47:00 PM
cis-1,2-Dichloroethene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Chloroform	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,1-Dichloropropene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Carbon tetrachloride	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2-Dichloroethane (EDC)	ND	0.0278		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Benzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Trichloroethene (TCE)	0.0655	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2-Dichloropropane	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Bromodichloromethane	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Dibromomethane	ND	0.0371		mg/Kg-dry	1	9/23/2015 12:47:00 PM
cis-1,3-Dichloropropene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Toluene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
trans-1,3-Dichloropropylene	ND	0.0278		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,1,2-Trichloroethane	ND	0.0278		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,3-Dichloropropane	ND	0.0464		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Tetrachloroethene (PCE)	0.184	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Dibromochloromethane	ND	0.0278		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2-Dibromoethane (EDB)	ND	0.00464		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Chlorobenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0278		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Ethylbenzene	ND	0.0278		mg/Kg-dry	1	9/23/2015 12:47:00 PM
m,p-Xylene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
o-Xylene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Styrene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Isopropylbenzene	ND	0.0742		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Bromoform	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
n-Propylbenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Bromobenzene	ND	0.0278		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,3,5-Trimethylbenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
2-Chlorotoluene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
4-Chlorotoluene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
tert-Butylbenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2,3-Trichloropropane	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2,4-Trichlorobenzene	ND	0.0464		mg/Kg-dry	1	9/23/2015 12:47:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:10:00 PM

Project: Pacific Park

Lab ID: 1509270-021

Matrix: Soil

Client Sample ID: GP-10-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>						
				Batch ID: 11914		Analyst: BC
sec-Butylbenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
4-Isopropyltoluene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,3-Dichlorobenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,4-Dichlorobenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
n-Butylbenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2-Dichlorobenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2-Dibromo-3-chloropropane	ND	0.464		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2,4-Trimethylbenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Hexachlorobutadiene	ND	0.0928		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Naphthalene	ND	0.0278		mg/Kg-dry	1	9/23/2015 12:47:00 PM
1,2,3-Trichlorobenzene	ND	0.0186		mg/Kg-dry	1	9/23/2015 12:47:00 PM
Surr: Dibromofluoromethane	94.1	56.5-129		%REC	1	9/23/2015 12:47:00 PM
Surr: Toluene-d8	97.3	64.3-131		%REC	1	9/23/2015 12:47:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	63.1-141		%REC	1	9/23/2015 12:47:00 PM
<u>Mercury by EPA Method 7471</u>						
				Batch ID: 11908		Analyst: MW
Mercury	ND	0.309		mg/Kg-dry	1	9/22/2015 5:10:39 PM
<u>Total Metals by EPA Method 6020</u>						
				Batch ID: 11906		Analyst: TN
Arsenic	39.7	0.102		mg/Kg-dry	1	9/22/2015 4:18:00 PM
Barium	232	0.512		mg/Kg-dry	1	9/22/2015 4:18:00 PM
Cadmium	8.32	0.205		mg/Kg-dry	1	9/22/2015 4:18:00 PM
Chromium	314	0.102		mg/Kg-dry	1	9/22/2015 4:18:00 PM
Lead	3,320	0.205		mg/Kg-dry	1	9/22/2015 4:18:00 PM
Selenium	0.964	0.512		mg/Kg-dry	1	9/22/2015 4:18:00 PM
Silver	1.99	0.102		mg/Kg-dry	1	9/22/2015 4:18:00 PM
<u>Metals (SW6020) with TCLP Extraction (EPA 1311)</u>						
				Batch ID: 12222		Analyst: TN
Chromium	ND	0.100		mg/L	1	10/26/2015 7:06:22 PM
Lead	1.80	0.200		mg/L	1	10/26/2015 7:06:22 PM
<u>Sample Moisture (Percent Moisture)</u>						
				Batch ID: R25044		Analyst: CG
Percent Moisture	27.7			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1509270-022

Matrix: Soil

Client Sample ID: GP-10-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>				Batch ID: 11938		Analyst: MD
Dicamba	ND	44.4		µg/Kg-dry	1	9/30/2015 6:12:00 PM
2,4-D	ND	38.1		µg/Kg-dry	1	9/30/2015 6:12:00 PM
2,4-DP	ND	31.7		µg/Kg-dry	1	9/30/2015 6:12:00 PM
2,4,5-TP (Silvex)	ND	25.4		µg/Kg-dry	1	9/30/2015 6:12:00 PM
2,4,5-T	ND	63.5		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Dinoseb	ND	38.1		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Dalapon	ND	254		µg/Kg-dry	1	9/30/2015 6:12:00 PM
2,4-DB	ND	31.7		µg/Kg-dry	1	9/30/2015 6:12:00 PM
MCPP	ND	355		µg/Kg-dry	1	9/30/2015 6:12:00 PM
MCPA	ND	355		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Picloram	ND	63.5		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Bentazon	ND	44.4		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Chloramben	ND	25.4		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Acifluorfen	ND	102		µg/Kg-dry	1	9/30/2015 6:12:00 PM
3,5-Dichlorobenzoic acid	ND	50.8		µg/Kg-dry	1	9/30/2015 6:12:00 PM
4-Nitrophenol	ND	38.1		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Dacthal (DCPA)	ND	38.1		µg/Kg-dry	1	9/30/2015 6:12:00 PM
Surr: 2,4-Dichlorophenylacetic acid	130	20.1-168		%REC	1	9/30/2015 6:12:00 PM
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
Toxaphene	ND	0.120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Alpha BHC	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Beta BHC	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Gamma BHC (Lindane)	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Delta BHC	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Heptachlor	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Aldrin	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Heptachlor epoxide	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
gamma-Chlordane	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Endosulfan I	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
alpha-Chlordane	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Dieldrin	ND	0.0120		mg/Kg-dry	1	9/24/2015 1:32:00 AM
4,4'-DDE	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Endrin	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Endosulfan II	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM
4,4'-DDD	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Endrin aldehyde	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Endosulfan sulfate	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1509270-022

Matrix: Soil

Client Sample ID: GP-10-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>						
				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Endrin ketone	ND	0.0241		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Methoxychlor	ND	0.0601		mg/Kg-dry	1	9/24/2015 1:32:00 AM
Surr: Decachlorobiphenyl	116	26.5-158		%REC	1	9/24/2015 1:32:00 AM
Surr: Tetrachloro-m-xylene	111	11-150		%REC	1	9/24/2015 1:32:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>						
				Batch ID: 11918		Analyst: AK
Diesel (Fuel Oil)	ND	24.2		mg/Kg-dry	1	9/23/2015 9:43:00 PM
Heavy Oil	ND	60.4		mg/Kg-dry	1	9/23/2015 9:43:00 PM
Surr: 2-Fluorobiphenyl	100	50-150		%REC	1	9/23/2015 9:43:00 PM
Surr: o-Terphenyl	94.8	50-150		%REC	1	9/23/2015 9:43:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>						
				Batch ID: 11937		Analyst: NG
Phenol	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Bis(2-chloroethyl) ether	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2-Chlorophenol	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
1,3-Dichlorobenzene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
1,4-Dichlorobenzene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
1,2-Dichlorobenzene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Benzyl alcohol	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2-Methylphenol (o-cresol)	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Hexachloroethane	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
N-Nitrosodi-n-propylamine	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Nitrobenzene	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Isophorone	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
4-Methylphenol (p-cresol)	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2-Nitrophenol	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2,4-Dimethylphenol	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Bis(2-chloroethoxy)methane	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2,4-Dichlorophenol	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
1,2,4-Trichlorobenzene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Naphthalene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
4-Chloroaniline	ND	633		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Hexachlorobutadiene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
4-Chloro-3-methylphenol	ND	633		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2-Methylnaphthalene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
1-Methylnaphthalene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1509270-022

Matrix: Soil

Client Sample ID: GP-10-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937	Analyst: NG	
Hexachlorocyclopentadiene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2,4,6-Trichlorophenol	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2,4,5-Trichlorophenol	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2-Chloronaphthalene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2-Nitroaniline	ND	633		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Acenaphthene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Dimethylphthalate	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2,6-Dinitrotoluene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Acenaphthylene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2,4-Dinitrophenol	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Dibenzofuran	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
2,4-Dinitrotoluene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
4-Nitrophenol	ND	633		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Fluorene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
4-Chlorophenyl phenyl ether	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Diethylphthalate	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
4,6-Dinitro-2-methylphenol	ND	253		µg/Kg-dry	1	9/24/2015 8:12:00 PM
4-Bromophenyl phenyl ether	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Hexachlorobenzene	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Pentachlorophenol	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Phenanthrene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Anthracene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Carbazole	ND	633		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Di-n-butylphthalate	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Fluoranthene	106	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Pyrene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Butyl Benzylphthalate	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
bis(2-Ethylhexyl)adipate	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Benz (a) anthracene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Chrysene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
bis (2-Ethylhexyl) phthalate	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Di-n-octyl phthalate	ND	127		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Benzo (b) fluoranthene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Benzo (k) fluoranthene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Benzo (a) pyrene	213	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Indeno (1,2,3-cd) pyrene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Dibenz (a,h) anthracene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Benzo (g,h,i) perylene	ND	101		µg/Kg-dry	1	9/24/2015 8:12:00 PM
Surr: 2,4,6-Tribromophenol	70.1	11.1-127		%REC	1	9/24/2015 8:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1509270-022

Matrix: Soil

Client Sample ID: GP-10-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	28.6	16.1-150		%REC	1	9/24/2015 8:12:00 PM
Surr: Nitrobenzene-d5	21.9	10-133		%REC	1	9/24/2015 8:12:00 PM
Surr: Phenol-d6	44.6	11.6-133		%REC	1	9/24/2015 8:12:00 PM
Surr: p-Terphenyl	94.5	21.8-150		%REC	1	9/24/2015 8:12:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11914		Analyst: BC
Gasoline	ND	3.48		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Surr: Toluene-d8	100	65-135		%REC	1	9/23/2015 1:15:00 PM
Surr: 4-Bromofluorobenzene	102	65-135		%REC	1	9/23/2015 1:15:00 PM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0417		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Chloromethane	ND	0.0417		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Vinyl chloride	ND	0.00139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Bromomethane	ND	0.0626		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0348		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Chloroethane	ND	0.0417		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,1-Dichloroethene	ND	0.0348		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Methylene chloride	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
trans-1,2-Dichloroethene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0348		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,1-Dichloroethane	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
2,2-Dichloropropane	ND	0.0348		mg/Kg-dry	1	9/23/2015 1:15:00 PM
cis-1,2-Dichloroethene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Chloroform	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,1-Dichloropropene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Carbon tetrachloride	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2-Dichloroethane (EDC)	ND	0.0209		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Benzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Trichloroethene (TCE)	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2-Dichloropropane	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Bromodichloromethane	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Dibromomethane	ND	0.0278		mg/Kg-dry	1	9/23/2015 1:15:00 PM
cis-1,3-Dichloropropene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Toluene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
trans-1,3-Dichloropropylene	ND	0.0209		mg/Kg-dry	1	9/23/2015 1:15:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1509270-022

Matrix: Soil

Client Sample ID: GP-10-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0209		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,3-Dichloropropane	ND	0.0348		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Tetrachloroethene (PCE)	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Dibromochloromethane	ND	0.0209		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2-Dibromoethane (EDB)	ND	0.00348		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Chlorobenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0209		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Ethylbenzene	ND	0.0209		mg/Kg-dry	1	9/23/2015 1:15:00 PM
m,p-Xylene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
o-Xylene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Styrene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Isopropylbenzene	ND	0.0556		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Bromoform	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
n-Propylbenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Bromobenzene	ND	0.0209		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,3,5-Trimethylbenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
2-Chlorotoluene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
4-Chlorotoluene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
tert-Butylbenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2,3-Trichloropropane	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2,4-Trichlorobenzene	ND	0.0348		mg/Kg-dry	1	9/23/2015 1:15:00 PM
sec-Butylbenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
4-Isopropyltoluene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,3-Dichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,4-Dichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
n-Butylbenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2-Dichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2-Dibromo-3-chloropropane	ND	0.348		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2,4-Trimethylbenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Hexachlorobutadiene	ND	0.0696		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Naphthalene	ND	0.0209		mg/Kg-dry	1	9/23/2015 1:15:00 PM
1,2,3-Trichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/23/2015 1:15:00 PM
Surr: Dibromofluoromethane	94.1	56.5-129		%REC	1	9/23/2015 1:15:00 PM
Surr: Toluene-d8	97.6	64.3-131		%REC	1	9/23/2015 1:15:00 PM
Surr: 1-Bromo-4-fluorobenzene	97.9	63.1-141		%REC	1	9/23/2015 1:15:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1509270-022

Matrix: Soil

Client Sample ID: GP-10-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11908		Analyst: MW
Mercury	ND	0.298		mg/Kg-dry	1	9/22/2015 5:12:15 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	1.24	0.0927		mg/Kg-dry	1	9/22/2015 4:21:31 PM
Barium	31.4	0.464		mg/Kg-dry	1	9/22/2015 4:21:31 PM
Cadmium	ND	0.185		mg/Kg-dry	1	9/22/2015 4:21:31 PM
Chromium	13.5	0.0927		mg/Kg-dry	1	9/22/2015 4:21:31 PM
Lead	2.06	0.185		mg/Kg-dry	1	9/22/2015 4:21:31 PM
Selenium	1.02	0.464		mg/Kg-dry	1	9/22/2015 4:21:31 PM
Silver	ND	0.0927		mg/Kg-dry	1	9/22/2015 4:21:31 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	22.4			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:45:00 PM

Project: Pacific Park

Lab ID: 1509270-023

Matrix: Soil

Client Sample ID: GP-11-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>						
				Batch ID: 11938		Analyst: MD
Dicamba	ND	37.6		µg/Kg-dry	1	10/1/2015 12:34:00 AM
2,4-D	ND	32.2		µg/Kg-dry	1	10/1/2015 12:34:00 AM
2,4-DP	ND	26.8		µg/Kg-dry	1	10/1/2015 12:34:00 AM
2,4,5-TP (Silvex)	ND	21.5		µg/Kg-dry	1	10/1/2015 12:34:00 AM
2,4,5-T	ND	53.7		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Dinoseb	ND	32.2		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Dalapon	ND	215		µg/Kg-dry	1	10/1/2015 12:34:00 AM
2,4-DB	ND	26.8		µg/Kg-dry	1	10/1/2015 12:34:00 AM
MCPP	ND	4,720		µg/Kg-dry	1	10/1/2015 12:34:00 AM
MCPA	ND	300		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Picloram	ND	53.7		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Bentazon	ND	37.6		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Chloramben	ND	21.5		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Acifluorfen	ND	85.8		µg/Kg-dry	1	10/1/2015 12:34:00 AM
3,5-Dichlorobenzoic acid	ND	42.9		µg/Kg-dry	1	10/1/2015 12:34:00 AM
4-Nitrophenol	ND	32.2		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Dacthal (DCPA)	ND	32.2		µg/Kg-dry	1	10/1/2015 12:34:00 AM
Surr: 2,4-Dichlorophenylacetic acid	110	20.1-168		%REC	1	10/1/2015 12:34:00 AM
<u>Polychlorinated Biphenyls (PCB) by EPA 8082</u>						
				Batch ID: 12180		Analyst: CM
Aroclor 1016	ND	0.108		mg/Kg-dry	1	10/22/2015 5:44:00 PM
Aroclor 1221	ND	0.108		mg/Kg-dry	1	10/22/2015 5:44:00 PM
Aroclor 1232	ND	0.108		mg/Kg-dry	1	10/22/2015 5:44:00 PM
Aroclor 1242	ND	0.108		mg/Kg-dry	1	10/22/2015 5:44:00 PM
Aroclor 1248	ND	0.108		mg/Kg-dry	1	10/22/2015 5:44:00 PM
Aroclor 1254	ND	0.108		mg/Kg-dry	1	10/22/2015 5:44:00 PM
Aroclor 1260	ND	0.108		mg/Kg-dry	1	10/22/2015 5:44:00 PM
Aroclor 1262	ND	0.108		mg/Kg-dry	1	10/22/2015 5:44:00 PM
Aroclor 1268	ND	0.108		mg/Kg-dry	1	10/22/2015 5:44:00 PM
Total PCBs	ND	0.108		mg/Kg-dry	1	10/22/2015 5:44:00 PM
Surr: Decachlorobiphenyl	78.3	41.2-143		%REC	1	10/22/2015 5:44:00 PM
Surr: Tetrachloro-m-xylene	72.5	26-140		%REC	1	10/22/2015 5:44:00 PM
<u>Organochlorine Pesticides by EPA Method 8081</u>						
				Batch ID: 11935		Analyst: MD
Toxaphene	ND	0.111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Alpha BHC	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Beta BHC	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:45:00 PM

Project: Pacific Park

Lab ID: 1509270-023

Matrix: Soil

Client Sample ID: GP-11-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Gamma BHC (Lindane)	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Delta BHC	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Heptachlor	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Aldrin	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Heptachlor epoxide	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
gamma-Chlordane	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Endosulfan I	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
alpha-Chlordane	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Dieldrin	ND	0.0111		mg/Kg-dry	1	9/24/2015 1:43:00 AM
4,4'-DDE	ND	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Endrin	ND	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Endosulfan II	0.0555	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM
4,4'-DDD	ND	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Endrin aldehyde	ND	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Endosulfan sulfate	0.0598	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM
4,4'-DDT	ND	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Endrin ketone	ND	0.0221		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Methoxychlor	0.127	0.0553		mg/Kg-dry	1	9/24/2015 1:43:00 AM
Surr: Decachlorobiphenyl	136	26.5-158		%REC	1	9/24/2015 1:43:00 AM
Surr: Tetrachloro-m-xylene	147	11-150		%REC	1	9/24/2015 1:43:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11918

Analyst: AK

Diesel (Fuel Oil)	ND	20.8		mg/Kg-dry	1	9/23/2015 10:14:00 PM
Heavy Oil	103	51.9		mg/Kg-dry	1	9/23/2015 10:14:00 PM
Surr: 2-Fluorobiphenyl	94.3	50-150		%REC	1	9/23/2015 10:14:00 PM
Surr: o-Terphenyl	89.2	50-150		%REC	1	9/23/2015 10:14:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Bis(2-chloroethyl) ether	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2-Chlorophenol	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
1,3-Dichlorobenzene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
1,4-Dichlorobenzene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
1,2-Dichlorobenzene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Benzyl alcohol	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2-Methylphenol (o-cresol)	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Hexachloroethane	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:45:00 PM

Project: Pacific Park

Lab ID: 1509270-023

Matrix: Soil

Client Sample ID: GP-11-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937	Analyst: NG	
N-Nitrosodi-n-propylamine	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Nitrobenzene	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Isophorone	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
4-Methylphenol (p-cresol)	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2-Nitrophenol	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2,4-Dimethylphenol	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Bis(2-chloroethoxy)methane	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2,4-Dichlorophenol	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
1,2,4-Trichlorobenzene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Naphthalene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
4-Chloroaniline	ND	528		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Hexachlorobutadiene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
4-Chloro-3-methylphenol	ND	528		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2-Methylnaphthalene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
1-Methylnaphthalene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Hexachlorocyclopentadiene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2,4,6-Trichlorophenol	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2,4,5-Trichlorophenol	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2-Chloronaphthalene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2-Nitroaniline	ND	528		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Acenaphthene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Dimethylphthalate	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2,6-Dinitrotoluene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Acenaphthylene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2,4-Dinitrophenol	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Dibenzofuran	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
2,4-Dinitrotoluene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
4-Nitrophenol	ND	528		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Fluorene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
4-Chlorophenyl phenyl ether	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Diethylphthalate	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
4,6-Dinitro-2-methylphenol	ND	211		µg/Kg-dry	1	9/24/2015 10:04:00 PM
4-Bromophenyl phenyl ether	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Hexachlorobenzene	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Pentachlorophenol	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Phenanthrene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Anthracene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Carbazole	ND	528		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Di-n-butylphthalate	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:45:00 PM

Project: Pacific Park

Lab ID: 1509270-023

Matrix: Soil

Client Sample ID: GP-11-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Fluoranthene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Pyrene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Butyl Benzylphthalate	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
bis(2-Ethylhexyl)adipate	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Benz (a) anthracene	105	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Chrysene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
bis (2-Ethylhexyl) phthalate	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Di-n-octyl phthalate	ND	106		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Benzo (b) fluoranthene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Benzo (k) fluoranthene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Benzo (a) pyrene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Indeno (1,2,3-cd) pyrene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Dibenz (a,h) anthracene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Benzo (g,h,i) perylene	ND	84.5		µg/Kg-dry	1	9/24/2015 10:04:00 PM
Surr: 2,4,6-Tribromophenol	56.5	11.1-127		%REC	1	9/24/2015 10:04:00 PM
Surr: 2-Fluorobiphenyl	73.9	16.1-150		%REC	1	9/24/2015 10:04:00 PM
Surr: Nitrobenzene-d5	58.1	10-133		%REC	1	9/24/2015 10:04:00 PM
Surr: Phenol-d6	57.9	11.6-133		%REC	1	9/24/2015 10:04:00 PM
Surr: p-Terphenyl	82.5	21.8-150		%REC	1	9/24/2015 10:04:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11914

Analyst: BC

Gasoline	ND	2.85		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Surr: Toluene-d8	98.5	65-135		%REC	1	9/23/2015 1:44:00 PM
Surr: 4-Bromofluorobenzene	102	65-135		%REC	1	9/23/2015 1:44:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11914

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0342		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Chloromethane	ND	0.0342		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Vinyl chloride	ND	0.00114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Bromomethane	ND	0.0513		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Chloroethane	ND	0.0342		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,1-Dichloroethene	ND	0.0285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Methylene chloride	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
trans-1,2-Dichloroethene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,1-Dichloroethane	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:45:00 PM

Project: Pacific Park

Lab ID: 1509270-023

Matrix: Soil

Client Sample ID: GP-11-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
2,2-Dichloropropane	ND	0.0285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
cis-1,2-Dichloroethene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Chloroform	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,1-Dichloropropene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Carbon tetrachloride	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2-Dichloroethane (EDC)	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Benzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Trichloroethene (TCE)	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2-Dichloropropane	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Bromodichloromethane	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Dibromomethane	ND	0.0228		mg/Kg-dry	1	9/23/2015 1:44:00 PM
cis-1,3-Dichloropropene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Toluene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
trans-1,3-Dichloropropylene	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,1,2-Trichloroethane	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,3-Dichloropropane	ND	0.0285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Tetrachloroethene (PCE)	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Dibromochloromethane	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2-Dibromoethane (EDB)	ND	0.00285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Chlorobenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Ethylbenzene	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM
m,p-Xylene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
o-Xylene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Styrene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Isopropylbenzene	ND	0.0456		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Bromoform	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
n-Propylbenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Bromobenzene	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,3,5-Trimethylbenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
2-Chlorotoluene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
4-Chlorotoluene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
tert-Butylbenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2,3-Trichloropropane	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2,4-Trichlorobenzene	ND	0.0285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
sec-Butylbenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
4-Isopropyltoluene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:45:00 PM

Project: Pacific Park

Lab ID: 1509270-023

Matrix: Soil

Client Sample ID: GP-11-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11914		Analyst: BC
1,3-Dichlorobenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,4-Dichlorobenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
n-Butylbenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2-Dichlorobenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2-Dibromo-3-chloropropane	ND	0.285		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2,4-Trimethylbenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Hexachlorobutadiene	ND	0.0570		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Naphthalene	ND	0.0171		mg/Kg-dry	1	9/23/2015 1:44:00 PM
1,2,3-Trichlorobenzene	ND	0.0114		mg/Kg-dry	1	9/23/2015 1:44:00 PM
Surr: Dibromofluoromethane	93.1	56.5-129		%REC	1	9/23/2015 1:44:00 PM
Surr: Toluene-d8	98.4	64.3-131		%REC	1	9/23/2015 1:44:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.2	63.1-141		%REC	1	9/23/2015 1:44:00 PM
<u>Mercury by EPA Method 7471</u>				Batch ID: 11908		Analyst: MW
Mercury	ND	0.253		mg/Kg-dry	1	9/22/2015 5:13:51 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	2.48	0.0799		mg/Kg-dry	1	9/22/2015 4:25:02 PM
Barium	32.9	0.400		mg/Kg-dry	1	9/22/2015 4:25:02 PM
Cadmium	ND	0.160		mg/Kg-dry	1	9/22/2015 4:25:02 PM
Chromium	14.2	0.0799		mg/Kg-dry	1	9/22/2015 4:25:02 PM
Lead	40.1	0.160		mg/Kg-dry	1	9/22/2015 4:25:02 PM
Selenium	0.801	0.400		mg/Kg-dry	1	9/22/2015 4:25:02 PM
Silver	ND	0.0799		mg/Kg-dry	1	9/22/2015 4:25:02 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	10.0			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:50:00 PM

Project: Pacific Park

Lab ID: 1509270-024

Matrix: Soil

Client Sample ID: GP-11-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11938		Analyst: MD	
Dicamba	ND	65.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
2,4-D	ND	56.0		µg/Kg-dry	1	10/1/2015 12:51:00 AM
2,4-DP	ND	46.6		µg/Kg-dry	1	10/1/2015 12:51:00 AM
2,4,5-TP (Silvex)	ND	37.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
2,4,5-T	ND	93.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Dinoseb	ND	56.0		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Dalapon	ND	373		µg/Kg-dry	1	10/1/2015 12:51:00 AM
2,4-DB	ND	46.6		µg/Kg-dry	1	10/1/2015 12:51:00 AM
MCPP	ND	8,210		µg/Kg-dry	1	10/1/2015 12:51:00 AM
MCPA	ND	522		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Picloram	ND	93.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Bentazon	ND	65.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Chloramben	ND	37.3		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Acifluorfen	ND	149		µg/Kg-dry	1	10/1/2015 12:51:00 AM
3,5-Dichlorobenzoic acid	ND	74.6		µg/Kg-dry	1	10/1/2015 12:51:00 AM
4-Nitrophenol	ND	56.0		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Dacthal (DCPA)	ND	56.0		µg/Kg-dry	1	10/1/2015 12:51:00 AM
Surr: 2,4-Dichlorophenylacetic acid	110	20.1-168		%REC	1	10/1/2015 12:51:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935 Analyst: MD

Toxaphene	ND	0.187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Alpha BHC	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Beta BHC	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Gamma BHC (Lindane)	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Delta BHC	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Heptachlor	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Aldrin	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Heptachlor epoxide	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
gamma-Chlordane	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Endosulfan I	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
alpha-Chlordane	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Dieldrin	ND	0.0187		mg/Kg-dry	1	9/24/2015 1:54:00 AM
4,4'-DDE	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Endrin	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Endosulfan II	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM
4,4'-DDD	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Endrin aldehyde	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Endosulfan sulfate	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:50:00 PM

Project: Pacific Park

Lab ID: 1509270-024

Matrix: Soil

Client Sample ID: GP-11-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Endrin ketone	ND	0.0375		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Methoxychlor	ND	0.0937		mg/Kg-dry	1	9/24/2015 1:54:00 AM
Surr: Decachlorobiphenyl	85.4	26.5-158		%REC	1	9/24/2015 1:54:00 AM
Surr: Tetrachloro-m-xylene	78.9	11-150		%REC	1	9/24/2015 1:54:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11918		Analyst: AK
Diesel (Fuel Oil)	ND	36.2		mg/Kg-dry	1	9/23/2015 10:46:00 PM
Heavy Oil	ND	90.6		mg/Kg-dry	1	9/23/2015 10:46:00 PM
Surr: 2-Fluorobiphenyl	85.2	50-150		%REC	1	9/23/2015 10:46:00 PM
Surr: o-Terphenyl	83.8	50-150		%REC	1	9/23/2015 10:46:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Bis(2-chloroethyl) ether	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2-Chlorophenol	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
1,3-Dichlorobenzene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
1,4-Dichlorobenzene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
1,2-Dichlorobenzene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Benzyl alcohol	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2-Methylphenol (o-cresol)	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Hexachloroethane	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
N-Nitrosodi-n-propylamine	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Nitrobenzene	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Isophorone	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
4-Methylphenol (p-cresol)	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2-Nitrophenol	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2,4-Dimethylphenol	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Bis(2-chloroethoxy)methane	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2,4-Dichlorophenol	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
1,2,4-Trichlorobenzene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Naphthalene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
4-Chloroaniline	ND	899		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Hexachlorobutadiene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
4-Chloro-3-methylphenol	ND	899		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2-Methylnaphthalene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
1-Methylnaphthalene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:50:00 PM

Project: Pacific Park

Lab ID: 1509270-024

Matrix: Soil

Client Sample ID: GP-11-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Hexachlorocyclopentadiene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2,4,6-Trichlorophenol	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2,4,5-Trichlorophenol	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2-Chloronaphthalene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2-Nitroaniline	ND	899		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Acenaphthene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Dimethylphthalate	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2,6-Dinitrotoluene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Acenaphthylene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2,4-Dinitrophenol	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Dibenzofuran	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
2,4-Dinitrotoluene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
4-Nitrophenol	ND	899		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Fluorene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
4-Chlorophenyl phenyl ether	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Diethylphthalate	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
4,6-Dinitro-2-methylphenol	ND	360		µg/Kg-dry	1	9/24/2015 10:26:00 PM
4-Bromophenyl phenyl ether	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Hexachlorobenzene	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Pentachlorophenol	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Phenanthrene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Anthracene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Carbazole	ND	899		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Di-n-butylphthalate	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Fluoranthene	193	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Pyrene	186	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Butyl Benzylphthalate	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
bis(2-Ethylhexyl)adipate	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Benz (a) anthracene	197	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Chrysene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
bis (2-Ethylhexyl) phthalate	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Di-n-octyl phthalate	ND	180		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Benzo (b) fluoranthene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Benzo (k) fluoranthene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Benzo (a) pyrene	591	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Indeno (1,2,3-cd) pyrene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Dibenz (a,h) anthracene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Benzo (g,h,i) perylene	ND	144		µg/Kg-dry	1	9/24/2015 10:26:00 PM
Surr: 2,4,6-Tribromophenol	55.4	11.1-127		%REC	1	9/24/2015 10:26:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:50:00 PM

Project: Pacific Park

Lab ID: 1509270-024

Matrix: Soil

Client Sample ID: GP-11-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	50.1	16.1-150		%REC	1	9/24/2015 10:26:00 PM
Surr: Nitrobenzene-d5	51.7	10-133		%REC	1	9/24/2015 10:26:00 PM
Surr: Phenol-d6	58.4	11.6-133		%REC	1	9/24/2015 10:26:00 PM
Surr: p-Terphenyl	70.2	21.8-150		%REC	1	9/24/2015 10:26:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11930		Analyst: BC
Gasoline	ND	6.73		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Surr: Toluene-d8	97.4	65-135		%REC	1	9/23/2015 10:08:00 PM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/23/2015 10:08:00 PM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0808		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Chloromethane	ND	0.0808		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Vinyl chloride	ND	0.00269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Bromomethane	ND	0.121		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0673		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Chloroethane	ND	0.0808		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,1-Dichloroethene	ND	0.0673		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Methylene chloride	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
trans-1,2-Dichloroethene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0673		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,1-Dichloroethane	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
2,2-Dichloropropane	ND	0.0673		mg/Kg-dry	1	9/23/2015 10:08:00 PM
cis-1,2-Dichloroethene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Chloroform	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,1-Dichloropropene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Carbon tetrachloride	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2-Dichloroethane (EDC)	ND	0.0404		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Benzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Trichloroethene (TCE)	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2-Dichloropropane	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Bromodichloromethane	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Dibromomethane	ND	0.0539		mg/Kg-dry	1	9/23/2015 10:08:00 PM
cis-1,3-Dichloropropene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Toluene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
trans-1,3-Dichloropropylene	ND	0.0404		mg/Kg-dry	1	9/23/2015 10:08:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:50:00 PM

Project: Pacific Park

Lab ID: 1509270-024

Matrix: Soil

Client Sample ID: GP-11-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0404		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,3-Dichloropropane	ND	0.0673		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Tetrachloroethene (PCE)	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Dibromochloromethane	ND	0.0404		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2-Dibromoethane (EDB)	ND	0.00673		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Chlorobenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0404		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Ethylbenzene	ND	0.0404		mg/Kg-dry	1	9/23/2015 10:08:00 PM
m,p-Xylene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
o-Xylene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Styrene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Isopropylbenzene	ND	0.108		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Bromoform	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
n-Propylbenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Bromobenzene	ND	0.0404		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,3,5-Trimethylbenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
2-Chlorotoluene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
4-Chlorotoluene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
tert-Butylbenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2,3-Trichloropropane	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2,4-Trichlorobenzene	ND	0.0673		mg/Kg-dry	1	9/23/2015 10:08:00 PM
sec-Butylbenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
4-Isopropyltoluene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,3-Dichlorobenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,4-Dichlorobenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
n-Butylbenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2-Dichlorobenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2-Dibromo-3-chloropropane	ND	0.673		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2,4-Trimethylbenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Hexachlorobutadiene	ND	0.135		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Naphthalene	ND	0.0404		mg/Kg-dry	1	9/23/2015 10:08:00 PM
1,2,3-Trichlorobenzene	ND	0.0269		mg/Kg-dry	1	9/23/2015 10:08:00 PM
Surr: Dibromofluoromethane	94.7	56.5-129		%REC	1	9/23/2015 10:08:00 PM
Surr: Toluene-d8	98.4	64.3-131		%REC	1	9/23/2015 10:08:00 PM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/23/2015 10:08:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/17/2015 3:50:00 PM

Project: Pacific Park

Lab ID: 1509270-024

Matrix: Soil

Client Sample ID: GP-11-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11908		Analyst: MW
Mercury	ND	0.448		mg/Kg-dry	1	9/22/2015 5:18:49 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	3.03	0.138		mg/Kg-dry	1	9/22/2015 4:28:33 PM
Barium	72.1	0.688		mg/Kg-dry	1	9/22/2015 4:28:33 PM
Cadmium	ND	0.275		mg/Kg-dry	1	9/22/2015 4:28:33 PM
Chromium	21.7	0.138		mg/Kg-dry	1	9/22/2015 4:28:33 PM
Lead	4.34	0.275		mg/Kg-dry	1	9/22/2015 4:28:33 PM
Selenium	1.41	0.688		mg/Kg-dry	1	9/22/2015 4:28:33 PM
Silver	ND	0.138		mg/Kg-dry	1	9/22/2015 4:28:33 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	47.3			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:50:00 AM

Project: Pacific Park

Lab ID: 1509270-025

Matrix: Soil

Client Sample ID: GP-12-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11938			Analyst: MD
Dicamba	ND	43.3		µg/Kg-dry	1	10/1/2015 1:07:00 AM
2,4-D	ND	37.1		µg/Kg-dry	1	10/1/2015 1:07:00 AM
2,4-DP	ND	30.9		µg/Kg-dry	1	10/1/2015 1:07:00 AM
2,4,5-TP (Silvex)	ND	24.7		µg/Kg-dry	1	10/1/2015 1:07:00 AM
2,4,5-T	ND	61.9		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Dinoseb	ND	37.1		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Dalapon	ND	247		µg/Kg-dry	1	10/1/2015 1:07:00 AM
2,4-DB	ND	30.9		µg/Kg-dry	1	10/1/2015 1:07:00 AM
MCPP	ND	5,440		µg/Kg-dry	1	10/1/2015 1:07:00 AM
MCPA	ND	346		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Picloram	ND	61.9		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Bentazon	ND	43.3		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Chloramben	ND	24.7		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Acifluorfen	ND	99.0		µg/Kg-dry	1	10/1/2015 1:07:00 AM
3,5-Dichlorobenzoic acid	ND	49.5		µg/Kg-dry	1	10/1/2015 1:07:00 AM
4-Nitrophenol	ND	37.1		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Dacthal (DCPA)	ND	37.1		µg/Kg-dry	1	10/1/2015 1:07:00 AM
Surr: 2,4-Dichlorophenylacetic acid	111	20.1-168		%REC	1	10/1/2015 1:07:00 AM
<u>Organochlorine Pesticides by EPA Method 8081</u>			Batch ID: 11935			Analyst: MD
Toxaphene	ND	0.119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Alpha BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Beta BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Gamma BHC (Lindane)	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Delta BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Heptachlor	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Aldrin	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Heptachlor epoxide	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
gamma-Chlordane	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Endosulfan I	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
alpha-Chlordane	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Dieldrin	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:05:00 AM
4,4'-DDE	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Endrin	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Endosulfan II	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM
4,4'-DDD	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Endrin aldehyde	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Endosulfan sulfate	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:50:00 AM

Project: Pacific Park

Lab ID: 1509270-025

Matrix: Soil

Client Sample ID: GP-12-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Endrin ketone	ND	0.0239		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Methoxychlor	ND	0.0597		mg/Kg-dry	1	9/24/2015 2:05:00 AM
Surr: Decachlorobiphenyl	94.6	26.5-158		%REC	1	9/24/2015 2:05:00 AM
Surr: Tetrachloro-m-xylene	89.5	11-150		%REC	1	9/24/2015 2:05:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11918		Analyst: AK
Diesel (Fuel Oil)	ND	23.3		mg/Kg-dry	1	9/23/2015 11:17:00 PM
Heavy Oil	ND	58.2		mg/Kg-dry	1	9/23/2015 11:17:00 PM
Surr: 2-Fluorobiphenyl	91.0	50-150		%REC	1	9/23/2015 11:17:00 PM
Surr: o-Terphenyl	86.4	50-150		%REC	1	9/23/2015 11:17:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Bis(2-chloroethyl) ether	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2-Chlorophenol	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
1,3-Dichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
1,4-Dichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
1,2-Dichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Benzyl alcohol	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2-Methylphenol (o-cresol)	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Hexachloroethane	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
N-Nitrosodi-n-propylamine	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Nitrobenzene	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Isophorone	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
4-Methylphenol (p-cresol)	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2-Nitrophenol	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2,4-Dimethylphenol	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Bis(2-chloroethoxy)methane	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2,4-Dichlorophenol	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
1,2,4-Trichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Naphthalene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
4-Chloroaniline	ND	592		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Hexachlorobutadiene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
4-Chloro-3-methylphenol	ND	592		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2-Methylnaphthalene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
1-Methylnaphthalene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:50:00 AM

Project: Pacific Park

Lab ID: 1509270-025

Matrix: Soil

Client Sample ID: GP-12-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937	Analyst: NG	
Hexachlorocyclopentadiene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2,4,6-Trichlorophenol	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2,4,5-Trichlorophenol	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2-Chloronaphthalene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2-Nitroaniline	ND	592		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Acenaphthene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Dimethylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2,6-Dinitrotoluene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Acenaphthylene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2,4-Dinitrophenol	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Dibenzofuran	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
2,4-Dinitrotoluene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
4-Nitrophenol	ND	592		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Fluorene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
4-Chlorophenyl phenyl ether	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Diethylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
4,6-Dinitro-2-methylphenol	ND	237		µg/Kg-dry	1	9/24/2015 10:49:00 PM
4-Bromophenyl phenyl ether	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Hexachlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Pentachlorophenol	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Phenanthrene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Anthracene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Carbazole	ND	592		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Di-n-butylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Fluoranthene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Pyrene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Butyl Benzylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
bis(2-Ethylhexyl)adipate	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Benz (a) anthracene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Chrysene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
bis (2-Ethylhexyl) phthalate	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Di-n-octyl phthalate	ND	118		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Benzo (b) fluoranthene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Benzo (k) fluoranthene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Benzo (a) pyrene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Indeno (1,2,3-cd) pyrene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Dibenz (a,h) anthracene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Benzo (g,h,i) perylene	ND	94.8		µg/Kg-dry	1	9/24/2015 10:49:00 PM
Surr: 2,4,6-Tribromophenol	54.1	11.1-127		%REC	1	9/24/2015 10:49:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:50:00 AM

Project: Pacific Park

Lab ID: 1509270-025

Matrix: Soil

Client Sample ID: GP-12-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	41.5	16.1-150		%REC	1	9/24/2015 10:49:00 PM
Surr: Nitrobenzene-d5	53.0	10-133		%REC	1	9/24/2015 10:49:00 PM
Surr: Phenol-d6	60.7	11.6-133		%REC	1	9/24/2015 10:49:00 PM
Surr: p-Terphenyl	73.9	21.8-150		%REC	1	9/24/2015 10:49:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11930		Analyst: BC
Gasoline	ND	3.03		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Surr: Toluene-d8	99.2	65-135		%REC	1	9/23/2015 11:05:00 PM
Surr: 4-Bromofluorobenzene	102	65-135		%REC	1	9/23/2015 11:05:00 PM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0364		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Chloromethane	ND	0.0364		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Vinyl chloride	ND	0.00121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Bromomethane	ND	0.0546		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0303		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Chloroethane	ND	0.0364		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,1-Dichloroethene	ND	0.0303		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Methylene chloride	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
trans-1,2-Dichloroethene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0303		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,1-Dichloroethane	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
2,2-Dichloropropane	ND	0.0303		mg/Kg-dry	1	9/23/2015 11:05:00 PM
cis-1,2-Dichloroethene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Chloroform	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,1-Dichloropropene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Carbon tetrachloride	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2-Dichloroethane (EDC)	ND	0.0182		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Benzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Trichloroethene (TCE)	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2-Dichloropropane	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Bromodichloromethane	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Dibromomethane	ND	0.0243		mg/Kg-dry	1	9/23/2015 11:05:00 PM
cis-1,3-Dichloropropene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Toluene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
trans-1,3-Dichloropropylene	ND	0.0182		mg/Kg-dry	1	9/23/2015 11:05:00 PM



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Lab ID: 1509270-025

Matrix: Soil

Client Sample ID: GP-12-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0182		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,3-Dichloropropane	ND	0.0303		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Tetrachloroethene (PCE)	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Dibromochloromethane	ND	0.0182		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2-Dibromoethane (EDB)	ND	0.00303		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Chlorobenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0182		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Ethylbenzene	ND	0.0182		mg/Kg-dry	1	9/23/2015 11:05:00 PM
m,p-Xylene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
o-Xylene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Styrene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Isopropylbenzene	ND	0.0485		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Bromoform	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
n-Propylbenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Bromobenzene	ND	0.0182		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,3,5-Trimethylbenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
2-Chlorotoluene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
4-Chlorotoluene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
tert-Butylbenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2,3-Trichloropropane	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2,4-Trichlorobenzene	ND	0.0303		mg/Kg-dry	1	9/23/2015 11:05:00 PM
sec-Butylbenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
4-Isopropyltoluene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,3-Dichlorobenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,4-Dichlorobenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
n-Butylbenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2-Dichlorobenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2-Dibromo-3-chloropropane	ND	0.303		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2,4-Trimethylbenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Hexachlorobutadiene	ND	0.0607		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Naphthalene	ND	0.0182		mg/Kg-dry	1	9/23/2015 11:05:00 PM
1,2,3-Trichlorobenzene	ND	0.0121		mg/Kg-dry	1	9/23/2015 11:05:00 PM
Surr: Dibromofluoromethane	93.4	56.5-129		%REC	1	9/23/2015 11:05:00 PM
Surr: Toluene-d8	97.5	64.3-131		%REC	1	9/23/2015 11:05:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.9	63.1-141		%REC	1	9/23/2015 11:05:00 PM



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Lab ID: 1509270-025

Matrix: Soil

Client Sample ID: GP-12-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11908		Analyst: MW
Mercury	ND	0.287		mg/Kg-dry	1	9/22/2015 5:20:26 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	2.82	0.0999		mg/Kg-dry	1	9/22/2015 4:32:06 PM
Barium	26.5	0.500		mg/Kg-dry	1	9/22/2015 4:32:06 PM
Cadmium	ND	0.200		mg/Kg-dry	1	9/22/2015 4:32:06 PM
Chromium	13.1	0.0999		mg/Kg-dry	1	9/22/2015 4:32:06 PM
Lead	3.54	0.200		mg/Kg-dry	1	9/22/2015 4:32:06 PM
Selenium	1.37	0.500		mg/Kg-dry	1	9/22/2015 4:32:06 PM
Silver	ND	0.0999		mg/Kg-dry	1	9/22/2015 4:32:06 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	19.3			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

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Collection Date: 9/18/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509270-026

Matrix: Soil

Client Sample ID: GP-12-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	43.6		µg/Kg-dry	1	10/1/2015 1:24:00 AM
2,4-D	ND	37.3		µg/Kg-dry	1	10/1/2015 1:24:00 AM
2,4-DP	ND	31.1		µg/Kg-dry	1	10/1/2015 1:24:00 AM
2,4,5-TP (Silvex)	ND	24.9		µg/Kg-dry	1	10/1/2015 1:24:00 AM
2,4,5-T	ND	62.2		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Dinoseb	ND	37.3		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Dalapon	ND	249		µg/Kg-dry	1	10/1/2015 1:24:00 AM
2,4-DB	ND	31.1		µg/Kg-dry	1	10/1/2015 1:24:00 AM
MCPP	ND	5,480		µg/Kg-dry	1	10/1/2015 1:24:00 AM
MCPA	ND	348		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Picloram	ND	62.2		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Bentazon	ND	43.6		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Chloramben	ND	24.9		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Acifluorfen	ND	99.6		µg/Kg-dry	1	10/1/2015 1:24:00 AM
3,5-Dichlorobenzoic acid	ND	49.8		µg/Kg-dry	1	10/1/2015 1:24:00 AM
4-Nitrophenol	ND	37.3		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Dacthal (DCPA)	ND	37.3		µg/Kg-dry	1	10/1/2015 1:24:00 AM
Surr: 2,4-Dichlorophenylacetic acid	104	20.1-168		%REC	1	10/1/2015 1:24:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Alpha BHC	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Beta BHC	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Gamma BHC (Lindane)	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Delta BHC	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Heptachlor	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Aldrin	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Heptachlor epoxide	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
gamma-Chlordane	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Endosulfan I	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
alpha-Chlordane	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Dieldrin	ND	0.0118		mg/Kg-dry	1	9/24/2015 2:16:00 AM
4,4'-DDE	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Endrin	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Endosulfan II	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM
4,4'-DDD	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Endrin aldehyde	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Endosulfan sulfate	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM



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WO#: 1509270

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Project: Pacific Park

Lab ID: 1509270-026

Matrix: Soil

Client Sample ID: GP-12-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Endrin ketone	ND	0.0235		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Methoxychlor	ND	0.0588		mg/Kg-dry	1	9/24/2015 2:16:00 AM
Surr: Decachlorobiphenyl	80.1	26.5-158		%REC	1	9/24/2015 2:16:00 AM
Surr: Tetrachloro-m-xylene	84.2	11-150		%REC	1	9/24/2015 2:16:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11918		Analyst: AK
Diesel (Fuel Oil)	ND	25.1		mg/Kg-dry	1	9/23/2015 11:48:00 PM
Heavy Oil	ND	62.7		mg/Kg-dry	1	9/23/2015 11:48:00 PM
Surr: 2-Fluorobiphenyl	88.6	50-150		%REC	1	9/23/2015 11:48:00 PM
Surr: o-Terphenyl	84.6	50-150		%REC	1	9/23/2015 11:48:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Bis(2-chloroethyl) ether	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2-Chlorophenol	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
1,3-Dichlorobenzene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
1,4-Dichlorobenzene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
1,2-Dichlorobenzene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Benzyl alcohol	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2-Methylphenol (o-cresol)	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Hexachloroethane	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
N-Nitrosodi-n-propylamine	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Nitrobenzene	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Isophorone	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
4-Methylphenol (p-cresol)	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2-Nitrophenol	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2,4-Dimethylphenol	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Bis(2-chloroethoxy)methane	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2,4-Dichlorophenol	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
1,2,4-Trichlorobenzene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Naphthalene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
4-Chloroaniline	ND	622		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Hexachlorobutadiene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
4-Chloro-3-methylphenol	ND	622		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2-Methylnaphthalene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
1-Methylnaphthalene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM



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Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937	Analyst: NG	
Hexachlorocyclopentadiene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2,4,6-Trichlorophenol	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2,4,5-Trichlorophenol	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2-Chloronaphthalene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2-Nitroaniline	ND	622		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Acenaphthene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Dimethylphthalate	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2,6-Dinitrotoluene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Acenaphthylene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2,4-Dinitrophenol	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Dibenzofuran	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
2,4-Dinitrotoluene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
4-Nitrophenol	ND	622		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Fluorene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
4-Chlorophenyl phenyl ether	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Diethylphthalate	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
4,6-Dinitro-2-methylphenol	ND	249		µg/Kg-dry	1	9/24/2015 11:11:00 PM
4-Bromophenyl phenyl ether	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Hexachlorobenzene	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Pentachlorophenol	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Phenanthrene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Anthracene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Carbazole	ND	622		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Di-n-butylphthalate	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Fluoranthene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Pyrene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Butyl Benzylphthalate	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
bis(2-Ethylhexyl)adipate	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Benz (a) anthracene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Chrysene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
bis (2-Ethylhexyl) phthalate	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Di-n-octyl phthalate	ND	124		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Benzo (b) fluoranthene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Benzo (k) fluoranthene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Benzo (a) pyrene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Indeno (1,2,3-cd) pyrene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Dibenz (a,h) anthracene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Benzo (g,h,i) perylene	ND	99.6		µg/Kg-dry	1	9/24/2015 11:11:00 PM
Surr: 2,4,6-Tribromophenol	46.5	11.1-127		%REC	1	9/24/2015 11:11:00 PM



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Matrix: Soil

Client Sample ID: GP-12-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	56.7	16.1-150		%REC	1	9/24/2015 11:11:00 PM
Surr: Nitrobenzene-d5	40.8	10-133		%REC	1	9/24/2015 11:11:00 PM
Surr: Phenol-d6	39.1	11.6-133		%REC	1	9/24/2015 11:11:00 PM
Surr: p-Terphenyl	67.0	21.8-150		%REC	1	9/24/2015 11:11:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11930		Analyst: BC
Gasoline	ND	3.34		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Surr: Toluene-d8	101	65-135		%REC	1	9/23/2015 11:34:00 PM
Surr: 4-Bromofluorobenzene	102	65-135		%REC	1	9/23/2015 11:34:00 PM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0401		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Chloromethane	ND	0.0401		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Vinyl chloride	ND	0.00134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Bromomethane	ND	0.0602		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Chloroethane	ND	0.0401		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,1-Dichloroethene	ND	0.0334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Methylene chloride	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
trans-1,2-Dichloroethene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,1-Dichloroethane	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
2,2-Dichloropropane	ND	0.0334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
cis-1,2-Dichloroethene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Chloroform	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,1-Dichloropropene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Carbon tetrachloride	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2-Dichloroethane (EDC)	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Benzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Trichloroethene (TCE)	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2-Dichloropropane	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Bromodichloromethane	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Dibromomethane	ND	0.0268		mg/Kg-dry	1	9/23/2015 11:34:00 PM
cis-1,3-Dichloropropene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Toluene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
trans-1,3-Dichloropropylene	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509270-026

Matrix: Soil

Client Sample ID: GP-12-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930		Analyst: BC
1,1,2-Trichloroethane	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,3-Dichloropropane	ND	0.0334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Tetrachloroethene (PCE)	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Dibromochloromethane	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2-Dibromoethane (EDB)	ND	0.00334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Chlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Ethylbenzene	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM
m,p-Xylene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
o-Xylene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Styrene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Isopropylbenzene	ND	0.0535		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Bromoform	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
n-Propylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Bromobenzene	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,3,5-Trimethylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
2-Chlorotoluene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
4-Chlorotoluene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
tert-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2,3-Trichloropropane	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2,4-Trichlorobenzene	ND	0.0334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
sec-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
4-Isopropyltoluene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,3-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,4-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
n-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2-Dibromo-3-chloropropane	ND	0.334		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2,4-Trimethylbenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Hexachlorobutadiene	ND	0.0669		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Naphthalene	ND	0.0201		mg/Kg-dry	1	9/23/2015 11:34:00 PM
1,2,3-Trichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/23/2015 11:34:00 PM
Surr: Dibromofluoromethane	93.3	56.5-129		%REC	1	9/23/2015 11:34:00 PM
Surr: Toluene-d8	97.7	64.3-131		%REC	1	9/23/2015 11:34:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	63.1-141		%REC	1	9/23/2015 11:34:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509270-026

Matrix: Soil

Client Sample ID: GP-12-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11908		Analyst: MW
Mercury	ND	0.309		mg/Kg-dry	1	9/22/2015 5:22:04 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	1.18	0.0988		mg/Kg-dry	1	9/22/2015 4:42:44 PM
Barium	17.8	0.494		mg/Kg-dry	1	9/22/2015 4:42:44 PM
Cadmium	ND	0.198		mg/Kg-dry	1	9/22/2015 4:42:44 PM
Chromium	14.4	0.0988		mg/Kg-dry	1	9/22/2015 4:42:44 PM
Lead	1.30	0.198		mg/Kg-dry	1	9/22/2015 4:42:44 PM
Selenium	0.886	0.494		mg/Kg-dry	1	9/22/2015 4:42:44 PM
Silver	ND	0.0988		mg/Kg-dry	1	9/22/2015 4:42:44 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	22.2			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509270-027

Matrix: Groundwater

Client Sample ID: GP-12-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11896		Analyst: CM
Diesel (Fuel Oil)	ND	49.9		µg/L	1	9/24/2015 12:34:00 PM
Heavy Oil	ND	99.9		µg/L	1	9/24/2015 12:34:00 PM
Surr: 2-Fluorobiphenyl	61.4	50-150		%REC	1	9/24/2015 12:34:00 PM
Surr: o-Terphenyl	67.3	50-150		%REC	1	9/24/2015 12:34:00 PM
<u>Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)</u>				Batch ID: 11916		Analyst: NG
Naphthalene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
2-Methylnaphthalene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
1-Methylnaphthalene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Acenaphthylene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Acenaphthene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Fluorene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Phenanthrene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Anthracene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Fluoranthene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Pyrene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Benz(a)anthracene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Chrysene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Benzo(b)fluoranthene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Benzo(k)fluoranthene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Benzo(a)pyrene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Dibenz(a,h)anthracene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Benzo(g,h,i)perylene	ND	0.0995		µg/L	1	9/23/2015 6:42:00 PM
Surr: 2-Fluorobiphenyl	64.8	23.9-122		%REC	1	9/23/2015 6:42:00 PM
Surr: Terphenyl-d14	42.6	33.4-135		%REC	1	9/23/2015 6:42:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: R25021		Analyst: EM
Gasoline	ND	50.0		µg/L	1	9/22/2015 2:43:00 AM
Surr: Toluene-d8	88.0	65-135		%REC	1	9/22/2015 2:43:00 AM
Surr: 4-Bromofluorobenzene	95.8	65-135		%REC	1	9/22/2015 2:43:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: R25020		Analyst: EM
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Chloromethane	2.02	1.00		µg/L	1	9/22/2015 2:43:00 AM
Vinyl chloride	ND	0.200		µg/L	1	9/22/2015 2:43:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509270-027

Matrix: Groundwater

Client Sample ID: GP-12-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: R25020	Analyst: EM	
Bromomethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Chloroethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Methylene chloride	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/22/2015 2:43:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Chloroform	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Benzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/22/2015 2:43:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Dibromomethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Toluene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/22/2015 2:43:00 AM
Chlorobenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Ethylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
m,p-Xylene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
o-Xylene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Styrene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Bromoform	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Bromobenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509270-027

Matrix: Groundwater

Client Sample ID: GP-12-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25020

Analyst: EM

1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/22/2015 2:43:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2015 2:43:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/22/2015 2:43:00 AM
Naphthalene	ND	1.00	Q	µg/L	1	9/22/2015 2:43:00 AM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/22/2015 2:43:00 AM
Surr: Dibromofluoromethane	101	45.4-152		%REC	1	9/22/2015 2:43:00 AM
Surr: Toluene-d8	102	40.1-139		%REC	1	9/22/2015 2:43:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	64.2-128		%REC	1	9/22/2015 2:43:00 AM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:10:29 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:07:35 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11907

Analyst: TN

Antimony	0.513	0.200	[RE]	µg/L	1	9/22/2015 1:52:02 PM
Arsenic	2.66	1.00		µg/L	1	9/21/2015 4:43:15 PM
Beryllium	ND	0.200		µg/L	1	9/21/2015 4:43:15 PM
Cadmium	ND	0.200		µg/L	1	9/21/2015 4:43:15 PM
Chromium	0.966	0.500		µg/L	1	9/21/2015 4:43:15 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509270-027

Matrix: Groundwater

Client Sample ID: GP-12-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Metals by EPA Method 200.8</u>				Batch ID: 11907		Analyst: TN
Copper	11.6	0.500		µg/L	1	9/21/2015 4:43:15 PM
Lead	ND	1.00		µg/L	1	9/21/2015 4:43:15 PM
Nickel	1.63	0.500		µg/L	1	9/21/2015 4:43:15 PM
Selenium	1.56	1.00		µg/L	1	9/21/2015 4:43:15 PM
Silver	0.795	0.200		µg/L	1	9/21/2015 4:43:15 PM
Thallium	ND	0.200	[RE]	µg/L	1	9/22/2015 1:52:02 PM
Zinc	4.31	1.50		µg/L	1	9/21/2015 4:43:15 PM
<u>Total Metals by EPA Method 200.8</u>				Batch ID: 11891		Analyst: TN
Antimony	ND	0.200		µg/L	1	9/22/2015 1:23:48 PM
Arsenic	20.7	1.00		µg/L	1	9/21/2015 4:53:49 PM
Beryllium	0.513	0.200		µg/L	1	9/21/2015 4:53:49 PM
Cadmium	0.753	0.200		µg/L	1	9/21/2015 4:53:49 PM
Chromium	21.6	0.500		µg/L	1	9/21/2015 4:53:49 PM
Copper	94.4	0.500		µg/L	1	9/21/2015 4:53:49 PM
Lead	8.24	1.00		µg/L	1	9/21/2015 4:53:49 PM
Nickel	9.98	0.500		µg/L	1	9/21/2015 4:53:49 PM
Selenium	5.78	1.00		µg/L	1	9/21/2015 4:53:49 PM
Silver	ND	0.200		µg/L	1	9/21/2015 4:53:49 PM
Thallium	ND	0.200		µg/L	1	9/22/2015 1:23:48 PM
Zinc	29.4	1.50		µg/L	1	9/21/2015 4:53:49 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:05:00 AM

Project: Pacific Park

Lab ID: 1509270-028

Matrix: Soil

Client Sample ID: MW-1-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	39.3		µg/Kg-dry	1	10/1/2015 1:41:00 AM
2,4-D	ND	33.7		µg/Kg-dry	1	10/1/2015 1:41:00 AM
2,4-DP	ND	28.1		µg/Kg-dry	1	10/1/2015 1:41:00 AM
2,4,5-TP (Silvex)	ND	22.5		µg/Kg-dry	1	10/1/2015 1:41:00 AM
2,4,5-T	ND	56.1		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Dinoseb	ND	33.7		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Dalapon	ND	225		µg/Kg-dry	1	10/1/2015 1:41:00 AM
2,4-DB	ND	28.1		µg/Kg-dry	1	10/1/2015 1:41:00 AM
MCPP	ND	4,940		µg/Kg-dry	1	10/1/2015 1:41:00 AM
MCPA	ND	314		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Picloram	ND	56.1		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Bentazon	ND	39.3		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Chloramben	ND	22.5		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Acifluorfen	ND	89.8		µg/Kg-dry	1	10/1/2015 1:41:00 AM
3,5-Dichlorobenzoic acid	ND	44.9		µg/Kg-dry	1	10/1/2015 1:41:00 AM
4-Nitrophenol	ND	33.7		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Dacthal (DCPA)	ND	33.7		µg/Kg-dry	1	10/1/2015 1:41:00 AM
Surr: 2,4-Dichlorophenylacetic acid	99.9	20.1-168		%REC	1	10/1/2015 1:41:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Alpha BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Beta BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Gamma BHC (Lindane)	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Delta BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Heptachlor	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Aldrin	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Heptachlor epoxide	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
gamma-Chlordane	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Endosulfan I	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
alpha-Chlordane	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Dieldrin	ND	0.0119		mg/Kg-dry	1	9/24/2015 2:27:00 AM
4,4'-DDE	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Endrin	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Endosulfan II	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM
4,4'-DDD	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Endrin aldehyde	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Endosulfan sulfate	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:05:00 AM

Project: Pacific Park

Lab ID: 1509270-028

Matrix: Soil

Client Sample ID: MW-1-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Endrin ketone	ND	0.0238		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Methoxychlor	ND	0.0594		mg/Kg-dry	1	9/24/2015 2:27:00 AM
Surr: Decachlorobiphenyl	111	26.5-158		%REC	1	9/24/2015 2:27:00 AM
Surr: Tetrachloro-m-xylene	110	11-150		%REC	1	9/24/2015 2:27:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11918		Analyst: AK
Diesel (Fuel Oil)	ND	24.0		mg/Kg-dry	1	9/24/2015 12:20:00 AM
Heavy Oil	ND	59.9		mg/Kg-dry	1	9/24/2015 12:20:00 AM
Surr: 2-Fluorobiphenyl	94.8	50-150		%REC	1	9/24/2015 12:20:00 AM
Surr: o-Terphenyl	89.6	50-150		%REC	1	9/24/2015 12:20:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Bis(2-chloroethyl) ether	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2-Chlorophenol	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
1,3-Dichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
1,4-Dichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
1,2-Dichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Benzyl alcohol	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2-Methylphenol (o-cresol)	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Hexachloroethane	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
N-Nitrosodi-n-propylamine	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Nitrobenzene	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Isophorone	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
4-Methylphenol (p-cresol)	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2-Nitrophenol	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2,4-Dimethylphenol	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Bis(2-chloroethoxy)methane	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2,4-Dichlorophenol	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
1,2,4-Trichlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Naphthalene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
4-Chloroaniline	ND	590		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Hexachlorobutadiene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
4-Chloro-3-methylphenol	ND	590		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2-Methylnaphthalene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
1-Methylnaphthalene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:05:00 AM

Project: Pacific Park

Lab ID: 1509270-028

Matrix: Soil

Client Sample ID: MW-1-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937	Analyst: NG	
Hexachlorocyclopentadiene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2,4,6-Trichlorophenol	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2,4,5-Trichlorophenol	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2-Chloronaphthalene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2-Nitroaniline	ND	590		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Acenaphthene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Dimethylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2,6-Dinitrotoluene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Acenaphthylene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2,4-Dinitrophenol	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Dibenzofuran	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
2,4-Dinitrotoluene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
4-Nitrophenol	ND	590		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Fluorene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
4-Chlorophenyl phenyl ether	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Diethylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
4,6-Dinitro-2-methylphenol	ND	236		µg/Kg-dry	1	9/24/2015 11:33:00 PM
4-Bromophenyl phenyl ether	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Hexachlorobenzene	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Pentachlorophenol	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Phenanthrene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Anthracene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Carbazole	ND	590		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Di-n-butylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Fluoranthene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Pyrene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Butyl Benzylphthalate	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
bis(2-Ethylhexyl)adipate	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Benz (a) anthracene	125	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Chrysene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
bis (2-Ethylhexyl) phthalate	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Di-n-octyl phthalate	ND	118		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Benzo (b) fluoranthene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Benzo (k) fluoranthene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Benzo (a) pyrene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Indeno (1,2,3-cd) pyrene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Dibenz (a,h) anthracene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Benzo (g,h,i) perylene	ND	94.4		µg/Kg-dry	1	9/24/2015 11:33:00 PM
Surr: 2,4,6-Tribromophenol	55.5	11.1-127		%REC	1	9/24/2015 11:33:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:05:00 AM

Project: Pacific Park

Lab ID: 1509270-028

Matrix: Soil

Client Sample ID: MW-1-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	42.3	16.1-150		%REC	1	9/24/2015 11:33:00 PM
Surr: Nitrobenzene-d5	30.2	10-133		%REC	1	9/24/2015 11:33:00 PM
Surr: Phenol-d6	43.2	11.6-133		%REC	1	9/24/2015 11:33:00 PM
Surr: p-Terphenyl	76.9	21.8-150		%REC	1	9/24/2015 11:33:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11930		Analyst: BC
Gasoline	ND	2.72		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Surr: Toluene-d8	100	65-135		%REC	1	9/24/2015 12:03:00 AM
Surr: 4-Bromofluorobenzene	103	65-135		%REC	1	9/24/2015 12:03:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0326		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Chloromethane	ND	0.0326		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Vinyl chloride	ND	0.00109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Bromomethane	ND	0.0489		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0272		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Chloroethane	ND	0.0326		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,1-Dichloroethene	ND	0.0272		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Methylene chloride	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
trans-1,2-Dichloroethene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0272		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,1-Dichloroethane	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
2,2-Dichloropropane	ND	0.0272		mg/Kg-dry	1	9/24/2015 12:03:00 AM
cis-1,2-Dichloroethene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Chloroform	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,1-Dichloropropene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Carbon tetrachloride	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2-Dichloroethane (EDC)	ND	0.0163		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Benzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Trichloroethene (TCE)	0.0120	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2-Dichloropropane	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Bromodichloromethane	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Dibromomethane	ND	0.0217		mg/Kg-dry	1	9/24/2015 12:03:00 AM
cis-1,3-Dichloropropene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Toluene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
trans-1,3-Dichloropropylene	ND	0.0163		mg/Kg-dry	1	9/24/2015 12:03:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:05:00 AM

Project: Pacific Park

Lab ID: 1509270-028

Matrix: Soil

Client Sample ID: MW-1-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0163		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,3-Dichloropropane	ND	0.0272		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Tetrachloroethene (PCE)	0.234	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Dibromochloromethane	ND	0.0163		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2-Dibromoethane (EDB)	ND	0.00272		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Chlorobenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0163		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Ethylbenzene	ND	0.0163		mg/Kg-dry	1	9/24/2015 12:03:00 AM
m,p-Xylene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
o-Xylene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Styrene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Isopropylbenzene	ND	0.0435		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Bromoform	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
n-Propylbenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Bromobenzene	ND	0.0163		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,3,5-Trimethylbenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
2-Chlorotoluene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Chlorotoluene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
tert-Butylbenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2,3-Trichloropropane	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2,4-Trichlorobenzene	ND	0.0272		mg/Kg-dry	1	9/24/2015 12:03:00 AM
sec-Butylbenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
4-Isopropyltoluene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,3-Dichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,4-Dichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
n-Butylbenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2-Dichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2-Dibromo-3-chloropropane	ND	0.272		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2,4-Trimethylbenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Hexachlorobutadiene	ND	0.0543		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Naphthalene	ND	0.0163		mg/Kg-dry	1	9/24/2015 12:03:00 AM
1,2,3-Trichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/24/2015 12:03:00 AM
Surr: Dibromofluoromethane	94.1	56.5-129		%REC	1	9/24/2015 12:03:00 AM
Surr: Toluene-d8	98.0	64.3-131		%REC	1	9/24/2015 12:03:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.2	63.1-141		%REC	1	9/24/2015 12:03:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:05:00 AM

Project: Pacific Park

Lab ID: 1509270-028

Matrix: Soil

Client Sample ID: MW-1-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11908		Analyst: MW
Mercury	ND	0.263		mg/Kg-dry	1	9/22/2015 5:23:42 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	3.71	0.0937		mg/Kg-dry	1	9/22/2015 4:46:15 PM
Barium	30.6	0.468		mg/Kg-dry	1	9/22/2015 4:46:15 PM
Cadmium	0.441	0.187		mg/Kg-dry	1	9/22/2015 4:46:15 PM
Chromium	16.7	0.0937		mg/Kg-dry	1	9/22/2015 4:46:15 PM
Lead	41.1	0.187		mg/Kg-dry	1	9/22/2015 4:46:15 PM
Selenium	1.13	0.468		mg/Kg-dry	1	9/22/2015 4:46:15 PM
Silver	ND	0.0937		mg/Kg-dry	1	9/22/2015 4:46:15 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	16.6			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-029

Matrix: Soil

Client Sample ID: MW-1-15:12.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	41.4		µg/Kg-dry	1	10/1/2015 1:58:00 AM
2,4-D	ND	35.5		µg/Kg-dry	1	10/1/2015 1:58:00 AM
2,4-DP	ND	29.6		µg/Kg-dry	1	10/1/2015 1:58:00 AM
2,4,5-TP (Silvex)	ND	23.6		µg/Kg-dry	1	10/1/2015 1:58:00 AM
2,4,5-T	ND	59.1		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Dinoseb	ND	35.5		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Dalapon	ND	236		µg/Kg-dry	1	10/1/2015 1:58:00 AM
2,4-DB	ND	29.6		µg/Kg-dry	1	10/1/2015 1:58:00 AM
MCPP	ND	5,200		µg/Kg-dry	1	10/1/2015 1:58:00 AM
MCPA	ND	331		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Picloram	ND	59.1		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Bentazon	ND	41.4		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Chloramben	ND	23.6		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Acifluorfen	ND	94.6		µg/Kg-dry	1	10/1/2015 1:58:00 AM
3,5-Dichlorobenzoic acid	ND	47.3		µg/Kg-dry	1	10/1/2015 1:58:00 AM
4-Nitrophenol	ND	35.5		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Dacthal (DCPA)	ND	35.5		µg/Kg-dry	1	10/1/2015 1:58:00 AM
Surr: 2,4-Dichlorophenylacetic acid	92.7	20.1-168		%REC	1	10/1/2015 1:58:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Alpha BHC	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Beta BHC	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Gamma BHC (Lindane)	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Delta BHC	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Heptachlor	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Aldrin	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Heptachlor epoxide	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
gamma-Chlordane	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Endosulfan I	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
alpha-Chlordane	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Dieldrin	ND	0.0117		mg/Kg-dry	1	9/24/2015 2:38:00 AM
4,4'-DDE	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Endrin	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Endosulfan II	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM
4,4'-DDD	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Endrin aldehyde	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Endosulfan sulfate	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-029

Matrix: Soil

Client Sample ID: MW-1-15:12.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Endrin ketone	ND	0.0233		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Methoxychlor	ND	0.0583		mg/Kg-dry	1	9/24/2015 2:38:00 AM
Surr: Decachlorobiphenyl	63.9	26.5-158		%REC	1	9/24/2015 2:38:00 AM
Surr: Tetrachloro-m-xylene	62.2	11-150		%REC	1	9/24/2015 2:38:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11918		Analyst: AK
Diesel (Fuel Oil)	ND	23.9		mg/Kg-dry	1	9/24/2015 12:51:00 AM
Heavy Oil	ND	59.8		mg/Kg-dry	1	9/24/2015 12:51:00 AM
Surr: 2-Fluorobiphenyl	90.2	50-150		%REC	1	9/24/2015 12:51:00 AM
Surr: o-Terphenyl	86.4	50-150		%REC	1	9/24/2015 12:51:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Bis(2-chloroethyl) ether	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2-Chlorophenol	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
1,3-Dichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
1,4-Dichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
1,2-Dichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Benzyl alcohol	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2-Methylphenol (o-cresol)	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Hexachloroethane	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
N-Nitrosodi-n-propylamine	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Nitrobenzene	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Isophorone	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
4-Methylphenol (p-cresol)	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2-Nitrophenol	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2,4-Dimethylphenol	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Bis(2-chloroethoxy)methane	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2,4-Dichlorophenol	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
1,2,4-Trichlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Naphthalene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
4-Chloroaniline	ND	612		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Hexachlorobutadiene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
4-Chloro-3-methylphenol	ND	612		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2-Methylnaphthalene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
1-Methylnaphthalene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-029

Matrix: Soil

Client Sample ID: MW-1-15:12.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937	Analyst: NG	
Hexachlorocyclopentadiene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2,4,6-Trichlorophenol	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2,4,5-Trichlorophenol	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2-Chloronaphthalene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2-Nitroaniline	ND	612		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Acenaphthene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Dimethylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2,6-Dinitrotoluene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Acenaphthylene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2,4-Dinitrophenol	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Dibenzofuran	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
2,4-Dinitrotoluene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
4-Nitrophenol	ND	612		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Fluorene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
4-Chlorophenyl phenyl ether	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Diethylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
4,6-Dinitro-2-methylphenol	ND	245		µg/Kg-dry	1	9/24/2015 11:56:00 PM
4-Bromophenyl phenyl ether	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Hexachlorobenzene	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Pentachlorophenol	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Phenanthrene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Anthracene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Carbazole	ND	612		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Di-n-butylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Fluoranthene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Pyrene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Butyl Benzylphthalate	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
bis(2-Ethylhexyl)adipate	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Benz (a) anthracene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Chrysene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
bis (2-Ethylhexyl) phthalate	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Di-n-octyl phthalate	ND	122		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Benzo (b) fluoranthene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Benzo (k) fluoranthene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Benzo (a) pyrene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Indeno (1,2,3-cd) pyrene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Dibenz (a,h) anthracene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Benzo (g,h,i) perylene	ND	98.0		µg/Kg-dry	1	9/24/2015 11:56:00 PM
Surr: 2,4,6-Tribromophenol	54.7	11.1-127		%REC	1	9/24/2015 11:56:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-029

Matrix: Soil

Client Sample ID: MW-1-15:12.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	58.7	16.1-150		%REC	1	9/24/2015 11:56:00 PM
Surr: Nitrobenzene-d5	47.8	10-133		%REC	1	9/24/2015 11:56:00 PM
Surr: Phenol-d6	40.6	11.6-133		%REC	1	9/24/2015 11:56:00 PM
Surr: p-Terphenyl	74.1	21.8-150		%REC	1	9/24/2015 11:56:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11930		Analyst: BC
Gasoline	ND	3.27		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Surr: Toluene-d8	100	65-135		%REC	1	9/24/2015 12:31:00 AM
Surr: 4-Bromofluorobenzene	102	65-135		%REC	1	9/24/2015 12:31:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0392		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Chloromethane	ND	0.0392		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Vinyl chloride	ND	0.00131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Bromomethane	ND	0.0589		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0327		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Chloroethane	ND	0.0392		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,1-Dichloroethene	ND	0.0327		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Methylene chloride	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
trans-1,2-Dichloroethene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0327		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,1-Dichloroethane	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
2,2-Dichloropropane	ND	0.0327		mg/Kg-dry	1	9/24/2015 12:31:00 AM
cis-1,2-Dichloroethene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Chloroform	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,1-Dichloropropene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Carbon tetrachloride	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2-Dichloroethane (EDC)	ND	0.0196		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Benzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Trichloroethene (TCE)	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2-Dichloropropane	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Bromodichloromethane	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Dibromomethane	ND	0.0262		mg/Kg-dry	1	9/24/2015 12:31:00 AM
cis-1,3-Dichloropropene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Toluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
trans-1,3-Dichloropropylene	ND	0.0196		mg/Kg-dry	1	9/24/2015 12:31:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-029

Matrix: Soil

Client Sample ID: MW-1-15:12.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930		Analyst: BC
1,1,2-Trichloroethane	ND	0.0196		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,3-Dichloropropane	ND	0.0327		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Tetrachloroethene (PCE)	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Dibromochloromethane	ND	0.0196		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2-Dibromoethane (EDB)	ND	0.00327		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Chlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0196		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Ethylbenzene	ND	0.0196		mg/Kg-dry	1	9/24/2015 12:31:00 AM
m,p-Xylene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
o-Xylene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Styrene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Isopropylbenzene	ND	0.0523		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Bromoform	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
n-Propylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Bromobenzene	ND	0.0196		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,3,5-Trimethylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
2-Chlorotoluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
4-Chlorotoluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
tert-Butylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2,3-Trichloropropane	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2,4-Trichlorobenzene	ND	0.0327		mg/Kg-dry	1	9/24/2015 12:31:00 AM
sec-Butylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
4-Isopropyltoluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,3-Dichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,4-Dichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
n-Butylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2-Dichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2-Dibromo-3-chloropropane	ND	0.327		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2,4-Trimethylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Hexachlorobutadiene	ND	0.0654		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Naphthalene	ND	0.0196		mg/Kg-dry	1	9/24/2015 12:31:00 AM
1,2,3-Trichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 12:31:00 AM
Surr: Dibromofluoromethane	93.8	56.5-129		%REC	1	9/24/2015 12:31:00 AM
Surr: Toluene-d8	98.4	64.3-131		%REC	1	9/24/2015 12:31:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.6	63.1-141		%REC	1	9/24/2015 12:31:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509270-029

Matrix: Soil

Client Sample ID: MW-1-15:12.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11908		Analyst: MW
Mercury	ND	0.278		mg/Kg-dry	1	9/22/2015 5:25:18 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	2.74	0.102		mg/Kg-dry	1	9/22/2015 4:49:46 PM
Barium	20.2	0.510		mg/Kg-dry	1	9/22/2015 4:49:46 PM
Cadmium	ND	0.204		mg/Kg-dry	1	9/22/2015 4:49:46 PM
Chromium	13.9	0.102		mg/Kg-dry	1	9/22/2015 4:49:46 PM
Lead	3.37	0.204		mg/Kg-dry	1	9/22/2015 4:49:46 PM
Selenium	1.02	0.510		mg/Kg-dry	1	9/22/2015 4:49:46 PM
Silver	ND	0.102		mg/Kg-dry	1	9/22/2015 4:49:46 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	19.7			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:05:00 PM

Project: Pacific Park

Lab ID: 1509270-030

Matrix: Soil

Client Sample ID: MW-2-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11938		Analyst: MD	
Dicamba	ND	38.9		µg/Kg-dry	1	10/1/2015 2:14:00 AM
2,4-D	ND	33.3		µg/Kg-dry	1	10/1/2015 2:14:00 AM
2,4-DP	ND	27.8		µg/Kg-dry	1	10/1/2015 2:14:00 AM
2,4,5-TP (Silvex)	ND	22.2		µg/Kg-dry	1	10/1/2015 2:14:00 AM
2,4,5-T	ND	55.5		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Dinoseb	ND	33.3		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Dalapon	ND	222		µg/Kg-dry	1	10/1/2015 2:14:00 AM
2,4-DB	ND	27.8		µg/Kg-dry	1	10/1/2015 2:14:00 AM
MCPP	ND	4,890		µg/Kg-dry	1	10/1/2015 2:14:00 AM
MCPA	ND	311		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Picloram	ND	55.5		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Bentazon	ND	38.9		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Chloramben	ND	22.2		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Acifluorfen	ND	88.8		µg/Kg-dry	1	10/1/2015 2:14:00 AM
3,5-Dichlorobenzoic acid	ND	44.4		µg/Kg-dry	1	10/1/2015 2:14:00 AM
4-Nitrophenol	ND	33.3		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Dacthal (DCPA)	ND	33.3		µg/Kg-dry	1	10/1/2015 2:14:00 AM
Surr: 2,4-Dichlorophenylacetic acid	87.6	20.1-168		%REC	1	10/1/2015 2:14:00 AM
<u>Polychlorinated Biphenyls (PCB) by EPA 8082</u>			Batch ID: 12180		Analyst: CM	
Aroclor 1016	ND	0.108		mg/Kg-dry	1	10/22/2015 5:55:00 PM
Aroclor 1221	ND	0.108		mg/Kg-dry	1	10/22/2015 5:55:00 PM
Aroclor 1232	ND	0.108		mg/Kg-dry	1	10/22/2015 5:55:00 PM
Aroclor 1242	ND	0.108		mg/Kg-dry	1	10/22/2015 5:55:00 PM
Aroclor 1248	ND	0.108		mg/Kg-dry	1	10/22/2015 5:55:00 PM
Aroclor 1254	ND	0.108		mg/Kg-dry	1	10/22/2015 5:55:00 PM
Aroclor 1260	ND	0.108		mg/Kg-dry	1	10/22/2015 5:55:00 PM
Aroclor 1262	ND	0.108		mg/Kg-dry	1	10/22/2015 5:55:00 PM
Aroclor 1268	ND	0.108		mg/Kg-dry	1	10/22/2015 5:55:00 PM
Total PCBs	ND	0.108		mg/Kg-dry	1	10/22/2015 5:55:00 PM
Surr: Decachlorobiphenyl	54.6	41.2-143		%REC	1	10/22/2015 5:55:00 PM
Surr: Tetrachloro-m-xylene	51.1	26-140		%REC	1	10/22/2015 5:55:00 PM
<u>Organochlorine Pesticides by EPA Method 8081</u>			Batch ID: 11935		Analyst: MD	
Toxaphene	ND	0.108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Alpha BHC	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Beta BHC	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:05:00 PM

Project: Pacific Park

Lab ID: 1509270-030

Matrix: Soil

Client Sample ID: MW-2-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Gamma BHC (Lindane)	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Delta BHC	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Heptachlor	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Aldrin	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Heptachlor epoxide	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
gamma-Chlordane	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Endosulfan I	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
alpha-Chlordane	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Dieldrin	ND	0.0108		mg/Kg-dry	1	9/24/2015 2:49:00 AM
4,4'-DDE	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Endrin	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Endosulfan II	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM
4,4'-DDD	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Endrin aldehyde	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Endosulfan sulfate	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM
4,4'-DDT	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Endrin ketone	ND	0.0215		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Methoxychlor	ND	0.0538		mg/Kg-dry	1	9/24/2015 2:49:00 AM
Surr: Decachlorobiphenyl	87.6	26.5-158		%REC	1	9/24/2015 2:49:00 AM
Surr: Tetrachloro-m-xylene	105	11-150		%REC	1	9/24/2015 2:49:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11918

Analyst: AK

Diesel (Fuel Oil)	ND	21.9		mg/Kg-dry	1	9/24/2015 1:22:00 AM
Heavy Oil	137	54.7		mg/Kg-dry	1	9/24/2015 1:22:00 AM
Surr: 2-Fluorobiphenyl	91.0	50-150		%REC	1	9/24/2015 1:22:00 AM
Surr: o-Terphenyl	87.5	50-150		%REC	1	9/24/2015 1:22:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Bis(2-chloroethyl) ether	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2-Chlorophenol	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
1,3-Dichlorobenzene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
1,4-Dichlorobenzene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
1,2-Dichlorobenzene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Benzyl alcohol	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2-Methylphenol (o-cresol)	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Hexachloroethane	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:05:00 PM

Project: Pacific Park

Lab ID: 1509270-030

Matrix: Soil

Client Sample ID: MW-2-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
N-Nitrosodi-n-propylamine	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Nitrobenzene	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Isophorone	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
4-Methylphenol (p-cresol)	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2-Nitrophenol	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2,4-Dimethylphenol	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Bis(2-chloroethoxy)methane	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2,4-Dichlorophenol	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
1,2,4-Trichlorobenzene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Naphthalene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
4-Chloroaniline	ND	570		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Hexachlorobutadiene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
4-Chloro-3-methylphenol	ND	570		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2-Methylnaphthalene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
1-Methylnaphthalene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Hexachlorocyclopentadiene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2,4,6-Trichlorophenol	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2,4,5-Trichlorophenol	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2-Chloronaphthalene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2-Nitroaniline	ND	570		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Acenaphthene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Dimethylphthalate	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2,6-Dinitrotoluene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Acenaphthylene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2,4-Dinitrophenol	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Dibenzofuran	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
2,4-Dinitrotoluene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
4-Nitrophenol	ND	570		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Fluorene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
4-Chlorophenyl phenyl ether	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Diethylphthalate	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
4,6-Dinitro-2-methylphenol	ND	228		µg/Kg-dry	1	9/25/2015 1:12:00 PM
4-Bromophenyl phenyl ether	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Hexachlorobenzene	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Pentachlorophenol	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Phenanthrene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Anthracene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Carbazole	ND	570		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Di-n-butylphthalate	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:05:00 PM

Project: Pacific Park

Lab ID: 1509270-030

Matrix: Soil

Client Sample ID: MW-2-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Fluoranthene	164	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Pyrene	150	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Butyl Benzylphthalate	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
bis(2-Ethylhexyl)adipate	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Benz (a) anthracene	144	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Chrysene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
bis (2-Ethylhexyl) phthalate	118	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Di-n-octyl phthalate	ND	114		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Benzo (b) fluoranthene	264	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Benzo (k) fluoranthene	114	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Benzo (a) pyrene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Indeno (1,2,3-cd) pyrene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Dibenz (a,h) anthracene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Benzo (g,h,i) perylene	ND	91.3		µg/Kg-dry	1	9/25/2015 1:12:00 PM
Surr: 2,4,6-Tribromophenol	54.2	11.1-127		%REC	1	9/25/2015 1:12:00 PM
Surr: 2-Fluorobiphenyl	76.6	16.1-150		%REC	1	9/25/2015 1:12:00 PM
Surr: Nitrobenzene-d5	73.4	10-133		%REC	1	9/25/2015 1:12:00 PM
Surr: Phenol-d6	47.8	11.6-133		%REC	1	9/25/2015 1:12:00 PM
Surr: p-Terphenyl	75.9	21.8-150		%REC	1	9/25/2015 1:12:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	3.28		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Surr: Toluene-d8	101	65-135		%REC	1	9/24/2015 1:00:00 AM
Surr: 4-Bromofluorobenzene	101	65-135		%REC	1	9/24/2015 1:00:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0393		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Chloromethane	ND	0.0393		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Vinyl chloride	ND	0.00131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Bromomethane	ND	0.0590		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Chloroethane	ND	0.0393		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,1-Dichloroethene	ND	0.0328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Methylene chloride	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
trans-1,2-Dichloroethene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,1-Dichloroethane	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:05:00 PM

Project: Pacific Park

Lab ID: 1509270-030

Matrix: Soil

Client Sample ID: MW-2-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930		Analyst: BC
2,2-Dichloropropane	ND	0.0328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
cis-1,2-Dichloroethene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Chloroform	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,1-Dichloropropene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Carbon tetrachloride	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2-Dichloroethane (EDC)	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Benzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Trichloroethene (TCE)	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2-Dichloropropane	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Bromodichloromethane	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Dibromomethane	ND	0.0262		mg/Kg-dry	1	9/24/2015 1:00:00 AM
cis-1,3-Dichloropropene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Toluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
trans-1,3-Dichloropropylene	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,1,2-Trichloroethane	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,3-Dichloropropane	ND	0.0328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Tetrachloroethene (PCE)	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Dibromochloromethane	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2-Dibromoethane (EDB)	ND	0.00328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Chlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Ethylbenzene	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM
m,p-Xylene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
o-Xylene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Styrene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Isopropylbenzene	ND	0.0525		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Bromoform	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
n-Propylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Bromobenzene	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,3,5-Trimethylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
2-Chlorotoluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
4-Chlorotoluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
tert-Butylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2,3-Trichloropropane	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2,4-Trichlorobenzene	ND	0.0328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
sec-Butylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
4-Isopropyltoluene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:05:00 PM

Project: Pacific Park

Lab ID: 1509270-030

Matrix: Soil

Client Sample ID: MW-2-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930		Analyst: BC
1,3-Dichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,4-Dichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
n-Butylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2-Dichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2-Dibromo-3-chloropropane	ND	0.328		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2,4-Trimethylbenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Hexachlorobutadiene	ND	0.0656		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Naphthalene	ND	0.0197		mg/Kg-dry	1	9/24/2015 1:00:00 AM
1,2,3-Trichlorobenzene	ND	0.0131		mg/Kg-dry	1	9/24/2015 1:00:00 AM
Surr: Dibromofluoromethane	95.1	56.5-129		%REC	1	9/24/2015 1:00:00 AM
Surr: Toluene-d8	98.6	64.3-131		%REC	1	9/24/2015 1:00:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.6	63.1-141		%REC	1	9/24/2015 1:00:00 AM
<u>Mercury by EPA Method 7471</u>				Batch ID: 11908		Analyst: MW
Mercury	ND	0.243		mg/Kg-dry	1	9/22/2015 5:26:54 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	3.11	0.0842		mg/Kg-dry	1	9/22/2015 4:53:18 PM
Barium	27.5	0.421		mg/Kg-dry	1	9/22/2015 4:53:18 PM
Cadmium	ND	0.168		mg/Kg-dry	1	9/22/2015 4:53:18 PM
Chromium	14.7	0.0842		mg/Kg-dry	1	9/22/2015 4:53:18 PM
Lead	22.9	0.168		mg/Kg-dry	1	9/22/2015 4:53:18 PM
Selenium	0.888	0.421		mg/Kg-dry	1	9/22/2015 4:53:18 PM
Silver	ND	0.0842		mg/Kg-dry	1	9/22/2015 4:53:18 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	12.7			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-031

Matrix: Soil

Client Sample ID: MW-2-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11938			Analyst: MD
Dicamba	ND	66.0		µg/Kg-dry	1	10/1/2015 2:31:00 AM
2,4-D	ND	56.6		µg/Kg-dry	1	10/1/2015 2:31:00 AM
2,4-DP	ND	47.2		µg/Kg-dry	1	10/1/2015 2:31:00 AM
2,4,5-TP (Silvex)	ND	37.7		µg/Kg-dry	1	10/1/2015 2:31:00 AM
2,4,5-T	ND	94.3		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Dinoseb	ND	56.6		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Dalapon	ND	377		µg/Kg-dry	1	10/1/2015 2:31:00 AM
2,4-DB	ND	47.2		µg/Kg-dry	1	10/1/2015 2:31:00 AM
MCPP	ND	8,300		µg/Kg-dry	1	10/1/2015 2:31:00 AM
MCPA	ND	528		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Picloram	ND	94.3		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Bentazon	ND	66.0		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Chloramben	ND	37.7		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Acifluorfen	ND	151		µg/Kg-dry	1	10/1/2015 2:31:00 AM
3,5-Dichlorobenzoic acid	ND	75.5		µg/Kg-dry	1	10/1/2015 2:31:00 AM
4-Nitrophenol	ND	56.6		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Dacthal (DCPA)	ND	56.6		µg/Kg-dry	1	10/1/2015 2:31:00 AM
Surr: 2,4-Dichlorophenylacetic acid	113	20.1-168		%REC	1	10/1/2015 2:31:00 AM
<u>Organochlorine Pesticides by EPA Method 8081</u>			Batch ID: 11935			Analyst: MD
Toxaphene	ND	0.174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Alpha BHC	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Beta BHC	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Gamma BHC (Lindane)	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Delta BHC	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Heptachlor	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Aldrin	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Heptachlor epoxide	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
gamma-Chlordane	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Endosulfan I	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
alpha-Chlordane	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Dieldrin	ND	0.0174		mg/Kg-dry	1	9/24/2015 3:00:00 AM
4,4'-DDE	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Endrin	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Endosulfan II	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM
4,4'-DDD	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Endrin aldehyde	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Endosulfan sulfate	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-031

Matrix: Soil

Client Sample ID: MW-2-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Endrin ketone	ND	0.0349		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Methoxychlor	ND	0.0872		mg/Kg-dry	1	9/24/2015 3:00:00 AM
Surr: Decachlorobiphenyl	81.1	26.5-158		%REC	1	9/24/2015 3:00:00 AM
Surr: Tetrachloro-m-xylene	72.6	11-150		%REC	1	9/24/2015 3:00:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11918		Analyst: AK
Diesel (Fuel Oil)	ND	37.8		mg/Kg-dry	1	9/24/2015 1:53:00 AM
Heavy Oil	ND	94.6		mg/Kg-dry	1	9/24/2015 1:53:00 AM
Surr: 2-Fluorobiphenyl	95.4	50-150		%REC	1	9/24/2015 1:53:00 AM
Surr: o-Terphenyl	91.0	50-150		%REC	1	9/24/2015 1:53:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Bis(2-chloroethyl) ether	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2-Chlorophenol	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
1,3-Dichlorobenzene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
1,4-Dichlorobenzene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
1,2-Dichlorobenzene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Benzyl alcohol	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2-Methylphenol (o-cresol)	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Hexachloroethane	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
N-Nitrosodi-n-propylamine	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Nitrobenzene	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Isophorone	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
4-Methylphenol (p-cresol)	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2-Nitrophenol	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2,4-Dimethylphenol	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Bis(2-chloroethoxy)methane	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2,4-Dichlorophenol	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
1,2,4-Trichlorobenzene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Naphthalene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
4-Chloroaniline	ND	952		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Hexachlorobutadiene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
4-Chloro-3-methylphenol	ND	952		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2-Methylnaphthalene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
1-Methylnaphthalene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-031

Matrix: Soil

Client Sample ID: MW-2-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937	Analyst: NG	
Hexachlorocyclopentadiene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2,4,6-Trichlorophenol	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2,4,5-Trichlorophenol	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2-Chloronaphthalene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2-Nitroaniline	ND	952		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Acenaphthene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Dimethylphthalate	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2,6-Dinitrotoluene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Acenaphthylene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2,4-Dinitrophenol	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Dibenzofuran	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
2,4-Dinitrotoluene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
4-Nitrophenol	ND	952		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Fluorene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
4-Chlorophenyl phenyl ether	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Diethylphthalate	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
4,6-Dinitro-2-methylphenol	ND	381		µg/Kg-dry	1	9/25/2015 1:34:00 PM
4-Bromophenyl phenyl ether	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Hexachlorobenzene	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Pentachlorophenol	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Phenanthrene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Anthracene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Carbazole	ND	952		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Di-n-butylphthalate	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Fluoranthene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Pyrene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Butyl Benzylphthalate	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
bis(2-Ethylhexyl)adipate	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Benz (a) anthracene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Chrysene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
bis (2-Ethylhexyl) phthalate	333	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Di-n-octyl phthalate	ND	190		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Benzo (b) fluoranthene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Benzo (k) fluoranthene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Benzo (a) pyrene	516	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Indeno (1,2,3-cd) pyrene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Dibenz (a,h) anthracene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Benzo (g,h,i) perylene	ND	152		µg/Kg-dry	1	9/25/2015 1:34:00 PM
Surr: 2,4,6-Tribromophenol	44.5	11.1-127		%REC	1	9/25/2015 1:34:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-031

Matrix: Soil

Client Sample ID: MW-2-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	51.2	16.1-150		%REC	1	9/25/2015 1:34:00 PM
Surr: Nitrobenzene-d5	62.9	10-133		%REC	1	9/25/2015 1:34:00 PM
Surr: Phenol-d6	56.8	11.6-133		%REC	1	9/25/2015 1:34:00 PM
Surr: p-Terphenyl	68.6	21.8-150		%REC	1	9/25/2015 1:34:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11930		Analyst: BC
Gasoline	ND	5.50		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Surr: Toluene-d8	101	65-135		%REC	1	9/24/2015 1:28:00 AM
Surr: 4-Bromofluorobenzene	102	65-135		%REC	1	9/24/2015 1:28:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0661		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Chloromethane	ND	0.0661		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Vinyl chloride	ND	0.00220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Bromomethane	ND	0.0991		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0550		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Chloroethane	ND	0.0661		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,1-Dichloroethene	ND	0.0550		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Methylene chloride	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
trans-1,2-Dichloroethene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0550		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,1-Dichloroethane	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
2,2-Dichloropropane	ND	0.0550		mg/Kg-dry	1	9/24/2015 1:28:00 AM
cis-1,2-Dichloroethene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Chloroform	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,1-Dichloropropene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Carbon tetrachloride	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2-Dichloroethane (EDC)	ND	0.0330		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Benzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Trichloroethene (TCE)	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2-Dichloropropane	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Bromodichloromethane	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Dibromomethane	ND	0.0440		mg/Kg-dry	1	9/24/2015 1:28:00 AM
cis-1,3-Dichloropropene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Toluene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
trans-1,3-Dichloropropylene	ND	0.0330		mg/Kg-dry	1	9/24/2015 1:28:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-031

Matrix: Soil

Client Sample ID: MW-2-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0330		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,3-Dichloropropane	ND	0.0550		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Tetrachloroethene (PCE)	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Dibromochloromethane	ND	0.0330		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2-Dibromoethane (EDB)	ND	0.00550		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Chlorobenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0330		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Ethylbenzene	ND	0.0330		mg/Kg-dry	1	9/24/2015 1:28:00 AM
m,p-Xylene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
o-Xylene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Styrene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Isopropylbenzene	ND	0.0881		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Bromoform	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
n-Propylbenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Bromobenzene	ND	0.0330		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,3,5-Trimethylbenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
2-Chlorotoluene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
4-Chlorotoluene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
tert-Butylbenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2,3-Trichloropropane	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2,4-Trichlorobenzene	ND	0.0550		mg/Kg-dry	1	9/24/2015 1:28:00 AM
sec-Butylbenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
4-Isopropyltoluene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,3-Dichlorobenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,4-Dichlorobenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
n-Butylbenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2-Dichlorobenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2-Dibromo-3-chloropropane	ND	0.550		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2,4-Trimethylbenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Hexachlorobutadiene	ND	0.110		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Naphthalene	ND	0.0330		mg/Kg-dry	1	9/24/2015 1:28:00 AM
1,2,3-Trichlorobenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 1:28:00 AM
Surr: Dibromofluoromethane	96.2	56.5-129		%REC	1	9/24/2015 1:28:00 AM
Surr: Toluene-d8	97.5	64.3-131		%REC	1	9/24/2015 1:28:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.0	63.1-141		%REC	1	9/24/2015 1:28:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509270-031

Matrix: Soil

Client Sample ID: MW-2-15:13.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11908		Analyst: MW
Mercury	ND	0.443		mg/Kg-dry	1	9/22/2015 5:28:30 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	8.12	0.142		mg/Kg-dry	1	9/22/2015 4:56:49 PM
Barium	74.0	0.709		mg/Kg-dry	1	9/22/2015 4:56:49 PM
Cadmium	ND	0.283		mg/Kg-dry	1	9/22/2015 4:56:49 PM
Chromium	21.8	0.142		mg/Kg-dry	1	9/22/2015 4:56:49 PM
Lead	4.89	0.283		mg/Kg-dry	1	9/22/2015 4:56:49 PM
Selenium	2.35	0.709		mg/Kg-dry	1	9/22/2015 4:56:49 PM
Silver	ND	0.142		mg/Kg-dry	1	9/22/2015 4:56:49 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	47.7			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509270-032

Matrix: Groundwater

Client Sample ID: MW-2-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11896

Analyst: CM

Diesel (Fuel Oil)	ND	50.1		µg/L	1	9/24/2015 1:05:00 PM
Heavy Oil	ND	100		µg/L	1	9/24/2015 1:05:00 PM
Surr: 2-Fluorobiphenyl	58.6	50-150		%REC	1	9/24/2015 1:05:00 PM
Surr: o-Terphenyl	55.7	50-150		%REC	1	9/24/2015 1:05:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 11916

Analyst: NG

Naphthalene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
2-Methylnaphthalene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
1-Methylnaphthalene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Acenaphthylene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Acenaphthene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Fluorene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Phenanthrene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Anthracene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Fluoranthene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Pyrene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Benz(a)anthracene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Chrysene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Benzo(b)fluoranthene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Benzo(k)fluoranthene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Benzo(a)pyrene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Dibenz(a,h)anthracene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Benzo(g,h,i)perylene	ND	0.0998		µg/L	1	9/23/2015 7:35:00 PM
Surr: 2-Fluorobiphenyl	64.8	23.9-122		%REC	1	9/23/2015 7:35:00 PM
Surr: Terphenyl-d14	50.6	33.4-135		%REC	1	9/23/2015 7:35:00 PM

Gasoline by NWTPH-Gx

Batch ID: R25021

Analyst: EM

Gasoline	ND	50.0		µg/L	1	9/22/2015 3:40:00 AM
Surr: Toluene-d8	86.4	65-135		%REC	1	9/22/2015 3:40:00 AM
Surr: 4-Bromofluorobenzene	94.3	65-135		%REC	1	9/22/2015 3:40:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25020

Analyst: EM

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Chloromethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Vinyl chloride	ND	0.200		µg/L	1	9/22/2015 3:40:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509270-032

Matrix: Groundwater

Client Sample ID: MW-2-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: R25020	Analyst: EM	
Bromomethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Chloroethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Methylene chloride	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/22/2015 3:40:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Chloroform	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Benzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/22/2015 3:40:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Dibromomethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Toluene	1.11	1.00		µg/L	1	9/22/2015 3:40:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/22/2015 3:40:00 AM
Chlorobenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Ethylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
m,p-Xylene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
o-Xylene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Styrene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Bromoform	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Bromobenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509270-032

Matrix: Groundwater

Client Sample ID: MW-2-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25020

Analyst: EM

1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/22/2015 3:40:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2015 3:40:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/22/2015 3:40:00 AM
Naphthalene	ND	1.00	Q	µg/L	1	9/22/2015 3:40:00 AM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/22/2015 3:40:00 AM
Surr: Dibromofluoromethane	100	45.4-152		%REC	1	9/22/2015 3:40:00 AM
Surr: Toluene-d8	98.6	40.1-139		%REC	1	9/22/2015 3:40:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.9	64.2-128		%REC	1	9/22/2015 3:40:00 AM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:17:19 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:14:24 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11907

Analyst: TN

Antimony	0.730	0.200	[RE]	µg/L	1	9/22/2015 2:06:07 PM
Arsenic	2.16	1.00		µg/L	1	9/21/2015 4:46:47 PM
Beryllium	ND	0.200		µg/L	1	9/21/2015 4:46:47 PM
Cadmium	ND	0.200		µg/L	1	9/21/2015 4:46:47 PM
Chromium	1.16	0.500		µg/L	1	9/21/2015 4:46:47 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509270-032

Matrix: Groundwater

Client Sample ID: MW-2-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Metals by EPA Method 200.8</u>				Batch ID: 11907		Analyst: TN
Copper	13.3	0.500		µg/L	1	9/21/2015 4:46:47 PM
Lead	ND	1.00		µg/L	1	9/21/2015 4:46:47 PM
Nickel	4.14	0.500		µg/L	1	9/21/2015 4:46:47 PM
Selenium	ND	1.00		µg/L	1	9/21/2015 4:46:47 PM
Silver	ND	0.200		µg/L	1	9/21/2015 4:46:47 PM
Thallium	ND	0.200	[RE]	µg/L	1	9/22/2015 2:06:07 PM
Zinc	10.9	1.50		µg/L	1	9/21/2015 4:46:47 PM
<u>Total Metals by EPA Method 200.8</u>				Batch ID: 11891		Analyst: TN
Antimony	0.292	0.200		µg/L	1	9/22/2015 1:27:19 PM
Arsenic	7.86	1.00		µg/L	1	9/21/2015 4:57:20 PM
Beryllium	ND	0.200		µg/L	1	9/21/2015 4:57:20 PM
Cadmium	ND	0.200		µg/L	1	9/21/2015 4:57:20 PM
Chromium	4.99	0.500		µg/L	1	9/21/2015 4:57:20 PM
Copper	25.2	0.500		µg/L	1	9/21/2015 4:57:20 PM
Lead	5.18	1.00		µg/L	1	9/21/2015 4:57:20 PM
Nickel	6.01	0.500		µg/L	1	9/21/2015 4:57:20 PM
Selenium	1.90	1.00		µg/L	1	9/21/2015 4:57:20 PM
Silver	ND	0.200		µg/L	1	9/21/2015 4:57:20 PM
Thallium	ND	0.200		µg/L	1	9/22/2015 1:27:19 PM
Zinc	19.9	1.50		µg/L	1	9/21/2015 4:57:20 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-033

Matrix: Soil

Client Sample ID: MW-3-15:6.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>				Batch ID: 11938		Analyst: MD
Dicamba	ND	43.8		µg/Kg-dry	1	10/1/2015 2:48:00 AM
2,4-D	ND	37.5		µg/Kg-dry	1	10/1/2015 2:48:00 AM
2,4-DP	ND	31.3		µg/Kg-dry	1	10/1/2015 2:48:00 AM
2,4,5-TP (Silvex)	ND	25.0		µg/Kg-dry	1	10/1/2015 2:48:00 AM
2,4,5-T	ND	62.6		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Dinoseb	ND	37.5		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Dalapon	ND	250		µg/Kg-dry	1	10/1/2015 2:48:00 AM
2,4-DB	ND	31.3		µg/Kg-dry	1	10/1/2015 2:48:00 AM
MCPP	ND	5,510		µg/Kg-dry	1	10/1/2015 2:48:00 AM
MCPA	ND	350		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Picloram	ND	62.6		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Bentazon	ND	43.8		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Chloramben	ND	25.0		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Acifluorfen	ND	100		µg/Kg-dry	1	10/1/2015 2:48:00 AM
3,5-Dichlorobenzoic acid	ND	50.1		µg/Kg-dry	1	10/1/2015 2:48:00 AM
4-Nitrophenol	ND	37.5		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Dacthal (DCPA)	ND	37.5		µg/Kg-dry	1	10/1/2015 2:48:00 AM
Surr: 2,4-Dichlorophenylacetic acid	82.9	20.1-168		%REC	1	10/1/2015 2:48:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935 Analyst: MD

Toxaphene	ND	0.119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Alpha BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Beta BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Gamma BHC (Lindane)	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Delta BHC	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Heptachlor	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Aldrin	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Heptachlor epoxide	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
gamma-Chlordane	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Endosulfan I	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
alpha-Chlordane	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Dieldrin	ND	0.0119		mg/Kg-dry	1	9/24/2015 3:11:00 AM
4,4'-DDE	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Endrin	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Endosulfan II	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM
4,4'-DDD	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Endrin aldehyde	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Endosulfan sulfate	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-033

Matrix: Soil

Client Sample ID: MW-3-15:6.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Endrin ketone	ND	0.0237		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Methoxychlor	ND	0.0593		mg/Kg-dry	1	9/24/2015 3:11:00 AM
Surr: Decachlorobiphenyl	65.0	26.5-158		%REC	1	9/24/2015 3:11:00 AM
Surr: Tetrachloro-m-xylene	77.6	11-150		%REC	1	9/24/2015 3:11:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11918		Analyst: AK
Diesel (Fuel Oil)	ND	23.4		mg/Kg-dry	1	9/24/2015 2:56:00 AM
Heavy Oil	ND	58.6		mg/Kg-dry	1	9/24/2015 2:56:00 AM
Surr: 2-Fluorobiphenyl	90.8	50-150		%REC	1	9/24/2015 2:56:00 AM
Surr: o-Terphenyl	86.8	50-150		%REC	1	9/24/2015 2:56:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Bis(2-chloroethyl) ether	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2-Chlorophenol	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
1,3-Dichlorobenzene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
1,4-Dichlorobenzene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
1,2-Dichlorobenzene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Benzyl alcohol	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2-Methylphenol (o-cresol)	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Hexachloroethane	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
N-Nitrosodi-n-propylamine	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Nitrobenzene	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Isophorone	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
4-Methylphenol (p-cresol)	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2-Nitrophenol	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2,4-Dimethylphenol	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Bis(2-chloroethoxy)methane	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2,4-Dichlorophenol	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
1,2,4-Trichlorobenzene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Naphthalene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
4-Chloroaniline	ND	618		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Hexachlorobutadiene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
4-Chloro-3-methylphenol	ND	618		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2-Methylnaphthalene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
1-Methylnaphthalene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-033

Matrix: Soil

Client Sample ID: MW-3-15:6.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Hexachlorocyclopentadiene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2,4,6-Trichlorophenol	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2,4,5-Trichlorophenol	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2-Chloronaphthalene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2-Nitroaniline	ND	618		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Acenaphthene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Dimethylphthalate	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2,6-Dinitrotoluene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Acenaphthylene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2,4-Dinitrophenol	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Dibenzofuran	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
2,4-Dinitrotoluene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
4-Nitrophenol	ND	618		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Fluorene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
4-Chlorophenyl phenyl ether	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Diethylphthalate	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
4,6-Dinitro-2-methylphenol	ND	247		µg/Kg-dry	1	9/25/2015 1:56:00 PM
4-Bromophenyl phenyl ether	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Hexachlorobenzene	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Pentachlorophenol	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Phenanthrene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Anthracene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Carbazole	ND	618		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Di-n-butylphthalate	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Fluoranthene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Pyrene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Butyl Benzylphthalate	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
bis(2-Ethylhexyl)adipate	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Benz (a) anthracene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Chrysene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
bis (2-Ethylhexyl) phthalate	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Di-n-octyl phthalate	ND	124		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Benzo (b) fluoranthene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Benzo (k) fluoranthene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Benzo (a) pyrene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Indeno (1,2,3-cd) pyrene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Dibenz (a,h) anthracene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Benzo (g,h,i) perylene	ND	98.8		µg/Kg-dry	1	9/25/2015 1:56:00 PM
Surr: 2,4,6-Tribromophenol	58.6	11.1-127		%REC	1	9/25/2015 1:56:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-033

Matrix: Soil

Client Sample ID: MW-3-15:6.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	56.7	16.1-150		%REC	1	9/25/2015 1:56:00 PM
Surr: Nitrobenzene-d5	37.2	10-133		%REC	1	9/25/2015 1:56:00 PM
Surr: Phenol-d6	52.8	11.6-133		%REC	1	9/25/2015 1:56:00 PM
Surr: p-Terphenyl	82.7	21.8-150		%REC	1	9/25/2015 1:56:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11930		Analyst: BC
Gasoline	ND	3.88		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Surr: Toluene-d8	99.5	65-135		%REC	1	9/24/2015 3:51:00 AM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/24/2015 3:51:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0465		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Chloromethane	ND	0.0465		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Vinyl chloride	ND	0.00155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Bromomethane	ND	0.0698		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0388		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Chloroethane	ND	0.0465		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,1-Dichloroethene	ND	0.0388		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Methylene chloride	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
trans-1,2-Dichloroethene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0388		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,1-Dichloroethane	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
2,2-Dichloropropane	ND	0.0388		mg/Kg-dry	1	9/24/2015 3:51:00 AM
cis-1,2-Dichloroethene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Chloroform	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,1-Dichloropropene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Carbon tetrachloride	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2-Dichloroethane (EDC)	ND	0.0233		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Benzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Trichloroethene (TCE)	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2-Dichloropropane	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Bromodichloromethane	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Dibromomethane	ND	0.0310		mg/Kg-dry	1	9/24/2015 3:51:00 AM
cis-1,3-Dichloropropene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Toluene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
trans-1,3-Dichloropropylene	ND	0.0233		mg/Kg-dry	1	9/24/2015 3:51:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-033

Matrix: Soil

Client Sample ID: MW-3-15:6.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0233		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,3-Dichloropropane	ND	0.0388		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Tetrachloroethene (PCE)	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Dibromochloromethane	ND	0.0233		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2-Dibromoethane (EDB)	ND	0.00388		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Chlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0233		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Ethylbenzene	ND	0.0233		mg/Kg-dry	1	9/24/2015 3:51:00 AM
m,p-Xylene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
o-Xylene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Styrene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Isopropylbenzene	ND	0.0620		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Bromoform	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
n-Propylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Bromobenzene	ND	0.0233		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,3,5-Trimethylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
2-Chlorotoluene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
4-Chlorotoluene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
tert-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2,3-Trichloropropane	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2,4-Trichlorobenzene	ND	0.0388		mg/Kg-dry	1	9/24/2015 3:51:00 AM
sec-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
4-Isopropyltoluene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,3-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,4-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
n-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2-Dibromo-3-chloropropane	ND	0.388		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2,4-Trimethylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Hexachlorobutadiene	ND	0.0775		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Naphthalene	ND	0.0233		mg/Kg-dry	1	9/24/2015 3:51:00 AM
1,2,3-Trichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 3:51:00 AM
Surr: Dibromofluoromethane	94.6	56.5-129		%REC	1	9/24/2015 3:51:00 AM
Surr: Toluene-d8	98.4	64.3-131		%REC	1	9/24/2015 3:51:00 AM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/24/2015 3:51:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1509270-033

Matrix: Soil

Client Sample ID: MW-3-15:6.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11908		Analyst: MW
Mercury	ND	0.304		mg/Kg-dry	1	9/22/2015 5:30:07 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	3.76	0.103		mg/Kg-dry	1	9/22/2015 5:00:20 PM
Barium	16.6	0.515		mg/Kg-dry	1	9/22/2015 5:00:20 PM
Cadmium	ND	0.206		mg/Kg-dry	1	9/22/2015 5:00:20 PM
Chromium	11.7	0.103		mg/Kg-dry	1	9/22/2015 5:00:20 PM
Lead	1.28	0.206		mg/Kg-dry	1	9/22/2015 5:00:20 PM
Selenium	0.860	0.515		mg/Kg-dry	1	9/22/2015 5:00:20 PM
Silver	ND	0.103		mg/Kg-dry	1	9/22/2015 5:00:20 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	22.4			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-034

Matrix: Soil

Client Sample ID: MW-3-15:15.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11938			Analyst: MD
Dicamba	ND	47.7		µg/Kg-dry	1	10/1/2015 3:05:00 AM
2,4-D	ND	40.9		µg/Kg-dry	1	10/1/2015 3:05:00 AM
2,4-DP	ND	34.1		µg/Kg-dry	1	10/1/2015 3:05:00 AM
2,4,5-TP (Silvex)	ND	27.3		µg/Kg-dry	1	10/1/2015 3:05:00 AM
2,4,5-T	ND	68.1		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Dinoseb	ND	40.9		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Dalapon	ND	273		µg/Kg-dry	1	10/1/2015 3:05:00 AM
2,4-DB	ND	34.1		µg/Kg-dry	1	10/1/2015 3:05:00 AM
MCPP	ND	6,000		µg/Kg-dry	1	10/1/2015 3:05:00 AM
MCPA	ND	382		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Picloram	ND	68.1		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Bentazon	ND	47.7		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Chloramben	ND	27.3		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Acifluorfen	ND	109		µg/Kg-dry	1	10/1/2015 3:05:00 AM
3,5-Dichlorobenzoic acid	ND	54.5		µg/Kg-dry	1	10/1/2015 3:05:00 AM
4-Nitrophenol	ND	40.9		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Dacthal (DCPA)	ND	40.9		µg/Kg-dry	1	10/1/2015 3:05:00 AM
Surr: 2,4-Dichlorophenylacetic acid	97.6	20.1-168		%REC	1	10/1/2015 3:05:00 AM
<u>Organochlorine Pesticides by EPA Method 8081</u>			Batch ID: 11935			Analyst: MD
Toxaphene	ND	0.127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Alpha BHC	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Beta BHC	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Gamma BHC (Lindane)	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Delta BHC	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Heptachlor	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Aldrin	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Heptachlor epoxide	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
gamma-Chlordane	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Endosulfan I	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
alpha-Chlordane	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Dieldrin	ND	0.0127		mg/Kg-dry	1	9/24/2015 3:21:00 AM
4,4'-DDE	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Endrin	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Endosulfan II	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM
4,4'-DDD	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Endrin aldehyde	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Endosulfan sulfate	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-034

Matrix: Soil

Client Sample ID: MW-3-15:15.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Endrin ketone	ND	0.0254		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Methoxychlor	ND	0.0634		mg/Kg-dry	1	9/24/2015 3:21:00 AM
Surr: Decachlorobiphenyl	82.8	26.5-158		%REC	1	9/24/2015 3:21:00 AM
Surr: Tetrachloro-m-xylene	85.8	11-150		%REC	1	9/24/2015 3:21:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11918		Analyst: AK
Diesel (Fuel Oil)	ND	25.7		mg/Kg-dry	1	9/24/2015 4:29:00 AM
Heavy Oil	ND	64.2		mg/Kg-dry	1	9/24/2015 4:29:00 AM
Surr: 2-Fluorobiphenyl	94.9	50-150		%REC	1	9/24/2015 4:29:00 AM
Surr: o-Terphenyl	90.4	50-150		%REC	1	9/24/2015 4:29:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Bis(2-chloroethyl) ether	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2-Chlorophenol	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
1,3-Dichlorobenzene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
1,4-Dichlorobenzene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
1,2-Dichlorobenzene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Benzyl alcohol	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2-Methylphenol (o-cresol)	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Hexachloroethane	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
N-Nitrosodi-n-propylamine	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Nitrobenzene	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Isophorone	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
4-Methylphenol (p-cresol)	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2-Nitrophenol	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2,4-Dimethylphenol	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Bis(2-chloroethoxy)methane	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2,4-Dichlorophenol	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
1,2,4-Trichlorobenzene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Naphthalene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
4-Chloroaniline	ND	674		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Hexachlorobutadiene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
4-Chloro-3-methylphenol	ND	674		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2-Methylnaphthalene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
1-Methylnaphthalene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-034

Matrix: Soil

Client Sample ID: MW-3-15:15.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937	Analyst: NG	
Hexachlorocyclopentadiene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2,4,6-Trichlorophenol	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2,4,5-Trichlorophenol	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2-Chloronaphthalene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2-Nitroaniline	ND	674		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Acenaphthene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Dimethylphthalate	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2,6-Dinitrotoluene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Acenaphthylene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2,4-Dinitrophenol	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Dibenzofuran	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
2,4-Dinitrotoluene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
4-Nitrophenol	ND	674		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Fluorene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
4-Chlorophenyl phenyl ether	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Diethylphthalate	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
4,6-Dinitro-2-methylphenol	ND	270		µg/Kg-dry	1	9/25/2015 2:19:00 PM
4-Bromophenyl phenyl ether	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Hexachlorobenzene	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Pentachlorophenol	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Phenanthrene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Anthracene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Carbazole	ND	674		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Di-n-butylphthalate	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Fluoranthene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Pyrene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Butyl Benzylphthalate	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
bis(2-Ethylhexyl)adipate	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Benz (a) anthracene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Chrysene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
bis (2-Ethylhexyl) phthalate	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Di-n-octyl phthalate	ND	135		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Benzo (b) fluoranthene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Benzo (k) fluoranthene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Benzo (a) pyrene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Indeno (1,2,3-cd) pyrene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Dibenz (a,h) anthracene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Benzo (g,h,i) perylene	ND	108		µg/Kg-dry	1	9/25/2015 2:19:00 PM
Surr: 2,4,6-Tribromophenol	41.4	11.1-127		%REC	1	9/25/2015 2:19:00 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-034

Matrix: Soil

Client Sample ID: MW-3-15:15.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	36.2	16.1-150		%REC	1	9/25/2015 2:19:00 PM
Surr: Nitrobenzene-d5	21.3	10-133		%REC	1	9/25/2015 2:19:00 PM
Surr: Phenol-d6	31.5	11.6-133		%REC	1	9/25/2015 2:19:00 PM
Surr: p-Terphenyl	48.1	21.8-150		%REC	1	9/25/2015 2:19:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 11930		Analyst: BC
Gasoline	ND	3.69		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Surr: Toluene-d8	99.5	65-135		%REC	1	9/24/2015 4:49:00 AM
Surr: 4-Bromofluorobenzene	101	65-135		%REC	1	9/24/2015 4:49:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0442		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Chloromethane	ND	0.0442		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Vinyl chloride	ND	0.00147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Bromomethane	ND	0.0663		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0369		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Chloroethane	ND	0.0442		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,1-Dichloroethene	ND	0.0369		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Methylene chloride	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
trans-1,2-Dichloroethene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0369		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,1-Dichloroethane	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
2,2-Dichloropropane	ND	0.0369		mg/Kg-dry	1	9/24/2015 4:49:00 AM
cis-1,2-Dichloroethene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Chloroform	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,1-Dichloropropene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Carbon tetrachloride	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2-Dichloroethane (EDC)	ND	0.0221		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Benzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Trichloroethene (TCE)	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2-Dichloropropane	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Bromodichloromethane	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Dibromomethane	ND	0.0295		mg/Kg-dry	1	9/24/2015 4:49:00 AM
cis-1,3-Dichloropropene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Toluene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
trans-1,3-Dichloropropylene	ND	0.0221		mg/Kg-dry	1	9/24/2015 4:49:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-034

Matrix: Soil

Client Sample ID: MW-3-15:15.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930	Analyst: BC	
1,1,2-Trichloroethane	ND	0.0221		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,3-Dichloropropane	ND	0.0369		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Tetrachloroethene (PCE)	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Dibromochloromethane	ND	0.0221		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2-Dibromoethane (EDB)	ND	0.00369		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Chlorobenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0221		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Ethylbenzene	ND	0.0221		mg/Kg-dry	1	9/24/2015 4:49:00 AM
m,p-Xylene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
o-Xylene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Styrene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Isopropylbenzene	ND	0.0590		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Bromoform	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
n-Propylbenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Bromobenzene	ND	0.0221		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,3,5-Trimethylbenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
2-Chlorotoluene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
4-Chlorotoluene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
tert-Butylbenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2,3-Trichloropropane	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2,4-Trichlorobenzene	ND	0.0369		mg/Kg-dry	1	9/24/2015 4:49:00 AM
sec-Butylbenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
4-Isopropyltoluene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,3-Dichlorobenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,4-Dichlorobenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
n-Butylbenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2-Dichlorobenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2-Dibromo-3-chloropropane	ND	0.369		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2,4-Trimethylbenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Hexachlorobutadiene	ND	0.0737		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Naphthalene	ND	0.0221		mg/Kg-dry	1	9/24/2015 4:49:00 AM
1,2,3-Trichlorobenzene	ND	0.0147		mg/Kg-dry	1	9/24/2015 4:49:00 AM
Surr: Dibromofluoromethane	95.3	56.5-129		%REC	1	9/24/2015 4:49:00 AM
Surr: Toluene-d8	96.8	64.3-131		%REC	1	9/24/2015 4:49:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.6	63.1-141		%REC	1	9/24/2015 4:49:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:05:00 PM

Project: Pacific Park

Lab ID: 1509270-034

Matrix: Soil

Client Sample ID: MW-3-15:15.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11908		Analyst: MW
Mercury	ND	0.315		mg/Kg-dry	1	9/22/2015 5:35:04 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11906		Analyst: TN
Arsenic	1.55	0.114		mg/Kg-dry	1	9/22/2015 5:03:52 PM
Barium	26.5	0.568		mg/Kg-dry	1	9/22/2015 5:03:52 PM
Cadmium	ND	0.227		mg/Kg-dry	1	9/22/2015 5:03:52 PM
Chromium	12.1	0.114		mg/Kg-dry	1	9/22/2015 5:03:52 PM
Lead	1.52	0.227		mg/Kg-dry	1	9/22/2015 5:03:52 PM
Selenium	0.975	0.568		mg/Kg-dry	1	9/22/2015 5:03:52 PM
Silver	ND	0.114		mg/Kg-dry	1	9/22/2015 5:03:52 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25044		Analyst: CG
Percent Moisture	26.6			wt%	1	9/23/2015 12:48:56 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:55:00 PM

Project: Pacific Park

Lab ID: 1509270-035

Matrix: Groundwater

Client Sample ID: MW-3-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11896

Analyst: CM

Diesel (Fuel Oil)	ND	50.0		µg/L	1	9/24/2015 1:37:00 PM
Heavy Oil	ND	99.9		µg/L	1	9/24/2015 1:37:00 PM
Surr: 2-Fluorobiphenyl	51.3	50-150		%REC	1	9/24/2015 1:37:00 PM
Surr: o-Terphenyl	50.4	50-150		%REC	1	9/24/2015 1:37:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 11916

Analyst: NG

Naphthalene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
2-Methylnaphthalene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
1-Methylnaphthalene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Acenaphthylene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Acenaphthene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Fluorene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Phenanthrene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Anthracene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Fluoranthene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Pyrene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Benz(a)anthracene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Chrysene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Benzo(b)fluoranthene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Benzo(k)fluoranthene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Benzo(a)pyrene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Dibenz(a,h)anthracene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Benzo(g,h,i)perylene	ND	0.0999		µg/L	1	9/23/2015 8:27:00 PM
Surr: 2-Fluorobiphenyl	61.0	23.9-122		%REC	1	9/23/2015 8:27:00 PM
Surr: Terphenyl-d14	38.3	33.4-135		%REC	1	9/23/2015 8:27:00 PM

Gasoline by NWTPH-Gx

Batch ID: R25021

Analyst: EM

Gasoline	ND	50.0		µg/L	1	9/22/2015 4:08:00 AM
Surr: Toluene-d8	88.6	65-135		%REC	1	9/22/2015 4:08:00 AM
Surr: 4-Bromofluorobenzene	97.8	65-135		%REC	1	9/22/2015 4:08:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25020

Analyst: EM

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Chloromethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Vinyl chloride	ND	0.200		µg/L	1	9/22/2015 4:08:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:55:00 PM

Project: Pacific Park

Lab ID: 1509270-035

Matrix: Groundwater

Client Sample ID: MW-3-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: R25020		Analyst: EM
Bromomethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Chloroethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Methylene chloride	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/22/2015 4:08:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Chloroform	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Benzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/22/2015 4:08:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Dibromomethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Toluene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/22/2015 4:08:00 AM
Chlorobenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Ethylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
m,p-Xylene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
o-Xylene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Styrene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Bromoform	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Bromobenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:55:00 PM

Project: Pacific Park

Lab ID: 1509270-035

Matrix: Groundwater

Client Sample ID: MW-3-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25020

Analyst: EM

1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/22/2015 4:08:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/22/2015 4:08:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/22/2015 4:08:00 AM
Naphthalene	ND	1.00	Q	µg/L	1	9/22/2015 4:08:00 AM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/22/2015 4:08:00 AM
Surr: Dibromofluoromethane	99.9	45.4-152		%REC	1	9/22/2015 4:08:00 AM
Surr: Toluene-d8	100	40.1-139		%REC	1	9/22/2015 4:08:00 AM
Surr: 1-Bromo-4-fluorobenzene	103	64.2-128		%REC	1	9/22/2015 4:08:00 AM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:18:59 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:16:05 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11907

Analyst: TN

Antimony	0.620	0.200	[RE]	µg/L	1	9/22/2015 2:09:39 PM
Arsenic	3.87	1.00		µg/L	1	9/21/2015 4:50:18 PM
Beryllium	ND	0.200		µg/L	1	9/21/2015 4:50:18 PM
Cadmium	ND	0.200		µg/L	1	9/21/2015 4:50:18 PM
Chromium	ND	0.500		µg/L	1	9/21/2015 4:50:18 PM



Analytical Report

WO#: 1509270

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/18/2015 2:55:00 PM

Project: Pacific Park

Lab ID: 1509270-035

Matrix: Groundwater

Client Sample ID: MW-3-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 11907

Analyst: TN

Copper	3.97	0.500		µg/L	1	9/21/2015 4:50:18 PM
Lead	ND	1.00		µg/L	1	9/21/2015 4:50:18 PM
Nickel	3.17	0.500		µg/L	1	9/21/2015 4:50:18 PM
Selenium	1.40	1.00		µg/L	1	9/21/2015 4:50:18 PM
Silver	ND	0.200		µg/L	1	9/21/2015 4:50:18 PM
Thallium	ND	0.200	[RE]	µg/L	1	9/22/2015 2:09:39 PM
Zinc	19.1	1.50		µg/L	1	9/21/2015 4:50:18 PM

Total Metals by EPA Method 200.8

Batch ID: 11891

Analyst: TN

Antimony	0.408	0.200		µg/L	1	9/22/2015 1:30:51 PM
Arsenic	11.4	1.00		µg/L	1	9/21/2015 5:00:51 PM
Beryllium	0.978	0.200		µg/L	1	9/21/2015 5:00:51 PM
Cadmium	0.460	0.200		µg/L	1	9/21/2015 5:00:51 PM
Chromium	5.32	0.500		µg/L	1	9/21/2015 5:00:51 PM
Copper	18.7	0.500		µg/L	1	9/21/2015 5:00:51 PM
Lead	29.8	1.00		µg/L	1	9/21/2015 5:00:51 PM
Nickel	6.85	0.500		µg/L	1	9/21/2015 5:00:51 PM
Selenium	2.67	1.00		µg/L	1	9/21/2015 5:00:51 PM
Silver	ND	0.200		µg/L	1	9/21/2015 5:00:51 PM
Thallium	ND	0.200		µg/L	1	9/22/2015 1:30:51 PM
Zinc	128	1.50		µg/L	1	9/21/2015 5:00:51 PM



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID	MB-11892	SampType: MBLK		Units: µg/L		Prep Date: 9/21/2015			RunNo: 25002		
Client ID:	MBLKW	Batch ID: 11892		Analysis Date: 9/21/2015						SeqNo: 470997	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	1.00									
Beryllium	ND	0.200									
Cadmium	ND	0.200									
Chromium	ND	0.500									
Copper	ND	0.500									
Lead	ND	1.00									
Nickel	ND	0.500									
Selenium	ND	1.00									
Silver	ND	0.200									
Zinc	ND	1.50									

Sample ID	MB-11897FB	SampType: MBLK		Units: µg/L		Prep Date: 9/21/2015			RunNo: 25002		
Client ID:	MBLKW	Batch ID: 11892		Analysis Date: 9/21/2015						SeqNo: 470998	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	1.00									
Beryllium	ND	0.200									
Cadmium	ND	0.200									
Chromium	ND	0.500									
Copper	ND	0.500									
Lead	ND	1.00									
Nickel	ND	0.500									
Selenium	ND	1.00									
Silver	ND	0.200									
Zinc	ND	1.50									

NOTES:
Filter Blank



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID	LCS-11892	SampType:	LCS	Units:	µg/L	Prep Date:	9/21/2015	RunNo:	25002		
Client ID:	LCSW	Batch ID:	11892			Analysis Date:	9/21/2015	SeqNo:	470999		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	98.6	1.00	100.0	0	98.6	85	115				
Beryllium	4.87	0.200	5.000	0	97.5	85	115				
Cadmium	5.05	0.200	5.000	0	101	85	115				
Chromium	90.6	0.500	100.0	0	90.6	85	115				
Copper	90.6	0.500	100.0	0	90.6	85	115				
Lead	54.0	1.00	50.00	0	108	85	115				
Nickel	90.9	0.500	100.0	0	90.9	85	115				
Selenium	10.3	1.00	10.00	0	103	85	115				
Silver	4.49	0.200	5.000	0	89.8	85	115				
Zinc	90.4	1.50	100.0	0	90.4	85	115				

Sample ID	1509253-001ADUP	SampType: DUP			Units: µg/L	Prep Date: 9/21/2015			RunNo: 25002		
Client ID:	BATCH	Batch ID: 11892			Analysis Date: 9/21/2015			SeqNo: 471003			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	1.00						1.118	21.5	30	
Beryllium	ND	0.200						0		30	
Cadmium	ND	0.200						0		30	
Chromium	15.7	0.500						15.54	1.12	30	
Copper	52.2	0.500						50.87	2.57	30	
Lead	ND	1.00						0		30	
Nickel	4.11	0.500						3.990	2.96	30	
Selenium	2.90	1.00						3.245	11.1	30	
Silver	ND	0.200						0		30	
Zinc	128	1.50						131.0	2.10	30	



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID	1509253-001AMS	SampType: MS	Units: µg/L			Prep Date: 9/21/2015			RunNo: 25002		
Client ID:	BATCH	Batch ID: 11892				Analysis Date: 9/21/2015			SeqNo: 471004		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	569	1.00	500.0	1.118	114	70	130				
Beryllium	22.6	0.200	25.00	0.1360	89.8	70	130				
Cadmium	26.8	0.200	25.00	0.06450	107	70	130				
Chromium	506	0.500	500.0	15.54	98.1	70	130				
Copper	500	0.500	500.0	50.87	89.8	70	130				
Lead	241	1.00	250.0	0.9300	96.1	70	130				
Nickel	461	0.500	500.0	3.990	91.3	70	130				
Selenium	60.4	1.00	50.00	3.245	114	70	130				
Silver	16.2	0.200	25.00	0	64.8	70	130				S
Zinc	599	1.50	500.0	131.0	93.6	70	130				

NOTES:

S - Outlying spike recovery observed. A duplicate analysis was performed with the same result, indicating a possible matrix effect.

Sample ID	1509253-001AMSD	SampType: MSD	Units: µg/L			Prep Date: 9/21/2015			RunNo: 25002		
Client ID:	BATCH	Batch ID: 11892				Analysis Date: 9/21/2015			SeqNo: 471005		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	561	1.00	500.0	1.118	112	70	130	569.2	1.43	30	
Beryllium	21.4	0.200	25.00	0.1360	85.0	70	130	22.59	5.53	30	
Cadmium	26.7	0.200	25.00	0.06450	106	70	130	26.80	0.482	30	
Chromium	491	0.500	500.0	15.54	95.1	70	130	505.9	2.97	30	
Copper	491	0.500	500.0	50.87	88.0	70	130	499.9	1.86	30	
Lead	237	1.00	250.0	0.9300	94.4	70	130	241.1	1.74	30	
Nickel	452	0.500	500.0	3.990	89.6	70	130	460.6	1.83	30	
Selenium	59.0	1.00	50.00	3.245	112	70	130	60.44	2.39	30	
Silver	15.2	0.200	25.00	0	60.7	70	130	16.20	6.63	30	S
Zinc	607	1.50	500.0	131.0	95.1	70	130	598.9	1.29	30	

NOTES:

S - Outlying spike recovery observed. A duplicate analysis was performed with the same result, indicating a possible matrix effect.



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID	MB-11897FB	SampType:	MBLK			Units:	µg/L			Prep Date:	9/22/2015		RunNo:	25019	
Client ID:	MBLKW	Batch ID:	11907						Analysis Date:	9/22/2015			SeqNo:	471311	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Antimony	ND	0.200
Thallium	ND	0.200

NOTES:
Filter Blank

Sample ID	MB-11907	SampType:	MBLK			Units:	µg/L			Prep Date:	9/22/2015		RunNo:	25019	
Client ID:	MBLKW	Batch ID:	11907						Analysis Date:	9/22/2015			SeqNo:	471312	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Antimony	ND	0.200
Thallium	ND	0.200

Sample ID	LCS-11907	SampType: LCS			Units: µg/L	Prep Date: 9/22/2015			RunNo: 25019		
Client ID:	LCSW	Batch ID: 11907			Analysis Date: 9/22/2015			SeqNo: 471313			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	4.77	0.200	5.000	0	95.4	85	115
Thallium	2.46	0.200	2.500	0	98.3	85	115

Sample ID	1509270-027DDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25019		
Client ID:	GP-12-15:GW	Batch ID:	11907			Analysis Date:	9/22/2015	SeqNo:	471315		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	0.360	0.200						0.5130	34.9	30
Thallium	ND	0.200						0		30



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID	1509270-027DMS	SampType:	MS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25019		
Client ID:	GP-12-15:GW	Batch ID:	11907			Analysis Date:	9/22/2015	SeqNo:	471316		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	24.9	0.200	25.00	0.5130	97.4	70	130				
Thallium	12.8	0.200	12.50	0.06650	102	70	130				

Sample ID	1509270-027DMSD	SampType:	MSD	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25019		
Client ID:	GP-12-15:GW	Batch ID:	11907			Analysis Date:	9/22/2015	SeqNo:	471317		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	25.8	0.200	25.00	0.5130	101	70	130	24.86	3.83	30	
Thallium	13.1	0.200	12.50	0.06650	105	70	130	12.78	2.74	30	



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID	MB-11891	SampType:	MBLK		Units:	µg/L		Prep Date:	9/21/2015		RunNo:	24996	
Client ID:	MBLKW	Batch ID:	11891					Analysis Date:	9/21/2015		SeqNo:	470915	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Antimony		ND	0.200										
Arsenic		ND	1.00										
Beryllium		ND	0.200										
Cadmium		ND	0.200										
Chromium		ND	0.500										
Copper		ND	0.500										
Lead		ND	1.00										
Nickel		ND	0.500										
Selenium		ND	1.00										
Silver		ND	0.200										
Thallium		ND	0.200										
Zinc		ND	1.50										

Sample ID	LCS-11891	SampType:	LCS	Units:	µg/L	Prep Date:	9/21/2015	RunNo:	24996		
Client ID:	LCSW	Batch ID:	11891			Analysis Date:	9/21/2015	SeqNo:	470916		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	4.53	0.200	5.000	0	90.7	85	115				
Arsenic	104	1.00	100.0	0	104	85	115				
Beryllium	5.49	0.200	5.000	0	110	85	115				
Cadmium	5.07	0.200	5.000	0	101	85	115				
Chromium	105	0.500	100.0	0	105	85	115				
Copper	101	0.500	100.0	0	101	85	115				
Lead	51.1	1.00	50.00	0	102	85	115				
Nickel	102	0.500	100.0	0	102	85	115				
Selenium	10.6	1.00	10.00	0	106	85	115				
Silver	4.73	0.200	5.000	0	94.6	85	115				
Thallium	2.14	0.200	2.500	0	85.4	85	115				
Zinc	99.6	1.50	100.0	0	99.6	85	115				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID	1509241-001BDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/21/2015	RunNo:	24996		
Client ID:	BATCH	Batch ID:	11891			Analysis Date:	9/21/2015	SeqNo:	470918		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.494	0.200						0.5730	14.7	30	
Arsenic	ND	1.00						0		30	
Beryllium	ND	0.200						0		30	
Cadmium	ND	0.200						0		30	
Chromium	0.989	0.500						1.166	16.5	30	
Copper	6.70	0.500						6.985	4.14	30	
Lead	ND	1.00						1.052	6.18	30	
Nickel	1.22	0.500						1.559	24.3	30	
Selenium	ND	1.00						0		30	
Silver	ND	0.200						0		30	
Thallium	ND	0.200						0		30	
Zinc	53.2	1.50						54.87	3.18	30	

Sample ID	1509241-001BMS	SampType:	MS		Units:	µg/L		Prep Date:	9/21/2015		RunNo:	24996	
Client ID:	BATCH	Batch ID:	11891					Analysis Date:	9/21/2015		SeqNo:	470919	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Antimony	21.8	0.200	25.00	0.5730	85.0	70	130						
Arsenic	528	1.00	500.0	0.4850	105	70	130						
Beryllium	26.2	0.200	25.00	0.01600	105	70	130						
Cadmium	25.3	0.200	25.00	0.02350	101	70	130						
Chromium	539	0.500	500.0	1.166	108	70	130						
Copper	534	0.500	500.0	6.985	105	70	130						
Lead	260	1.00	250.0	1.052	104	70	130						
Nickel	520	0.500	500.0	1.559	104	70	130						
Selenium	48.3	1.00	50.00	0.1100	96.3	70	130						
Silver	22.3	0.200	25.00	0.05800	88.9	70	130						
Thallium	10.3	0.200	12.50	0.009000	82.2	70	130						
Zinc	562	1.50	500.0	54.87	102	70	130						



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID	1509241-001BMSD	SampType:	MSD		Units:	µg/L		Prep Date:	9/21/2015		RunNo:	24996	
Client ID:	BATCH	Batch ID:	11891		Analysis Date:				9/21/2015		SeqNo:	470922	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Antimony	22.5	0.200	25.00	0.5730	87.7	70	130	21.83	3.03	30			
Arsenic	505	1.00	500.0	0.4850	101	70	130	527.9	4.43	30			
Beryllium	27.0	0.200	25.00	0.01600	108	70	130	26.20	3.04	30			
Cadmium	23.8	0.200	25.00	0.02350	94.9	70	130	25.33	6.44	30			
Chromium	511	0.500	500.0	1.166	102	70	130	538.7	5.18	30			
Copper	511	0.500	500.0	6.985	101	70	130	533.5	4.33	30			
Lead	255	1.00	250.0	1.052	102	70	130	259.8	1.75	30			
Nickel	497	0.500	500.0	1.559	99.1	70	130	519.6	4.48	30			
Selenium	52.4	1.00	50.00	0.1100	105	70	130	48.26	8.27	30			
Silver	22.6	0.200	25.00	0.05800	90.0	70	130	22.29	1.17	30			
Thallium	10.5	0.200	12.50	0.009000	84.3	70	130	10.28	2.49	30			
Zinc	548	1.50	500.0	54.87	98.7	70	130	562.4	2.52	30			



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 245.1

Sample ID	MB-11934	SampType:	MBLK			Units:	µg/L			Prep Date:	9/23/2015		RunNo:	25090	
Client ID:	MBLKW	Batch ID:	11934							Analysis Date:	9/24/2015		SeqNo:	472885	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Mercury	ND	0.100										
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Sample ID	LCS-11934	SampType: LCS			Units: µg/L	Prep Date: 9/23/2015			RunNo: 25090			
Client ID:	LCSW	Batch ID: 11934			Analysis Date: 9/24/2015			SeqNo: 472886				
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	2.50	0.100	2.500	0	100	85	115					
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Sample ID	1509270-027CDUP		SampType: DUP		Units: µg/L		Prep Date: 9/23/2015		RunNo: 25090			
Client ID:	GP-12-15:GW		Batch ID: 11934				Analysis Date: 9/24/2015		SeqNo: 472888			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.100							0		20	
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Sample ID	1509270-027CMS	SampType: MS			Units: µg/L	Prep Date: 9/23/2015			RunNo: 25090			
Client ID:	GP-12-15:GW	Batch ID: 11934			Analysis Date: 9/24/2015			SeqNo: 472889				
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	2.51	0.100	2.500	0.01400	99.8	80	120					
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Sample ID	1509270-027CMSD	SampType:	MSD	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25090			
Client ID:	GP-12-15:GW	Batch ID:	11934			Analysis Date:	9/24/2015	SeqNo:	472890			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	2.47	0.100	2.500	0.01400	98.2	80	120	2.510	1.61	20		
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Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Dissolved Mercury by EPA Method 245.1

Sample ID	MB-11933	SampType: MBLK			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25075		
Client ID:	MBLKW	Batch ID: 11933			Analysis Date: 9/24/2015					SeqNo: 472581		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury	ND	0.100									
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Sample ID	LCS-11933	SampType: LCS			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25075		
Client ID:	LCSW	Batch ID: 11933			Analysis Date: 9/24/2015					SeqNo: 472582		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury	2.37	0.100	2.500	0	94.8	85	115				
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Sample ID	1509270-027DDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25075		
Client ID:	GP-12-15:GW	Batch ID:	11933			Analysis Date:	9/24/2015	SeqNo:	472584		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.100						0		20	
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Sample ID	1509270-027DMS	SampType:	MS	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25075		
Client ID:	GP-12-15:GW	Batch ID:	11933			Analysis Date:	9/24/2015	SeqNo:	472585		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	2.38	0.100	2.500	0.01700	94.5	80	120				
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Sample ID	1509270-027DMSD	SampType:	MSD	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25075		
Client ID:	GP-12-15:GW	Batch ID:	11933			Analysis Date:	9/24/2015	SeqNo:	472586		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	2.54	0.100	2.500	0.01700	101	80	120	2.380	6.50	20	
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Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 6020

Sample ID	MB-11888	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/21/2015		RunNo:	25006	
Client ID:	MBLKS	Batch ID:	11888					Analysis Date:	9/21/2015		SeqNo:	471090	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Arsenic		ND	0.100										
Barium		ND	0.500										
Cadmium		ND	0.200										
Chromium		ND	0.100										
Lead		ND	0.200										
Selenium		ND	0.500										
Silver		ND	0.100										

Sample ID	LCS-11888	SampType:	LCS	Units:			mg/Kg	Prep Date:	9/21/2015	RunNo:	25006
Client ID:	LCSS	Batch ID:	11888	Analysis Date:					9/21/2015	SeqNo:	471091
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	49.8	0.100	50.00	0	99.6	80	120				
Barium	49.6	0.500	50.00	0	99.3	80	120				
Cadmium	2.55	0.200	2.500	0	102	80	120				
Chromium	49.3	0.100	50.00	0	98.5	80	120				
Lead	26.5	0.200	25.00	0	106	80	120				
Selenium	5.12	0.500	5.000	0	102	80	120				
Silver	2.51	0.100	2.500	0	100	80	120				

Sample ID	1509245-001ADUP	SampType:	DUP			Units:	mg/Kg-dry			Prep Date:	9/21/2015			RunNo:	25006			
Client ID:	BATCH	Batch ID:	11888			Analysis Date:						9/21/2015			SeqNo:	471093		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual					
Arsenic		4.39	0.0901						5.045		13.8	20						
Barium		131	0.451						74.79		54.9	20	R					
Cadmium		ND	0.180						0			20						
Chromium		49.7	0.0901						32.87		40.8	20	R					
Lead		16.5	0.180						13.44		20.6	20	R					
Selenium		1.50	0.451						1.231		19.5	20						



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Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509245-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25006		
Client ID:	BATCH	Batch ID:	11888			Analysis Date:	9/21/2015	SeqNo:	471093		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	ND	0.0901						0		20	

NOTES:

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID	1509245-001AMS	SampType: MS		Units: mg/Kg-dry		Prep Date: 9/21/2015		RunNo: 25006			
Client ID:	BATCH	Batch ID: 11888				Analysis Date: 9/21/2015		SeqNo: 471095			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	51.6	0.0894	44.71	5.045	104	75	125				
Barium	163	0.447	44.71	74.79	196	75	125				S
Cadmium	2.35	0.179	2.236	0.08790	101	75	125				
Chromium	85.4	0.0894	44.71	32.87	118	75	125				
Lead	33.7	0.179	22.36	13.44	90.6	75	125				
Selenium	5.69	0.447	4.471	1.231	99.8	75	125				
Silver	2.06	0.0894	2.236	0.03608	90.7	75	125				

NOTES:

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID	1509245-001AMSD	SampType:	MSD			Units:	mg/Kg-dry			Prep Date:	9/21/2015			RunNo:	25006				
Client ID:	BATCH	Batch ID:	11888			Analysis Date:							9/21/2015			SeqNo:	471096		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual						
Arsenic		49.4	0.0888	44.38	5.045	100	75	125	51.59		4.29	20							
Barium		160	0.444	44.38	74.79	192	75	125	162.6		1.50	20	S						
Cadmium		2.33	0.178	2.219	0.08790	101	75	125	2.349		0.892	20							
Chromium		84.8	0.0888	44.38	32.87	117	75	125	85.41		0.763	20							
Lead		39.7	0.178	22.19	13.44	118	75	125	33.69		16.3	20							
Selenium		5.36	0.444	4.438	1.231	93.0	75	125	5.692		6.01	20							
Silver		2.05	0.0888	2.219	0.03608	90.8	75	125	2.065		0.718	20							

NOTES:

S - Outlying spike recovery observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.



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Work Order: 1509270
CLIENT: Shannon & Wilson
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QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509245-001APDS	SampType:	PDS	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25006		
Client ID:	BATCH	Batch ID:	11888			Analysis Date:	9/21/2015	SeqNo:	471097		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Barium	126	0.447	44.7	74.8	114	80	120				
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Sample ID	MB-11906	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/22/2015		RunNo:	25024	
Client ID:	MBLKS	Batch ID:	11906						Analysis Date:	9/22/2015			SeqNo:	471529	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Arsenic	ND	0.100									
Barium	ND	0.500									
Cadmium	ND	0.200									
Chromium	ND	0.100									
Lead	ND	0.200									
Selenium	ND	0.500									
Silver	ND	0.100									

Sample ID	LCS-11906	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25024		
Client ID:	LCSS	Batch ID:	11906			Analysis Date:	9/22/2015	SeqNo:	471530		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	47.7	0.100	50.00	0	95.4	80	120				
Barium	47.4	0.500	50.00	0	94.8	80	120				
Cadmium	2.59	0.200	2.500	0	103	80	120				
Chromium	52.8	0.100	50.00	0	106	80	120				
Lead	25.8	0.200	25.00	0	103	80	120				
Selenium	4.64	0.500	5.000	0	92.8	80	120				
Silver	2.38	0.100	2.500	0	95.2	80	120				



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Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509274-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25024		
Client ID:	BATCH	Batch ID:	11906			Analysis Date:	9/22/2015	SeqNo:	471532		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	1.84	0.0880						1.904	3.41	20	
Barium	39.5	0.440						39.03	1.06	20	
Cadmium	ND	0.176						0		20	
Chromium	26.2	0.0880						28.61	8.64	20	
Lead	7.52	0.176						6.629	12.6	20	
Selenium	0.774	0.440						0.7936	2.51	20	
Silver	ND	0.0880						0		20	

Sample ID	1509274-001AMS	SampType: MS			Units: mg/Kg-dry		Prep Date: 9/22/2015		RunNo: 25024		
Client ID:	BATCH	Batch ID: 11906			Analysis Date: 9/22/2015				SeqNo: 471534		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	43.0	0.0802	40.09	1.904	103	75	125				
Barium	82.6	0.401	40.09	39.03	109	75	125				
Cadmium	2.14	0.160	2.004	0.06399	104	75	125				
Chromium	72.5	0.0802	40.09	28.61	110	75	125				
Lead	24.1	0.160	20.04	6.629	87.2	75	125				
Selenium	4.52	0.401	4.009	0.7936	92.9	75	125				
Silver	1.84	0.0802	2.004	0.02475	90.8	75	125				

Sample ID	1509274-001AMSD	SampType: MSD		Units: mg/Kg-dry		Prep Date: 9/22/2015			RunNo: 25024		
Client ID:	BATCH	Batch ID: 11906		Analysis Date: 9/22/2015					SeqNo: 471535		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	47.5	0.0866	43.29	1.904	105	75	125	43.03	9.92	20	R
Barium	84.1	0.433	43.29	39.03	104	75	125	82.64	1.71	20	
Cadmium	2.31	0.173	2.165	0.06399	104	75	125	2.140	7.58	20	
Chromium	77.1	0.0866	43.29	28.61	112	75	125	72.52	6.08	20	
Lead	33.3	0.173	21.65	6.629	123	75	125	24.10	32.1	20	
Selenium	4.95	0.433	4.329	0.7936	96.1	75	125	4.518	9.17	20	



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CLIENT: Shannon & Wilson
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QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509274-001AMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25024		
Client ID:	BATCH	Batch ID:	11906			Analysis Date:	9/22/2015	SeqNo:	471535		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	1.95	0.0866	2.165	0.02475	88.9	75	125	1.844	5.53	20	

NOTES:

R - Outlying RPD observed, spike recovery is within range.

Sample ID	1509274-001APDS	SampType:	PDS	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25024		
Client ID:	BATCH	Batch ID:	11906	Analysis Date:				9/22/2015	SeqNo:	471538	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	43.4	0.0826	41.3	1.90	101	80	120				
Barium	79.8	0.413	41.3	39.0	98.7	80	120				
Cadmium	2.21	0.165	2.07	0.0640	104	80	120				
Chromium	74.6	0.0826	41.3	28.6	111	80	120				
Lead	28.0	0.165	20.7	6.63	104	80	120				
Selenium	4.92	0.413	4.13	0.794	100	80	120				
Silver	1.96	0.0826	2.07	0.0248	93.8	80	120				



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QC SUMMARY REPORT

Mercury by EPA Method 7471

Sample ID	MB-11895	SampType:	MBLK	Units:	mg/Kg	Prep Date:	9/21/2015	RunNo:	25039			
Client ID:	MBLKS	Batch ID:	11895			Analysis Date:	9/22/2015	SeqNo:	471767			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.250										
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Sample ID	LCS-11895	SampType: LCS			Units: mg/Kg		Prep Date: 9/21/2015			RunNo: 25039		
Client ID:	LCSS	Batch ID: 11895			Analysis Date: 9/22/2015					SeqNo: 471768		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.490	0.250	0.5000	0	98.0	80	120					
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Sample ID	1509243-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25039			
Client ID:	BATCH	Batch ID:	11895			Analysis Date:	9/22/2015	SeqNo:	471770			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.377							0		20	
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Sample ID	1509243-001AMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25039			
Client ID:	BATCH	Batch ID:	11895			Analysis Date:	9/22/2015	SeqNo:	471771			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.810	0.405	0.8097	0.05740	92.9	70	130					
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Sample ID	1509243-001AMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25039			
Client ID:	BATCH	Batch ID:	11895			Analysis Date:	9/22/2015	SeqNo:	471772			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.752	0.384	0.7678	0.05740	90.5	70	130	0.8098	7.41	20		
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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 7471

Sample ID	MB-11908	SampType:	MBLK			Units:	mg/Kg		Prep Date:	9/22/2015		RunNo:	25040	
Client ID:	MBLKS	Batch ID:	11908						Analysis Date:	9/22/2015		SeqNo:	471857	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
Mercury		ND	0.250											

Sample ID	LCS-11908	SampType:	LCS			Units:	mg/Kg		Prep Date:	9/22/2015		RunNo:	25040	
Client ID:	LCSS	Batch ID:	11908						Analysis Date:	9/22/2015		SeqNo:	471858	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
Mercury		0.450	0.250	0.5000	0	89.9	80	120						

Sample ID	1509270-019ADUP	SampType:	DUP			Units:	mg/Kg-dry		Prep Date:	9/22/2015		RunNo:	25040	
Client ID:	GP-9-15:5.0	Batch ID:	11908						Analysis Date:	9/22/2015		SeqNo:	471860	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
Mercury		ND	0.261						0				20	

Sample ID	1509270-019AMS	SampType:	MS			Units:	mg/Kg-dry		Prep Date:	9/22/2015		RunNo:	25040	
Client ID:	GP-9-15:5.0	Batch ID:	11908						Analysis Date:	9/22/2015		SeqNo:	471861	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
Mercury		0.576	0.309	0.6171	0.005595	92.4	70	130						

Sample ID	1509270-019AMSD	SampType:	MSD			Units:	mg/Kg-dry		Prep Date:	9/22/2015		RunNo:	25040	
Client ID:	GP-9-15:5.0	Batch ID:	11908						Analysis Date:	9/22/2015		SeqNo:	471862	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
Mercury		0.541	0.291	0.5822	0.005595	92.0	70	130	0.5758			6.16	20	



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QC SUMMARY REPORT

Mercury (SW7470) with TCLP Extraction (EPA 1311)

Sample ID	1509270-027CDUP	SampType:	DUP	Units:	mg/L	Prep Date:	9/23/2015	RunNo:	25092			
Client ID:	GP-12-15:GW	Batch ID:	11934			Analysis Date:	9/24/2015	SeqNo:	472949			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercurv		ND	0.00200						0		20	

Sample ID	1509270-027CMS	SampType:	MS	Units:	mg/L	Prep Date:	9/23/2015	RunNo:	25092		
Client ID:	GP-12-15:GW	Batch ID:	11934			Analysis Date:	9/24/2015	SeqNo:	472950		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00251	0.00200	0.002500	0.00001400	99.8	70	130				

Sample ID	MB-12219	SampType:	MBLK	Units:	mg/L	Prep Date:	10/26/2015	RunNo:	25724			
Client ID:	MBLKS	Batch ID:	12219			Analysis Date:	10/26/2015	SeqNo:	485607			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		ND	0.00200									

Sample ID	LCS-12219	SampType:	LCS	Units:	mg/L	Prep Date:	10/26/2015	RunNo:	25724		
Client ID:	LCSS	Batch ID:	12219			Analysis Date:	10/26/2015	SeqNo:	485608		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00222	0.00200	0.002500	0	88.8	70	130				

Sample ID	1510278-017CDUP		SampType:	DUP		Units:	mg/L		Prep Date:	10/26/2015		RunNo:	25724	
Client ID:	BATCH		Batch ID:	12219					Analysis Date:	10/26/2015		SeqNo:	485619	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Mercury		ND	0.00200						0			20		



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QC SUMMARY REPORT
Mercury (SW7470) with TCLP Extraction (EPA 1311)

Sample ID	1510278-017CMS	SampType:	MS	Units:	mg/L	Prep Date:	10/26/2015	RunNo:	25724		
Client ID:	BATCH	Batch ID:	12219			Analysis Date:	10/26/2015	SeqNo:	485620		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.00224	0.00200	0.002500	0	89.6	70	130				
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Sample ID	1510278-017CMSD	SampType:	MSD	Units:	mg/L	Prep Date:	10/26/2015	RunNo:	25724		
Client ID:	BATCH	Batch ID:	12219			Analysis Date:	10/26/2015	SeqNo:	485621		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.00222	0.00200	0.002500	0	88.8	70	130	0.002240	0.897	30	
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Sample ID	MB-12198FB	SampType:	MBLK	Units:	mg/L	Prep Date:	10/26/2015	RunNo:	25724		
Client ID:	MBLKS	Batch ID:	12219			Analysis Date:	10/26/2015	SeqNo:	485634		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.00200									
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NOTES:
Filter Blank.



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QC SUMMARY REPORT
Metals (SW6020) with TCLP Extraction (EPA 1311)

Sample ID	MB-12198FB	SampType:	MBLK			Units:	mg/L			Prep Date:	10/26/2015		RunNo:	25734	
Client ID:	MBLKS	Batch ID:	12222							Analysis Date:	10/26/2015		SeqNo:	485915	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Arsenic	ND	0.100									
Cadmium	ND	0.200									
Chromium	ND	0.100									
Lead	ND	0.200									

NOTES:
Filter Blank

Sample ID	MB-12222	SampType:	MBLK	Units:	mg/L	Prep Date:	10/26/2015	RunNo:	25734		
Client ID:	MBLKS	Batch ID:	12222			Analysis Date:	10/26/2015	SeqNo:	485916		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	ND	0.100									
Cadmium	ND	0.200									
Chromium	ND	0.100									
Lead	ND	0.200									

Sample ID	LCS-12222	SampType:	LCS	Units:	mg/L	Prep Date:	10/26/2015	RunNo:	25734		
Client ID:	LCSS	Batch ID:	12222			Analysis Date:	10/26/2015	SeqNo:	485917		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	5.30	0.100	5.000	0	106	65	135				
Cadmium	0.266	0.200	0.2500	0	106	65	135				
Chromium	4.93	0.100	5.000	0	98.7	65	135				
Lead	2.45	0.200	2.500	0	98.0	65	135				

Sample ID	1509270-006ADUP			SampType:	DUP		Units:	mg/L		Prep Date:	10/26/2015		RunNo:	25734	
Client ID:	GP-3-15:12.5			Batch ID:	12222					Analysis Date:	10/26/2015		SeqNo:	485919	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual			

Arsenic	ND	0.100						0		30	
Cadmium	ND	0.200						0		30	



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Project: Pacific Park

QC SUMMARY REPORT
Metals (SW6020) with TCLP Extraction (EPA 1311)

Sample ID	1509270-006ADUP	SampType:	DUP	Units:	mg/L	Prep Date:	10/26/2015	RunNo:	25734		
Client ID:	GP-3-15:12.5	Batch ID:	12222			Analysis Date:	10/26/2015	SeqNo:	485919		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chromium	ND	0.100						0		30	
Lead	0.685	0.200						0.7188	4.76	30	

Sample ID	1509270-006AMS	SampType:	MS	Units:	mg/L	Prep Date:	10/26/2015	RunNo:	25734		
Client ID:	GP-3-15:12.5	Batch ID:	12222			Analysis Date:	10/26/2015	SeqNo:	485920		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	5.13	0.100	5.000	0.009075	102	65	135				
Cadmium	0.265	0.200	0.2500	0.01830	98.7	65	135				
Chromium	4.91	0.100	5.000	0	98.1	65	135				
Lead	3.08	0.200	2.500	0.7188	94.5	65	135				

Sample ID	1509270-006AMSD	SampType: MSD			Units: mg/L	Prep Date: 10/26/2015			RunNo: 25734		
Client ID:	GP-3-15:12.5	Batch ID: 12222			Analysis Date: 10/26/2015			SeqNo: 485921			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	5.18	0.100	5.000	0.009075	103	65	135	5.126	1.12	30	
Cadmium	0.286	0.200	0.2500	0.01830	107	65	135	0.2651	7.46	30	
Chromium	4.97	0.100	5.000	0	99.5	65	135	4.906	1.38	30	
Lead	3.08	0.200	2.500	0.7188	94.3	65	135	3.081	0.145	30	



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	MB-11903	SampType:	MBLK	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25108		
Client ID:	MBLKS	Batch ID:	11903			Analysis Date:	9/23/2015	SeqNo:	473356		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	21.9	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	18.3		20.00		91.4	50	150				
Surr: o-Terphenyl	17.0		20.00		84.8	50	150				

Sample ID	LCS-11903	SampType: LCS			Units: mg/Kg		Prep Date: 9/22/2015			RunNo: 25108		
Client ID:	LCSS	Batch ID: 11903			Analysis Date: 9/23/2015					SeqNo: 473355		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	414	20.0	500.0	0	82.7	65	135				
Surr: 2-Fluorobiphenyl	19.0		20.00		94.9	50	150				
Surr: o-Terphenyl	17.5		20.00		87.7	50	150				

Sample ID	1509270-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25108		
Client ID:	GP-1-15:5.0	Batch ID:	11903			Analysis Date:	9/23/2015	SeqNo:	473330		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	23.6						0		30	
Heavy Oil	ND	58.9						0		30	
Surr: 2-Fluorobiphenyl	19.3		23.57		82.0	50	150		0		
Surr: o-Terphenyl	18.3		23.57		77.5	50	150		0		

Sample ID	1509270-010ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25108		
Client ID:	GP-5-15:13.0	Batch ID:	11903			Analysis Date:	9/23/2015	SeqNo:	473340		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	24.2						0		30	
Heavy Oil	ND	60.4						0		30	
Surr: 2-Fluorobiphenyl	22.0		24.17		91.0	50	150		0		
Surr: o-Terphenyl	21.5		24.17		88.9	50	150		0		



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	1509270-010ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25108		
Client ID:	GP-5-15:13.0	Batch ID:	11903			Analysis Date:	9/23/2015	SeqNo:	473340		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	MB-11918	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/23/2015		RunNo:	25072
Client ID:	MBLKS	Batch ID:	11918					Analysis Date:	9/23/2015		SeqNo:	472530
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Diesel (Fuel Oil)	ND	20.0										
Heavy Oil	ND	50.0										
Surr: 2-Fluorobiphenyl	18.4		20.00		92.1	50	150					
Surr: o-Terphenyl	17.4		20.00		86.8	50	150					

Sample ID	LCS-11918	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/23/2015	RunNo:	25072		
Client ID:	LCSS	Batch ID:	11918			Analysis Date:	9/23/2015	SeqNo:	472529		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	409	20.0	500.0	0	81.9	65	135				
Surr: 2-Fluorobiphenyl	19.3		20.00		96.7	50	150				
Surr: o-Terphenyl	17.7		20.00		88.7	50	150				

Sample ID	1509270-021ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25072		
Client ID:	GP-10-15:4.5	Batch ID:	11918			Analysis Date:	9/23/2015	SeqNo:	472541		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	26.4						0		30	
Heavy Oil	3,740	65.9						3,683	1.60	30	
Surr: 2-Fluorobiphenyl	27.4		26.38		104	50	150		0		
Surr: o-Terphenyl	30.9		26.38		117	50	150		0		



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QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	1509270-031ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25072		
Client ID:	MW-2-15:13.0	Batch ID:	11918			Analysis Date:	9/24/2015	SeqNo:	472515		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	35.0						0		30	
Heavy Oil	ND	87.5						0		30	
Surr: 2-Fluorobiphenyl	31.0		35.00		88.6	50	150		0		
Surr: o-Terphenyl	28.8		35.00		82.4	50	150		0		



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QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	MB-11896	SampType:	MBLK			Units:	µg/L			Prep Date:	9/21/2015		RunNo:	25050	
Client ID:	MBLKW	Batch ID:	11896						Analysis Date:	9/23/2015			SeqNo:	472305	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Diesel (Fuel Oil)	ND	50.0									
Heavy Oil	ND	100									
Surr: 2-Fluorobiphenyl	52.2		80.00		65.2	50	150				
Surr: o-Terphenyl	55.8		80.00		69.7	50	150				

Sample ID	LCS-11896	SampType:	LCS	Units:	µg/L	Prep Date:	9/21/2015	RunNo:	25050		
Client ID:	LCSW	Batch ID:	11896			Analysis Date:	9/23/2015	SeqNo:	472304		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	653	50.0	1,000	0	65.3	65	135				
Surr: 2-Fluorobiphenyl	54.3		80.00		67.9	50	150				
Surr: o-Terphenyl	45.9		80.00		57.4	50	150				

Sample ID	1509246-020DDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/21/2015	RunNo:	25050		
Client ID:	BATCH	Batch ID:	11896			Analysis Date:	9/23/2015	SeqNo:	472301		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	50.0						0		30	
Heavy Oil	ND	100						0		30	
Surr: 2-Fluorobiphenyl	53.1		80.00		66.4	50	150		0		
Surr: o-Terphenyl	52.7		80.00		65.8	50	150		0		

Sample ID	1509263-005ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/21/2015	RunNo:	25050		
Client ID:	BATCH	Batch ID:	11896			Analysis Date:	9/24/2015	SeqNo:	473366		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	49.9						0		30	
Heavy Oil	ND	99.9						0		30	
Surr: 2-Fluorobiphenyl	60.1		79.92		75.2	50	150		0		
Surr: o-Terphenyl	64.0		79.92		80.1	50	150		0		



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QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	1509263-005ADUP	SampType: DUP			Units: µg/L		Prep Date: 9/21/2015			RunNo: 25050		
Client ID:	BATCH	Batch ID: 11896			Analysis Date: 9/24/2015					SeqNo: 473366		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	MB-11922	SampType: MBLK			Units: µg/Kg		Prep Date: 9/23/2015			RunNo: 25219		
Client ID:	MBLKS	Batch ID: 11922			Analysis Date: 9/29/2015					SeqNo: 475625		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	ND	35.0									
2,4-D	ND	30.0									
2,4-DP	ND	25.0									
2,4,5-TP (Silvex)	ND	20.0									
2,4,5-T	ND	50.0									
Dinoseb	ND	30.0									
Dalapon	ND	200									
2,4-DB	ND	25.0									
MCP	ND	4,400									
MCPA	ND	280									
Picloram	ND	50.0									
Bentazon	ND	35.0									
Chloramben	ND	20.0									
Acifluorfen	ND	80.0									
3,5-Dichlorobenzoic acid	ND	40.0									
4-Nitrophenol	ND	30.0									
Dacthal (DCPA)	ND	30.0									
Surr: 2,4-Dichlorophenylacetic acid	55.8		50.00		112	20.1	168				

Sample ID	LCS-11922	SampType: LCS			Units: µg/Kg		Prep Date: 9/23/2015			RunNo: 25219		
Client ID:	LCSS	Batch ID: 11922			Analysis Date: 9/29/2015					SeqNo: 475623		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dicamba	119	35.0	100.0	0	119	32.1	135				
2,4-D	122	30.0	100.0	0	122	22.4	130				
2,4-DP	117	25.0	100.0	0	117	26.4	130				
2,4,5-TP (Silvex)	110	20.0	100.0	0	110	21.2	138				
2,4,5-T	111	50.0	100.0	0	111	39	117				
Dinoseb	105	30.0	100.0	0	105	5	165				
Dalapon	9,840	200	10,000	0	98.4	18.4	162				
2,4-DB	113	25.0	100.0	0	113	5	164				



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CLIENT: Shannon & Wilson
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QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	LCS-11922	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/23/2015	RunNo:	25219		
Client ID:	LCSS	Batch ID:	11922			Analysis Date:	9/29/2015	SeqNo:	475623		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MCPP	1170	4,400	1,000	0	117	22.2	157				
MCPA	2,210	280	1,000	0	221	47.4	128				S
Picloram	109	50.0	100.0	0	109	5	175				
Bentazon	102	35.0	100.0	0	102	7.59	162				
Chloramben	56.7	20.0	100.0	0	56.7	5	147				
Acifluorfen	94.1	80.0	100.0	0	94.1	5	163				
3,5-Dichlorobenzoic acid	124	40.0	100.0	0	124	18.7	139				
4-Nitrophenol	94.0	30.0	100.0	0	94.0	5	163				
Dacthal (DCPA)	111	30.0	100.0	0	111	5	164				
Surr: 2,4-Dichlorophenylacetic acid	99.5		100.0		99.5	20.1	168				

NOTES:

S - Outlying spike recovery observed for MCPA - High bias. There were no detections in the batch samples. No further action is required.

Sample ID	1509270-001ADUP	SampType:	DUP			Units:	µg/Kg-dry			Prep Date:	9/23/2015			RunNo:	25219	
Client ID:	GP-1-15:5.0	Batch ID:	11922							Analysis Date:	9/29/2015			SeqNo:	475598	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val				%RPD	RPDLimit	Qual	
Dicamba		ND	41.0						0					30		
2,4-D		ND	35.2						0					30		
2,4-DP		ND	29.3						0					30		
2,4,5-TP (Silvex)		ND	23.4						0					30		
2,4,5-T		ND	58.6						0					30		
Dinoseb		ND	35.2						0					30		
Dalapon		ND	234						0					30		
2,4-DB		ND	29.3						0					30		
MCPP		ND	5,160						0					30		
MCPA		ND	328						0					30		
Picloram		ND	58.6						0					30		
Bentazon		ND	41.0						0					30		
Chloramben		ND	23.4						0					30		
Acifluorfen		ND	93.7						0					30		
3,5-Dichlorobenzoic acid		ND	46.9						0					30		



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QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	1509270-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25219		
Client ID:	GP-1-15:5.0	Batch ID:	11922			Analysis Date:	9/29/2015	SeqNo:	475598		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

4-Nitrophenol	ND	35.2						0		30	
Dacthal (DCPA)	ND	35.2						0		30	
Surr: 2,4-Dichlorophenylacetic acid	110		117.2		93.5	20.1	168		0		

Sample ID	1509270-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25219		
Client ID:	GP-1-15:13.5	Batch ID:	11922			Analysis Date:	9/29/2015	SeqNo:	475600		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	140	43.9	125.4	0	112	31.9	118				
2,4-D	150	37.6	125.4	8.523	113	12.4	134				
2,4-DP	137	31.3	125.4	0	109	27.2	129				
2,4,5-TP (Silvex)	133	25.1	125.4	8.510	99.5	28.6	134				
2,4,5-T	139	62.7	125.4	0	111	13.1	147				
Dinoseb	126	37.6	125.4	0	100	10	179				
Dalapon	7,600	251	12,540	0	60.6	24.9	139				
2,4-DB	141	31.3	125.4	20.49	96.0	50.2	152				
MCPP	1380	5,520	1,254	0	110	37.8	140				
MCPA	2,560	351	1,254	0	204	13.7	147				S
Picloram	148	62.7	125.4	31.34	92.7	5	153				
Bentazon	132	43.9	125.4	18.23	90.4	15	140				
Chloramben	110	25.1	125.4	21.69	70.7	5	162				
Acifluorfen	117	100	125.4	17.13	79.9	15	140				
3,5-Dichlorobenzoic acid	141	50.2	125.4	12.43	102	10	164				
4-Nitrophenol	131	37.6	125.4	13.88	93.3	44.8	125				
Dacthal (DCPA)	88.5	37.6	125.4	17.71	56.5	5	132				
Surr: 2,4-Dichlorophenylacetic acid	119		125.4		94.8	20.1	168				

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.



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CLIENT: Shannon & Wilson
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QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	1509270-022AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25230		
Client ID:	GP-10-15:13.0	Batch ID:	11938			Analysis Date:	9/30/2015	SeqNo:	475820		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	121	45.1	128.9	0	93.7	31.9	118				
2,4-D	126	38.7	128.9	0	97.7	12.4	134				
2,4-DP	121	32.2	128.9	0	93.6	27.2	129				
2,4,5-TP (Silvex)	107	25.8	128.9	0	83.3	28.6	134				
2,4,5-T	115	64.5	128.9	0	89.4	13.1	147				
Dinoseb	116	38.7	128.9	0	90.2	10	179				
Dalapon	1,200	258	1,289	0	93.1	24.9	139				
2,4-DB	110	32.2	128.9	0	85.6	50.2	152				
MCP	251	361	644.5	0	39.0	37.8	140				
MCPA	541	361	644.5	0	84.0	13.7	147				
Picloram	107	64.5	128.9	0	83.1	5	153				
Bentazon	119	45.1	128.9	0	92.3	15	140				
Chloramben	118	25.8	128.9	10.45	83.5	5	162				
Acifluorfen	93.8	103	128.9	0	72.8	15	140				
3,5-Dichlorobenzoic acid	119	51.6	128.9	0	92.4	10	164				
4-Nitrophenol	118	38.7	128.9	8.524	84.7	44.8	125				
Dacthal (DCPA)	106	38.7	128.9	15.85	69.8	5	132				
Surr: 2,4-Dichlorophenylacetic acid	156		128.9		121	20.1	168				

Sample ID	MB-11938	SampType: MBLK			Units: µg/Kg	Prep Date: 9/24/2015			RunNo: 25230		
Client ID:	MBLKS	Batch ID: 11938				Analysis Date: 9/30/2015			SeqNo: 475823		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	ND	35.0									
2,4-D	ND	30.0									
2,4-DP	ND	25.0									
2,4,5-TP (Silvex)	ND	20.0									
2,4,5-T	ND	50.0									
Dinoseb	ND	30.0									
Dalapon	ND	200									
2,4-DB	ND	25.0									



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QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	MB-11938	SampType: MBLK		Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25230		
Client ID:	MBLKS	Batch ID: 11938		Analysis Date: 9/30/2015						SeqNo: 475823	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MCP	ND	280									
MCPA	ND	280									
Picloram	ND	50.0									
Bentazon	ND	35.0									
Chloramben	ND	20.0									
Acifluorfen	ND	80.0									
3,5-Dichlorobenzoic acid	ND	40.0									
4-Nitrophenol	ND	30.0									
Dacthal (DCPA)	ND	30.0									
Surr: 2,4-Dichlorophenylacetic acid	119		100.0		119	20.1	168				

Sample ID	LCS-11938	SampType: LCS		Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25230		
Client ID:	LCSS	Batch ID: 11938		Analysis Date: 9/30/2015						SeqNo: 475822	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	64.3	35.0	100.0	0	64.3	32.1	135				
2,4-D	67.1	30.0	100.0	0	67.1	22.4	130				
2,4-DP	63.6	25.0	100.0	0	63.6	26.4	130				
2,4,5-TP (Silvex)	56.7	20.0	100.0	0	56.7	21.2	138				
2,4,5-T	61.3	50.0	100.0	0	61.3	39	117				
Dinoseb	68.6	30.0	100.0	0	68.6	5	165				
Dalapon	4,880	200	10,000	0	48.8	18.4	162				
2,4-DB	56.3	25.0	100.0	0	56.3	5	164				
MCPP	721	280	1,000	0	72.1	22.2	157				
MCPA	842	280	1,000	0	84.2	47.4	128				
Picloram	50.0	50.0	100.0	0	50.0	5	175				
Bentazon	58.3	35.0	100.0	0	58.3	7.59	162				
Chloramben	73.2	20.0	100.0	0	73.2	5	147				
Acifluorfen	53.3	80.0	100.0	0	53.3	5	163				
3,5-Dichlorobenzoic acid	61.8	40.0	100.0	0	61.8	18.7	139				
4-Nitrophenol	56.1	30.0	100.0	0	56.1	5	163				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	LCS-11938	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/24/2015	RunNo:	25230		
Client ID:	LCSS	Batch ID:	11938			Analysis Date:	9/30/2015	SeqNo:	475822		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dacthal (DCPA)	57.3	30.0	100.0	0	57.3	5	164				
Surr: 2,4-Dichlorophenylacetic acid	93.5		100.0		93.5	20.1	168				

Sample ID	1509270-021ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25230		
Client ID:	GP-10-15:4.5	Batch ID:	11938			Analysis Date:	9/30/2015	SeqNo:	475818		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	ND	46.1						0		30	
2,4-D	ND	39.5						0		30	
2,4-DP	ND	32.9						0		30	
2,4,5-TP (Silvex)	ND	26.3						0		30	
2,4,5-T	ND	65.8						0		30	
Dinoseb	ND	39.5						0		30	
Dalapon	ND	263						0		30	
2,4-DB	ND	32.9						0		30	
MCP	ND	369						0		30	
MCPA	ND	369						0		30	
Picloram	ND	65.8						0		30	
Bentazon	ND	46.1						0		30	
Chloramben	ND	26.3						0		30	
Acifluorfen	ND	105						0		30	
3,5-Dichlorobenzoic acid	ND	52.7						0		30	
4-Nitrophenol	ND	39.5						0		30	
Dacthal (DCPA)	ND	39.5						0		30	
Surr: 2,4-Dichlorophenylacetic acid	0		131.6		0	20.1	168		0		S

NOTES:

S - Outlying surrogate recovery observed. The method is in control as indicated by the LCS.



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID	MB-11916	SampType:	MBLK		Units:	µg/L		Prep Date:	9/22/2015		RunNo:	25071	
Client ID:	MBLKW	Batch ID:	11916					Analysis Date:	9/23/2015		SeqNo:	472505	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Naphthalene		ND	0.0996										
2-Methylnaphthalene		ND	0.0996										
1-Methylnaphthalene		ND	0.0996										
Acenaphthylene		ND	0.0996										
Acenaphthene		ND	0.0996										
Fluorene		ND	0.0996										
Phenanthrene		ND	0.0996										
Anthracene		ND	0.0996										
Fluoranthene		ND	0.0996										
Pyrene		ND	0.0996										
Benz(a)anthracene		ND	0.0996										
Chrysene		ND	0.0996										
Benzo(b)fluoranthene		ND	0.0996										
Benzo(k)fluoranthene		ND	0.0996										
Benzo(a)pyrene		ND	0.0996										
Indeno(1,2,3-cd)pyrene		ND	0.0996										
Dibenz(a,h)anthracene		ND	0.0996										
Benzo(g,h,i)perylene		ND	0.0996										
Surr: 2-Fluorobiphenyl		1.29		1.992		64.7	23.9	122					
Surr: Terphenyl-d14		1.54		1.992		77.5	33.4	135					

Sample ID	LCS-11916	SampType:	LCS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	LCSW	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472504		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.27	0.0998	3.993	0	56.8	26.7	106				
2-Methylnaphthalene	2.33	0.0998	3.993	0	58.3	35.4	110				
1-Methylnaphthalene	2.31	0.0998	3.993	0	57.9	37.5	116				
Acenaphthylene	2.88	0.0998	3.993	0	72.2	39.2	114				
Acenaphthene	2.44	0.0998	3.993	0	61.1	37	113				
Fluorene	1.80	0.0998	3.993	0	45.0	40.3	117				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID	LCS-11916	SampType:	LCS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	LCSW	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472504		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	2.42	0.0998	3.993	0	60.6	35.1	118				
Anthracene	2.33	0.0998	3.993	0	58.4	45.4	115				
Fluoranthene	2.48	0.0998	3.993	0	62.2	47.1	123				
Pyrene	3.05	0.0998	3.993	0	76.3	47.6	123				
Benz(a)anthracene	2.40	0.0998	3.993	0	60.0	48.7	126				
Chrysene	2.42	0.0998	3.993	0	60.5	45.1	114				
Benzo(b)fluoranthene	2.36	0.0998	3.993	0	59.1	52.2	126				
Benzo(k)fluoranthene	2.67	0.0998	3.993	0	66.8	45.5	121				
Benzo(a)pyrene	2.37	0.0998	3.993	0	59.3	38.4	121				
Indeno(1,2,3-cd)pyrene	2.28	0.0998	3.993	0	57.1	23.9	143				
Dibenz(a,h)anthracene	2.56	0.0998	3.993	0	64.0	24.9	141				
Benzo(g,h,i)perylene	2.12	0.0998	3.993	0	53.1	35.9	139				
Surr: 2-Fluorobiphenyl	1.39		1.997		69.7	23.9	122				
Surr: Terphenyl-d14	1.50		1.997		74.9	33.4	135				

Sample ID	1509270-027EDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	GP-12-15:GW	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0997						0		30	
2-Methylnaphthalene	ND	0.0997						0		30	
1-Methylnaphthalene	ND	0.0997						0		30	
Acenaphthylene	ND	0.0997						0		30	
Acenaphthene	ND	0.0997						0		30	
Fluorene	ND	0.0997						0		30	
Phenanthrene	ND	0.0997						0		30	
Anthracene	ND	0.0997						0		30	
Fluoranthene	ND	0.0997						0		30	
Pyrene	ND	0.0997						0		30	
Benz(a)anthracene	ND	0.0997						0		30	
Chrysene	ND	0.0997						0		30	



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID	1509270-027EDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	GP-12-15:GW	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	ND	0.0997						0		30	
Benzo(k)fluoranthene	ND	0.0997						0		30	
Benzo(a)pyrene	ND	0.0997						0		30	
Indeno(1,2,3-cd)pyrene	ND	0.0997						0		30	
Dibenz(a,h)anthracene	ND	0.0997						0		30	
Benzo(g,h,i)perylene	ND	0.0997						0		30	
Surr: 2-Fluorobiphenyl	1.14		1.995		56.9	23.9	122		0		
Surr: Terphenyl-d14	0.798		1.995		40.0	33.4	135		0		

Sample ID	1509270-032EMS	SampType: MS	Units: µg/L			Prep Date: 9/22/2015			RunNo: 25071		
Client ID:	MW-2-15:GW	Batch ID: 11916				Analysis Date: 9/23/2015			SeqNo: 472493		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.33	0.0999	3.997	0	58.3	31.2	104				
2-Methylnaphthalene	2.30	0.0999	3.997	0	57.7	33.9	109				
1-Methylnaphthalene	2.28	0.0999	3.997	0	57.1	33.2	110				
Acenaphthylene	2.81	0.0999	3.997	0	70.4	40.5	98.7				
Acenaphthene	2.38	0.0999	3.997	0	59.6	30.6	117				
Fluorene	2.35	0.0999	3.997	0	58.8	35.2	99.1				
Phenanthrene	2.21	0.0999	3.997	0	55.4	42.7	111				
Anthracene	2.02	0.0999	3.997	0	50.5	43.9	103				
Fluoranthene	2.10	0.0999	3.997	0	52.5	56.1	115				S
Pyrene	2.49	0.0999	3.997	0	62.2	44.2	134				
Benz(a)anthracene	1.65	0.0999	3.997	0	41.4	50.4	128				S
Chrysene	1.53	0.0999	3.997	0	38.4	41.4	118				S
Benzo(b)fluoranthene	1.25	0.0999	3.997	0	31.2	50.8	121				S
Benzo(k)fluoranthene	1.33	0.0999	3.997	0	33.2	43.4	113				S
Benzo(a)pyrene	1.21	0.0999	3.997	0	30.2	40.8	128				S
Indeno(1,2,3-cd)pyrene	1.08	0.0999	3.997	0	26.9	29.5	126				S
Dibenz(a,h)anthracene	1.27	0.0999	3.997	0	31.8	31.4	120				
Benzo(g,h,i)perylene	0.925	0.0999	3.997	0	23.2	30	116				S



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID	1509270-032EMS	SampType:	MS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	MW-2-15:GW	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472493		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 2-Fluorobiphenyl	1.14		1.999		57.0	23.9	122				
Surr: Terphenyl-d14	0.865		1.999		43.3	33.4	135				

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID	MB-12180	SampType:	MBLK		Units:	mg/Kg		Prep Date:	10/21/2015		RunNo:	25736	
Client ID:	MBLKS	Batch ID:	12180					Analysis Date:	10/22/2015		SeqNo:	485995	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Aroclor 1016	ND	0.100											
Aroclor 1221	ND	0.100											
Aroclor 1232	ND	0.100											
Aroclor 1242	ND	0.100											
Aroclor 1248	ND	0.100											
Aroclor 1254	ND	0.100											
Aroclor 1260	ND	0.100											
Aroclor 1262	ND	0.100											
Aroclor 1268	ND	0.100											
Total PCBs	ND	0.100											
Surr: Decachlorobiphenyl	26.0		50.00		52.0	41.2	143						
Surr: Tetrachloro-m-xylene	24.5		50.00		49.0	26	140						

Sample ID	LCS1-12180	SampType:	LCS	Units:	mg/Kg	Prep Date:	10/21/2015	RunNo:	25736		
Client ID:	LCSS	Batch ID:	12180			Analysis Date:	10/22/2015	SeqNo:	486035		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.648	0.100	1.000	0	64.8	42.3	147				
Aroclor 1260	0.621	0.100	1.000	0	62.1	45.2	151				
Surr: Decachlorobiphenyl	25.0		50.00		49.9	41.2	143				
Surr: Tetrachloro-m-xylene	27.5		50.00		55.0	26	140				

Sample ID	1509270-006AMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	10/21/2015	RunNo:	25736		
Client ID:	GP-3-15:12.5	Batch ID:	12180			Analysis Date:	10/22/2015	SeqNo:	485986		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.78	0.197	1.970	0	90.4	61.7	139				
Aroclor 1260	1.55	0.197	1.970	0.1414	71.4	63.1	138				
Surr: Decachlorobiphenyl	70.1		98.49		71.2	41.2	143				
Surr: Tetrachloro-m-xylene	86.4		98.49		87.7	26	140				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID	1509270-006AMS	SampType: MS			Units: mg/Kg-dry		Prep Date: 10/21/2015			RunNo: 25736		
Client ID:	GP-3-15:12.5	Batch ID: 12180			Analysis Date: 10/22/2015					SeqNo: 485986		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Sample ID	1509270-006AMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	10/21/2015	RunNo:	25736		
Client ID:	GP-3-15:12.5	Batch ID:	12180			Analysis Date:	10/22/2015	SeqNo:	485987		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.86	0.186	1.862	0	100	61.7	139	1.780	4.49	30	
Aroclor 1260	1.69	0.186	1.862	0.1414	83.3	63.1	138	1.547	8.92	30	
Surr: Decachlorobiphenyl	75.7		93.10		81.3	41.2	143		0		
Surr: Tetrachloro-m-xylene	86.9		93.10		93.4	26	140		0		

Sample ID	1254 CCV	SampType: CCV				Units: mg/Kg		Prep Date: 10/28/2015		RunNo: 25736	
Client ID:	CCV	Batch ID: R25736						Analysis Date: 10/28/2015		SeqNo: 486584	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1254	1.14	0.100	1.000	0	114	80	120				
Surr: Decachlorobiphenyl	222		200.0		111	50.2	159				
Surr: Tetrachloro-m-xylene	195		200.0		97.3	60.3	134				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	TOXIPHENE	SampType: CCV				Units: mg/L		Prep Date: 9/23/2015			RunNo: 25086	
Client ID:	CCV	Batch ID: R25086				Analysis Date: 9/23/2015			SeqNo: 472772			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Toxaphene	1,200	0.100	1,000	0	120	50	150				
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Sample ID	MB-11935	SampType:	MBLK	Units:	mg/Kg	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	MBLKS	Batch ID:	11935			Analysis Date:	9/24/2015	SeqNo:	472762		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Toxaphene	ND	0.100									
Alpha BHC	ND	0.0100									
Beta BHC	ND	0.0100									
Gamma BHC (Lindane)	ND	0.0100									
Delta BHC	ND	0.0100									
Heptachlor	ND	0.0100									
Aldrin	ND	0.0100									
Heptachlor epoxide	ND	0.0100									
gamma-Chlordane	ND	0.0100									
Endosulfan I	ND	0.0100									
alpha-Chlordane	ND	0.0100									
Dieldrin	ND	0.0100									
4,4'-DDE	ND	0.0200									
Endrin	ND	0.0200									
Endosulfan II	ND	0.0200									
4,4'-DDD	ND	0.0200									
Endrin aldehyde	ND	0.0200									
Endosulfan sulfate	ND	0.0200									
4,4'-DDT	ND	0.0200									
Endrin ketone	ND	0.0200									
Methoxychlor	ND	0.0500									
Surr: Decachlorobiphenyl	0.0418		0.05000		83.6	26.5	158				
Surr: Tetrachloro-m-xylene	0.0417		0.05000		83.5	11	150				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Organochlorine Pesticides by EPA Method 8081

Sample ID	LCS-11935	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	LCSS	Batch ID:	11935			Analysis Date:	9/24/2015	SeqNo:	472760		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.183	0.0100	0.2000	0	91.6	54.2	139				
Beta BHC	0.189	0.0100	0.2000	0	94.7	56.5	142				
Gamma BHC (Lindane)	0.189	0.0100	0.2000	0	94.4	55.5	142				
Delta BHC	0.184	0.0100	0.2000	0	92.1	47.4	157				
Heptachlor	0.196	0.0100	0.2000	0	97.9	54	141				
Aldrin	0.187	0.0100	0.2000	0	93.7	43.7	147				
Heptachlor epoxide	0.193	0.0100	0.2000	0	96.5	56.2	137				
gamma-Chlordane	0.200	0.0100	0.2000	0	100	58.5	136				
Endosulfan I	0.188	0.0100	0.2000	0	94.1	60	132				
alpha-Chlordane	0.217	0.0100	0.2000	0	108	46.1	140				
Dieldrin	0.190	0.0100	0.2000	0	94.9	61.2	133				
4,4´-DDE	0.189	0.0200	0.2000	0	94.6	55.4	142				
Endrin	0.197	0.0200	0.2000	0	98.4	56.5	143				
Endosulfan II	0.192	0.0200	0.2000	0	96.0	62	143				
4,4´-DDD	0.187	0.0200	0.2000	0	93.7	53.3	145				
Endrin aldehyde	0.183	0.0200	0.2000	0	91.4	39.5	153				
Endosulfan sulfate	0.188	0.0200	0.2000	0	93.9	53.8	148				
4,4´-DDT	0.193	0.0200	0.2000	0	96.7	48.2	152				
Endrin ketone	0.199	0.0200	0.2000	0	99.5	28.5	162				
Methoxychlor	0.194	0.0500	0.2000	0	96.8	34.6	159				
Surr: Decachlorobiphenyl	0.0490		0.05000		98.0	26.5	158				
Surr: Tetrachloro-m-xylene	0.0507		0.05000		101	11	150				

Sample ID	1509270-018ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	GP-8-15:DUP	Batch ID:	11935			Analysis Date:	9/24/2015	SeqNo:	472731		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.123						0		30	
Alpha BHC	ND	0.0123						0		30	
Beta BHC	ND	0.0123						0		30	
Gamma BHC (Lindane)	ND	0.0123						0		30	



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	1509270-018ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	GP-8-15:DUP	Batch ID:	11935			Analysis Date:	9/24/2015	SeqNo:	472731		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Delta BHC	ND	0.0123						0		30	
Heptachlor	ND	0.0123						0		30	
Aldrin	ND	0.0123						0		30	
Heptachlor epoxide	ND	0.0123						0		30	
gamma-Chlordane	ND	0.0123						0		30	
Endosulfan I	ND	0.0123						0		30	
alpha-Chlordane	ND	0.0123						0		30	
Dieldrin	ND	0.0123						0		30	
4,4´-DDE	ND	0.0246						0		30	
Endrin	ND	0.0246						0		30	
Endosulfan II	ND	0.0246						0		30	
4,4´-DDD	ND	0.0246						0		30	
Endrin aldehyde	ND	0.0246						0		30	
Endosulfan sulfate	ND	0.0246						0		30	
4,4´-DDT	ND	0.0246						0		30	
Endrin ketone	ND	0.0246						0		30	
Methoxychlor	ND	0.0614						0		30	
Surr: Decachlorobiphenyl	0.0509		0.06140		82.9	26.5	158		0		
Surr: Tetrachloro-m-xylene	0.0553		0.06140		90.1	11	150		0		

Sample ID	1509270-019AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	GP-9-15:5.0	Batch ID:	11935			Analysis Date:	9/24/2015	SeqNo:	472733		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.192	0.0112	0.2248	0	85.5	49.1	158				
Beta BHC	0.196	0.0112	0.2248	0	87.4	50.9	160				
Gamma BHC (Lindane)	0.198	0.0112	0.2248	0	88.0	55.3	157				
Delta BHC	0.194	0.0112	0.2248	0	86.1	55.8	160				
Heptachlor	0.206	0.0112	0.2248	0	91.6	59.1	150				
Aldrin	0.202	0.0112	0.2248	0	90.0	46.4	145				
Heptachlor epoxide	0.205	0.0112	0.2248	0	91.2	48.5	151				



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Sample ID	1509270-019AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	GP-9-15:5.0	Batch ID:	11935			Analysis Date:	9/24/2015	SeqNo:	472733		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
gamma-Chlordane	0.253	0.0112	0.2248	0	113	50.9	143				
Endosulfan I	0.202	0.0112	0.2248	0	90.0	46.4	149				
alpha-Chlordane	0.128	0.0112	0.2248	0	56.8	46.3	153				
Dieldrin	0.203	0.0112	0.2248	0	90.5	51	147				
4,4'-DDE	0.207	0.0225	0.2248	0	92.2	39.9	162				
Endrin	0.210	0.0225	0.2248	0	93.5	51.3	151				
Endosulfan II	0.218	0.0225	0.2248	0	96.9	51	152				
4,4'-DDD	0.207	0.0225	0.2248	0	92.0	45.8	160				
Endrin aldehyde	0.215	0.0225	0.2248	0	95.8	38.3	156				
Endosulfan sulfate	0.217	0.0225	0.2248	0	96.6	53.2	154				
4,4'-DDT	0.215	0.0225	0.2248	0	95.6	45.7	168				
Endrin ketone	0.217	0.0225	0.2248	0	96.6	68.3	144				
Methoxychlor	0.220	0.0562	0.2248	0	97.7	43.4	178				
Surr: Decachlorobiphenyl	0.0537		0.05621		95.5	26.5	158				
Surr: Tetrachloro-m-xylene	0.0504		0.05621		89.7	11	150				

Sample ID	TOXIPHENE		SampType: CCV		Units: mg/L		Prep Date: 9/24/2015		RunNo: 25086		
Client ID:	CCV		Batch ID: R25086				Analysis Date: 9/24/2015		SeqNo: 472770		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	1,150	0.100	1,000	0	115	50	150				

Sample ID	MB-11932	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/23/2015		RunNo:	25086	
Client ID:	MBLKS	Batch ID:	11932					Analysis Date:	9/24/2015		SeqNo:	472761	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Toxaphene		ND	0.100										
Alpha BHC		ND	0.0100										
Beta BHC		ND	0.0100										
Gamma BHC (Lindane)		ND	0.0100										



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Sample ID	MB-11932	SampType:	MBLK		Units:	mg/Kg			Prep Date:	9/23/2015		RunNo:	25086	
Client ID:	MBLKS	Batch ID:	11932						Analysis Date:	9/24/2015		SeqNo:	472761	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Delta BHC		ND	0.0100											
Heptachlor		ND	0.0100											
Aldrin		ND	0.0100											
Heptachlor epoxide		ND	0.0100											
gamma-Chlordane		ND	0.0100											
Endosulfan I		ND	0.0100											
alpha-Chlordane		ND	0.0100											
Dieldrin		ND	0.0100											
4,4´-DDE		ND	0.0200											
Endrin		ND	0.0200											
Endosulfan II		ND	0.0200											
4,4´-DDD		ND	0.0200											
Endrin aldehyde		ND	0.0200											
Endosulfan sulfate		ND	0.0200											
4,4´-DDT		ND	0.0200											
Endrin ketone		ND	0.0200											
Methoxychlor		ND	0.0500											
Surr: Decachlorobiphenyl		0.0299		0.05000		59.7	26.5	158						
Surr: Tetrachloro-m-xylene		0.0299		0.05000		59.9	11	150						

Sample ID	LCS-11932	SampType: LCS		Units: µg/Kg		Prep Date: 9/23/2015		RunNo: 25086			
Client ID:	LCSS	Batch ID: 11932				Analysis Date: 9/24/2015		SeqNo: 472759			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.163	0.0100	0.2000	0	81.5	54.2	139				
Beta BHC	0.160	0.0100	0.2000	0	80.2	56.5	142				
Gamma BHC (Lindane)	0.165	0.0100	0.2000	0	82.7	55.5	142				
Delta BHC	0.162	0.0100	0.2000	0	81.2	47.4	157				
Heptachlor	0.174	0.0100	0.2000	0	87.0	54	141				
Aldrin	0.169	0.0100	0.2000	0	84.4	43.7	147				
Heptachlor epoxide	0.172	0.0100	0.2000	0	85.8	56.2	137				



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Sample ID	LCS-11932	SampType: LCS	Units: µg/Kg			Prep Date: 9/23/2015			RunNo: 25086		
Client ID:	LCSS	Batch ID:	11932		Analysis Date: 9/24/2015				SeqNo: 472759		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
gamma-Chlordane	0.182	0.0100	0.2000	0	91.2	58.5	136				
Endosulfan I	0.173	0.0100	0.2000	0	86.4	60	132				
alpha-Chlordane	0.207	0.0100	0.2000	0	104	46.1	140				
Dieldrin	0.172	0.0100	0.2000	0	86.0	61.2	133				
4,4'-DDE	0.214	0.0200	0.2000	0	107	55.4	142				
Endrin	0.174	0.0200	0.2000	0	86.8	56.5	143				
Endosulfan II	0.181	0.0200	0.2000	0	90.5	62	143				
4,4'-DDD	0.163	0.0200	0.2000	0	81.3	53.3	145				
Endrin aldehyde	0.173	0.0200	0.2000	0	86.7	39.5	153				
Endosulfan sulfate	0.183	0.0200	0.2000	0	91.4	53.8	148				
4,4'-DDT	0.165	0.0200	0.2000	0	82.6	48.2	152				
Endrin ketone	0.170	0.0200	0.2000	0	84.9	28.5	162				
Methoxychlor	0.162	0.0500	0.2000	0	81.1	34.6	159				
Surr: Decachlorobiphenyl	0.0330		0.05000		65.9	26.5	158				
Surr: Tetrachloro-m-xylene	0.0331		0.05000		66.2	11	150				

Sample ID	1509267-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	BATCH	Batch ID:	11932			Analysis Date:	9/24/2015	SeqNo:	472709		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.104						0		30	
Alpha BHC	ND	0.0104						0		30	
Beta BHC	ND	0.0104						0		30	
Gamma BHC (Lindane)	ND	0.0104						0		30	
Delta BHC	ND	0.0104						0		30	
Heptachlor	ND	0.0104						0		30	
Aldrin	ND	0.0104						0		30	
Heptachlor epoxide	ND	0.0104						0		30	
gamma-Chlordane	ND	0.0104						0		30	
Endosulfan I	ND	0.0104						0		30	
alpha-Chlordane	ND	0.0104						0		30	



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Sample ID	1509267-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	BATCH	Batch ID:	11932			Analysis Date:	9/24/2015	SeqNo:	472709		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dieldrin	ND	0.0104						0		30	
4,4'-DDE	ND	0.0208						0		30	
Endrin	ND	0.0208						0		30	
Endosulfan II	ND	0.0208						0		30	
4,4'-DDD	ND	0.0208						0		30	
Endrin aldehyde	ND	0.0208						0		30	
Endosulfan sulfate	ND	0.0208						0		30	
4,4'-DDT	ND	0.0208						0		30	
Endrin ketone	ND	0.0208						0		30	
Methoxychlor	ND	0.0519						0		30	
Surr: Decachlorobiphenyl	0.0398		0.05194		76.6	26.5	158		0		
Surr: Tetrachloro-m-xylene	0.0329		0.05194		63.4	11	150		0		

Sample ID	1509268-003AMS	SampType:	MS		Units:	µg/Kg-dry			Prep Date:	9/23/2015		RunNo:	25086	
Client ID:	BATCH	Batch ID:	11932					Analysis Date:	9/24/2015		SeqNo:	472711		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual			
Alpha BHC	0.160	0.0101	0.2026	0	79.2	49.1	158							
Beta BHC	0.160	0.0101	0.2026	0	78.8	50.9	160							
Gamma BHC (Lindane)	0.163	0.0101	0.2026	0	80.5	55.3	157							
Delta BHC	0.161	0.0101	0.2026	0	79.3	55.8	160							
Heptachlor	0.172	0.0101	0.2026	0	84.8	59.1	150							
Aldrin	0.167	0.0101	0.2026	0	82.4	46.4	145							
Heptachlor epoxide	0.172	0.0101	0.2026	0	84.7	48.5	151							
gamma-Chlordane	0.187	0.0101	0.2026	0	92.1	50.9	143							
Endosulfan I	0.179	0.0101	0.2026	0	88.3	46.4	149							
alpha-Chlordane	0.119	0.0101	0.2026	0	58.7	46.3	153							
Dieldrin	0.177	0.0101	0.2026	0	87.2	51	147							
4,4´-DDE	0.222	0.0203	0.2026	0	110	39.9	162							
Endrin	0.180	0.0203	0.2026	0	88.8	51.3	151							
Endosulfan II	0.193	0.0203	0.2026	0	95.1	51	152							



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Sample ID	1509268-003AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25086		
Client ID:	BATCH	Batch ID:	11932			Analysis Date:	9/24/2015	SeqNo:	472711		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4´-DDD	0.188	0.0203	0.2026	0	92.7	45.8	160				
Endrin aldehyde	0.185	0.0203	0.2026	0	91.2	38.3	156				
Endosulfan sulfate	0.196	0.0203	0.2026	0	96.7	53.2	154				
4,4´-DDT	0.197	0.0203	0.2026	0	97.1	45.7	168				
Endrin ketone	0.191	0.0203	0.2026	0	94.5	68.3	144				
Methoxychlor	0.213	0.0506	0.2026	0	105	43.4	178				
Surr: Decachlorobiphenyl	0.0436		0.05064		86.2	26.5	158				
Surr: Tetrachloro-m-xylene	0.0311		0.05064		61.4	11	150				

Sample ID	TOXIPHENE	SampType:	CCV	Units:	mg/L	Prep Date:	9/24/2015	RunNo:	25086		
Client ID:	CCV	Batch ID:	R25086			Analysis Date:	9/24/2015	SeqNo:	472771		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	1,170	0.100	1,000	0	117	50	150				



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Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11904	SampType:	MBLK	Units:	µg/Kg	Prep Date:	9/22/2015	RunNo:	25094		
Client ID:	MBLKS	Batch ID:	11904			Analysis Date:	9/23/2015	SeqNo:	472988		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	ND	200									
Bis(2-chloroethyl) ether	ND	200									
2-Chlorophenol	ND	100									
1,3-Dichlorobenzene	ND	100									
1,4-Dichlorobenzene	ND	100									
1,2-Dichlorobenzene	ND	100									
Benzyl alcohol	ND	100									
2-Methylphenol (o-cresol)	ND	100									
Hexachloroethane	ND	100									
N-Nitrosodi-n-propylamine	ND	100									
Nitrobenzene	ND	200									
Isophorone	ND	100									
4-Methylphenol (p-cresol)	ND	100									
2-Nitrophenol	ND	200									
2,4-Dimethylphenol	ND	100									
Bis(2-chloroethoxy)methane	ND	100									
2,4-Dichlorophenol	ND	200									
1,2,4-Trichlorobenzene	ND	100									
Naphthalene	ND	80.0									
4-Chloroaniline	ND	500									
Hexachlorobutadiene	ND	100									
4-Chloro-3-methylphenol	ND	500									
2-Methylnaphthalene	ND	80.0									
1-Methylnaphthalene	ND	80.0									
Hexachlorocyclopentadiene	ND	100									
2,4,6-Trichlorophenol	ND	200									
2,4,5-Trichlorophenol	ND	200									
2-Chloronaphthalene	ND	100									
2-Nitroaniline	ND	500									
Acenaphthene	ND	80.0									
Dimethylphthalate	ND	100									



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Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11904	SampType:	MBLK	Units:	µg/Kg	Prep Date:	9/22/2015	RunNo:	25094		
Client ID:	MBLKS	Batch ID:	11904			Analysis Date:	9/23/2015	SeqNo:	472988		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

2,6-Dinitrotoluene	ND	100									
Acenaphthylene	ND	80.0									
2,4-Dinitrophenol	ND	200									
Dibenzofuran	ND	100									
2,4-Dinitrotoluene	ND	100									
4-Nitrophenol	ND	500									
Fluorene	ND	80.0									
4-Chlorophenyl phenyl ether	ND	100									
Diethylphthalate	ND	100									
4,6-Dinitro-2-methylphenol	ND	200									
4-Bromophenyl phenyl ether	ND	100									
Hexachlorobenzene	ND	100									
Pentachlorophenol	ND	100									
Phenanthrene	ND	80.0									
Anthracene	ND	80.0									
Carbazole	ND	500									
Di-n-butylphthalate	ND	100									
Fluoranthene	ND	80.0									
Pyrene	ND	80.0									
Butyl Benzylphthalate	ND	100									
bis(2-Ethylhexyl)adipate	ND	100									
Benz (a) anthracene	ND	80.0									
Chrysene	ND	80.0									
bis (2-Ethylhexyl) phthalate	ND	100									
Di-n-octyl phthalate	ND	100									
Benzo (b) fluoranthene	ND	80.0									
Benzo (k) fluoranthene	ND	80.0									
Benzo (a) pyrene	ND	80.0									
Indeno (1,2,3-cd) pyrene	ND	80.0									
Dibenz (a,h) anthracene	ND	80.0									
Benzo (g,h,i) perylene	ND	80.0									



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Sample ID	MB-11904	SampType:	MBLK		Units:	µg/Kg			Prep Date:	9/22/2015		RunNo:	25094	
Client ID:	MBLKS	Batch ID:	11904						Analysis Date:	9/23/2015		SeqNo:	472988	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Surr: 2,4,6-Tribromophenol		386		1,000		38.6	11.1	127						
Surr: 2-Fluorobiphenyl		464		500.0		92.8	16.1	150						
Surr: Nitrobenzene-d5		480		500.0		96.0	10	133						
Surr: Phenol-d6		834		1,000		83.4	11.6	133						
Surr: p-Terphenyl		455		500.0		90.9	21.8	150						

Sample ID	LCS-11904	SampType: LCS		Units: µg/Kg		Prep Date: 9/22/2015			RunNo: 25094		
Client ID:	LCSS	Batch ID: 11904		Analysis Date: 9/23/2015					SeqNo: 472989		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	832	200	1,000	0	83.2	41.8	138				
Bis(2-chloroethyl) ether	826	200	1,000	0	82.6	65	116				
2-Chlorophenol	809	100	1,000	0	80.9	49.3	132				
1,3-Dichlorobenzene	852	100	1,000	0	85.2	50.9	133				
1,4-Dichlorobenzene	727	100	1,000	0	72.7	51.3	133				
1,2-Dichlorobenzene	794	100	1,000	0	79.4	54.2	129				
Benzyl alcohol	751	100	1,000	0	75.1	42.4	131				
2-Methylphenol (o-cresol)	863	100	1,000	0	86.3	47.2	134				
Hexachloroethane	800	100	1,000	0	80.0	48.9	133				
N-Nitrosodi-n-propylamine	899	100	1,000	0	89.9	39.8	135				
Nitrobenzene	870	200	1,000	0	87.0	62.3	126				
Isophorone	897	100	1,000	0	89.7	62.7	131				
4-Methylphenol (p-cresol)	805	100	1,000	0	80.5	57.4	131				
2-Nitrophenol	660	200	1,000	0	66.0	44.2	129				
2,4-Dimethylphenol	762	100	1,000	0	76.2	57.8	121				
Bis(2-chloroethoxy)methane	833	100	1,000	0	83.3	67.5	124				
2,4-Dichlorophenol	741	200	1,000	0	74.1	57.1	128				
1,2,4-Trichlorobenzene	805	100	1,000	0	80.5	36.2	140				
Naphthalene	807	80.0	1,000	0	80.7	56.8	130				
4-Chloroaniline	381	500	1,000	0	38.1	10.4	130				
Hexachlorobutadiene	798	100	1,000	0	79.8	55.9	131				



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Sample ID	LCS-11904	SampType: LCS		Units: µg/Kg		Prep Date: 9/22/2015			RunNo: 25094		
Client ID:	LCSS	Batch ID: 11904					Analysis Date: 9/23/2015			SeqNo: 472989	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chloro-3-methylphenol	798	500	1,000	0	79.8	49.4	138				
2-Methylnaphthalene	821	80.0	1,000	0	82.1	68.3	121				
1-Methylnaphthalene	802	80.0	1,000	0	80.2	64.1	126				
Hexachlorocyclopentadiene	462	100	1,000	0	46.2	36.7	128				
2,4,6-Trichlorophenol	689	200	1,000	0	68.9	36.4	132				
2,4,5-Trichlorophenol	709	200	1,000	0	70.9	52.3	128				
2-Chloronaphthalene	780	100	1,000	0	78.0	67.1	123				
2-Nitroaniline	766	500	1,000	0	76.6	43.9	135				
Acenaphthene	828	80.0	1,000	0	82.8	49.2	127				
Dimethylphthalate	797	100	1,000	0	79.7	62.4	130				
2,6-Dinitrotoluene	732	100	1,000	0	73.2	54.6	127				
Acenaphthylene	808	80.0	1,000	0	80.8	64.8	127				
2,4-Dinitrophenol	421	200	1,000	0	42.1	7.9	119				
Dibenzofuran	789	100	1,000	0	78.9	67.5	123				
2,4-Dinitrotoluene	698	100	1,000	0	69.8	21.9	136				
4-Nitrophenol	2,400	500	1,000	0	240	25.4	138				S
Fluorene	787	80.0	1,000	0	78.7	64.8	126				
4-Chlorophenyl phenyl ether	803	100	1,000	0	80.3	66.6	124				
Diethylphthalate	800	100	1,000	0	80.0	42.9	132				
4,6-Dinitro-2-methylphenol	407	200	1,000	0	40.7	12.9	110				
4-Bromophenyl phenyl ether	795	100	1,000	0	79.5	61.8	128				
Hexachlorobenzene	803	100	1,000	0	80.3	66.8	124				
Pentachlorophenol	558	100	1,000	0	55.8	10	123				
Phenanthrene	770	80.0	1,000	0	77.0	61.2	130				
Anthracene	824	80.0	1,000	0	82.4	68.9	122				
Carbazole	790	500	1,000	0	79.0	64.5	135				
Di-n-butylphthalate	769	100	1,000	0	76.9	50.6	130				
Fluoranthene	803	80.0	1,000	0	80.3	66	129				
Pyrene	784	80.0	1,000	0	78.4	45.4	140				
Butyl Benzylphthalate	709	100	1,000	0	70.9	31.1	157				
bis(2-Ethylhexyl)adipate	769	100	1,000	0	76.9	28.7	160				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	LCS-11904	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/22/2015	RunNo:	25094		
Client ID:	LCSS	Batch ID:	11904			Analysis Date:	9/23/2015	SeqNo:	472989		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz (a) anthracene	710	80.0	1,000	0	71.0	44	150				
Chrysene	797	80.0	1,000	0	79.7	65.8	128				
bis (2-Ethylhexyl) phthalate	812	100	1,000	0	81.2	36.3	149				
Di-n-octyl phthalate	805	100	1,000	0	80.5	37.2	135				
Benzo (b) fluoranthene	609	80.0	1,000	0	60.9	45.6	146				
Benzo (k) fluoranthene	540	80.0	1,000	0	54.0	45.5	138				
Benzo (a) pyrene	536	80.0	1,000	0	53.6	49.2	137				
Indeno (1,2,3-cd) pyrene	563	80.0	1,000	0	56.3	44.2	146				
Dibenz (a,h) anthracene	458	80.0	1,000	0	45.8	37.5	152				
Benzo (g,h,i) perylene	509	80.0	1,000	0	50.9	24.1	156				
Surr: 2,4,6-Tribromophenol	563		1,000		56.3	11.1	127				
Surr: 2-Fluorobiphenyl	420		500.0		84.0	16.1	150				
Surr: Nitrobenzene-d5	427		500.0		85.4	10	133				
Surr: Phenol-d6	775		1,000		77.5	11.6	133				
Surr: p-Terphenyl	381		500.0		76.3	21.8	150				

NOTES:

S - Outlying spike recoveries observed for 4-Nitrophenol (high bias), samples are non-detect for this analyte, no further action required.

Sample ID	1509270-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25094		
Client ID:	GP-1-15:5.0	Batch ID:	11904			Analysis Date:	9/23/2015	SeqNo:	472991		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	221						0		50	
Bis(2-chloroethyl) ether	ND	221						0		50	
2-Chlorophenol	ND	111						0		50	
1,3-Dichlorobenzene	ND	111						0		50	
1,4-Dichlorobenzene	ND	111						0		50	
1,2-Dichlorobenzene	ND	111						0		50	
Benzyl alcohol	ND	111						0		50	
2-Methylphenol (o-cresol)	ND	111						0		50	
Hexachloroethane	ND	111						0		50	
N-Nitrosodi-n-propylamine	ND	111						0		50	



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25094		
Client ID:	GP-1-15:5.0	Batch ID:	11904			Analysis Date:	9/23/2015	SeqNo:	472991		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrobenzene	ND	221						0		50	
Isophorone	ND	111						0		50	
4-Methylphenol (p-cresol)	ND	111						0		50	
2-Nitrophenol	ND	221						0		50	
2,4-Dimethylphenol	ND	111						0		50	
Bis(2-chloroethoxy)methane	ND	111						0		50	
2,4-Dichlorophenol	ND	221						0		50	
1,2,4-Trichlorobenzene	ND	111						0		50	
Naphthalene	ND	88.6						0		50	
4-Chloroaniline	ND	554						0		50	
Hexachlorobutadiene	ND	111						0		50	
4-Chloro-3-methylphenol	ND	554						0		50	
2-Methylnaphthalene	ND	88.6						0		50	
1-Methylnaphthalene	ND	88.6						0		50	
Hexachlorocyclopentadiene	ND	111						0		50	
2,4,6-Trichlorophenol	ND	221						0		50	
2,4,5-Trichlorophenol	ND	221						0		50	
2-Chloronaphthalene	ND	111						0		50	
2-Nitroaniline	ND	554						0		50	
Acenaphthene	ND	88.6						0		50	
Dimethylphthalate	ND	111						0		50	
2,6-Dinitrotoluene	ND	111						0		50	
Acenaphthylene	ND	88.6						0		50	
2,4-Dinitrophenol	ND	221						0		50	
Dibenzofuran	ND	111						0		50	
2,4-Dinitrotoluene	ND	111						0		50	
4-Nitrophenol	ND	554						0		50	
Fluorene	ND	88.6						0		50	
4-Chlorophenyl phenyl ether	ND	111						0		50	
Diethylphthalate	ND	111						0		50	
4,6-Dinitro-2-methylphenol	ND	221						0		50	



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-001ADUP	SampType: DUP		Units: µg/Kg-dry		Prep Date: 9/22/2015			RunNo: 25094		
Client ID:	GP-1-15:5.0	Batch ID: 11904		Analysis Date: 9/23/2015					SeqNo: 472991		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Bromophenyl phenyl ether	ND	111						0		50	
Hexachlorobenzene	ND	111						0		50	
Pentachlorophenol	ND	111						0		50	
Phenanthrene	ND	88.6						0		50	
Anthracene	ND	88.6						0		50	
Carbazole	ND	554						0		50	
Di-n-butylphthalate	ND	111						0		50	
Fluoranthene	ND	88.6						0		50	
Pyrene	ND	88.6						0		50	
Butyl Benzylphthalate	ND	111						0		50	
bis(2-Ethylhexyl)adipate	ND	111						0		50	
Benz (a) anthracene	ND	88.6						0		50	
Chrysene	ND	88.6						0		50	
bis (2-Ethylhexyl) phthalate	ND	111						0		50	
Di-n-octyl phthalate	ND	111						0		50	
Benzo (b) fluoranthene	ND	88.6						0		50	
Benzo (k) fluoranthene	ND	88.6						0		50	
Benzo (a) pyrene	ND	88.6						0		50	
Indeno (1,2,3-cd) pyrene	ND	88.6						0		50	
Dibenz (a,h) anthracene	ND	88.6						0		50	
Benzo (g,h,i) perylene	ND	88.6						0		50	
Surr: 2,4,6-Tribromophenol	695		1,107		62.8	11.1	127		0		
Surr: 2-Fluorobiphenyl	102		553.5		18.4	16.1	150		0		
Surr: Nitrobenzene-d5	62.8		553.5		11.3	10	133		0		
Surr: Phenol-d6	545		1,107		49.2	11.6	133		0		
Surr: p-Terphenyl	484		553.5		87.4	21.8	150		0		



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25094		
Client ID:	GP-1-15:13.5	Batch ID:	11904			Analysis Date:	9/23/2015	SeqNo:	472993		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	988	251	1,256	0	78.6	29.2	146				
Bis(2-chloroethyl) ether	827	251	1,256	0	65.8	65.4	115				
2-Chlorophenol	971	126	1,256	0	77.3	44	134				
1,3-Dichlorobenzene	662	126	1,256	0	52.7	21.3	133				
1,4-Dichlorobenzene	622	126	1,256	0	49.5	44.5	134				
1,2-Dichlorobenzene	681	126	1,256	0	54.2	35	131				
Benzyl alcohol	557	126	1,256	0	44.3	30.8	159				
2-Methylphenol (o-cresol)	999	126	1,256	0	79.5	57.7	125				
Hexachloroethane	595	126	1,256	0	47.4	15.4	139				
N-Nitrosodi-n-propylamine	1,100	126	1,256	0	87.7	26.4	151				
Nitrobenzene	894	251	1,256	0	71.2	61.4	130				
Isophorone	1,140	126	1,256	0	90.4	61.8	132				
4-Methylphenol (p-cresol)	994	126	1,256	0	79.1	65.5	127				
2-Nitrophenol	887	251	1,256	0	70.6	46.3	118				
2,4-Dimethylphenol	1,030	126	1,256	0	82.0	46	158				
Bis(2-chloroethoxy)methane	1,010	126	1,256	0	80.6	66.8	124				
2,4-Dichlorophenol	991	251	1,256	0	78.9	56.2	128				
1,2,4-Trichlorobenzene	935	126	1,256	0	74.4	29.2	140				
Naphthalene	973	101	1,256	0	77.5	44.4	136				
4-Chloroaniline	868	628	1,256	0	69.1	27	126				
Hexachlorobutadiene	887	126	1,256	0	70.6	38.2	138				
4-Chloro-3-methylphenol	983	628	1,256	0	78.2	36.8	159				
2-Methylnaphthalene	1,050	101	1,256	0	83.6	51.7	138				
1-Methylnaphthalene	1,050	101	1,256	0	83.4	70.4	124				
Hexachlorocyclopentadiene	452	126	1,256	0	35.9	10	133				
2,4,6-Trichlorophenol	1,020	251	1,256	0	81.5	62.7	122				
2,4,5-Trichlorophenol	1,060	251	1,256	0	84.6	54.7	127				
2-Chloronaphthalene	1,060	126	1,256	0	84.0	69.8	126				
2-Nitroaniline	985	628	1,256	0	78.4	39.3	145				
Acenaphthene	1,100	101	1,256	0	87.4	49.6	129				
Dimethylphthalate	1,070	126	1,256	0	84.8	61.5	131				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25094		
Client ID:	GP-1-15:13.5	Batch ID:	11904			Analysis Date:	9/23/2015	SeqNo:	472993		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,6-Dinitrotoluene	955	126	1,256	0	76.0	56.8	137				
Acenaphthylene	1,050	101	1,256	0	83.7	64	128				
2,4-Dinitrophenol	1,010	251	1,256	0	80.8	35.3	144				
Dibenzofuran	1,080	126	1,256	0	85.8	64.7	131				
2,4-Dinitrotoluene	927	126	1,256	0	73.8	30.9	139				
4-Nitrophenol	3,270	628	1,256	0	260	15.6	160				S
Fluorene	1,070	101	1,256	0	85.4	64.2	127				
4-Chlorophenyl phenyl ether	1,070	126	1,256	0	85.0	70.9	128				
Diethylphthalate	1,080	126	1,256	0	86.3	61.7	129				
4,6-Dinitro-2-methylphenol	650	251	1,256	0	51.8	21.9	143				
4-Bromophenyl phenyl ether	1,060	126	1,256	0	84.6	69.6	136				
Hexachlorobenzene	1,060	126	1,256	0	84.2	66.5	123				
Pentachlorophenol	905	126	1,256	0	72.0	28.2	156				
Phenanthrene	1,060	101	1,256	0	84.1	57	134				
Anthracene	1,100	101	1,256	0	87.2	68.2	123				
Carbazole	1,050	628	1,256	0	83.2	64.1	152				
Di-n-butylphthalate	987	126	1,256	0	78.5	52.4	130				
Fluoranthene	1,050	101	1,256	0	83.6	46.5	165				
Pyrene	1,050	101	1,256	0	83.9	31.4	151				
Butyl Benzylphthalate	897	126	1,256	0	71.4	30.4	138				
bis(2-Ethylhexyl)adipate	920	126	1,256	0	73.2	32	136				
Benz (a) anthracene	881	101	1,256	0	70.1	43.9	151				
Chrysene	1,100	101	1,256	0	87.4	71.1	126				
bis (2-Ethylhexyl) phthalate	1,000	126	1,256	0	79.6	40.8	170				
Di-n-octyl phthalate	1,010	126	1,256	0	80.2	34.6	142				
Benzo (b) fluoranthene	690	101	1,256	0	54.9	52.1	136				
Benzo (k) fluoranthene	789	101	1,256	0	62.8	45	140				
Benzo (a) pyrene	732	101	1,256	0	58.3	50.5	137				
Indeno (1,2,3-cd) pyrene	606	101	1,256	0	48.3	38.1	155				
Dibenz (a,h) anthracene	598	101	1,256	0	47.6	40.7	152				
Benzo (q,h,l) perylene	764	101	1,256	0	60.8	34	157				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25094		
Client ID:	GP-1-15:13.5	Batch ID:	11904			Analysis Date:	9/23/2015	SeqNo:	472993		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	870		1,256		69.2	11.1	127				
Surr: 2-Fluorobiphenyl	394		628.2		62.7	16.1	150				
Surr: Nitrobenzene-d5	127		628.2		20.2	10	133				
Surr: Phenol-d6	843		1,256		67.1	11.6	133				
Surr: p-Terphenyl	545		628.2		86.8	21.8	150				

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.

Sample ID	MB-11937	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/24/2015		RunNo:	25119	
Client ID:	MBLKS	Batch ID:	11937					Analysis Date:	9/24/2015		SeqNo:	473647	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Phenol		ND	200										
Bis(2-chloroethyl) ether		ND	200										
2-Chlorophenol		ND	100										
1,3-Dichlorobenzene		ND	100										
1,4-Dichlorobenzene		ND	100										
1,2-Dichlorobenzene		ND	100										
Benzyl alcohol		ND	100										
2-Methylphenol (o-cresol)		ND	100										
Hexachloroethane		ND	100										
N-Nitrosodi-n-propylamine		ND	100										
Nitrobenzene		ND	200										
Isophorone		ND	100										
4-Methylphenol (p-cresol)		ND	100										
2-Nitrophenol		ND	200										
2,4-Dimethylphenol		ND	100										
Bis(2-chloroethoxy)methane		ND	100										
2,4-Dichlorophenol		ND	200										
1,2,4-Trichlorobenzene		ND	100										
Naphthalene		ND	80.0										
4-Chloroaniline		ND	500										



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11937	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/24/2015		RunNo:	25119	
Client ID:	MBLKS	Batch ID:	11937					Analysis Date:	9/24/2015		SeqNo:	473647	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Hexachlorobutadiene		ND	100										
4-Chloro-3-methylphenol		ND	500										
2-Methylnaphthalene		ND	80.0										
1-Methylnaphthalene		ND	80.0										
Hexachlorocyclopentadiene		ND	100										
2,4,6-Trichlorophenol		ND	200										
2,4,5-Trichlorophenol		ND	200										
2-Chloronaphthalene		ND	100										
2-Nitroaniline		ND	500										
Acenaphthene		ND	80.0										
Dimethylphthalate		ND	100										
2,6-Dinitrotoluene		ND	100										
Acenaphthylene		ND	80.0										
2,4-Dinitrophenol		ND	200										
Dibenzofuran		ND	100										
2,4-Dinitrotoluene		ND	100										
4-Nitrophenol		ND	500										
Fluorene		ND	80.0										
4-Chlorophenyl phenyl ether		ND	100										
Diethylphthalate		ND	100										
4,6-Dinitro-2-methylphenol		ND	200										
4-Bromophenyl phenyl ether		ND	100										
Hexachlorobenzene		ND	100										
Pentachlorophenol		ND	100										
Phenanthrene		ND	80.0										
Anthracene		ND	80.0										
Carbazole		ND	500										
Di-n-butylphthalate		ND	100										
Fluoranthene		ND	80.0										
Pyrene		ND	80.0										
Butyl Benzylphthalate		ND	100										



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11937	SampType:	MBLK			Units:	µg/Kg			Prep Date:	9/24/2015			RunNo:	25119		
Client ID:	MBLKS	Batch ID:	11937							Analysis Date:	9/24/2015			SeqNo:	473647		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual				
bis(2-Ethylhexyl)adipate		ND	100														
Benz (a) anthracene		ND	80.0														
Chrysene		ND	80.0														
bis (2-Ethylhexyl) phthalate		ND	100														
Di-n-octyl phthalate		ND	100														
Benzo (b) fluoranthene		ND	80.0														
Benzo (k) fluoranthene		ND	80.0														
Benzo (a) pyrene		ND	80.0														
Indeno (1,2,3-cd) pyrene		ND	80.0														
Dibenz (a,h) anthracene		ND	80.0														
Benzo (g,h,l) perylene		ND	80.0														
Surr: 2,4,6-Tribromophenol		199		1,000		19.9	11.1	127									
Surr: 2-Fluorobiphenyl		315		500.0		62.9	16.1	150									
Surr: Nitrobenzene-d5		160		500.0		32.0	10	133									
Surr: Phenol-d6		629		1,000		62.9	11.6	133									
Surr: p-Terphenyl		363		500.0		72.5	21.8	150									

Sample ID	LCS-11937	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/24/2015	RunNo:	25119		
Client ID:	LCSS	Batch ID:	11937			Analysis Date:	9/24/2015	SeqNo:	473648		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	901	200	1,000	0	90.1	41.8	138				
Bis(2-chloroethyl) ether	775	200	1,000	0	77.5	65	116				
2-Chlorophenol	823	100	1,000	0	82.3	49.3	132				
1,3-Dichlorobenzene	857	100	1,000	0	85.7	50.9	133				
1,4-Dichlorobenzene	779	100	1,000	0	77.9	51.3	133				
1,2-Dichlorobenzene	851	100	1,000	0	85.1	54.2	129				
Benzyl alcohol	1,300	100	1,000	0	130	42.4	131				
2-Methylphenol (o-cresol)	924	100	1,000	0	92.4	47.2	134				
Hexachloroethane	829	100	1,000	0	82.9	48.9	133				
N-Nitrosodi-n-propylamine	932	100	1,000	0	93.2	39.8	135				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Semi-Volatile Organic Compounds by EPA Method 8270**

Sample ID	LCS-11937	SampType: LCS		Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25119		
Client ID:	LCSS	Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473648	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrobenzene	883	200	1,000	0	88.3	62.3	126				
Isophorone	944	100	1,000	0	94.4	62.7	131				
4-Methylphenol (p-cresol)	865	100	1,000	0	86.5	57.4	131				
2-Nitrophenol	640	200	1,000	0	64.0	44.2	129				
2,4-Dimethylphenol	883	100	1,000	0	88.3	57.8	121				
Bis(2-chloroethoxy)methane	914	100	1,000	0	91.4	67.5	124				
2,4-Dichlorophenol	801	200	1,000	0	80.1	57.1	128				
1,2,4-Trichlorobenzene	877	100	1,000	0	87.7	36.2	140				
Naphthalene	888	80.0	1,000	0	88.8	56.8	130				
4-Chloroaniline	891	500	1,000	0	89.1	10.4	130				
Hexachlorobutadiene	859	100	1,000	0	85.9	55.9	131				
4-Chloro-3-methylphenol	869	500	1,000	0	86.9	49.4	138				
2-Methylnaphthalene	877	80.0	1,000	0	87.7	68.3	121				
1-Methylnaphthalene	888	80.0	1,000	0	88.8	64.1	126				
Hexachlorocyclopentadiene	667	100	1,000	0	66.7	36.7	128				
2,4,6-Trichlorophenol	641	200	1,000	0	64.1	36.4	132				
2,4,5-Trichlorophenol	819	200	1,000	0	81.9	52.3	128				
2-Chloronaphthalene	872	100	1,000	0	87.2	67.1	123				
2-Nitroaniline	768	500	1,000	0	76.8	43.9	135				
Acenaphthene	907	80.0	1,000	0	90.7	49.2	127				
Dimethylphthalate	840	100	1,000	0	84.0	62.4	130				
2,6-Dinitrotoluene	825	100	1,000	0	82.5	54.6	127				
Acenaphthylene	882	80.0	1,000	0	88.2	64.8	127				
2,4-Dinitrophenol	331	200	1,000	0	33.1	7.9	119				
Dibenzofuran	865	100	1,000	0	86.5	67.5	123				
2,4-Dinitrotoluene	745	100	1,000	0	74.5	21.9	136				
4-Nitrophenol	2,620	500	1,000	0	262	25.4	138				S
Fluorene	863	80.0	1,000	0	86.3	64.8	126				
4-Chlorophenyl phenyl ether	888	100	1,000	0	88.8	66.6	124				
Diethylphthalate	803	100	1,000	0	80.3	42.9	132				
4,6-Dinitro-2-methylphenol	472	200	1,000	0	47.2	12.9	110				

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	LCS-11937	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/24/2015	RunNo:	25119		
Client ID:	LCSS	Batch ID:	11937			Analysis Date:	9/24/2015	SeqNo:	473648		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Bromophenyl phenyl ether	846	100	1,000	0	84.6	61.8	128				
Hexachlorobenzene	829	100	1,000	0	82.9	66.8	124				
Pentachlorophenol	366	100	1,000	0	36.6	10	123				
Phenanthrene	854	80.0	1,000	0	85.4	61.2	130				
Anthracene	863	80.0	1,000	0	86.3	68.9	122				
Carbazole	804	500	1,000	0	80.4	64.5	135				
Di-n-butylphthalate	727	100	1,000	0	72.7	50.6	130				
Fluoranthene	841	80.0	1,000	0	84.1	66	129				
Pyrene	842	80.0	1,000	0	84.2	45.4	140				
Butyl Benzylphthalate	629	100	1,000	0	62.9	31.1	157				
bis(2-Ethylhexyl)adipate	661	100	1,000	0	66.1	28.7	160				
Benz (a) anthracene	742	80.0	1,000	0	74.2	44	150				
Chrysene	908	80.0	1,000	0	90.8	65.8	128				
bis (2-Ethylhexyl) phthalate	682	100	1,000	0	68.2	36.3	149				
Di-n-octyl phthalate	699	100	1,000	0	69.9	37.2	135				
Benzo (b) fluoranthene	658	80.0	1,000	0	65.8	45.6	146				
Benzo (k) fluoranthene	705	80.0	1,000	0	70.5	45.5	138				
Benzo (a) pyrene	599	80.0	1,000	0	59.9	49.2	137				
Indeno (1,2,3-cd) pyrene	731	80.0	1,000	0	73.1	44.2	146				
Dibenz (a,h) anthracene	519	80.0	1,000	0	51.9	37.5	152				
Benzo (g,h,i) perylene	860	80.0	1,000	0	86.0	24.1	156				
Surr: 2,4,6-Tribromophenol	457		1,000		45.7	11.1	127				
Surr: 2-Fluorobiphenyl	424		500.0		84.8	16.1	150				
Surr: Nitrobenzene-d5	243		500.0		48.5	10	133				
Surr: Phenol-d6	758		1,000		75.8	11.6	133				
Surr: p-Terphenyl	431		500.0		86.2	21.8	150				

NOTES:

S - Outlying spike recovery observed for 4-Nitrophenol (high bias). Detections of this analyte will be qualified with an *. No further action required for samples without detections.



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-021ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25119		
Client ID:	GP-10-15:4.5	Batch ID:	11937			Analysis Date:	9/24/2015	SeqNo:	473650		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	275						0		50	
Bis(2-chloroethyl) ether	ND	275						0		50	
2-Chlorophenol	ND	138						0		50	
1,3-Dichlorobenzene	ND	138						0		50	
1,4-Dichlorobenzene	ND	138						0		50	
1,2-Dichlorobenzene	ND	138						0		50	
Benzyl alcohol	ND	138						0		50	
2-Methylphenol (o-cresol)	ND	138						0		50	
Hexachloroethane	ND	138						0		50	
N-Nitrosodi-n-propylamine	ND	138						0		50	
Nitrobenzene	ND	275						0		50	
Isophorone	ND	138						0		50	
4-Methylphenol (p-cresol)	279	138						202.0	31.9	50	
2-Nitrophenol	ND	275						0		50	
2,4-Dimethylphenol	155	138						133.2	15.3	50	
Bis(2-chloroethoxy)methane	ND	138						0		50	
2,4-Dichlorophenol	ND	275						0		50	
1,2,4-Trichlorobenzene	ND	138						0		50	
Naphthalene	4,470	110						4,420	1.05	50	
4-Chloroaniline	ND	689						0		50	
Hexachlorobutadiene	ND	138						0		50	
4-Chloro-3-methylphenol	ND	689						0		50	
2-Methylnaphthalene	3,210	110						3,098	3.70	50	
Hexachlorocyclopentadiene	ND	138						0		50	
2,4,6-Trichlorophenol	ND	275						0		50	
2,4,5-Trichlorophenol	ND	275						0		50	
2-Chloronaphthalene	ND	138						0		50	
2-Nitroaniline	ND	689						0		50	
Dimethylphthalate	ND	138						0		50	
2,6-Dinitrotoluene	ND	138						0		50	
Acenaphthylene	137	110						127.0	7.85	50	



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID 1509270-021ADUP		SampType: DUP		Units: µg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25119		
Client ID: GP-10-15:4.5		Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473650	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4-Dinitrophenol	ND	275						0		50	
Dibenzofuran	ND	138						0		50	
2,4-Dinitrotoluene	ND	138						0		50	
4-Nitrophenol	1,500	689						1,430	4.63	50	*
4-Chlorophenyl phenyl ether	ND	138						0		50	
Diethylphthalate	ND	138						0		50	
4,6-Dinitro-2-methylphenol	ND	275						0		50	
4-Bromophenyl phenyl ether	ND	138						0		50	
Hexachlorobenzene	ND	138						0		50	
Pentachlorophenol	ND	138						0		50	
Di-n-butylphthalate	ND	138						0		50	
Butyl Benzylphthalate	ND	138						0		50	
bis(2-Ethylhexyl)adipate	ND	138						0		50	
Chrysene	179,000	110						131,100	30.9	50	
bis (2-Ethylhexyl) phthalate	2,090	138						1,623	25.0	50	
Di-n-octyl phthalate	ND	138						0		50	
Benzo (k) fluoranthene	33,000	110						28,970	13.1	50	
Benzo (a) pyrene	49,800	110						43,060	14.5	50	
Indeno (1,2,3-cd) pyrene	51,300	110						61,540	18.2	50	
Dibenz (a,h) anthracene	50,000	110						52,540	5.00	50	
Benzo (g,h,i) perylene	51,100	110						56,570	10.1	50	
Surr: 2,4,6-Tribromophenol	801		1,377		58.1	11.1	127		0		
Surr: 2-Fluorobiphenyl	279		688.7		40.5	16.1	150		0		
Surr: Nitrobenzene-d5	266		688.7		38.6	10	133		0		
Surr: Phenol-d6	613		1,377		44.5	11.6	133		0		
Surr: p-Terphenyl	775		688.7		113	21.8	150		0		

NOTES:

* - Flagged value is not within established control limits.



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-022AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25119		
Client ID:	GP-10-15:13.0	Batch ID:	11937			Analysis Date:	9/24/2015	SeqNo:	473652		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	870	242	1,209	0	72.0	29.2	146				
Bis(2-chloroethyl) ether	671	242	1,209	0	55.5	34.4	135				
2-Chlorophenol	799	121	1,209	0	66.1	44	134				
1,3-Dichlorobenzene	415	121	1,209	0	34.4	21.3	133				
1,4-Dichlorobenzene	465	121	1,209	0	38.4	20.9	131				
1,2-Dichlorobenzene	505	121	1,209	0	41.8	35	131				
Benzyl alcohol	1,200	121	1,209	0	99.4	30.8	159				
2-Methylphenol (o-cresol)	897	121	1,209	0	74.2	57.7	125				
Hexachloroethane	465	121	1,209	0	38.4	15.4	139				
N-Nitrosodi-n-propylamine	1,010	121	1,209	0	83.2	26.4	151				
Nitrobenzene	832	242	1,209	0	68.8	61.4	130				
Isophorone	1,060	121	1,209	0	87.5	61.8	132				
4-Methylphenol (p-cresol)	940	121	1,209	0	77.7	65.5	127				
2-Nitrophenol	830	242	1,209	0	68.7	46.3	118				
2,4-Dimethylphenol	941	121	1,209	0	77.8	46	158				
Bis(2-chloroethoxy)methane	908	121	1,209	0	75.2	66.8	124				
2,4-Dichlorophenol	887	242	1,209	0	73.4	56.2	128				
1,2,4-Trichlorobenzene	730	121	1,209	0	60.4	29.2	140				
Naphthalene	756	96.7	1,209	0	62.5	44.4	136				
4-Chloroaniline	838	604	1,209	0	69.3	27	126				
Hexachlorobutadiene	722	121	1,209	0	59.8	38.2	138				
4-Chloro-3-methylphenol	1,060	604	1,209	0	87.3	36.8	159				
2-Methylnaphthalene	831	96.7	1,209	0	68.8	51.7	138				
1-Methylnaphthalene	846	96.7	1,209	0	70.0	51.8	131				
Hexachlorocyclopentadiene	276	121	1,209	0	22.8	10	133				
2,4,6-Trichlorophenol	912	242	1,209	0	75.4	62.7	122				
2,4,5-Trichlorophenol	990	242	1,209	0	81.9	54.7	127				
2-Chloronaphthalene	856	121	1,209	0	70.8	69.8	126				
2-Nitroaniline	1,010	604	1,209	0	83.5	39.3	145				
Acenaphthene	912	96.7	1,209	0	75.4	49.6	129				
Dimethylphthalate	956	121	1,209	0	79.1	61.5	131				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-022AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25119		
Client ID:	GP-10-15:13.0	Batch ID:	11937			Analysis Date:	9/24/2015	SeqNo:	473652		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,6-Dinitrotoluene	894	121	1,209	0	74.0	56.8	137				
Acenaphthylene	904	96.7	1,209	0	74.8	64	128				
2,4-Dinitrophenol	733	242	1,209	0	60.7	35.3	144				
Dibenzofuran	861	121	1,209	0	71.2	64.7	131				
2,4-Dinitrotoluene	868	121	1,209	0	71.8	30.9	139				
4-Nitrophenol	2,770	604	1,209	0	230	15.6	160				S
Fluorene	900	96.7	1,209	0	74.5	64.2	127				
4-Chlorophenyl phenyl ether	865	121	1,209	0	71.6	70.9	128				
Diethylphthalate	978	121	1,209	0	80.9	61.7	129				
4,6-Dinitro-2-methylphenol	694	242	1,209	0	57.4	21.9	143				
4-Bromophenyl phenyl ether	855	121	1,209	0	70.7	69.6	136				
Hexachlorobenzene	879	121	1,209	0	72.7	66.5	123				
Pentachlorophenol	935	121	1,209	0	77.4	28.2	156				
Phenanthrene	890	96.7	1,209	0	73.7	57	134				
Anthracene	932	96.7	1,209	0	77.1	68.2	123				
Carbazole	907	604	1,209	0	75.0	64.1	152				
Di-n-butylphthalate	943	121	1,209	0	78.0	52.4	130				
Fluoranthene	916	96.7	1,209	106.1	67.0	46.5	165				
Pyrene	899	96.7	1,209	0	74.4	31.4	151				
Butyl Benzylphthalate	1,030	121	1,209	0	85.2	30.4	138				
bis(2-Ethylhexyl)adipate	1,120	121	1,209	0	92.3	32	136				
Benz (a) anthracene	921	96.7	1,209	0	76.2	43.9	151				
Chrysene	870	96.7	1,209	0	72.0	71.1	126				
bis (2-Ethylhexyl) phthalate	1,030	121	1,209	0	85.1	40.8	170				
Di-n-octyl phthalate	1,270	121	1,209	0	105	34.6	142				
Benzo (b) fluoranthene	948	96.7	1,209	0	78.4	52.1	136				
Benzo (k) fluoranthene	809	96.7	1,209	0	67.0	64.5	135				
Benzo (a) pyrene	867	96.7	1,209	213.4	54.1	50.5	137				
Indeno (1,2,3-cd) pyrene	1,140	96.7	1,209	0	94.5	49.7	143				
Dibenz (a,h) anthracene	944	96.7	1,209	0	78.1	40.7	152				
Benzo (g,h,l) perylene	900	96.7	1,209	0	74.5	34	157				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509270-022AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25119		
Client ID:	GP-10-15:13.0	Batch ID:	11937			Analysis Date:	9/24/2015	SeqNo:	473652		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 2,4,6-Tribromophenol	837		1,209		69.2	11.1	127				
Surr: 2-Fluorobiphenyl	247		604.4		40.9	16.1	150				
Surr: Nitrobenzene-d5	121		604.4		20.0	10	133				
Surr: Phenol-d6	693		1,209		57.3	11.6	133				
Surr: p-Terphenyl	499		604.4		82.6	21.8	150				

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Gasoline by NWTPH-Gx**

Sample ID	LCS-11902	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/21/2015	RunNo:	25017		
Client ID:	LCSS	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471276		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	22.6	5.00	25.00	0	90.2	65	135				
Surr: Toluene-d8	1.22		1.250		97.8	65	135				
Surr: 4-Bromofluorobenzene	1.27		1.250		102	65	135				

Sample ID	MB-11902	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/21/2015		RunNo:	25017	
Client ID:	MBLKS	Batch ID:	11902						Analysis Date:	9/22/2015			SeqNo:	471277	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Gasoline	ND	5.00									
Surr: Toluene-d8	1.21		1.250		96.5	65	135				
Surr: 4-Bromofluorobenzene	1.25		1.250		100	65	135				

Sample ID	1509274-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25017		
Client ID:	BATCH	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471274		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	632	136						646.1	2.19	30	D
Surr: Toluene-d8	33.9		33.92		99.9	65	135		0		D
Surr: 4-Bromofluorobenzene	34.2		33.92		101	65	135		0		D

Sample ID	1509270-003BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25017		
Client ID:	GP-2-15:4.5	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471606		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	3.19						0		30	
Surr: Toluene-d8	0.800		0.7974		100	65	135		0		
Surr: 4-Bromofluorobenzene	0.833		0.7974		104	65	135		0		



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Gasoline by NWTPH-Gx**

Sample ID	LCS-11914	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25041		
Client ID:	LCSS	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471905		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	25.6	5.00	25.00	0	102	65	135				
Surr: Toluene-d8	1.26		1.250		101	65	135				
Surr: 4-Bromofluorobenzene	1.24		1.250		99.0	65	135				

Sample ID	MB-11914	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/22/2015		RunNo:	25041	
Client ID:	MBLKS	Batch ID:	11914						Analysis Date:	9/23/2015			SeqNo:	471906	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Gasoline	ND	5.00									
Surr: Toluene-d8	1.22		1.250		97.6	65	135				
Surr: 4-Bromofluorobenzene	1.28		1.250		102	65	135				

Sample ID	1509270-004BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25041		
Client ID:	GP-2-15:14.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471889		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	3.13						0		30	
Surr: Toluene-d8	0.781		0.7821		99.9	65	135		0		
Surr: 4-Bromofluorobenzene	0.786		0.7821		101	65	135		0		

Sample ID	1509270-014BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25041		
Client ID:	GP-7-15:5.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471900		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	3.79						0		30	
Surr: Toluene-d8	0.939		0.9468		99.2	65	135		0		
Surr: 4-Bromofluorobenzene	0.985		0.9468		104	65	135		0		



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Gasoline by NWTPH-Gx**

Sample ID	LCS-11930	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/23/2015	RunNo:	25069		
Client ID:	LCSS	Batch ID:	11930			Analysis Date:	9/23/2015	SeqNo:	472470		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	27.1	5.00	25.00	0	108	65	135				
Surr: Toluene-d8	1.24		1.250		99.1	65	135				
Surr: 4-Bromofluorobenzene	1.24		1.250		99.5	65	135				

Sample ID	MB-11930	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/23/2015		RunNo:	25069	
Client ID:	MBLKS	Batch ID:	11930						Analysis Date:	9/23/2015			SeqNo:	472471	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Gasoline	ND	5.00									
Surr: Toluene-d8	1.23		1.250		98.8	65	135				
Surr: 4-Bromofluorobenzene	1.28		1.250		102	65	135				

Sample ID	1509270-024BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25069		
Client ID:	GP-11-15:14.5	Batch ID:	11930			Analysis Date:	9/23/2015	SeqNo:	472446		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	6.73						0		30	
Surr: Toluene-d8	1.69		1.683		100	65	135		0		
Surr: 4-Bromofluorobenzene	1.70		1.683		101	65	135		0		

Sample ID	1509270-033BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25069		
Client ID:	MW-3-15:6.5	Batch ID:	11930			Analysis Date:	9/24/2015	SeqNo:	472454		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	3.88						0		30	
Surr: Toluene-d8	0.973		0.9689		100	65	135		0		
Surr: 4-Bromofluorobenzene	0.987		0.9689		102	65	135		0		



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Gasoline by NWTPH-Gx**

Sample ID	LCS-R25021	SampType: LCS			Units: µg/L	Prep Date: 9/22/2015			RunNo: 25021		
Client ID:	LCSW	Batch ID: R25021			Analysis Date: 9/22/2015			SeqNo: 471371			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	575	50.0	500.0	0	115	65	135				
Surr: Toluene-d8	21.4		25.00		85.5	65	135				
Surr: 4-Bromofluorobenzene	23.4		25.00		93.6	65	135				

Sample ID	MB-R25021	SampType: MBLK			Units: µg/L	Prep Date: 9/22/2015			RunNo: 25021		
Client ID:	MBLKW	Batch ID: R25021			Analysis Date: 9/22/2015			SeqNo: 471372			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0									
Surr: Toluene-d8	21.8		25.00		87.4	65	135				
Surr: 4-Bromofluorobenzene	24.2		25.00		96.8	65	135				

Sample ID	1509270-027ADUP			SampType:	DUP		Units:	µg/L		Prep Date:	9/22/2015		RunNo:	25021	
Client ID:	GP-12-15:GW			Batch ID:	R25021					Analysis Date:	9/22/2015		SeqNo:	471366	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual			

Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	21.8		25.00		87.2	65	135		0	0	
Surr: 4-Bromofluorobenzene	23.9		25.00		95.5	65	135		0	0	

Sample ID	1509263-006BDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25021		
Client ID:	BATCH	Batch ID:	R25021			Analysis Date:	9/22/2015	SeqNo:	471364		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	21.8		25.00		87.2	65	135		0	0	
Surr: 4-Bromofluorobenzene	23.5		25.00		94.0	65	135		0	0	



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11902	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/21/2015	RunNo:	25015		
Client ID:	LCSS	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471249		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.795	0.0600	1.000	0	79.5	37.2	139				
Chloromethane	0.866	0.0600	1.000	0	86.6	38.8	132				
Vinyl chloride	0.979	0.00200	1.000	0	97.9	56.1	130				
Bromomethane	1.02	0.0900	1.000	0	102	41.3	148				
Trichlorofluoromethane (CFC-11)	0.921	0.0500	1.000	0	92.1	42.9	147				
Chloroethane	0.987	0.0600	1.000	0	98.7	37.1	144				
1,1-Dichloroethene	1.12	0.0500	1.000	0	112	49.7	142				
Methylene chloride	0.960	0.0200	1.000	0	96.0	46.3	140				
trans-1,2-Dichloroethene	1.13	0.0200	1.000	0	113	68	130				
Methyl tert-butyl ether (MTBE)	0.953	0.0500	1.000	0	95.3	59.1	138				
1,1-Dichloroethane	1.13	0.0200	1.000	0	113	61.9	137				
2,2-Dichloropropane	1.04	0.0500	1.000	0	104	28.1	149				
cis-1,2-Dichloroethene	1.11	0.0200	1.000	0	111	71.3	135				
Chloroform	1.06	0.0200	1.000	0	106	67.5	129				
1,1,1-Trichloroethane (TCA)	1.21	0.0200	1.000	0	121	69	132				
1,1-Dichloropropene	1.06	0.0200	1.000	0	106	72.7	131				
Carbon tetrachloride	1.07	0.0200	1.000	0	107	63.4	137				
1,2-Dichloroethane (EDC)	1.04	0.0300	1.000	0	104	61.9	136				
Benzene	1.02	0.0200	1.000	0	102	64.3	133				
Trichloroethene (TCE)	1.12	0.0200	1.000	0	112	65.5	137				
1,2-Dichloropropane	1.10	0.0200	1.000	0	110	63.2	142				
Bromodichloromethane	0.975	0.0200	1.000	0	97.5	73.2	131				
Dibromomethane	1.17	0.0400	1.000	0	117	70	130				
cis-1,3-Dichloropropene	0.960	0.0200	1.000	0	96.0	59.1	143				
Toluene	0.993	0.0200	1.000	0	99.3	67.3	138				
trans-1,3-Dichloropropylene	1.03	0.0300	1.000	0	103	49.2	149				
1,1,2-Trichloroethane	1.13	0.0300	1.000	0	113	74.5	129				
1,3-Dichloropropane	1.09	0.0500	1.000	0	109	70	130				
Tetrachloroethene (PCE)	1.10	0.0200	1.000	0	110	52.7	150				
Dibromochloromethane	1.10	0.0300	1.000	0	110	70.6	144				
1,2-Dibromoethane (EDB)	1.23	0.00500	1.000	0	123	70	130				



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11902	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/21/2015	RunNo:	25015		
Client ID:	LCSS	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471249		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	1.07	0.0200	1.000	0	107	76.1	123				
1,1,1,2-Tetrachloroethane	1.07	0.0300	1.000	0	107	74.8	131				
Ethylbenzene	0.991	0.0300	1.000	0	99.1	74	129				
m,p-Xylene	1.96	0.0200	2.000	0	98.2	79.8	128				
o-Xylene	0.962	0.0200	1.000	0	96.2	72.7	124				
Styrene	1.11	0.0200	1.000	0	111	76.8	130				
Isopropylbenzene	1.10	0.0800	1.000	0	110	70	130				
Bromoform	1.11	0.0200	1.000	0	111	67	154				
1,1,2,2-Tetrachloroethane	1.17	0.0200	1.000	0	117	60	130				
n-Propylbenzene	1.09	0.0200	1.000	0	109	74.8	125				
Bromobenzene	1.11	0.0300	1.000	0	111	49.2	144				
1,3,5-Trimethylbenzene	1.07	0.0200	1.000	0	107	74.6	123				
2-Chlorotoluene	1.08	0.0200	1.000	0	108	76.7	129				
4-Chlorotoluene	1.11	0.0200	1.000	0	111	77.5	125				
tert-Butylbenzene	1.11	0.0200	1.000	0	111	66.2	130				
1,2,3-Trichloropropane	1.15	0.0200	1.000	0	115	67.9	136				
1,2,4-Trichlorobenzene	1.13	0.0500	1.000	0	113	65.6	137				
sec-Butylbenzene	1.12	0.0200	1.000	0	112	75.6	133				
4-Isopropyltoluene	1.12	0.0200	1.000	0	112	76.8	131				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	128				
1,4-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.6	126				
n-Butylbenzene	1.08	0.0200	1.000	0	108	65.3	136				
1,2-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	126				
1,2-Dibromo-3-chloropropane	1.16	0.500	1.000	0	116	61.2	139				
1,2,4-Trimethylbenzene	0.971	0.0200	1.000	0	97.1	77.5	129				
Hexachlorobutadiene	1.11	0.100	1.000	0	111	42	151				
Naphthalene	1.10	0.0300	1.000	0	110	62.3	134				
1,2,3-Trichlorobenzene	1.09	0.0200	1.000	0	109	62.1	140				
Surr: Dibromofluoromethane	1.31		1.250		105	56.5	129				
Surr: Toluene-d8	1.26		1.250		101	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.29		1.250		103	63.1	141				



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11902	SampType: LCS			Units: mg/Kg		Prep Date: 9/21/2015			RunNo: 25015		
Client ID:	LCSS	Batch ID: 11902			Analysis Date: 9/22/2015					SeqNo: 471249		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Sample ID	MB-11902	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/21/2015		RunNo:	25015	
Client ID:	MBLKS	Batch ID:	11902						Analysis Date:	9/22/2015			SeqNo:	471250	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Dichlorodifluoromethane (CFC-12)	ND	0.0600
Chloromethane	ND	0.0600
Vinyl chloride	ND	0.00200
Bromomethane	ND	0.0900
Trichlorofluoromethane (CFC-11)	ND	0.0500
Chloroethane	ND	0.0600
1,1-Dichloroethene	ND	0.0500
Methylene chloride	ND	0.0200
trans-1,2-Dichloroethene	ND	0.0200
Methyl tert-butyl ether (MTBE)	ND	0.0500
1,1-Dichloroethane	ND	0.0200
2,2-Dichloropropane	ND	0.0500
cis-1,2-Dichloroethene	ND	0.0200
Chloroform	ND	0.0200
1,1,1-Trichloroethane (TCA)	ND	0.0200
1,1-Dichloropropene	ND	0.0200
Carbon tetrachloride	ND	0.0200
1,2-Dichloroethane (EDC)	ND	0.0300
Benzene	ND	0.0200
Trichloroethene (TCE)	ND	0.0200
1,2-Dichloropropane	ND	0.0200
Bromodichloromethane	ND	0.0200
Dibromomethane	ND	0.0400
cis-1,3-Dichloropropene	ND	0.0200
Toluene	ND	0.0200
trans-1,3-Dichloropropylene	ND	0.0300



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11902	SampType: MBLK		Units: mg/Kg		Prep Date: 9/21/2015			RunNo: 25015		
Client ID:	MBLKS	Batch ID: 11902		Analysis Date: 9/22/2015					SeqNo: 471250		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	0.0300									
1,3-Dichloropropane	ND	0.0500									
Tetrachloroethene (PCE)	ND	0.0200									
Dibromochloromethane	ND	0.0300									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0200									
1,1,1,2-Tetrachloroethane	ND	0.0300									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Styrene	ND	0.0200									
Isopropylbenzene	ND	0.0800									
Bromoform	ND	0.0200									
1,1,2,2-Tetrachloroethane	ND	0.0200									
n-Propylbenzene	ND	0.0200									
Bromobenzene	ND	0.0300									
1,3,5-Trimethylbenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0200									
4-Chlorotoluene	ND	0.0200									
tert-Butylbenzene	ND	0.0200									
1,2,3-Trichloropropane	ND	0.0200									
1,2,4-Trichlorobenzene	ND	0.0500									
sec-Butylbenzene	ND	0.0200									
4-Isopropyltoluene	ND	0.0200									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
n-Butylbenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
1,2,4-Trimethylbenzene	ND	0.0200									
Hexachlorobutadiene	ND	0.100									



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11902	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/21/2015		RunNo:	25015	
Client ID:	MBLKS	Batch ID:	11902					Analysis Date:	9/22/2015		SeqNo:	471250	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Naphthalene		ND	0.0300										
1,2,3-Trichlorobenzene		ND	0.0200										
Surr: Dibromofluoromethane		1.26		1.250		101	56.5	129					
Surr: Toluene-d8		1.23		1.250		98.5	64.3	131					
Surr: 1-Bromo-4-fluorobenzene		1.21		1.250		96.6	63.1	141					

Sample ID	1509258-002BMS	SampType:	MS		Units:	mg/Kg-dry		Prep Date:	9/21/2015		RunNo:	25015	
Client ID:	BATCH	Batch ID:	11902		Analysis Date:				9/22/2015		SeqNo:	471255	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Dichlorodifluoromethane (CFC-12)	1.48	0.0792	1.320	0	112	43.5	121						
Chloromethane	1.30	0.0792	1.320	0.007104	98.0	45	130						
Vinyl chloride	1.50	0.00264	1.320	0	113	51.2	146						
Bromomethane	1.44	0.119	1.320	0	109	21.3	120						
Trichlorofluoromethane (CFC-11)	1.27	0.0660	1.320	0	96.3	35	131						
Chloroethane	1.45	0.0792	1.320	0	110	43.8	117						
1,1-Dichloroethene	1.56	0.0660	1.320	0	118	61.9	141						
Methylene chloride	1.31	0.0264	1.320	0.008133	98.4	54.7	142						
trans-1,2-Dichloroethene	1.55	0.0264	1.320	0	117	52	136						
Methyl tert-butyl ether (MTBE)	1.33	0.0660	1.320	0.03848	97.6	54.4	132						
1,1-Dichloroethane	1.52	0.0264	1.320	0	115	51.8	141						
2,2-Dichloropropane	1.78	0.0660	1.320	0	135	36	123						S
cis-1,2-Dichloroethene	1.49	0.0264	1.320	0	113	58.6	136						
Chloroform	1.42	0.0264	1.320	0.004370	108	53.2	129						
1,1,1-Trichloroethane (TCA)	1.67	0.0264	1.320	0	126	58.3	145						
1,1-Dichloropropene	1.47	0.0264	1.320	0	111	55.1	138						
Carbon tetrachloride	1.46	0.0264	1.320	0	110	53.3	144						
1,2-Dichloroethane (EDC)	1.41	0.0396	1.320	0	107	51.3	139						
Benzene	1.40	0.0264	1.320	0.003327	106	63.5	133						
Trichloroethene (TCE)	1.49	0.0264	1.320	0	113	68.6	132						
1,2-Dichloropropane	1.48	0.0264	1.320	0	112	59	136						



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Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509258-002BMS	SampType: MS	Units: mg/Kg-dry			Prep Date: 9/21/2015			RunNo: 25015		
Client ID:	BATCH	Batch ID: 11902	Analysis Date: 9/22/2015						SeqNo: 471255		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	1.28	0.0264	1.320	0	97.1	50.7	141				
Dibromomethane	1.59	0.0528	1.320	0	120	50.6	137				
cis-1,3-Dichloropropene	1.33	0.0264	1.320	0	100	50.4	138				
Toluene	1.38	0.0264	1.320	0.01796	103	63.4	132				
trans-1,3-Dichloropropylene	1.37	0.0396	1.320	0	104	44.1	147				
1,1,2-Trichloroethane	1.51	0.0396	1.320	0	114	51.6	137				
1,3-Dichloropropane	1.48	0.0660	1.320	0	112	53.1	134				
Tetrachloroethene (PCE)	1.49	0.0264	1.320	0	113	35.6	158				
Dibromochloromethane	1.41	0.0396	1.320	0	107	55.3	140				
1,2-Dibromoethane (EDB)	1.65	0.00660	1.320	0	125	50.4	136				
Chlorobenzene	1.46	0.0264	1.320	0	110	60	133				
1,1,1,2-Tetrachloroethane	1.41	0.0396	1.320	0	107	53.1	142				
Ethylbenzene	1.37	0.0396	1.320	0.004344	103	54.5	134				
m,p-Xylene	2.70	0.0264	2.641	0.01685	102	53.1	132				
o-Xylene	1.32	0.0264	1.320	0.006938	99.7	53.3	139				
Styrene	1.54	0.0264	1.320	0	117	51.1	132				
Isopropylbenzene	1.53	0.106	1.320	0	116	58.9	138				
Bromoform	1.46	0.0264	1.320	0	111	57.9	130				
1,1,1,2-Tetrachloroethane	1.68	0.0264	1.320	0	127	51.9	131				
n-Propylbenzene	1.52	0.0264	1.320	0	115	53.6	140				
Bromobenzene	1.51	0.0396	1.320	0	114	54.2	140				
1,3,5-Trimethylbenzene	1.48	0.0264	1.320	0	112	51.8	136				
2-Chlorotoluene	1.50	0.0264	1.320	0	114	51.6	136				
4-Chlorotoluene	1.53	0.0264	1.320	0	116	50.1	139				
tert-Butylbenzene	1.55	0.0264	1.320	0	118	50.5	135				
1,2,3-Trichloropropane	1.60	0.0264	1.320	0	121	50.5	131				
1,2,4-Trichlorobenzene	1.52	0.0660	1.320	0	115	50.8	130				
sec-Butylbenzene	1.58	0.0264	1.320	0	120	52.6	141				
4-Isopropyltoluene	1.58	0.0264	1.320	0	119	52.9	134				
1,3-Dichlorobenzene	1.40	0.0264	1.320	0	106	52.6	131				
1,4-Dichlorobenzene	1.39	0.0264	1.320	0	106	52.9	129				



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Volatile Organic Compounds by EPA Method 8260

Sample ID	1509258-002BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25015		
Client ID:	BATCH	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471255		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Butylbenzene	1.51	0.0264	1.320	0	114	52.6	130				
1,2-Dichlorobenzene	1.40	0.0264	1.320	0	106	55.8	129				
1,2-Dibromo-3-chloropropane	1.51	0.660	1.320	0	114	40.5	131				
1,2,4-Trimethylbenzene	1.35	0.0264	1.320	0.006457	101	50.6	137				
Hexachlorobutadiene	1.58	0.132	1.320	0	119	40.6	158				
Naphthalene	1.43	0.0396	1.320	0	108	52.3	124				
1,2,3-Trichlorobenzene	1.47	0.0264	1.320	0	111	54.4	124				
Surr: Dibromofluoromethane	1.71		1.650		104	56.5	129				
Surr: Toluene-d8	1.65		1.650		99.9	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.69		1.650		102	63.1	141				

Sample ID	1509270-003BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25015		
Client ID:	GP-2-15:4.5	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471585		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0383						0		30	
Chloromethane	ND	0.0383						0		30	
Vinyl chloride	ND	0.00128						0		30	
Bromomethane	ND	0.0574						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0319						0		30	
Chloroethane	ND	0.0383						0		30	
1,1-Dichloroethene	ND	0.0319						0		30	
Methylene chloride	ND	0.0128						0		30	
trans-1,2-Dichloroethene	ND	0.0128						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0319						0		30	
1,1-Dichloroethane	ND	0.0128						0		30	
2,2-Dichloropropane	ND	0.0319						0		30	
cis-1,2-Dichloroethene	ND	0.0128						0		30	
Chloroform	ND	0.0128						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0128						0		30	
1,1-Dichloropropene	ND	0.0128						0		30	



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Sample ID	1509270-003BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25015		
Client ID:	GP-2-15:4.5	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471585		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	ND	0.0128						0		30	
1,2-Dichloroethane (EDC)	ND	0.0191						0		30	
Benzene	ND	0.0128						0		30	
Trichloroethene (TCE)	ND	0.0128						0		30	
1,2-Dichloropropane	ND	0.0128						0		30	
Bromodichloromethane	ND	0.0128						0		30	
Dibromomethane	ND	0.0255						0		30	
cis-1,3-Dichloropropene	ND	0.0128						0		30	
Toluene	ND	0.0128						0		30	
trans-1,3-Dichloropropylene	ND	0.0191						0		30	
1,1,2-Trichloroethane	ND	0.0191						0		30	
1,3-Dichloropropane	ND	0.0319						0		30	
Tetrachloroethene (PCE)	ND	0.0128						0		30	
Dibromochloromethane	ND	0.0191						0		30	
1,2-Dibromoethane (EDB)	ND	0.00319						0		30	
Chlorobenzene	ND	0.0128						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0191						0		30	
Ethylbenzene	ND	0.0191						0		30	
m,p-Xylene	ND	0.0128						0		30	
o-Xylene	ND	0.0128						0		30	
Styrene	ND	0.0128						0		30	
Isopropylbenzene	ND	0.0510						0		30	
Bromoform	ND	0.0128						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0128						0		30	
n-Propylbenzene	ND	0.0128						0		30	
Bromobenzene	ND	0.0191						0		30	
1,3,5-Trimethylbenzene	ND	0.0128						0		30	
2-Chlorotoluene	ND	0.0128						0		30	
4-Chlorotoluene	ND	0.0128						0		30	
tert-Butylbenzene	ND	0.0128						0		30	
1,2,3-Trichloropropane	ND	0.0128						0		30	



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Sample ID	1509270-003BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/21/2015	RunNo:	25015		
Client ID:	GP-2-15:4.5	Batch ID:	11902			Analysis Date:	9/22/2015	SeqNo:	471585		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	0.0319						0		30	
sec-Butylbenzene	ND	0.0128						0		30	
4-Isopropyltoluene	ND	0.0128						0		30	
1,3-Dichlorobenzene	ND	0.0128						0		30	
1,4-Dichlorobenzene	ND	0.0128						0		30	
n-Butylbenzene	ND	0.0128						0		30	
1,2-Dichlorobenzene	ND	0.0128						0		30	
1,2-Dibromo-3-chloropropane	ND	0.319						0		30	
1,2,4-Trimethylbenzene	ND	0.0128						0		30	
Hexachlorobutadiene	ND	0.0638						0		30	
Naphthalene	ND	0.0191						0		30	
1,2,3-Trichlorobenzene	ND	0.0128						0		30	
Surr: Dibromofluoromethane	0.747		0.7974		93.7	56.5	129		0		
Surr: Toluene-d8	0.792		0.7974		99.3	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.801		0.7974		100	63.1	141		0		

Sample ID	LCS-11914	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	LCSS	Batch ID:	11914			Analysis Date:	9/22/2015	SeqNo:	471734		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.783	0.0600	1.000	0	78.3	37.2	139				
Chloromethane	0.815	0.0600	1.000	0	81.5	38.8	132				
Vinyl chloride	0.954	0.00200	1.000	0	95.4	56.1	130				
Bromomethane	1.07	0.0900	1.000	0	107	41.3	148				
Trichlorofluoromethane (CFC-11)	1.06	0.0500	1.000	0	106	42.9	147				
Chloroethane	1.07	0.0600	1.000	0	107	37.1	144				
1,1-Dichloroethene	1.10	0.0500	1.000	0	110	49.7	142				
Methylene chloride	0.945	0.0200	1.000	0	94.5	46.3	140				
trans-1,2-Dichloroethene	1.10	0.0200	1.000	0	110	68	130				
Methyl tert-butyl ether (MTBE)	0.940	0.0500	1.000	0	94.0	59.1	138				
1,1-Dichloroethane	1.09	0.0200	1.000	0	109	61.9	137				



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Sample ID	LCS-11914	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	LCSS	Batch ID:	11914			Analysis Date:	9/22/2015	SeqNo:	471734		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,2-Dichloropropane	1.19	0.0500	1.000	0	119	28.1	149				
cis-1,2-Dichloroethene	1.08	0.0200	1.000	0	108	71.3	135				
Chloroform	1.03	0.0200	1.000	0	103	67.5	129				
1,1,1-Trichloroethane (TCA)	1.19	0.0200	1.000	0	119	69	132				
1,1-Dichloropropene	1.05	0.0200	1.000	0	105	72.7	131				
Carbon tetrachloride	1.03	0.0200	1.000	0	103	63.4	137				
1,2-Dichloroethane (EDC)	1.00	0.0300	1.000	0	100	61.9	136				
Benzene	1.06	0.0200	1.000	0	106	64.3	133				
Trichloroethene (TCE)	1.07	0.0200	1.000	0	107	65.5	137				
1,2-Dichloropropane	1.07	0.0200	1.000	0	107	63.2	142				
Bromodichloromethane	0.923	0.0200	1.000	0	92.3	73.2	131				
Dibromomethane	1.15	0.0400	1.000	0	115	70	130				
cis-1,3-Dichloropropene	0.935	0.0200	1.000	0	93.5	59.1	143				
Toluene	1.05	0.0200	1.000	0	105	67.3	138				
trans-1,3-Dichloropropylene	0.982	0.0300	1.000	0	98.2	49.2	149				
1,1,2-Trichloroethane	1.10	0.0300	1.000	0	110	74.5	129				
1,3-Dichloropropane	1.06	0.0500	1.000	0	106	70	130				
Tetrachloroethene (PCE)	1.09	0.0200	1.000	0	109	52.7	150				
Dibromochloromethane	1.03	0.0300	1.000	0	103	70.6	144				
1,2-Dibromoethane (EDB)	1.19	0.00500	1.000	0	119	70	130				
Chlorobenzene	1.05	0.0200	1.000	0	105	76.1	123				
1,1,1,2-Tetrachloroethane	1.04	0.0300	1.000	0	104	74.8	131				
Ethylbenzene	1.05	0.0300	1.000	0	105	74	129				
m,p-Xylene	2.08	0.0200	2.000	0	104	79.8	128				
o-Xylene	1.02	0.0200	1.000	0	102	72.7	124				
Styrene	1.12	0.0200	1.000	0	112	76.8	130				
Isopropylbenzene	1.10	0.0800	1.000	0	110	70	130				
Bromoform	1.06	0.0200	1.000	0	106	67	154				
1,1,2,2-Tetrachloroethane	1.20	0.0200	1.000	0	120	60	130				
n-Propylbenzene	1.10	0.0200	1.000	0	110	74.8	125				
Bromobenzene	1.11	0.0300	1.000	0	111	49.2	144				



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Sample ID	LCS-11914		SampType: LCS		Units: mg/Kg		Prep Date: 9/22/2015		RunNo: 25038		
Client ID:	LCSS		Batch ID: 11914				Analysis Date: 9/22/2015		SeqNo: 471734		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	1.07	0.0200	1.000	0	107	74.6	123				
2-Chlorotoluene	1.08	0.0200	1.000	0	108	76.7	129				
4-Chlorotoluene	1.10	0.0200	1.000	0	110	77.5	125				
tert-Butylbenzene	1.12	0.0200	1.000	0	112	66.2	130				
1,2,3-Trichloropropane	1.13	0.0200	1.000	0	113	67.9	136				
1,2,4-Trichlorobenzene	1.09	0.0500	1.000	0	109	65.6	137				
sec-Butylbenzene	1.14	0.0200	1.000	0	114	75.6	133				
4-Isopropyltoluene	1.14	0.0200	1.000	0	114	76.8	131				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	128				
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	72.6	126				
n-Butylbenzene	1.09	0.0200	1.000	0	109	65.3	136				
1,2-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	126				
1,2-Dibromo-3-chloropropane	1.08	0.500	1.000	0	108	61.2	139				
1,2,4-Trimethylbenzene	0.970	0.0200	1.000	0	97.0	77.5	129				
Hexachlorobutadiene	1.14	0.100	1.000	0	114	42	151				
Naphthalene	1.04	0.0300	1.000	0	104	62.3	134				
1,2,3-Trichlorobenzene	1.06	0.0200	1.000	0	106	62.1	140				
Surr: Dibromofluoromethane	1.30		1.250		104	56.5	129				
Surr: Toluene-d8	1.25		1.250		99.9	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.250		102	63.1	141				

Sample ID	MB-11914	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/22/2015		RunNo:	25038	
Client ID:	MBLKS	Batch ID:	11914					Analysis Date:	9/23/2015		SeqNo:	471735	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Dichlorodifluoromethane (CFC-12)	ND	0.0600											
Chloromethane	ND	0.0600											
Vinyl chloride	ND	0.00200											
Bromomethane	ND	0.0900											
Trichlorofluoromethane (CFC-11)	ND	0.0500											
Chloroethane	ND	0.0600											



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Sample ID	MB-11914	SampType: MBLK		Units: mg/Kg		Prep Date: 9/22/2015			RunNo: 25038		
Client ID:	MBLKS	Batch ID: 11914		Analysis Date: 9/23/2015					SeqNo: 471735		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.0500									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
Methyl tert-butyl ether (MTBE)	ND	0.0500									
1,1-Dichloroethane	ND	0.0200									
2,2-Dichloropropane	ND	0.0500									
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0200									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0200									
1,2-Dichloroethane (EDC)	ND	0.0300									
Benzene	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0400									
cis-1,3-Dichloropropene	ND	0.0200									
Toluene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0300									
1,1,2-Trichloroethane	ND	0.0300									
1,3-Dichloropropane	ND	0.0500									
Tetrachloroethene (PCE)	ND	0.0200									
Dibromochloromethane	ND	0.0300									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0200									
1,1,1,2-Tetrachloroethane	ND	0.0300									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Styrene	ND	0.0200									



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Sample ID	MB-11914	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/22/2015		RunNo:	25038	
Client ID:	MBLKS	Batch ID:	11914					Analysis Date:	9/23/2015		SeqNo:	471735	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Isopropylbenzene		ND	0.0800										
Bromoform		ND	0.0200										
1,1,2,2-Tetrachloroethane		ND	0.0200										
n-Propylbenzene		ND	0.0200										
Bromobenzene		ND	0.0300										
1,3,5-Trimethylbenzene		ND	0.0200										
2-Chlorotoluene		ND	0.0200										
4-Chlorotoluene		ND	0.0200										
tert-Butylbenzene		ND	0.0200										
1,2,3-Trichloropropane		ND	0.0200										
1,2,4-Trichlorobenzene		ND	0.0500										
sec-Butylbenzene		ND	0.0200										
4-Isopropyltoluene		ND	0.0200										
1,3-Dichlorobenzene		ND	0.0200										
1,4-Dichlorobenzene		ND	0.0200										
n-Butylbenzene		ND	0.0200										
1,2-Dichlorobenzene		ND	0.0200										
1,2-Dibromo-3-chloropropane		ND	0.500										
1,2,4-Trimethylbenzene		ND	0.0200										
Hexachlorobutadiene		ND	0.100										
Naphthalene		ND	0.0300										
1,2,3-Trichlorobenzene		ND	0.0200										
Surr: Dibromofluoromethane		1.19		1.250		95.3	56.5	129					
Surr: Toluene-d8		1.24		1.250		99.0	64.3	131					
Surr: 1-Bromo-4-fluorobenzene		1.23		1.250		98.7	63.1	141					

Sample ID	1509270-004BDUP	SampType:	DUP	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	GP-2-15:14.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471716		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.031						0		30	



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Sample ID	1509270-004BDUP	SampType:	DUP	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	GP-2-15:14.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471716		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	ND	0.031						0		30	
Vinyl chloride	ND	0.0010						0		30	
Bromomethane	ND	0.047						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.026						0		30	
Chloroethane	ND	0.031						0		30	
1,1-Dichloroethene	ND	0.026						0		30	
Methylene chloride	ND	0.010						0		30	
trans-1,2-Dichloroethene	ND	0.010						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.026						0		30	
1,1-Dichloroethane	ND	0.010						0		30	
2,2-Dichloropropane	ND	0.026						0		30	
cis-1,2-Dichloroethene	ND	0.010						0		30	
Chloroform	ND	0.010						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.010						0		30	
1,1-Dichloropropene	ND	0.010						0		30	
Carbon tetrachloride	ND	0.010						0		30	
1,2-Dichloroethane (EDC)	ND	0.016						0		30	
Benzene	ND	0.010						0		30	
Trichloroethene (TCE)	ND	0.010						0		30	
1,2-Dichloropropane	ND	0.010						0		30	
Bromodichloromethane	ND	0.010						0		30	
Dibromomethane	ND	0.021						0		30	
cis-1,3-Dichloropropene	ND	0.010						0		30	
Toluene	ND	0.010						0		30	
trans-1,3-Dichloropropylene	ND	0.016						0		30	
1,1,2-Trichloroethane	ND	0.016						0		30	
1,3-Dichloropropane	ND	0.026						0		30	
Tetrachloroethene (PCE)	ND	0.010						0		30	
Dibromochloromethane	ND	0.016						0		30	
1,2-Dibromoethane (EDB)	ND	0.0026						0		30	
Chlorobenzene	ND	0.010						0		30	



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Sample ID	1509270-004BDUP	SampType:	DUP	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	GP-2-15:14.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471716		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.016						0		30	
Ethylbenzene	ND	0.016						0		30	
m,p-Xylene	ND	0.010						0		30	
o-Xylene	ND	0.010						0		30	
Styrene	ND	0.010						0		30	
Isopropylbenzene	ND	0.041						0		30	
Bromoform	ND	0.010						0		30	
1,1,2,2-Tetrachloroethane	ND	0.010						0		30	
n-Propylbenzene	ND	0.010						0		30	
Bromobenzene	ND	0.016						0		30	
1,3,5-Trimethylbenzene	ND	0.010						0		30	
2-Chlorotoluene	ND	0.010						0		30	
4-Chlorotoluene	ND	0.010						0		30	
tert-Butylbenzene	ND	0.010						0		30	
1,2,3-Trichloropropane	ND	0.010						0		30	
1,2,4-Trichlorobenzene	ND	0.026						0		30	
sec-Butylbenzene	ND	0.010						0		30	
4-Isopropyltoluene	ND	0.010						0		30	
1,3-Dichlorobenzene	ND	0.010						0		30	
1,4-Dichlorobenzene	ND	0.010						0		30	
n-Butylbenzene	ND	0.010						0		30	
1,2-Dichlorobenzene	ND	0.010						0		30	
1,2-Dibromo-3-chloropropane	ND	0.26						0		30	
1,2,4-Trimethylbenzene	ND	0.010						0		30	
Hexachlorobutadiene	ND	0.052						0		30	
Naphthalene	ND	0.016						0		30	
1,2,3-Trichlorobenzene	ND	0.010						0		30	
Surr: Dibromofluoromethane	0.62		0.6479		95.5	56.5	129		0		
Surr: Toluene-d8	0.63		0.6479		96.9	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.63		0.6479		96.9	63.1	141		0		



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-013BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	GP-6-15:14.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471726		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.571	0.0402	0.6705	0	85.2	43.5	121				
Chloromethane	0.547	0.0402	0.6705	0.006403	80.6	45	130				
Vinyl chloride	0.662	0.00134	0.6705	0	98.7	51.2	146				
Bromomethane	0.785	0.0603	0.6705	0	117	21.3	120				
Trichlorofluoromethane (CFC-11)	2.19	0.0335	0.6705	0	327	35	131				S
Chloroethane	0.728	0.0402	0.6705	0	109	43.8	117				
1,1-Dichloroethene	0.831	0.0335	0.6705	0	124	61.9	141				
Methylene chloride	0.619	0.0134	0.6705	0	92.4	54.7	142				
trans-1,2-Dichloroethene	0.808	0.0134	0.6705	0	121	52	136				
Methyl tert-butyl ether (MTBE)	0.574	0.0335	0.6705	0	85.6	54.4	132				
1,1-Dichloroethane	0.783	0.0134	0.6705	0	117	51.8	141				
2,2-Dichloropropane	0.629	0.0335	0.6705	0	93.8	36	123				
cis-1,2-Dichloroethene	0.764	0.0134	0.6705	0	114	58.6	136				
Chloroform	0.738	0.0134	0.6705	0.003044	110	53.2	129				
1,1,1-Trichloroethane (TCA)	0.884	0.0134	0.6705	0	132	58.3	145				
1,1-Dichloropropene	0.768	0.0134	0.6705	0	114	55.1	138				
Carbon tetrachloride	0.776	0.0134	0.6705	0	116	53.3	144				
1,2-Dichloroethane (EDC)	0.671	0.0201	0.6705	0	100	51.3	139				
Benzene	0.716	0.0134	0.6705	0	107	63.5	133				
Trichloroethene (TCE)	0.794	0.0134	0.6705	0	118	68.6	132				
1,2-Dichloropropane	0.737	0.0134	0.6705	0	110	59	136				
Bromodichloromethane	0.650	0.0134	0.6705	0	96.9	50.7	141				
Dibromomethane	0.754	0.0268	0.6705	0	113	50.6	137				
cis-1,3-Dichloropropene	0.600	0.0134	0.6705	0	89.5	50.4	138				
Toluene	0.676	0.0134	0.6705	0	101	63.4	132				
trans-1,3-Dichloropropylene	0.668	0.0201	0.6705	0	99.7	44.1	147				
1,1,2-Trichloroethane	0.726	0.0201	0.6705	0	108	51.6	137				
1,3-Dichloropropane	0.695	0.0335	0.6705	0	104	53.1	134				
Tetrachloroethene (PCE)	0.785	0.0134	0.6705	0	117	35.6	158				
Dibromochloromethane	0.711	0.0201	0.6705	0	106	55.3	140				
1,2-Dibromoethane (EDB)	0.765	0.00335	0.6705	0	114	50.4	136				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-013BMS	SampType: MS	Units: mg/Kg-dry			Prep Date: 9/22/2015			RunNo: 25038		
Client ID:	GP-6-15:14.0	Batch ID: 11914				Analysis Date: 9/23/2015			SeqNo: 471726		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	0.737	0.0134	0.6705	0	110	60	133				
1,1,1,2-Tetrachloroethane	0.744	0.0201	0.6705	0	111	53.1	142				
Ethylbenzene	0.701	0.0201	0.6705	0	104	54.5	134				
m,p-Xylene	1.36	0.0134	1.341	0	101	53.1	132				
o-Xylene	0.660	0.0134	0.6705	0	98.4	53.3	139				
Styrene	0.731	0.0134	0.6705	0	109	51.1	132				
Isopropylbenzene	0.775	0.0536	0.6705	0	116	58.9	138				
Bromoform	0.694	0.0134	0.6705	0	103	57.9	130				
1,1,2,2-Tetrachloroethane	0.706	0.0134	0.6705	0	105	51.9	131				
n-Propylbenzene	0.762	0.0134	0.6705	0	114	53.6	140				
Bromobenzene	0.731	0.0201	0.6705	0	109	54.2	140				
1,3,5-Trimethylbenzene	0.730	0.0134	0.6705	0	109	51.8	136				
2-Chlorotoluene	0.740	0.0134	0.6705	0	110	51.6	136				
4-Chlorotoluene	0.746	0.0134	0.6705	0	111	50.1	139				
tert-Butylbenzene	0.773	0.0134	0.6705	0	115	50.5	135				
1,2,3-Trichloropropane	0.678	0.0134	0.6705	0	101	50.5	131				
1,2,4-Trichlorobenzene	0.711	0.0335	0.6705	0	106	50.8	130				
sec-Butylbenzene	0.785	0.0134	0.6705	0	117	52.6	141				
4-Isopropyltoluene	0.773	0.0134	0.6705	0	115	52.9	134				
1,3-Dichlorobenzene	0.720	0.0134	0.6705	0	107	52.6	131				
1,4-Dichlorobenzene	0.711	0.0134	0.6705	0	106	52.9	129				
n-Butylbenzene	0.767	0.0134	0.6705	0	114	52.6	130				
1,2-Dichlorobenzene	0.696	0.0134	0.6705	0	104	55.8	129				
1,2-Dibromo-3-chloropropane	0.640	0.335	0.6705	0	95.4	40.5	131				
1,2,4-Trimethylbenzene	0.653	0.0134	0.6705	0	97.4	50.6	137				
Hexachlorobutadiene	0.788	0.0671	0.6705	0	118	40.6	158				
Naphthalene	0.597	0.0201	0.6705	0	89.0	52.3	124				
1,2,3-Trichlorobenzene	0.675	0.0134	0.6705	0	101	54.4	124				
Surr: Dibromofluoromethane	0.876		0.8381		105	56.5	129				
Surr: Toluene-d8	0.822		0.8381		98.0	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	0.826		0.8381		98.6	63.1	141				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-013BMS			SampType:	MS		Units:	mg/Kg-dry		Prep Date:	9/22/2015		RunNo:	25038	
Client ID:	GP-6-15:14.0			Batch ID:	11914					Analysis Date:	9/23/2015		SeqNo:	471726	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

NOTES:

S - Outlying QC recoveries were observed. The method is in control as indicated by the LCS.

Sample ID	1509270-014BDUP	SampType:	DUP		Units:	mg/Kg		Prep Date:	9/22/2015		RunNo:	25038	
Client ID:	GP-7-15:5.0	Batch ID:	11914					Analysis Date:	9/23/2015		SeqNo:	471728	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Dichlorodifluoromethane (CFC-12)	ND	0.044						0			30		
Chloromethane	ND	0.044						0			30		
Vinyl chloride	ND	0.0015						0			30		
Bromomethane	ND	0.065						0			30		
Trichlorofluoromethane (CFC-11)	ND	0.036						0			30		
Chloroethane	ND	0.044						0			30		
1,1-Dichloroethene	ND	0.036						0			30		
Methylene chloride	ND	0.015						0			30		
trans-1,2-Dichloroethene	ND	0.015						0			30		
Methyl tert-butyl ether (MTBE)	ND	0.036						0			30		
1,1-Dichloroethane	ND	0.015						0			30		
2,2-Dichloropropane	ND	0.036						0			30		
cis-1,2-Dichloroethene	ND	0.015						0			30		
Chloroform	ND	0.015						0			30		
1,1,1-Trichloroethane (TCA)	ND	0.015						0			30		
1,1-Dichloropropene	ND	0.015						0			30		
Carbon tetrachloride	ND	0.015						0			30		
1,2-Dichloroethane (EDC)	ND	0.022						0			30		
Benzene	ND	0.015						0			30		
Trichloroethene (TCE)	ND	0.015						0			30		
1,2-Dichloropropane	ND	0.015						0			30		
Bromodichloromethane	ND	0.015						0			30		
Dibromomethane	ND	0.029						0			30		
cis-1,3-Dichloropropene	ND	0.015						0			30		
Toluene	ND	0.015						0			30		



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-014BDUP	SampType:	DUP	Units:	mg/Kg	Prep Date:	9/22/2015	RunNo:	25038		
Client ID:	GP-7-15:5.0	Batch ID:	11914			Analysis Date:	9/23/2015	SeqNo:	471728		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	ND	0.022						0		30	
1,1,2-Trichloroethane	ND	0.022						0		30	
1,3-Dichloropropane	ND	0.036						0		30	
Tetrachloroethene (PCE)	0.022	0.015						0.02203	1.90	30	
Dibromochloromethane	ND	0.022						0		30	
1,2-Dibromoethane (EDB)	ND	0.0036						0		30	
Chlorobenzene	ND	0.015						0		30	
1,1,1,2-Tetrachloroethane	ND	0.022						0		30	
Ethylbenzene	ND	0.022						0		30	
m,p-Xylene	ND	0.015						0		30	
o-Xylene	ND	0.015						0		30	
Styrene	ND	0.015						0		30	
Isopropylbenzene	ND	0.058						0		30	
Bromoform	ND	0.015						0		30	
1,1,2,2-Tetrachloroethane	ND	0.015						0		30	
n-Propylbenzene	ND	0.015						0		30	
Bromobenzene	ND	0.022						0		30	
1,3,5-Trimethylbenzene	ND	0.015						0		30	
2-Chlorotoluene	ND	0.015						0		30	
4-Chlorotoluene	ND	0.015						0		30	
tert-Butylbenzene	ND	0.015						0		30	
1,2,3-Trichloropropane	ND	0.015						0		30	
1,2,4-Trichlorobenzene	ND	0.036						0		30	
sec-Butylbenzene	ND	0.015						0		30	
4-Isopropyltoluene	ND	0.015						0		30	
1,3-Dichlorobenzene	ND	0.015						0		30	
1,4-Dichlorobenzene	ND	0.015						0		30	
n-Butylbenzene	ND	0.015						0		30	
1,2-Dichlorobenzene	ND	0.015						0		30	
1,2-Dibromo-3-chloropropane	ND	0.36						0		30	
1,2,4-Trimethylbenzene	ND	0.015						0		30	



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-014BDUP	SampType:	DUP	Units:			mg/Kg	Prep Date:	9/22/2015	RunNo:	25038
Client ID:	GP-7-15:5.0	Batch ID:	11914					Analysis Date:	9/23/2015	SeqNo:	471728
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.073						0		30	
Naphthalene	ND	0.022						0		30	
1,2,3-Trichlorobenzene	ND	0.015						0		30	
Surr: Dibromofluoromethane	0.84		0.9083		92.5	56.5	129		0		
Surr: Toluene-d8	0.90		0.9083		98.8	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.91		0.9083		100	63.1	141		0		

Sample ID	LCS-11930	SampType: LCS		Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25067		
Client ID:	LCSS	Batch ID: 11930		Analysis Date: 9/23/2015					SeqNo: 472414		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.49	0.0600	1.000	0	149	37.2	139				S
Chloromethane	1.06	0.0600	1.000	0	106	38.8	132				
Vinyl chloride	1.15	0.00200	1.000	0	115	56.1	130				
Bromomethane	1.14	0.0900	1.000	0	114	41.3	148				
Trichlorofluoromethane (CFC-11)	1.18	0.0500	1.000	0	118	42.9	147				
Chloroethane	1.22	0.0600	1.000	0	122	37.1	144				
1,1-Dichloroethene	1.13	0.0500	1.000	0	113	49.7	142				
Methylene chloride	0.938	0.0200	1.000	0	93.8	46.3	140				
trans-1,2-Dichloroethene	1.10	0.0200	1.000	0	110	68	130				
Methyl tert-butyl ether (MTBE)	0.922	0.0500	1.000	0	92.2	59.1	138				
1,1-Dichloroethane	1.07	0.0200	1.000	0	107	61.9	137				
2,2-Dichloropropane	1.49	0.0500	1.000	0	149	28.1	149				
cis-1,2-Dichloroethene	1.06	0.0200	1.000	0	106	71.3	135				
Chloroform	1.01	0.0200	1.000	0	101	67.5	129				
1,1,1-Trichloroethane (TCA)	1.17	0.0200	1.000	0	117	69	132				
1,1-Dichloropropene	1.04	0.0200	1.000	0	104	72.7	131				
Carbon tetrachloride	1.05	0.0200	1.000	0	105	63.4	137				
1,2-Dichloroethane (EDC)	0.981	0.0300	1.000	0	98.1	61.9	136				
Benzene	0.993	0.0200	1.000	0	99.3	64.3	133				
Trichloroethene (TCE)	1.06	0.0200	1.000	0	106	65.5	137				



Date: 10/29/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11930	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	LCSS	Batch ID:	11930			Analysis Date:	9/23/2015	SeqNo:	472414		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	1.05	0.0200	1.000	0	105	63.2	142				
Bromodichloromethane	0.925	0.0200	1.000	0	92.5	73.2	131				
Dibromomethane	1.13	0.0400	1.000	0	113	70	130				
cis-1,3-Dichloropropene	0.961	0.0200	1.000	0	96.1	59.1	143				
Toluene	0.960	0.0200	1.000	0	96.0	67.3	138				
trans-1,3-Dichloropropylene	1.00	0.0300	1.000	0	100	49.2	149				
1,1,2-Trichloroethane	1.07	0.0300	1.000	0	107	74.5	129				
1,3-Dichloropropane	1.03	0.0500	1.000	0	103	70	130				
Tetrachloroethene (PCE)	1.07	0.0200	1.000	0	107	52.7	150				
Dibromochloromethane	1.04	0.0300	1.000	0	104	70.6	144				
1,2-Dibromoethane (EDB)	1.15	0.00500	1.000	0	115	70	130				
Chlorobenzene	1.05	0.0200	1.000	0	105	76.1	123				
1,1,1,2-Tetrachloroethane	1.04	0.0300	1.000	0	104	74.8	131				
Ethylbenzene	0.973	0.0300	1.000	0	97.3	74	129				
m,p-Xylene	1.94	0.0200	2.000	0	97.1	79.8	128				
o-Xylene	0.940	0.0200	1.000	0	94.0	72.7	124				
Styrene	1.12	0.0200	1.000	0	112	76.8	130				
Isopropylbenzene	1.09	0.0800	1.000	0	109	70	130				
Bromoform	1.06	0.0200	1.000	0	106	67	154				
1,1,1,2,2-Tetrachloroethane	1.14	0.0200	1.000	0	114	60	130				
n-Propylbenzene	1.09	0.0200	1.000	0	109	74.8	125				
Bromobenzene	1.08	0.0300	1.000	0	108	49.2	144				
1,3,5-Trimethylbenzene	1.05	0.0200	1.000	0	105	74.6	123				
2-Chlorotoluene	1.07	0.0200	1.000	0	107	76.7	129				
4-Chlorotoluene	1.09	0.0200	1.000	0	109	77.5	125				
tert-Butylbenzene	1.10	0.0200	1.000	0	110	66.2	130				
1,2,3-Trichloropropane	1.10	0.0200	1.000	0	110	67.9	136				
1,2,4-Trichlorobenzene	1.07	0.0500	1.000	0	107	65.6	137				
sec-Butylbenzene	1.11	0.0200	1.000	0	111	75.6	133				
4-Isopropyltoluene	1.11	0.0200	1.000	0	111	76.8	131				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	128				

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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11930	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	LCSS	Batch ID:	11930			Analysis Date:	9/23/2015	SeqNo:	472414		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	72.6	126				
n-Butylbenzene	1.08	0.0200	1.000	0	108	65.3	136				
1,2-Dichlorobenzene	1.01	0.0200	1.000	0	101	72.8	126				
1,2-Dibromo-3-chloropropane	1.03	0.500	1.000	0	103	61.2	139				
1,2,4-Trimethylbenzene	0.957	0.0200	1.000	0	95.7	77.5	129				
Hexachlorobutadiene	1.11	0.100	1.000	0	111	42	151				
Naphthalene	0.915	0.0300	1.000	0	91.5	62.3	134				
1,2,3-Trichlorobenzene	1.01	0.0200	1.000	0	101	62.1	140				
Surr: Dibromofluoromethane	1.28		1.250		102	56.5	129				
Surr: Toluene-d8	1.24		1.250		99.4	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		100	63.1	141				

NOTES:

S - Outlying QC recoveries were observed (High bias). There were no detections of this analyte in the following samples. No further action is required.

Sample ID	MB-11930	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/23/2015		RunNo:	25067		
Client ID:	MBLKS	Batch ID:	11930						Analysis Date:	9/23/2015		SeqNo:	472415	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Dichlorodifluoromethane (CFC-12)		ND	0.0600											
Chloromethane		ND	0.0600											
Vinyl chloride		ND	0.00200											
Bromomethane		ND	0.0900											
Trichlorofluoromethane (CFC-11)		ND	0.0500											
Chloroethane		ND	0.0600											
1,1-Dichloroethene		ND	0.0500											
Methylene chloride		ND	0.0200											
trans-1,2-Dichloroethene		ND	0.0200											
Methyl tert-butyl ether (MTBE)		ND	0.0500											
1,1-Dichloroethane		ND	0.0200											
2,2-Dichloropropane		ND	0.0500											
cis-1,2-Dichloroethene		ND	0.0200											
Chloroform		ND	0.0200											



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11930	SampType:	MBLK	Units:	mg/Kg	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	MBLKS	Batch ID:	11930			Analysis Date:	9/23/2015	SeqNo:	472415		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1-Trichloroethane (TCA)	ND	0.0200									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0200									
1,2-Dichloroethane (EDC)	ND	0.0300									
Benzene	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0400									
cis-1,3-Dichloropropene	ND	0.0200									
Toluene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0300									
1,1,2-Trichloroethane	ND	0.0300									
1,3-Dichloropropane	ND	0.0500									
Tetrachloroethene (PCE)	ND	0.0200									
Dibromochloromethane	ND	0.0300									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0200									
1,1,1,2-Tetrachloroethane	ND	0.0300									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Styrene	ND	0.0200									
Isopropylbenzene	ND	0.0800									
Bromoform	ND	0.0200									
1,1,1,2,2-Tetrachloroethane	ND	0.0200									
n-Propylbenzene	ND	0.0200									
Bromobenzene	ND	0.0300									
1,3,5-Trimethylbenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0200									
4-Chlorotoluene	ND	0.0200									



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11930	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/23/2015		RunNo:	25067	
Client ID:	MBLKS	Batch ID:	11930					Analysis Date:	9/23/2015		SeqNo:	472415	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
tert-Butylbenzene	ND	0.0200											
1,2,3-Trichloropropane	ND	0.0200											
1,2,4-Trichlorobenzene	ND	0.0500											
sec-Butylbenzene	ND	0.0200											
4-Isopropyltoluene	ND	0.0200											
1,3-Dichlorobenzene	ND	0.0200											
1,4-Dichlorobenzene	ND	0.0200											
n-Butylbenzene	ND	0.0200											
1,2-Dichlorobenzene	ND	0.0200											
1,2-Dibromo-3-chloropropane	ND	0.500											
1,2,4-Trimethylbenzene	ND	0.0200											
Hexachlorobutadiene	ND	0.100											
Naphthalene	ND	0.0300											
1,2,3-Trichlorobenzene	ND	0.0200											
Surr: Dibromofluoromethane	1.17		1.250		93.3	56.5	129						
Surr: Toluene-d8	1.24		1.250		98.9	64.3	131						
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.4	63.1	141						

Sample ID	1509270-024BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	GP-11-15:14.5	Batch ID:	11930			Analysis Date:	9/23/2015	SeqNo:	472416		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0808						0		30	
Chloromethane	ND	0.0808						0		30	
Vinyl chloride	ND	0.00269						0		30	
Bromomethane	ND	0.121						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0673						0		30	
Chloroethane	ND	0.0808						0		30	
1,1-Dichloroethene	ND	0.0673						0		30	
Methylene chloride	ND	0.0269						0		30	
trans-1,2-Dichloroethene	ND	0.0269						0		30	



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Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-024BDUP	SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25067		
Client ID:	GP-11-15:14.5	Batch ID: 11930		Analysis Date: 9/23/2015						SeqNo: 472416	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0673						0		30	
1,1-Dichloroethane	ND	0.0269						0		30	
2,2-Dichloropropane	ND	0.0673						0		30	
cis-1,2-Dichloroethene	ND	0.0269						0		30	
Chloroform	ND	0.0269						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0269						0		30	
1,1-Dichloropropene	ND	0.0269						0		30	
Carbon tetrachloride	ND	0.0269						0		30	
1,2-Dichloroethane (EDC)	ND	0.0404						0		30	
Benzene	ND	0.0269						0		30	
Trichloroethene (TCE)	ND	0.0269						0		30	
1,2-Dichloropropane	ND	0.0269						0		30	
Bromodichloromethane	ND	0.0269						0		30	
Dibromomethane	ND	0.0539						0		30	
cis-1,3-Dichloropropene	ND	0.0269						0		30	
Toluene	ND	0.0269						0		30	
trans-1,3-Dichloropropylene	ND	0.0404						0		30	
1,1,2-Trichloroethane	ND	0.0404						0		30	
1,3-Dichloropropane	ND	0.0673						0		30	
Tetrachloroethene (PCE)	ND	0.0269						0		30	
Dibromochloromethane	ND	0.0404						0		30	
1,2-Dibromoethane (EDB)	ND	0.00673						0		30	
Chlorobenzene	ND	0.0269						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0404						0		30	
Ethylbenzene	ND	0.0404						0		30	
m,p-Xylene	ND	0.0269						0		30	
o-Xylene	ND	0.0269						0		30	
Styrene	ND	0.0269						0		30	
Isopropylbenzene	ND	0.108						0		30	
Bromoform	ND	0.0269						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0269						0		30	



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Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-024BDUP	SampType: DUP	Units: mg/Kg-dry			Prep Date: 9/23/2015			RunNo: 25067		
Client ID:	GP-11-15:14.5	Batch ID: 11930				Analysis Date: 9/23/2015			SeqNo: 472416		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Propylbenzene	ND	0.0269						0		30	
Bromobenzene	ND	0.0404						0		30	
1,3,5-Trimethylbenzene	ND	0.0269						0		30	
2-Chlorotoluene	ND	0.0269						0		30	
4-Chlorotoluene	ND	0.0269						0		30	
tert-Butylbenzene	ND	0.0269						0		30	
1,2,3-Trichloropropane	ND	0.0269						0		30	
1,2,4-Trichlorobenzene	ND	0.0673						0		30	
sec-Butylbenzene	ND	0.0269						0		30	
4-Isopropyltoluene	ND	0.0269						0		30	
1,3-Dichlorobenzene	ND	0.0269						0		30	
1,4-Dichlorobenzene	ND	0.0269						0		30	
n-Butylbenzene	ND	0.0269						0		30	
1,2-Dichlorobenzene	ND	0.0269						0		30	
1,2-Dibromo-3-chloropropane	ND	0.673						0		30	
1,2,4-Trimethylbenzene	ND	0.0269						0		30	
Hexachlorobutadiene	ND	0.135						0		30	
Naphthalene	ND	0.0404						0		30	
1,2,3-Trichlorobenzene	ND	0.0269						0		30	
Surr: Dibromofluoromethane	1.62		1.683		96.1	56.5	129		0		
Surr: Toluene-d8	1.64		1.683		97.5	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	1.64		1.683		97.2	63.1	141		0		

Sample ID	1509270-031BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	MW-2-15:13.0	Batch ID:	11930			Analysis Date:	9/24/2015	SeqNo:	472417		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.82	0.0661	1.101	0	165	43.5	121				S
Chloromethane	1.24	0.0661	1.101	0.006264	112	45	130				
Vinyl chloride	1.39	0.00220	1.101	0	126	51.2	146				
Bromomethane	1.31	0.0991	1.101	0	119	21.3	120				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-031BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/23/2015		RunNo: 25067		
Client ID:	MW-2-15:13.0		Batch ID: 11930				Analysis Date: 9/24/2015		SeqNo: 472417		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichlorofluoromethane (CFC-11)	3.57	0.0550	1.101	0	324	35	131				S
Chloroethane	1.43	0.0661	1.101	0	130	43.8	117				S
1,1-Dichloroethene	1.39	0.0550	1.101	0	127	61.9	141				
Methylene chloride	1.05	0.0220	1.101	0	95.4	54.7	142				
trans-1,2-Dichloroethene	1.33	0.0220	1.101	0	121	52	136				
Methyl tert-butyl ether (MTBE)	1.08	0.0550	1.101	0.02699	95.8	54.4	132				
1,1-Dichloroethane	1.27	0.0220	1.101	0	115	51.8	141				
2,2-Dichloropropane	1.37	0.0550	1.101	0	125	36	123				S
cis-1,2-Dichloroethene	1.25	0.0220	1.101	0	114	58.6	136				
Chloroform	1.20	0.0220	1.101	0.003969	109	53.2	129				
1,1,1-Trichloroethane (TCA)	1.46	0.0220	1.101	0	132	58.3	145				
1,1-Dichloropropene	1.28	0.0220	1.101	0	116	55.1	138				
Carbon tetrachloride	1.28	0.0220	1.101	0	117	53.3	144				
1,2-Dichloroethane (EDC)	1.16	0.0330	1.101	0	105	51.3	139				
Benzene	1.19	0.0220	1.101	0	108	63.5	133				
Trichloroethene (TCE)	1.27	0.0220	1.101	0	116	68.6	132				
1,2-Dichloropropane	1.24	0.0220	1.101	0	113	59	136				
Bromodichloromethane	1.09	0.0220	1.101	0	99.1	50.7	141				
Dibromomethane	1.31	0.0440	1.101	0	119	50.6	137				
cis-1,3-Dichloropropene	1.09	0.0220	1.101	0	98.6	50.4	138				
Toluene	1.12	0.0220	1.101	0.006105	101	63.4	132				
trans-1,3-Dichloropropylene	1.18	0.0330	1.101	0	107	44.1	147				
1,1,2-Trichloroethane	1.25	0.0330	1.101	0	114	51.6	137				
1,3-Dichloropropane	1.21	0.0550	1.101	0	110	53.1	134				
Tetrachloroethene (PCE)	1.28	0.0220	1.101	0	116	35.6	158				
Dibromochloromethane	1.21	0.0330	1.101	0	109	55.3	140				
1,2-Dibromoethane (EDB)	1.34	0.00550	1.101	0	122	50.4	136				
Chlorobenzene	1.23	0.0220	1.101	0	112	60	133				
1,1,1,2-Tetrachloroethane	1.24	0.0330	1.101	0	112	53.1	142				
Ethylbenzene	1.16	0.0330	1.101	0.002730	105	54.5	134				
m,p-Xylene	2.26	0.0220	2.202	0.009974	102	53.1	132				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-031BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	MW-2-15:13.0	Batch ID:	11930			Analysis Date:	9/24/2015	SeqNo:	472417		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

o-Xylene	1.10	0.0220	1.101	0.004349	99.4	53.3	139				
Styrene	1.27	0.0220	1.101	0	116	51.1	132				
Isopropylbenzene	1.28	0.0881	1.101	0	116	58.9	138				
Bromoform	1.19	0.0220	1.101	0	108	57.9	130				
1,1,2,2-Tetrachloroethane	1.35	0.0220	1.101	0	123	51.9	131				
n-Propylbenzene	1.27	0.0220	1.101	0	115	53.6	140				
Bromobenzene	1.25	0.0330	1.101	0	114	54.2	140				
1,3,5-Trimethylbenzene	1.22	0.0220	1.101	0	111	51.8	136				
2-Chlorotoluene	1.24	0.0220	1.101	0	113	51.6	136				
4-Chlorotoluene	1.26	0.0220	1.101	0	114	50.1	139				
tert-Butylbenzene	1.29	0.0220	1.101	0	117	50.5	135				
1,2,3-Trichloropropane	1.26	0.0220	1.101	0	115	50.5	131				
1,2,4-Trichlorobenzene	1.16	0.0550	1.101	0	105	50.8	130				
sec-Butylbenzene	1.31	0.0220	1.101	0	119	52.6	141				
4-Isopropyltoluene	1.29	0.0220	1.101	0	117	52.9	134				
1,3-Dichlorobenzene	1.16	0.0220	1.101	0	105	52.6	131				
1,4-Dichlorobenzene	1.15	0.0220	1.101	0	105	52.9	129				
n-Butylbenzene	1.21	0.0220	1.101	0	110	52.6	130				
1,2-Dichlorobenzene	1.14	0.0220	1.101	0	104	55.8	129				
1,2-Dibromo-3-chloropropane	1.13	0.550	1.101	0	102	40.5	131				
1,2,4-Trimethylbenzene	1.10	0.0220	1.101	0.003110	99.7	50.6	137				
Hexachlorobutadiene	1.23	0.110	1.101	0	112	40.6	158				
Naphthalene	1.01	0.0330	1.101	0	91.5	52.3	124				
1,2,3-Trichlorobenzene	1.11	0.0220	1.101	0	101	54.4	124				
Surr: Dibromofluoromethane	1.43		1.376		104	56.5	129				
Surr: Toluene-d8	1.35		1.376		98.4	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.40		1.376		102	63.1	141				

NOTES:

S - Outlying QC recoveries were observed.



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-033BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	MW-3-15:6.5	Batch ID:	11930			Analysis Date:	9/24/2015	SeqNo:	472418		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0465						0		30	
Chloromethane	ND	0.0465						0		30	
Vinyl chloride	ND	0.00155						0		30	
Bromomethane	ND	0.0698						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0388						0		30	
Chloroethane	ND	0.0465						0		30	
1,1-Dichloroethene	ND	0.0388						0		30	
Methylene chloride	ND	0.0155						0		30	
trans-1,2-Dichloroethene	ND	0.0155						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0388						0		30	
1,1-Dichloroethane	ND	0.0155						0		30	
2,2-Dichloropropane	ND	0.0388						0		30	
cis-1,2-Dichloroethene	ND	0.0155						0		30	
Chloroform	ND	0.0155						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0155						0		30	
1,1-Dichloropropene	ND	0.0155						0		30	
Carbon tetrachloride	ND	0.0155						0		30	
1,2-Dichloroethane (EDC)	ND	0.0233						0		30	
Benzene	ND	0.0155						0		30	
Trichloroethene (TCE)	ND	0.0155						0		30	
1,2-Dichloropropane	ND	0.0155						0		30	
Bromodichloromethane	ND	0.0155						0		30	
Dibromomethane	ND	0.0310						0		30	
cis-1,3-Dichloropropene	ND	0.0155						0		30	
Toluene	ND	0.0155						0		30	
trans-1,3-Dichloropropylene	ND	0.0233						0		30	
1,1,2-Trichloroethane	ND	0.0233						0		30	
1,3-Dichloropropane	ND	0.0388						0		30	
Tetrachloroethene (PCE)	ND	0.0155						0		30	
Dibromochloromethane	ND	0.0233						0		30	
1,2-Dibromoethane (EDB)	ND	0.00388						0		30	



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-033BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	MW-3-15:6.5	Batch ID:	11930			Analysis Date:	9/24/2015	SeqNo:	472418		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	ND	0.0155						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0233						0		30	
Ethylbenzene	ND	0.0233						0		30	
m,p-Xylene	ND	0.0155						0		30	
o-Xylene	ND	0.0155						0		30	
Styrene	ND	0.0155						0		30	
Isopropylbenzene	ND	0.0620						0		30	
Bromoform	ND	0.0155						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0155						0		30	
n-Propylbenzene	ND	0.0155						0		30	
Bromobenzene	ND	0.0233						0		30	
1,3,5-Trimethylbenzene	ND	0.0155						0		30	
2-Chlorotoluene	ND	0.0155						0		30	
4-Chlorotoluene	ND	0.0155						0		30	
tert-Butylbenzene	ND	0.0155						0		30	
1,2,3-Trichloropropane	ND	0.0155						0		30	
1,2,4-Trichlorobenzene	ND	0.0388						0		30	
sec-Butylbenzene	ND	0.0155						0		30	
4-Isopropyltoluene	ND	0.0155						0		30	
1,3-Dichlorobenzene	ND	0.0155						0		30	
1,4-Dichlorobenzene	ND	0.0155						0		30	
n-Butylbenzene	ND	0.0155						0		30	
1,2-Dichlorobenzene	ND	0.0155						0		30	
1,2-Dibromo-3-chloropropane	ND	0.388						0		30	
1,2,4-Trimethylbenzene	ND	0.0155						0		30	
Hexachlorobutadiene	ND	0.0775						0		30	
Naphthalene	ND	0.0233						0		30	
1,2,3-Trichlorobenzene	ND	0.0155						0		30	
Surr: Dibromofluoromethane	0.921		0.9689		95.0	56.5	129		0		
Surr: Toluene-d8	0.946		0.9689		97.6	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.950		0.9689		98.0	63.1	141		0		



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-033BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25067		
Client ID:	MW-3-15:6.5	Batch ID:	11930			Analysis Date:	9/24/2015	SeqNo:	472418		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-R25020	SampType:	LCS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25020		
Client ID:	LCSW	Batch ID:	R25020			Analysis Date:	9/22/2015	SeqNo:	471348		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	17.2	1.00	20.00	0	86.0	43	136				
Chloromethane	19.5	1.00	20.00	0	97.6	43.9	139				
Vinyl chloride	21.2	0.200	20.00	0	106	53.6	139				
Bromomethane	22.6	1.00	20.00	0	113	42.5	152				
Trichlorofluoromethane (CFC-11)	21.6	1.00	20.00	0	108	63.7	133				
Chloroethane	19.5	1.00	20.00	0	97.6	53	141				
1,1-Dichloroethene	18.0	1.00	20.00	0	89.8	65.6	136				
Methylene chloride	19.9	1.00	20.00	0	99.3	67.1	131				
trans-1,2-Dichloroethene	19.6	1.00	20.00	0	98.2	71.7	129				
Methyl tert-butyl ether (MTBE)	19.0	1.00	20.00	0	94.8	67.7	131				
1,1-Dichloroethane	20.2	1.00	20.00	0	101	67.9	134				
2,2-Dichloropropane	16.4	2.00	20.00	0	82.0	33.7	152				
cis-1,2-Dichloroethene	19.8	1.00	20.00	0	98.8	71.1	130				
Chloroform	20.1	1.00	20.00	0	100	66.3	131				
1,1,1-Trichloroethane (TCA)	21.0	1.00	20.00	0	105	71	131				
1,1-Dichloropropene	19.0	1.00	20.00	0	94.8	74.5	126				
Carbon tetrachloride	20.2	1.00	20.00	0	101	66.2	134				
1,2-Dichloroethane (EDC)	19.2	1.00	20.00	0	96.0	68.8	123				
Benzene	19.8	1.00	20.00	0	98.8	69.3	132				
Trichloroethene (TCE)	21.0	0.500	20.00	0	105	65.2	136				
1,2-Dichloropropane	19.4	1.00	20.00	0	96.8	70.5	130				
Bromodichloromethane	21.5	1.00	20.00	0	108	67.2	137				
Dibromomethane	20.9	1.00	20.00	0	105	75.5	126				
cis-1,3-Dichloropropene	22.9	1.00	20.00	0	114	62.6	137				
Toluene	18.7	1.00	20.00	0	93.6	61.3	145				
trans-1,3-Dichloropropene	21.6	1.00	20.00	0	108	58.5	142				
1,1,2-Trichloroethane	19.5	1.00	20.00	0	97.4	71.7	131				
1,3-Dichloropropane	19.4	1.00	20.00	0	96.9	73.5	127				
Tetrachloroethene (PCE)	20.8	1.00	20.00	0	104	47.5	147				
Dibromochloromethane	23.1	1.00	20.00	0	116	67.2	134				
1,2-Dibromoethane (EDB)	20.2	0.0600	20.00	0	101	73.6	125				



Date: 10/29/2015

Work Order: 1509270
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-R25020	SampType: LCS		Units: µg/L		Prep Date: 9/22/2015			RunNo: 25020		
Client ID:	LCSW	Batch ID: R25020		Analysis Date: 9/22/2015					SeqNo: 471348		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	20.7	1.00	20.00	0	103	73.9	126				
1,1,1,2-Tetrachloroethane	17.8	1.00	20.00	0	89.2	76.8	124				
Ethylbenzene	19.2	1.00	20.00	0	95.8	72	130				
m,p-Xylene	38.4	1.00	40.00	0	96.0	70.3	134				
o-Xylene	18.6	1.00	20.00	0	93.0	72.1	131				
Styrene	20.8	1.00	20.00	0	104	64.3	140				
Isopropylbenzene	19.8	1.00	20.00	0	99.0	73.9	128				
Bromoform	23.4	1.00	20.00	0	117	63.8	135				
1,1,2,2-Tetrachloroethane	19.4	1.00	20.00	0	97.2	62.9	132				
n-Propylbenzene	18.6	1.00	20.00	0	93.2	74.5	127				
Bromobenzene	18.0	1.00	20.00	0	89.8	71	131				
1,3,5-Trimethylbenzene	19.2	1.00	20.00	0	95.8	73.1	128				
2-Chlorotoluene	19.2	1.00	20.00	0	96.0	70.8	130				
4-Chlorotoluene	19.3	1.00	20.00	0	96.6	70.1	131				
tert-Butylbenzene	18.8	1.00	20.00	0	93.8	68.2	131				
1,2,3-Trichloropropane	17.9	1.00	20.00	0	89.6	67.7	131				
1,2,4-Trichlorobenzene	17.6	2.00	20.00	0	87.9	51.8	152				Q
sec-Butylbenzene	19.4	1.00	20.00	0	96.8	72	129				
4-Isopropyltoluene	18.3	1.00	20.00	0	91.4	69.2	130				
1,3-Dichlorobenzene	20.9	1.00	20.00	0	104	72.4	129				
1,4-Dichlorobenzene	20.3	1.00	20.00	0	102	70.6	128				
n-Butylbenzene	21.4	1.00	20.00	0	107	73.8	127				
1,2-Dichlorobenzene	21.2	1.00	20.00	0	106	74.2	129				
1,2-Dibromo-3-chloropropane	17.0	1.00	20.00	0	84.9	63.1	136				
1,2,4-Trimethylbenzene	18.2	1.00	20.00	0	91.1	73.4	127				
Hexachlorobutadiene	17.6	4.00	20.00	0	88.2	58.6	138				
Naphthalene	16.0	1.00	20.00	0	79.8	41.8	165				Q
1,2,3-Trichlorobenzene	18.7	4.00	20.00	0	93.6	48.7	156				Q
Surr: Dibromofluoromethane	25.6		25.00		102	45.4	152				
Surr: Toluene-d8	25.9		25.00		103	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.1		25.00		96.4	64.2	128				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-R25020	SampType:	LCS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25020		
Client ID:	LCSW	Batch ID:	R25020			Analysis Date:	9/22/2015	SeqNo:	471348		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID	MB-R25020	SampType:	MBLK			Units:	µg/L			Prep Date:	9/22/2015		RunNo:	25020	
Client ID:	MBLKW	Batch ID:	R25020						Analysis Date:	9/22/2015		SeqNo:	471349		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	1.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									



Date: 10/29/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-R25020	SampType: MBLK		Units: µg/L		Prep Date: 9/22/2015			RunNo: 25020		
Client ID:	MBLKW	Batch ID: R25020		Analysis Date: 9/22/2015			SeqNo: 471349				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.0600									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	1.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									Q
sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									

Q



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-R25020	SampType: MBLK		Units: µg/L		Prep Date: 9/22/2015			RunNo: 25020		
Client ID:	MBLKW	Batch ID: R25020					Analysis Date: 9/22/2015			SeqNo: 471349	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	4.00									
Naphthalene	ND	1.00									Q
1,2,3-Trichlorobenzene	ND	4.00									Q
Surr: Dibromofluoromethane	26.3		25.00		105	45.4	152				
Surr: Toluene-d8	25.2		25.00		101	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.3		25.00		101	64.2	128				

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID	1509270-027ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25020		
Client ID:	GP-12-15:GW	Batch ID:	R25020			Analysis Date:	9/22/2015	SeqNo:	471338		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	2.04	1.00						2.020	0.985	30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-027ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25020		
Client ID:	GP-12-15:GW	Batch ID:	R25020			Analysis Date:	9/22/2015	SeqNo:	471338		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	1.00						0		30	
1,1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	Q
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509270-027ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25020			
Client ID:	GP-12-15:GW	Batch ID:	R25020	Analysis Date:				9/22/2015	SeqNo:	471338		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,3-Dichlorobenzene	ND	1.00						0		30		
1,4-Dichlorobenzene	ND	1.00						0		30		
n-Butylbenzene	ND	1.00						0		30		
1,2-Dichlorobenzene	ND	1.00						0		30		
1,2-Dibromo-3-chloropropane	ND	1.00						0		30		
1,2,4-Trimethylbenzene	ND	1.00						0		30		
Hexachlorobutadiene	ND	4.00						0		30		
Naphthalene	ND	1.00						0		30	Q	
1,2,3-Trichlorobenzene	ND	4.00						0		30	Q	
Surr: Dibromofluoromethane	25.6		25.00		102	45.4	152		0			
Surr: Toluene-d8	25.1		25.00		100	40.1	139		0			
Surr: 1-Bromo-4-fluorobenzene	25.1		25.00		100	64.2	128		0			

Sample ID	1509263-005BMS	SampType:	MS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25020		
Client ID:	BATCH	Batch ID:	R25020			Analysis Date:	9/22/2015	SeqNo:	471334		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	17.9	1.00	20.00	0	89.6	33.3	122				
Chloromethane	19.7	1.00	20.00	0.9300	94.0	48.2	145				
Vinyl chloride	25.0	0.200	20.00	0	125	58.1	158				
Bromomethane	32.0	1.00	20.00	3.040	145	31.5	135				S
Trichlorofluoromethane (CFC-11)	23.8	1.00	20.00	0	119	54.7	138				
Chloroethane	21.8	1.00	20.00	0	109	49.9	143				
1,1-Dichloroethene	19.6	1.00	20.00	0	98.0	63	141				
Methylene chloride	19.7	1.00	20.00	0	98.6	61.6	135				
trans-1,2-Dichloroethene	21.0	1.00	20.00	0	105	63.5	138				
Methyl tert-butyl ether (MTBE)	19.2	1.00	20.00	0	96.2	60.9	132				
1,1-Dichloroethane	20.8	1.00	20.00	0	104	67.8	136				
2,2-Dichloropropane	15.7	2.00	20.00	0	78.5	31.5	121				
cis-1,2-Dichloroethene	20.0	1.00	20.00	0.2000	99.2	67.1	123				
Chloroform	20.5	1.00	20.00	0	103	66.7	136				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509263-005BMS		SampType: MS		Units: µg/L		Prep Date: 9/22/2015		RunNo: 25020		
Client ID:	BATCH		Batch ID: R25020				Analysis Date: 9/22/2015		SeqNo: 471334		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane (TCA)	23.3	1.00	20.00	0	117	64.2	146				
1,1-Dichloropropene	21.4	1.00	20.00	0	107	73.8	136				
Carbon tetrachloride	26.7	1.00	20.00	1.190	128	62.7	146				
1,2-Dichloroethane (EDC)	20.1	1.00	20.00	0	100	63.4	137				
Benzene	21.3	1.00	20.00	0	106	65.4	138				
Trichloroethene (TCE)	22.4	0.500	20.00	0	112	60.4	134				
1,2-Dichloropropane	20.7	1.00	20.00	0	104	62.6	138				
Bromodichloromethane	23.2	1.00	20.00	0	116	59.4	139				
Dibromomethane	23.5	1.00	20.00	0	118	63.6	139				
cis-1,3-Dichloropropene	24.6	1.00	20.00	0	123	63.8	132				
Toluene	20.0	1.00	20.00	0	100	64	139				
trans-1,3-Dichloropropene	23.3	1.00	20.00	0	117	57.7	125				
1,1,2-Trichloroethane	20.9	1.00	20.00	0	104	59.4	127				
1,3-Dichloropropane	20.1	1.00	20.00	0	101	64.3	135				
Tetrachloroethene (PCE)	22.2	1.00	20.00	0	111	50.3	133				
Dibromochloromethane	25.5	1.00	20.00	0	127	61.6	139				
1,2-Dibromoethane (EDB)	22.2	0.0600	20.00	0	111	63.2	134				
Chlorobenzene	22.0	1.00	20.00	0	110	65.8	134				
1,1,1,2-Tetrachloroethane	19.9	1.00	20.00	0.1400	98.6	65.4	135				
Ethylbenzene	21.1	1.00	20.00	0	105	64.5	136				
m,p-Xylene	41.8	1.00	40.00	0	104	63.3	135				
o-Xylene	20.0	1.00	20.00	0	100	65.4	134				
Styrene	22.9	1.00	20.00	0	114	59.1	134				
Isopropylbenzene	22.1	1.00	20.00	0	110	56	147				
Bromoform	27.7	1.00	20.00	0	139	57.7	139				
1,1,2,2-Tetrachloroethane	21.0	1.00	20.00	0	105	59.8	146				
n-Propylbenzene	20.5	1.00	20.00	0	102	57.6	142				
Bromobenzene	20.0	1.00	20.00	0	100	63.6	130				
1,3,5-Trimethylbenzene	20.8	1.00	20.00	0	104	59.9	136				
2-Chlorotoluene	20.5	1.00	20.00	0	103	61.7	134				
4-Chlorotoluene	21.1	1.00	20.00	0	106	58.4	134				



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509263-005BMS	SampType:	MS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25020		
Client ID:	BATCH	Batch ID:	R25020			Analysis Date:	9/22/2015	SeqNo:	471334		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
tert-Butylbenzene	21.5	1.00	20.00	0	107	66.8	141				
1,2,3-Trichloropropane	18.8	1.00	20.00	0	94.0	62.4	129				
1,2,4-Trichlorobenzene	15.0	2.00	20.00	0.7300	71.4	50.9	133				Q
sec-Butylbenzene	21.0	1.00	20.00	0	105	56	146				
4-Isopropyltoluene	20.0	1.00	20.00	0	100	56.4	136				
1,3-Dichlorobenzene	21.7	1.00	20.00	0	109	58.2	128				
1,4-Dichlorobenzene	21.2	1.00	20.00	0	106	60.1	123				
n-Butylbenzene	20.5	1.00	20.00	0	102	54.6	135				
1,2-Dichlorobenzene	21.8	1.00	20.00	0	109	65.4	133				
1,2-Dibromo-3-chloropropane	17.5	1.00	20.00	0	87.6	51.8	142				
1,2,4-Trimethylbenzene	19.7	1.00	20.00	0.1100	97.8	63.7	132				
Hexachlorobutadiene	17.6	4.00	20.00	0	87.9	58.1	130				
Naphthalene	14.2	1.00	20.00	0.7900	67.2	54.5	132				Q
1,2,3-Trichlorobenzene	12.4	4.00	20.00	0	62.2	57	131				Q
Surr: Dibromofluoromethane	24.8		25.00		99.1	45.4	152				
Surr: Toluene-d8	24.8		25.00		99.1	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.5	64.2	128				

NOTES:

S - Outlying QC recoveries were observed. The method is in control as indicated by the LCS.

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).



Date: 10/29/2015

Work Order: 1509270
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID	1509317-001ADUP	SampType:	DUP	Units:	wt%	Prep Date:	9/23/2015	RunNo:	25044		
Client ID:	BATCH	Batch ID:	R25044			Analysis Date:	9/23/2015	SeqNo:	471982		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	11.4	0.500						10.57	7.93	20	

Sample ID	1509270-007ADUP	SampType:	DUP	Units:	wt%	Prep Date:	9/23/2015	RunNo:	25044		
Client ID:	GP-4-15:5.0	Batch ID:	R25044			Analysis Date:	9/23/2015	SeqNo:	471994		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	16.1	0.500						16.55	2.96	20	

Sample ID	1509270-022ADUP			SampType:	DUP		Units:	wt%		Prep Date:	9/23/2015		RunNo:	25044	
Client ID:	GP-10-15:13.0			Batch ID:	R25044					Analysis Date:	9/23/2015		SeqNo:	472010	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		
Percent Moisture		27.8	0.500						22.43		21.3	20	R		

Client Name: **SW**

 Work Order Number: **1509270**

 Logged by: **Clare Griggs**

 Date Received: **9/18/2015 5:55:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of >0°C to 10.0°C * Yes ☐ No ☒ NA ☐
- Please refer to item information.
8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☒ No ☐ NA ☐

Person Notified:	Ed Ptak	Date	9/22/2015
By Whom:	Clare Griggs	Via:	☐ eMail ☒ Phone ☐ Fax ☐ In Person
Regarding:	Confirming analyses.		
Client Instructions:	Add PAH to water the 3 water samples.		

19. Additional remarks:

Item Information

Item #	Temp °C
Cooler 1	6.2
Cooler 2	8.8
Cooler 3	10.1
Sample 1	8.1
Sample 2	6.1
Sample 3	11.4

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



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Chain of Custody Record

Laboratory Project No. (internal):

1509270

3600 Fremont Ave. N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/18/15

Page: 1 of 4

Client: Shenoy & Wilson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-8020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 21-1-22055-009 Collected by: EVP
Location: City of Pacific, WA
Report To (PM): Edwin Park
PM Email: especkm@cityofpacific.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Matrix*	VOG (EPA 8260 / 624)	GVX/TEX	BTX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Distillate/Heavy Oil Range Organics (OX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8270 / 625)	Metals** (EPA 8210 / 608)	Total (T) / Dissolved (D)	Anions (IC)***	EDS (8011)	Comments
1 GP-1-15:5.0	9/17/15	0910	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 GP-1-15:13.5		0915	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
3 GP-2-15:4.5		1010	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
4 GP-2-15:14.0		1020	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
5 GP-3-15:9.0		1110	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
6 GP-3-15:12.5		1100	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
7 GP-4-15:5.0		1130	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
8 GP-4-15:13.0		1140	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
9 GP-5-15:5.0		1215	S	X	X	X	X	X	X	X	X	X	X	X	X	X	
10 GP-5-15:13.0		1225	S	X	X	X	X	X	X	X	X	X	X	X	X	X	

**Metals Analysis (Circle): MTCA-5 (CERCLA) Priority Pollutants: TAL (anthracene, Ac, Al, As, Ba, Be, Ca, Cd, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Se, Sr, Sn, Ti, U, V, Zn)

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Iodide Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (a fee may be assessed if samples are retained after 30 days.)

Receiving: [Signature] Date/Time: 9/18/15 1530 Received: [Signature] Date/Time: 9/18/15 1530

Refrigerated: [Signature] Date/Time: 9/18/15 1755 x [Signature] Date/Time: 9/18/15 1755

Special Remarks: Turn-around times for samples received after 4:00pm will begin on the following business day.

Printed and coordinated with the lab in advance



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3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 7/10/15

Laboratory Project No (Internal): _____

Page: 2 of 4

Chain of Custody Record

Client: Shannon & Wilson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle, WA 98103
Telephone: 206-630-8000 Fax: 206-635-6777

Project Name: Pacific Park
Project No: 07-122055-009 Collected by: EVP
Location: City of Pacific WA
Report To (PM): Edna Park
PM Email: cypeshaw@l.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, GW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)	VOCs (EPA 8260 / 624)	GV/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCDI)	Diesel/Heavy Oil Range Organics (DH)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 201.6)	Total (T) + Dissolved (D)	Anions (IC)***	EDs (6011)	Herbicides 9021A 9021B	Pesticides 9021A 9021B	Comments
GP-5-15: DWP	7/7/15	1155	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-6-15: 7.5		1250		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-6-15: 14.0		1305		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-7-15: 5.0		1355		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-7-15: 14.0		1340		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-8-15: 5.0		1405		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-8-15: 14.5		1410		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-8-15: DWP		1306		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-9-15: 5.0		1445		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-9-15: 12.5		1450		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Distribution: White - Lab, Yellow - File, Pink - Originator

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Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/18/15

Laboratory Project No. (Internal): _____
Page: 3 of 4

Chain of Custody Record

Client: Skann & Wilson Inc.
Address: 400 N 39th St. Suite 100
City, State, Zip: Seattle, WA 98103
Telephone: 206-632-8620 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 21-2055-009 Collected by: EVP
Location: City of Pacific, WA
Report To (PM): Edwin Pak
PM Email: evp@skanvil.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GV/HTX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCD)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)***	EDs (8011)	Herbicides 8151A	Pesticides 9021B	Comments
1 GP-10-15:4.5	7/7/15	1510	S																
2 GP-10-15:13.0		1520																	
3 GP-11-15:4.5		1545																	
4 GP-11-15:14.5		1550																	
5 GP-12-15:4.0	7/16/15	0850																	
6 GP-12-15:13.5		0855																	
7 GP-12-15:6W		0915	GW																
8 MW-1-15:6.0		1005																	
9 MW-1-15:12.0		1010																	
10 MW-2-15:3.0		1205																	

**Metals Analysis (Circle): MTCA-5 (NCA-8) Heavy Metals
***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite
Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (a fee may be assessed if samples are retained after 30 days.)
Refrigerated: ☒ Date/Time: 9/18/15 1530 Received: [Signature] Date/Time: 9/18/15 1530
Relinquished: [Signature] Date/Time: 9/18/15 1755 Received: [Signature] Date/Time: 9/18/15 1755
TAT → SameDay* NextDay* 2 Day 3 Day STO
*Please coordinate with the lab in advance.

Special Remarks: GP-12-15:6W not cited filtered for PFA metals.



Chain of Custody Record

Laboratory Project No (internal):

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/18/15

Page 4 of 4

Client: Shuman & Milson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle, WA 98103
Telephone: 206-632-8020 FAX: 206-695-6777

Project Name: Pacific Park
Project No: 21-52055-007 Collected by: EWP
Location: City of Pacific, WA
Report To (PM): Andrew Park
PM Email: ewp@shawi.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, C = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

[illegible]

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Chain of Custody Record

Laboratory Project No (Internal):

1509270

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/18/15

Page: 1 of 4

Client: Shawny & Wilson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-8020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 21-1-22055-009 Collected by: EVP
Location: City of Pacific, WA
Report To (PM): Edna Park
PM Email: epesha@vill.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, Q = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 631)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8082 / 608)	Metals** (EPA 8210 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDS (8021)	Comments
1 GP-1-15:5.0	9/17/15	0910	S	X	X	X	X	X	X	X	X	
2 GP-1-15:13.5		0915	S	X	X	X	X	X	X	X	X	
3 GP-2-15:4.5		1010	S	X	X	X	X	X	X	X	X	
4 GP-2-15:14.0		1020	S	X	X	X	X	X	X	X	X	
5 GP-3-15:9.0		1110	S	X	X	X	X	X	X	X	X	
6 GP-3-15:12.5		1100	S	X	X	X	X	X	X	X	X	
7 GP-4-15:5.0		1130	S	X	X	X	X	X	X	X	X	
8 GP-4-15:13.0		1140	S	X	X	X	X	X	X	X	X	
9 GP-5-15:5.0		1215	S	X	X	X	X	X	X	X	X	
10 GP-5-15:13.0		1225	S	X	X	X	X	X	X	X	X	

**Metals Analysis (Circle): MTCA-5 PCBA-8 Priority Pollutants: TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sn Se Sr Ti U V Zn

**Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposed by Lab (A fee may be assessed if samples are returned after 30 days.)

Revised/Added: 9/18/15 1530 Received: 9/18/15 1530

Revised/Added: 9/18/15 1555 Received: 9/18/15 1555

Turn-around times for samples received after 4:00pm will begin on the following business day.

Special Remarks:

AT: Same Day, Next Day, 2 Day, 3 Day, STD

*Please coordinate with the lab in advance

Distribution: White - Lab, Yellow - File, Pink - Originator

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Chain of Custody Record

Laboratory Project No (intern): _____

Page: 2 of 4

Project Name: Pacific Park
Project No: 21-122055-009
Location: City of Pacific WA
Report To (PM): Edwin Pak
PM Email: eypeshaw@pac.net

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SI = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GVBTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Petroleum Heavy Oil Range Organics (Ox)	SVOCS (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) + Dissolved (D)	Anions (IC)**	FDE (8011)	Herbicides EPA 821A	Pesticides EPA 821B	Comments
GP-5-15:DUP	9/7/15	1155	5	X	X	X	X	X	X	X	X	X	T	X	X	X	X		
GP-6-15:7.5		1250		X	X	X	X	X	X	X	X	X	T	X	X	X	X		
GP-6-15:14.0		1305		X	X	X	X	X	X	X	X	X	T	X	X	X	X		
GP-7-15:5.0		1355		X	X	X	X	X	X	X	X	X	T	X	X	X	X		
GP-7-15:14.0		1340		X	X	X	X	X	X	X	X	X	T	X	X	X	X		
GP-8-15:5.0		1405		X	X	X	X	X	X	X	X	X	T	X	X	X	X		
GP-8-15:14.5		1410		X	X	X	X	X	X	X	X	X	T	X	X	X	X		
GP-8-15:DUP		1306		X	X	X	X	X	X	X	X	X	T	X	X	X	X		
GP-9-15:5.0		1445		X	X	X	X	X	X	X	X	X	T	X	X	X	X		
GP-9-15:12.5		1450	1	X	X	X	X	X	X	X	X	X	T	X	X	X	X		

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromine D-phosphate Fluoride Nitrate-Nitrite

Turn-around times for samples received after 4:00pm will begin on the following business day.

Special Remarks:

Reinforced: JMB Date/Time: 9/18/15 1530 Received: JMB Date/Time: 9/18/15 1530

Reinforced: JMB Date/Time: 9/18/15 1755 Received: JMB Date/Time: 9/18/15 1530

TAI → SameDay NeedDay~ 2 Day 3 Day STP

Please coordinate with the lab in advance

Distribution: White - Lab, Yellow - File, Pink - Originator

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Tel: 206-352-3790
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Date: 9/18/15

Page: 3 of 4

Laboratory Project No. (internal):

1509270

Chain of Custody Record

Client: Shaw & Wilson Inc.
Address: 400 N 39th St. Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-8020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 21-22055-009 Collected by: EVP
Location: City of Pacific, WA
Report To (PM): Edna Pak
PM Email: evp@shawwil.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOG (EPA 8260 / 624)	GH/MTX	BTX	Gasoline Range Organics (G3)	Hydrocarbon Identification (HCO)	Distillates or Range Organics (HCO)	SVOCs (EPA 8270 / 825)	PAHs (EPA 8270 / 825)	PCBs (EPA 8080 / 608)	Metals** (EPA 8210 / 608)	Total (T) (EPA 8210 / 608)	Ames (IC)***	ED (601)	Notes	Comments
GP-10-15:4.5	9/7/15	1510	S															
GP-10-15:13.0		1520																
GP-11-15:4.5		1545																
GP-11-15:14.5		1550																
GP-12-15:4.0	9/16/15	0850																
GP-12-15:13.5		0855																
GP-12-15:6W		0915	GW															
MW-1-15:6.0		1005																
MW-1-15:12.0		1010																
MW-2-15:3.0		1205																
Materials Analysis (Grid):																		
MTCA-5				EC93.8	EC93.8	EC93.8	EC93.8	EC93.8	EC93.8	EC93.8	EC93.8	EC93.8	EC93.8	EC93.8	EC93.8	EC93.8	EC93.8	EC93.8
Anions (Circle):				Nitrate	Nitrite	Chloride	Sulfate	Bromide	O-Phosphate	Fluoride	Nitrate-Nitrite	Turn-around times for samples received after 4:00pm will begin on the following business day.						
Sample Disposal:				☐ Return to Client	☒ Disposed by Lab (A line may be assessed if samples are retained after 30 days.)													
Relay/Signature				Date/Time	9/18/15	1520	Received	Date/Time	9/18/15	1530								
Signature				9/18/15	1755	Signature	Date/Time	9/18/15	17:55									

Special Remarks:
GP-12-15:6W not grid
filtered for PPA metals.

edit for EP 9/21/15



Fremont

3600 Fremont Ave N
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Laboratory Project No. (Internally):

Chain of Custody Record

Date: 9/18/15

Page: 4 of 4

Client: Shuman & Nelson Inc.
Address: 400 N 34th St, Suite 100
City, State, Zip: Seattle, WA 98103
Telephone: 206-633-8020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 21-32055-009
Location: CH 15 Pacific, WA
Report To (PM): Paula Park
PM Email: cyp@shumanil.com

Collected by: EVP

*Abbrev Codes: A = Air, AQ = Aqueous, B = Bulk, D = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Internally)	TOC (EPA 8260 / 824)	GC/MS	BTEX	Gasoline Range Organics (GRO)	Hydrocarbon Identification (HID)	Distillation Identification (DID)	SVOCs (EPA 8270 / 615)	PAHs (EPA 8270 / 615)	PCBs (EPA 8280 / 514)	Mutagens (EPA 8280 / 514)	Total (T) / Collected (C)	Asbestos (EPA 8210 / 200.4)	ICD (EPA 8210 / 200.4)	Other (EPA 8210 / 200.4)	Comments
1 MW-2-15:13.0	9/18/15	1315	S															
2 MW-2-15:6W		1320	GW															
3 MW-3-15:6.5		1355																
4 MW-3-15:15.0		1405																
5 MW-3-15:6W		1455	GW															
6																		
7																		
8																		
9																		
10																		



Laboratory Project No (internal): EP0927D

Page: 1 of 4

Chain of Custody Record

Project Name: Pacific Park
Project No: 21-1-22055-009 Collected by: EYP
Location: City of Pacific, WA
Report To (PM): Edna Pak
PM Email: eypeshavi.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GVX/TEX	BTX	Gasoline Range Organics (GRO)	Hydrocarbon Identification (HCDI)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCB (EPA 8270 - SEM)	Metals** (EPA 8210 / 608)	Total (T) (EPA 8210 / 200.4)	Anions (IC)*	FDS (8011)	Comments
GP-1-15:5.0	9/17/15	0910	S													
GP-1-15:13.5		0915	S													
GP-2-15:4.5		1010														
GP-2-15:14.0		1020														
GP-3-15:9.0		1110														
GP-3-15:12.5		1100														
GP-4-15:5.0		1130														
GP-4-15:13.0		1140														
GP-5-15:5.0		1215														
GP-5-15:13.0		1225														

*Metals Analysis (Cref): MTC-5
 **Anions (Cref): Nitrate Nitrite Chloride Sulfate Bromide Iodide Nitrate-Nitrite
 Sample Disposal: ☐ Return to Client ☒ Disposal by lab (a fee may be assessed if samples are retained after 30 days.)
 Receiving Agency: *WBR* Date/Time: *9/16/15 1530* Rec'd: *WBR* Date/Time: *9/18/15 1530*
 Preparing Agency: *WBR* Date/Time: *9/18/15 1530* Rec'd: *WBR* Date/Time: *9/18/15 1530*
 TAT: *3* Same Day* Next Day* 2 Day 3 Day *STP*
 *Speed Coordinate with the lab in advance

Distribution: White - Lab, Yellow - File, Pink - Originator

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Chain of Custody Record

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-353-3790
Fax: 206-353-7178

Date: 9/18/15

Laboratory Project No (Internal):

Page 2 of 4

Client: Shuman & Wilson Inc.
Address: 400 N 39th St. Suite 100
City, State, Zip: Seattle, WA 98103
Telephone: 206-478-8000 Fax: 206-475-6777

Project Name: Pacific Park
Project No: 07-1-22055-009
Location: City of Pacific WA
Report To (PM): Edna Pink
PM Email: cypeshaw@f.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, C = Cement, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)	FOG (EPA 8260 / GC)	GV/TC	BTEX	Gasoline Range Organics (GRO)	Hydrocarbon Identification (HID)	Distillable Petroleum (DP)	SVOCs (EPA 8270 / GC)	PAHs (EPA 8270 - GC)	PCBs (EPA 8270 - GC)	Metals** (EPA 8210 / ICP)	Total (T) (EPA 8210 / ICP)	Arsenic (ICP)	EDS (ICP)	Comments
GP-5-15: DWP	9/17/15	1155	S	X	X	X	X	X	X	X	X	X	X	X	X	X	TCUR Pb, Hg
GP-6-15: 7.5		1250		X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-6-15: 14.0		1305		X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-7-15: 5.0		1355		X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-7-15: 14.0		1340		X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-8-15: 5.0		1405		X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-8-15: 14.5		1410		X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-8-15: DWP		1306		X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-9-15: 5.0		1445		X	X	X	X	X	X	X	X	X	X	X	X	X	
GP-9-15: 12.5		1450		X	X	X	X	X	X	X	X	X	X	X	X	X	

Distribution: White - Lab, Yellow - File, Pink - Originator

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Fremont

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/18/15

Page: 3 of 4

Laboratory Project No. (internal):

1509270

Chain of Custody Record

Client: Shawn & Wilson Inc.
Address: 400 N 39th St. Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-8020 Fax: 206-645-6777

Project Name: Pacific Park
Project No.: 21-132055-009 Collected by: EVP
Location: City of Pacific, WA
Report to party: Edwin Park
PM Email: evp@shawnwil.com

*Matrix Codes: A = Air, AQ = Asbestos, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)	Analysis	Comments
GP-10-15:4.5	9/17/14	1510	S	VOCs (EPA 8260 / 624)	
GP-10-15:13.0		1520		OV/PTX	
GP-11-15:4.5		1545		PTX	
GP-11-15:14.5		1550		Gasoline Range Organics (GRO)	
GP-12-15:4.0	9/14/15	0850		Hydrocarbon Identification (HID)	
GP-12-15:13.5		0855		Determination of Aqueous Organics (DAO)	
GP-12-15:6W		0915	GW	SPEC (EPA 8270 / 425)	
MW-1-15:6.0		1005	S	PAHs (EPA 8270 / 425)	
MW-1-15:12.0		1010		PCBs (EPA 8270 / 425)	
MW-2-15:3.0		1205		Metal** (EPA 8210 / 601)	
				Total (T) / Dissolved (D)	
				Arsenic (As)	
				Barium (Ba)	
				Boron (B)	
				Bromine (Br)	
				Calcium (Ca)	
				Chlorine (Cl)	
				Copper (Cu)	
				Fluorine (F)	
				Iron (Fe)	
				Magnesium (Mg)	
				Manganese (Mn)	
				Nickel (Ni)	
				Potassium (K)	
				Selenium (Se)	
				Silver (Ag)	
				Sulfur (S)	
				Titanium (Ti)	
				Zinc (Zn)	

***Actions (Circle): Nitrate Chloride Sulfate Bromide Cadmium Fluoride Nitrite/Nitrate

Sample Disposal: ☐ Return to Client ☒ Disposed by Lab (a fee may be assessed if samples are returned after 30 days.)

Receiving: 9/18/15 1520 Date/Time: 9/18/15 1530 Received by: Shawn & Wilson Inc. Date/Time: 9/18/15 17:55

Signature: [Signature] Signature: [Signature]

Special Remarks: GP-12-15:6W not cited
cited for EPA 9215.09

Coloration: White - Lab, Yellow - File, Pink - Organizer

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3600 Fremont Ave. N.

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info@fremontanalytical.com

Shannon & Wilson

Ed Ptak

400 N. 34th Street, Suite 100

Seattle, WA 98103

RE: Pacific Park

Lab ID: 1509300

October 06, 2015

Attention Ed Ptak:

Fremont Analytical, Inc. received 22 sample(s) on 9/21/2015 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Dissolved Mercury by EPA Method 245.1

Dissolved Metals by EPA Method 200.8

Gasoline by NWTPH-Gx

Herbicides by EPA Method 8151A

Mercury by EPA Method 245.1

Mercury by EPA Method 7471

Organochlorine Pesticides by EPA Method 8081

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample Moisture (Percent Moisture)

Semi-Volatile Organic Compounds by EPA Method 8270

Total Metals by EPA Method 200.8

Total Metals by EPA Method 6020

Volatile Organic Compounds by EPA Method 8260

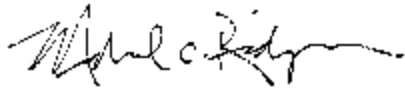
This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Ridgeway". The signature is fluid and cursive, with a prominent initial "M" and a long, sweeping underline.

Mike Ridgeway
President

CLIENT: Shannon & Wilson
Project: Pacific Park
Lab Order: 1509300

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1509300-001	GP-13-15:4.5	09/21/2015 8:45 AM	09/21/2015 4:18 PM
1509300-002	GP-13-15:13.5	09/21/2015 8:55 AM	09/21/2015 4:18 PM
1509300-003	GP-14-15:3.5	09/21/2015 9:40 AM	09/21/2015 4:18 PM
1509300-004	GP-14-15:13.5	09/21/2015 9:50 AM	09/21/2015 4:18 PM
1509300-005	GP-14-15:DUP	09/21/2015 10:10 AM	09/21/2015 4:18 PM
1509300-006	GP-15-15:6.0	09/21/2015 10:25 AM	09/21/2015 4:18 PM
1509300-007	GP-15-15:14.0	09/21/2015 10:30 AM	09/21/2015 4:18 PM
1509300-008	GP-16-15:8.0	09/21/2015 11:05 AM	09/21/2015 4:18 PM
1509300-009	GP-16-15:13.5	09/21/2015 11:00 AM	09/21/2015 4:18 PM
1509300-010	GP-17-15:7.0	09/21/2015 11:40 AM	09/21/2015 4:18 PM
1509300-011	GP-17-15:14.5	09/21/2015 11:55 AM	09/21/2015 4:18 PM
1509300-012	GP-18-15:3.0	09/21/2015 12:15 PM	09/21/2015 4:18 PM
1509300-013	GP-18-15:14.0	09/21/2015 12:20 PM	09/21/2015 4:18 PM
1509300-014	GP-19-15:5.0	09/21/2015 12:50 PM	09/21/2015 4:18 PM
1509300-015	GP-19-15:14.5	09/21/2015 12:55 PM	09/21/2015 4:18 PM
1509300-016	GP-20-15:5.5	09/21/2015 1:20 PM	09/21/2015 4:18 PM
1509300-017	GP-20-15:14.0	09/21/2015 1:45 PM	09/21/2015 4:18 PM
1509300-018	GP-21-15:4.0	09/21/2015 2:20 PM	09/21/2015 4:18 PM
1509300-019	GP-21-15:14.0	09/21/2015 2:50 PM	09/21/2015 4:18 PM
1509300-020	GP-21-15:GW	09/21/2015 2:25 PM	09/21/2015 4:18 PM
1509300-021	GP-13-15:GW	09/21/2015 9:15 AM	09/21/2015 4:18 PM
1509300-022	GP-17-15:DUP	09/21/2015 11:45 AM	09/21/2015 4:18 PM

CLIENT: Shannon & Wilson**Project:** Pacific Park

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below LOQ
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:45:00 AM

Project: Pacific Park

Lab ID: 1509300-001

Matrix: Soil

Client Sample ID: GP-13-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Herbicides by EPA Method 8151A			Batch ID: 11938		Analyst: MD	
Dicamba	ND	39.1		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4-D	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4-DP	ND	27.9		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4,5-TP (Silvex)	ND	22.3		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4,5-T	ND	55.8		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Dinoseb	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Dalapon	ND	223		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4-DB	ND	27.9		µg/Kg-dry	1	10/1/2015 3:27:00 PM
MCPP	ND	4,910		µg/Kg-dry	1	10/1/2015 3:27:00 PM
MCPA	ND	3,130		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Picloram	ND	55.8		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Bentazon	ND	39.1		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Chloramben	ND	22.3		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Acifluorfen	ND	89.3		µg/Kg-dry	1	10/1/2015 3:27:00 PM
3,5-Dichlorobenzoic acid	ND	44.7		µg/Kg-dry	1	10/1/2015 3:27:00 PM
4-Nitrophenol	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Dacthal (DCPA)	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Surr: 2,4-Dichlorophenylacetic acid	98.4	20.1-168		%REC	1	10/1/2015 3:27:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Alpha BHC	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Beta BHC	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Gamma BHC (Lindane)	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Delta BHC	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Heptachlor	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Aldrin	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Heptachlor epoxide	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
gamma-Chlordane	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Endosulfan I	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
alpha-Chlordane	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Dieldrin	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
4,4'-DDE	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Endrin	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Endosulfan II	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM
4,4'-DDD	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Endrin aldehyde	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Endosulfan sulfate	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:45:00 AM

Project: Pacific Park

Lab ID: 1509300-001

Matrix: Soil

Client Sample ID: GP-13-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

4,4'-DDT	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Endrin ketone	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Methoxychlor	ND	0.0526		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Surr: Decachlorobiphenyl	59.2	26.5-158		%REC	1	9/24/2015 3:32:00 AM
Surr: Tetrachloro-m-xylene	74.9	11-150		%REC	1	9/24/2015 3:32:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11919

Analyst: AK

Diesel (Fuel Oil)	ND	22.2		mg/Kg-dry	1	9/23/2015 6:52:00 PM
Heavy Oil	462	55.5		mg/Kg-dry	1	9/23/2015 6:52:00 PM
Surr: 2-Fluorobiphenyl	117	50-150		%REC	1	9/23/2015 6:52:00 PM
Surr: o-Terphenyl	117	50-150		%REC	1	9/23/2015 6:52:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Bis(2-chloroethyl) ether	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2-Chlorophenol	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
1,3-Dichlorobenzene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
1,4-Dichlorobenzene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
1,2-Dichlorobenzene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Benzyl alcohol	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2-Methylphenol (o-cresol)	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Hexachloroethane	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
N-Nitrosodi-n-propylamine	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Nitrobenzene	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Isophorone	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
4-Methylphenol (p-cresol)	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2-Nitrophenol	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2,4-Dimethylphenol	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Bis(2-chloroethoxy)methane	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2,4-Dichlorophenol	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
1,2,4-Trichlorobenzene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Naphthalene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
4-Chloroaniline	ND	546		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Hexachlorobutadiene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
4-Chloro-3-methylphenol	ND	546		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2-Methylnaphthalene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
1-Methylnaphthalene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:45:00 AM

Project: Pacific Park

Lab ID: 1509300-001

Matrix: Soil

Client Sample ID: GP-13-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Hexachlorocyclopentadiene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2,4,6-Trichlorophenol	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2,4,5-Trichlorophenol	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2-Chloronaphthalene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2-Nitroaniline	ND	546		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Acenaphthene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Dimethylphthalate	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2,6-Dinitrotoluene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Acenaphthylene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2,4-Dinitrophenol	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Dibenzofuran	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2,4-Dinitrotoluene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
4-Nitrophenol	ND	546		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Fluorene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
4-Chlorophenyl phenyl ether	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Diethylphthalate	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
4,6-Dinitro-2-methylphenol	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
4-Bromophenyl phenyl ether	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Hexachlorobenzene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Pentachlorophenol	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Phenanthrene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Anthracene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Carbazole	ND	546		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Di-n-butylphthalate	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Fluoranthene	142	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Pyrene	130	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Butyl Benzylphthalate	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
bis(2-Ethylhexyl)adipate	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Benz (a) anthracene	131	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Chrysene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
bis (2-Ethylhexyl) phthalate	167	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Di-n-octyl phthalate	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Benzo (b) fluoranthene	232	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Benzo (k) fluoranthene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Benzo (a) pyrene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Indeno (1,2,3-cd) pyrene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Dibenz (a,h) anthracene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Benzo (g,h,i) perylene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Surr: 2,4,6-Tribromophenol	59.0	11.1-127		%REC	1	9/25/2015 2:41:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:45:00 AM

Project: Pacific Park

Lab ID: 1509300-001

Matrix: Soil

Client Sample ID: GP-13-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	82.2	16.1-150		%REC	1	9/25/2015 2:41:00 PM
Surr: Nitrobenzene-d5	75.8	10-133		%REC	1	9/25/2015 2:41:00 PM
Surr: Phenol-d6	68.5	11.6-133		%REC	1	9/25/2015 2:41:00 PM
Surr: p-Terphenyl	83.5	21.8-150		%REC	1	9/25/2015 2:41:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	3.30		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Surr: Toluene-d8	98.0	65-135		%REC	1	9/24/2015 5:17:00 AM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/24/2015 5:17:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0396		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Chloromethane	ND	0.0396		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Vinyl chloride	ND	0.00132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Bromomethane	ND	0.0594		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Chloroethane	ND	0.0396		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,1-Dichloroethene	ND	0.0330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Methylene chloride	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
trans-1,2-Dichloroethene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,1-Dichloroethane	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
2,2-Dichloropropane	ND	0.0330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
cis-1,2-Dichloroethene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Chloroform	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,1-Dichloropropene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Carbon tetrachloride	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2-Dichloroethane (EDC)	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Benzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Trichloroethene (TCE)	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2-Dichloropropane	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Bromodichloromethane	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Dibromomethane	ND	0.0264		mg/Kg-dry	1	9/24/2015 5:17:00 AM
cis-1,3-Dichloropropene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Toluene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
trans-1,3-Dichloropropylene	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:45:00 AM

Project: Pacific Park

Lab ID: 1509300-001

Matrix: Soil

Client Sample ID: GP-13-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

1,1,2-Trichloroethane	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,3-Dichloropropane	ND	0.0330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Tetrachloroethene (PCE)	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Dibromochloromethane	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2-Dibromoethane (EDB)	ND	0.00330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Chlorobenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Ethylbenzene	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM
m,p-Xylene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
o-Xylene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Styrene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Isopropylbenzene	ND	0.0528		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Bromoform	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
n-Propylbenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Bromobenzene	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,3,5-Trimethylbenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
2-Chlorotoluene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
4-Chlorotoluene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
tert-Butylbenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2,3-Trichloropropane	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2,4-Trichlorobenzene	ND	0.0330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
sec-Butylbenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
4-Isopropyltoluene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,3-Dichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,4-Dichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
n-Butylbenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2-Dichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2-Dibromo-3-chloropropane	ND	0.330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2,4-Trimethylbenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Hexachlorobutadiene	ND	0.0660		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Naphthalene	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2,3-Trichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Surr: Dibromofluoromethane	94.2	56.5-129		%REC	1	9/24/2015 5:17:00 AM
Surr: Toluene-d8	98.4	64.3-131		%REC	1	9/24/2015 5:17:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/24/2015 5:17:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:45:00 AM

Project: Pacific Park

Lab ID: 1509300-001

Matrix: Soil

Client Sample ID: GP-13-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.260		mg/Kg-dry	1	9/24/2015 4:33:00 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	3.38	0.0912		mg/Kg-dry	1	9/22/2015 6:41:14 PM
Barium	40.2	0.456		mg/Kg-dry	1	9/22/2015 6:41:14 PM
Cadmium	0.191	0.182		mg/Kg-dry	1	9/22/2015 6:41:14 PM
Chromium	18.6	0.0912		mg/Kg-dry	1	9/22/2015 6:41:14 PM
Lead	424	0.182		mg/Kg-dry	1	9/22/2015 6:41:14 PM
Selenium	0.992	0.456		mg/Kg-dry	1	9/22/2015 6:41:14 PM
Silver	ND	0.0912		mg/Kg-dry	1	9/22/2015 6:41:14 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	10.8			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509300-002

Matrix: Soil

Client Sample ID: GP-13-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11938		Analyst: MD	
Dicamba	ND	47.7		µg/Kg-dry	1	10/1/2015 3:55:00 AM
2,4-D	ND	40.9		µg/Kg-dry	1	10/1/2015 3:55:00 AM
2,4-DP	ND	34.1		µg/Kg-dry	1	10/1/2015 3:55:00 AM
2,4,5-TP (Silvex)	ND	27.3		µg/Kg-dry	1	10/1/2015 3:55:00 AM
2,4,5-T	ND	68.2		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Dinoseb	ND	40.9		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Dalapon	ND	273		µg/Kg-dry	1	10/1/2015 3:55:00 AM
2,4-DB	ND	34.1		µg/Kg-dry	1	10/1/2015 3:55:00 AM
MCPP	ND	6,000		µg/Kg-dry	1	10/1/2015 3:55:00 AM
MCPA	ND	382		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Picloram	ND	68.2		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Bentazon	ND	47.7		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Chloramben	ND	27.3		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Acifluorfen	ND	109		µg/Kg-dry	1	10/1/2015 3:55:00 AM
3,5-Dichlorobenzoic acid	ND	54.5		µg/Kg-dry	1	10/1/2015 3:55:00 AM
4-Nitrophenol	ND	40.9		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Dacthal (DCPA)	ND	40.9		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Surr: 2,4-Dichlorophenylacetic acid	105	20.1-168		%REC	1	10/1/2015 3:55:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Alpha BHC	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Beta BHC	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Gamma BHC (Lindane)	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Delta BHC	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Heptachlor	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Aldrin	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Heptachlor epoxide	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
gamma-Chlordane	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Endosulfan I	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
alpha-Chlordane	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Dieldrin	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
4,4'-DDE	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Endrin	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Endosulfan II	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM
4,4'-DDD	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Endrin aldehyde	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Endosulfan sulfate	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509300-002

Matrix: Soil

Client Sample ID: GP-13-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Endrin ketone	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Methoxychlor	ND	0.0673		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Surr: Decachlorobiphenyl	72.5	26.5-158		%REC	1	9/24/2015 3:43:00 AM
Surr: Tetrachloro-m-xylene	80.4	11-150		%REC	1	9/24/2015 3:43:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	27.2		mg/Kg-dry	1	9/23/2015 7:25:00 PM
Heavy Oil	ND	68.0		mg/Kg-dry	1	9/23/2015 7:25:00 PM
Surr: 2-Fluorobiphenyl	80.7	50-150		%REC	1	9/23/2015 7:25:00 PM
Surr: o-Terphenyl	82.6	50-150		%REC	1	9/23/2015 7:25:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Bis(2-chloroethyl) ether	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2-Chlorophenol	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
1,3-Dichlorobenzene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
1,4-Dichlorobenzene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
1,2-Dichlorobenzene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Benzyl alcohol	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2-Methylphenol (o-cresol)	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Hexachloroethane	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
N-Nitrosodi-n-propylamine	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Nitrobenzene	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Isophorone	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
4-Methylphenol (p-cresol)	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2-Nitrophenol	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2,4-Dimethylphenol	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Bis(2-chloroethoxy)methane	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2,4-Dichlorophenol	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
1,2,4-Trichlorobenzene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Naphthalene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
4-Chloroaniline	ND	693		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Hexachlorobutadiene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
4-Chloro-3-methylphenol	ND	693		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2-Methylnaphthalene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
1-Methylnaphthalene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509300-002

Matrix: Soil

Client Sample ID: GP-13-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937	Analyst: NG	
Hexachlorocyclopentadiene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2,4,6-Trichlorophenol	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2,4,5-Trichlorophenol	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2-Chloronaphthalene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2-Nitroaniline	ND	693		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Acenaphthene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Dimethylphthalate	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2,6-Dinitrotoluene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Acenaphthylene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2,4-Dinitrophenol	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Dibenzofuran	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2,4-Dinitrotoluene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
4-Nitrophenol	ND	693		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Fluorene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
4-Chlorophenyl phenyl ether	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Diethylphthalate	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
4,6-Dinitro-2-methylphenol	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
4-Bromophenyl phenyl ether	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Hexachlorobenzene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Pentachlorophenol	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Phenanthrene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Anthracene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Carbazole	ND	693		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Di-n-butylphthalate	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Fluoranthene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Pyrene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Butyl Benzylphthalate	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
bis(2-Ethylhexyl)adipate	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Benz (a) anthracene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Chrysene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
bis (2-Ethylhexyl) phthalate	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Di-n-octyl phthalate	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Benzo (b) fluoranthene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Benzo (k) fluoranthene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Benzo (a) pyrene	445	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Indeno (1,2,3-cd) pyrene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Dibenz (a,h) anthracene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Benzo (g,h,i) perylene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Surr: 2,4,6-Tribromophenol	58.0	11.1-127		%REC	1	9/25/2015 3:03:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509300-002

Matrix: Soil

Client Sample ID: GP-13-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	50.2	16.1-150		%REC	1	9/25/2015 3:03:00 PM
Surr: Nitrobenzene-d5	37.3	10-133		%REC	1	9/25/2015 3:03:00 PM
Surr: Phenol-d6	57.0	11.6-133		%REC	1	9/25/2015 3:03:00 PM
Surr: p-Terphenyl	71.4	21.8-150		%REC	1	9/25/2015 3:03:00 PM
Gasoline by NWTPH-Gx				Batch ID: 11930		Analyst: BC
Gasoline	ND	3.98		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Surr: Toluene-d8	97.2	65-135		%REC	1	9/24/2015 5:46:00 AM
Surr: 4-Bromofluorobenzene	105	65-135		%REC	1	9/24/2015 5:46:00 AM
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11930		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0477		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Chloromethane	ND	0.0477		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Vinyl chloride	ND	0.00159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Bromomethane	ND	0.0716		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0398		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Chloroethane	ND	0.0477		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,1-Dichloroethene	ND	0.0398		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Methylene chloride	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
trans-1,2-Dichloroethene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0398		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,1-Dichloroethane	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
2,2-Dichloropropane	ND	0.0398		mg/Kg-dry	1	9/24/2015 5:46:00 AM
cis-1,2-Dichloroethene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Chloroform	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,1-Dichloropropene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Carbon tetrachloride	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2-Dichloroethane (EDC)	ND	0.0239		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Benzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Trichloroethene (TCE)	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2-Dichloropropane	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Bromodichloromethane	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Dibromomethane	ND	0.0318		mg/Kg-dry	1	9/24/2015 5:46:00 AM
cis-1,3-Dichloropropene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Toluene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
trans-1,3-Dichloropropylene	ND	0.0239		mg/Kg-dry	1	9/24/2015 5:46:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509300-002

Matrix: Soil

Client Sample ID: GP-13-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

1,1,2-Trichloroethane	ND	0.0239		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,3-Dichloropropane	ND	0.0398		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Tetrachloroethene (PCE)	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Dibromochloromethane	ND	0.0239		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2-Dibromoethane (EDB)	ND	0.00398		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Chlorobenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0239		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Ethylbenzene	ND	0.0239		mg/Kg-dry	1	9/24/2015 5:46:00 AM
m,p-Xylene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
o-Xylene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Styrene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Isopropylbenzene	ND	0.0637		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Bromoform	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
n-Propylbenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Bromobenzene	ND	0.0239		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,3,5-Trimethylbenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
2-Chlorotoluene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
4-Chlorotoluene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
tert-Butylbenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2,3-Trichloropropane	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2,4-Trichlorobenzene	ND	0.0398		mg/Kg-dry	1	9/24/2015 5:46:00 AM
sec-Butylbenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
4-Isopropyltoluene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,3-Dichlorobenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,4-Dichlorobenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
n-Butylbenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2-Dichlorobenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2-Dibromo-3-chloropropane	ND	0.398		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2,4-Trimethylbenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Hexachlorobutadiene	ND	0.0796		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Naphthalene	ND	0.0239		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2,3-Trichlorobenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Surr: Dibromofluoromethane	94.6	56.5-129		%REC	1	9/24/2015 5:46:00 AM
Surr: Toluene-d8	98.0	64.3-131		%REC	1	9/24/2015 5:46:00 AM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/24/2015 5:46:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509300-002

Matrix: Soil

Client Sample ID: GP-13-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.325		mg/Kg-dry	1	9/24/2015 4:39:32 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	3.27	0.111		mg/Kg-dry	1	9/22/2015 6:44:45 PM
Barium	73.4	0.557		mg/Kg-dry	1	9/22/2015 6:44:45 PM
Cadmium	ND	0.223		mg/Kg-dry	1	9/22/2015 6:44:45 PM
Chromium	24.1	0.111		mg/Kg-dry	1	9/22/2015 6:44:45 PM
Lead	4.32	0.223		mg/Kg-dry	1	9/22/2015 6:44:45 PM
Selenium	2.12	0.557		mg/Kg-dry	1	9/22/2015 6:44:45 PM
Silver	ND	0.111		mg/Kg-dry	1	9/22/2015 6:44:45 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	28.8			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509300-003

Matrix: Soil

Client Sample ID: GP-14-15:3.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Herbicides by EPA Method 8151A			Batch ID: 11938		Analyst: MD	
Dicamba	ND	39.8		µg/Kg-dry	1	10/5/2015 10:59:00 AM
2,4-D	ND	34.1		µg/Kg-dry	1	10/5/2015 10:59:00 AM
2,4-DP	ND	28.4		µg/Kg-dry	1	10/5/2015 10:59:00 AM
2,4,5-TP (Silvex)	ND	22.7		µg/Kg-dry	1	10/5/2015 10:59:00 AM
2,4,5-T	ND	56.8		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Dinoseb	ND	34.1		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Dalapon	ND	227		µg/Kg-dry	1	10/5/2015 10:59:00 AM
2,4-DB	ND	28.4		µg/Kg-dry	1	10/5/2015 10:59:00 AM
MCPP	ND	5,000		µg/Kg-dry	1	10/5/2015 10:59:00 AM
MCPA	ND	3,180		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Picloram	ND	56.8		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Bentazon	ND	39.8		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Chloramben	ND	22.7		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Acifluorfen	ND	90.9		µg/Kg-dry	1	10/5/2015 10:59:00 AM
3,5-Dichlorobenzoic acid	ND	45.4		µg/Kg-dry	1	10/5/2015 10:59:00 AM
4-Nitrophenol	ND	34.1		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Dacthal (DCPA)	ND	34.1		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Surr: 2,4-Dichlorophenylacetic acid	106	20.1-168		%REC	1	10/5/2015 10:59:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Alpha BHC	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Beta BHC	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Gamma BHC (Lindane)	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Delta BHC	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Heptachlor	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Aldrin	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Heptachlor epoxide	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
gamma-Chlordane	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Endosulfan I	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
alpha-Chlordane	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Dieldrin	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
4,4'-DDE	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Endrin	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Endosulfan II	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM
4,4'-DDD	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Endrin aldehyde	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Endosulfan sulfate	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509300-003

Matrix: Soil

Client Sample ID: GP-14-15:3.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

4,4'-DDT	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Endrin ketone	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Methoxychlor	ND	0.0534		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Surr: Decachlorobiphenyl	73.6	26.5-158		%REC	1	9/24/2015 3:54:00 AM
Surr: Tetrachloro-m-xylene	84.3	11-150		%REC	1	9/24/2015 3:54:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11919

Analyst: AK

Diesel (Fuel Oil)	ND	20.1		mg/Kg-dry	1	9/23/2015 7:57:00 PM
Heavy Oil	ND	50.2		mg/Kg-dry	1	9/23/2015 7:57:00 PM
Surr: 2-Fluorobiphenyl	128	50-150		%REC	1	9/23/2015 7:57:00 PM
Surr: o-Terphenyl	127	50-150		%REC	1	9/23/2015 7:57:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Bis(2-chloroethyl) ether	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2-Chlorophenol	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
1,3-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
1,4-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
1,2-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Benzyl alcohol	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2-Methylphenol (o-cresol)	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Hexachloroethane	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
N-Nitrosodi-n-propylamine	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Nitrobenzene	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Isophorone	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
4-Methylphenol (p-cresol)	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2-Nitrophenol	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2,4-Dimethylphenol	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Bis(2-chloroethoxy)methane	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2,4-Dichlorophenol	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
1,2,4-Trichlorobenzene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Naphthalene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
4-Chloroaniline	ND	576		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Hexachlorobutadiene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
4-Chloro-3-methylphenol	ND	576		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2-Methylnaphthalene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
1-Methylnaphthalene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509300-003

Matrix: Soil

Client Sample ID: GP-14-15:3.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Hexachlorocyclopentadiene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2,4,6-Trichlorophenol	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2,4,5-Trichlorophenol	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2-Chloronaphthalene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2-Nitroaniline	ND	576		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Acenaphthene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Dimethylphthalate	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2,6-Dinitrotoluene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Acenaphthylene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2,4-Dinitrophenol	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Dibenzofuran	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2,4-Dinitrotoluene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
4-Nitrophenol	ND	576		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Fluorene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
4-Chlorophenyl phenyl ether	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Diethylphthalate	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
4,6-Dinitro-2-methylphenol	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
4-Bromophenyl phenyl ether	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Hexachlorobenzene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Pentachlorophenol	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Phenanthrene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Anthracene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Carbazole	ND	576		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Di-n-butylphthalate	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Fluoranthene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Pyrene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Butyl Benzylphthalate	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
bis(2-Ethylhexyl)adipate	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Benz (a) anthracene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Chrysene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
bis (2-Ethylhexyl) phthalate	119	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Di-n-octyl phthalate	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Benzo (b) fluoranthene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Benzo (k) fluoranthene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Benzo (a) pyrene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Indeno (1,2,3-cd) pyrene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Dibenz (a,h) anthracene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Benzo (g,h,i) perylene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Surr: 2,4,6-Tribromophenol	61.7	11.1-127		%REC	1	9/25/2015 3:25:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509300-003

Matrix: Soil

Client Sample ID: GP-14-15:3.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Surr: 2-Fluorobiphenyl	72.2	16.1-150	%REC	1	9/25/2015 3:25:00 PM
Surr: Nitrobenzene-d5	54.3	10-133	%REC	1	9/25/2015 3:25:00 PM
Surr: Phenol-d6	65.1	11.6-133	%REC	1	9/25/2015 3:25:00 PM
Surr: p-Terphenyl	81.9	21.8-150	%REC	1	9/25/2015 3:25:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	3.45	mg/Kg-dry	1	9/24/2015 6:14:00 AM
Surr: Toluene-d8	97.3	65-135	%REC	1	9/24/2015 6:14:00 AM
Surr: 4-Bromofluorobenzene	103	65-135	%REC	1	9/24/2015 6:14:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0414	mg/Kg-dry	1	9/24/2015 6:14:00 AM
Chloromethane	ND	0.0414	mg/Kg-dry	1	9/24/2015 6:14:00 AM
Vinyl chloride	ND	0.00138	mg/Kg-dry	1	9/24/2015 6:14:00 AM
Bromomethane	ND	0.0622	mg/Kg-dry	1	9/24/2015 6:14:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0345	mg/Kg-dry	1	9/24/2015 6:14:00 AM
Chloroethane	ND	0.0414	mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,1-Dichloroethene	ND	0.0345	mg/Kg-dry	1	9/24/2015 6:14:00 AM
Methylene chloride	ND	0.0138	mg/Kg-dry	1	9/24/2015 6:14:00 AM
trans-1,2-Dichloroethene	ND	0.0138	mg/Kg-dry	1	9/24/2015 6:14:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0345	mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,1-Dichloroethane	ND	0.0138	mg/Kg-dry	1	9/24/2015 6:14:00 AM
2,2-Dichloropropane	ND	0.0345	mg/Kg-dry	1	9/24/2015 6:14:00 AM
cis-1,2-Dichloroethene	ND	0.0138	mg/Kg-dry	1	9/24/2015 6:14:00 AM
Chloroform	ND	0.0138	mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0138	mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,1-Dichloropropene	ND	0.0138	mg/Kg-dry	1	9/24/2015 6:14:00 AM
Carbon tetrachloride	ND	0.0138	mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2-Dichloroethane (EDC)	ND	0.0207	mg/Kg-dry	1	9/24/2015 6:14:00 AM
Benzene	ND	0.0138	mg/Kg-dry	1	9/24/2015 6:14:00 AM
Trichloroethene (TCE)	ND	0.0138	mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2-Dichloropropane	ND	0.0138	mg/Kg-dry	1	9/24/2015 6:14:00 AM
Bromodichloromethane	ND	0.0138	mg/Kg-dry	1	9/24/2015 6:14:00 AM
Dibromomethane	ND	0.0276	mg/Kg-dry	1	9/24/2015 6:14:00 AM
cis-1,3-Dichloropropene	ND	0.0138	mg/Kg-dry	1	9/24/2015 6:14:00 AM
Toluene	ND	0.0138	mg/Kg-dry	1	9/24/2015 6:14:00 AM
trans-1,3-Dichloropropylene	ND	0.0207	mg/Kg-dry	1	9/24/2015 6:14:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509300-003

Matrix: Soil

Client Sample ID: GP-14-15:3.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

1,1,2-Trichloroethane	ND	0.0207		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,3-Dichloropropane	ND	0.0345		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Tetrachloroethene (PCE)	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Dibromochloromethane	ND	0.0207		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2-Dibromoethane (EDB)	ND	0.00345		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Chlorobenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0207		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Ethylbenzene	ND	0.0207		mg/Kg-dry	1	9/24/2015 6:14:00 AM
m,p-Xylene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
o-Xylene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Styrene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Isopropylbenzene	ND	0.0553		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Bromoform	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
n-Propylbenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Bromobenzene	ND	0.0207		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,3,5-Trimethylbenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
2-Chlorotoluene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
4-Chlorotoluene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
tert-Butylbenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2,3-Trichloropropane	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2,4-Trichlorobenzene	ND	0.0345		mg/Kg-dry	1	9/24/2015 6:14:00 AM
sec-Butylbenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
4-Isopropyltoluene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,3-Dichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,4-Dichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
n-Butylbenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2-Dichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2-Dibromo-3-chloropropane	ND	0.345		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2,4-Trimethylbenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Hexachlorobutadiene	ND	0.0691		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Naphthalene	ND	0.0207		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2,3-Trichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Surr: Dibromofluoromethane	93.6	56.5-129		%REC	1	9/24/2015 6:14:00 AM
Surr: Toluene-d8	97.9	64.3-131		%REC	1	9/24/2015 6:14:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.7	63.1-141		%REC	1	9/24/2015 6:14:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509300-003

Matrix: Soil

Client Sample ID: GP-14-15:3.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.284		mg/Kg-dry	1	9/24/2015 4:41:07 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	2.92	0.0933		mg/Kg-dry	1	9/22/2015 6:55:22 PM
Barium	35.5	0.467		mg/Kg-dry	1	9/22/2015 6:55:22 PM
Cadmium	0.188	0.187		mg/Kg-dry	1	9/22/2015 6:55:22 PM
Chromium	13.3	0.0933		mg/Kg-dry	1	9/22/2015 6:55:22 PM
Lead	20.0	0.187		mg/Kg-dry	1	9/22/2015 6:55:22 PM
Selenium	0.955	0.467		mg/Kg-dry	1	9/22/2015 6:55:22 PM
Silver	ND	0.0933		mg/Kg-dry	1	9/22/2015 6:55:22 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	13.6			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:50:00 AM

Project: Pacific Park

Lab ID: 1509300-004

Matrix: Soil

Client Sample ID: GP-14-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11938		Analyst: MD	
Dicamba	ND	64.4		µg/Kg-dry	1	10/1/2015 4:12:00 AM
2,4-D	ND	55.2		µg/Kg-dry	1	10/1/2015 4:12:00 AM
2,4-DP	ND	46.0		µg/Kg-dry	1	10/1/2015 4:12:00 AM
2,4,5-TP (Silvex)	ND	36.8		µg/Kg-dry	1	10/1/2015 4:12:00 AM
2,4,5-T	ND	92.0		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Dinoseb	ND	55.2		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Dalapon	ND	368		µg/Kg-dry	1	10/1/2015 4:12:00 AM
2,4-DB	ND	46.0		µg/Kg-dry	1	10/1/2015 4:12:00 AM
MCPP	ND	8,100		µg/Kg-dry	1	10/1/2015 4:12:00 AM
MCPA	ND	515		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Picloram	ND	92.0		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Bentazon	ND	64.4		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Chloramben	ND	36.8		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Acifluorfen	ND	147		µg/Kg-dry	1	10/1/2015 4:12:00 AM
3,5-Dichlorobenzoic acid	ND	73.6		µg/Kg-dry	1	10/1/2015 4:12:00 AM
4-Nitrophenol	ND	55.2		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Dacthal (DCPA)	ND	55.2		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Surr: 2,4-Dichlorophenylacetic acid	117	20.1-168		%REC	1	10/1/2015 4:12:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Alpha BHC	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Beta BHC	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Gamma BHC (Lindane)	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Delta BHC	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Heptachlor	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Aldrin	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Heptachlor epoxide	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
gamma-Chlordane	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Endosulfan I	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
alpha-Chlordane	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Dieldrin	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
4,4'-DDE	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Endrin	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Endosulfan II	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM
4,4'-DDD	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Endrin aldehyde	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Endosulfan sulfate	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:50:00 AM

Project: Pacific Park

Lab ID: 1509300-004

Matrix: Soil

Client Sample ID: GP-14-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Endrin ketone	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Methoxychlor	ND	0.0850		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Surr: Decachlorobiphenyl	70.8	26.5-158		%REC	1	9/24/2015 4:05:00 AM
Surr: Tetrachloro-m-xylene	80.7	11-150		%REC	1	9/24/2015 4:05:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	34.4		mg/Kg-dry	1	9/23/2015 8:30:00 PM
Heavy Oil	ND	85.9		mg/Kg-dry	1	9/23/2015 8:30:00 PM
Surr: 2-Fluorobiphenyl	101	50-150		%REC	1	9/23/2015 8:30:00 PM
Surr: o-Terphenyl	102	50-150		%REC	1	9/23/2015 8:30:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Bis(2-chloroethyl) ether	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2-Chlorophenol	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
1,3-Dichlorobenzene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
1,4-Dichlorobenzene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
1,2-Dichlorobenzene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Benzyl alcohol	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2-Methylphenol (o-cresol)	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Hexachloroethane	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
N-Nitrosodi-n-propylamine	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Nitrobenzene	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Isophorone	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
4-Methylphenol (p-cresol)	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2-Nitrophenol	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2,4-Dimethylphenol	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Bis(2-chloroethoxy)methane	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2,4-Dichlorophenol	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
1,2,4-Trichlorobenzene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Naphthalene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
4-Chloroaniline	ND	910		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Hexachlorobutadiene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
4-Chloro-3-methylphenol	ND	910		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2-Methylnaphthalene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
1-Methylnaphthalene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:50:00 AM

Project: Pacific Park

Lab ID: 1509300-004

Matrix: Soil

Client Sample ID: GP-14-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Hexachlorocyclopentadiene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2,4,6-Trichlorophenol	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2,4,5-Trichlorophenol	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2-Chloronaphthalene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2-Nitroaniline	ND	910		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Acenaphthene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Dimethylphthalate	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2,6-Dinitrotoluene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Acenaphthylene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2,4-Dinitrophenol	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Dibenzofuran	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2,4-Dinitrotoluene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
4-Nitrophenol	ND	910		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Fluorene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
4-Chlorophenyl phenyl ether	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Diethylphthalate	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
4,6-Dinitro-2-methylphenol	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
4-Bromophenyl phenyl ether	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Hexachlorobenzene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Pentachlorophenol	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Phenanthrene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Anthracene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Carbazole	ND	910		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Di-n-butylphthalate	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Fluoranthene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Pyrene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Butyl Benzylphthalate	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
bis(2-Ethylhexyl)adipate	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Benz (a) anthracene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Chrysene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
bis (2-Ethylhexyl) phthalate	245	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Di-n-octyl phthalate	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Benzo (b) fluoranthene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Benzo (k) fluoranthene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Benzo (a) pyrene	639	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Indeno (1,2,3-cd) pyrene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Dibenz (a,h) anthracene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Benzo (g,h,i) perylene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Surr: 2,4,6-Tribromophenol	58.1	11.1-127		%REC	1	9/25/2015 3:48:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:50:00 AM

Project: Pacific Park

Lab ID: 1509300-004

Matrix: Soil

Client Sample ID: GP-14-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Surr: 2-Fluorobiphenyl	59.5	16.1-150	%REC	1	9/25/2015 3:48:00 PM
Surr: Nitrobenzene-d5	60.0	10-133	%REC	1	9/25/2015 3:48:00 PM
Surr: Phenol-d6	62.1	11.6-133	%REC	1	9/25/2015 3:48:00 PM
Surr: p-Terphenyl	79.8	21.8-150	%REC	1	9/25/2015 3:48:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	6.22	mg/Kg-dry	1	9/24/2015 6:43:00 AM
Surr: Toluene-d8	98.9	65-135	%REC	1	9/24/2015 6:43:00 AM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/24/2015 6:43:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0747	mg/Kg-dry	1	9/24/2015 6:43:00 AM
Chloromethane	ND	0.0747	mg/Kg-dry	1	9/24/2015 6:43:00 AM
Vinyl chloride	ND	0.00249	mg/Kg-dry	1	9/24/2015 6:43:00 AM
Bromomethane	ND	0.112	mg/Kg-dry	1	9/24/2015 6:43:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0622	mg/Kg-dry	1	9/24/2015 6:43:00 AM
Chloroethane	ND	0.0747	mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,1-Dichloroethene	ND	0.0622	mg/Kg-dry	1	9/24/2015 6:43:00 AM
Methylene chloride	ND	0.0249	mg/Kg-dry	1	9/24/2015 6:43:00 AM
trans-1,2-Dichloroethene	ND	0.0249	mg/Kg-dry	1	9/24/2015 6:43:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0622	mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,1-Dichloroethane	ND	0.0249	mg/Kg-dry	1	9/24/2015 6:43:00 AM
2,2-Dichloropropane	ND	0.0622	mg/Kg-dry	1	9/24/2015 6:43:00 AM
cis-1,2-Dichloroethene	ND	0.0249	mg/Kg-dry	1	9/24/2015 6:43:00 AM
Chloroform	ND	0.0249	mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0249	mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,1-Dichloropropene	ND	0.0249	mg/Kg-dry	1	9/24/2015 6:43:00 AM
Carbon tetrachloride	ND	0.0249	mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2-Dichloroethane (EDC)	ND	0.0373	mg/Kg-dry	1	9/24/2015 6:43:00 AM
Benzene	ND	0.0249	mg/Kg-dry	1	9/24/2015 6:43:00 AM
Trichloroethene (TCE)	ND	0.0249	mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2-Dichloropropane	ND	0.0249	mg/Kg-dry	1	9/24/2015 6:43:00 AM
Bromodichloromethane	ND	0.0249	mg/Kg-dry	1	9/24/2015 6:43:00 AM
Dibromomethane	ND	0.0498	mg/Kg-dry	1	9/24/2015 6:43:00 AM
cis-1,3-Dichloropropene	ND	0.0249	mg/Kg-dry	1	9/24/2015 6:43:00 AM
Toluene	ND	0.0249	mg/Kg-dry	1	9/24/2015 6:43:00 AM
trans-1,3-Dichloropropylene	ND	0.0373	mg/Kg-dry	1	9/24/2015 6:43:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:50:00 AM

Project: Pacific Park

Lab ID: 1509300-004

Matrix: Soil

Client Sample ID: GP-14-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

1,1,2-Trichloroethane	ND	0.0373		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,3-Dichloropropane	ND	0.0622		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Tetrachloroethene (PCE)	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Dibromochloromethane	ND	0.0373		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2-Dibromoethane (EDB)	ND	0.00622		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Chlorobenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0373		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Ethylbenzene	ND	0.0373		mg/Kg-dry	1	9/24/2015 6:43:00 AM
m,p-Xylene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
o-Xylene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Styrene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Isopropylbenzene	ND	0.0996		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Bromoform	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
n-Propylbenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Bromobenzene	ND	0.0373		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,3,5-Trimethylbenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
2-Chlorotoluene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
4-Chlorotoluene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
tert-Butylbenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2,3-Trichloropropane	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2,4-Trichlorobenzene	ND	0.0622		mg/Kg-dry	1	9/24/2015 6:43:00 AM
sec-Butylbenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
4-Isopropyltoluene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,3-Dichlorobenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,4-Dichlorobenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
n-Butylbenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2-Dichlorobenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2-Dibromo-3-chloropropane	ND	0.622		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2,4-Trimethylbenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Hexachlorobutadiene	ND	0.124		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Naphthalene	ND	0.0373		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2,3-Trichlorobenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Surr: Dibromofluoromethane	94.3	56.5-129		%REC	1	9/24/2015 6:43:00 AM
Surr: Toluene-d8	99.1	64.3-131		%REC	1	9/24/2015 6:43:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/24/2015 6:43:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:50:00 AM

Project: Pacific Park

Lab ID: 1509300-004

Matrix: Soil

Client Sample ID: GP-14-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.464		mg/Kg-dry	1	9/24/2015 4:42:43 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	7.72	0.151		mg/Kg-dry	1	9/22/2015 6:58:53 PM
Barium	95.1	0.755		mg/Kg-dry	1	9/22/2015 6:58:53 PM
Cadmium	ND	0.302		mg/Kg-dry	1	9/22/2015 6:58:53 PM
Chromium	23.4	0.151		mg/Kg-dry	1	9/22/2015 6:58:53 PM
Lead	5.22	0.302		mg/Kg-dry	1	9/22/2015 6:58:53 PM
Selenium	3.21	0.755		mg/Kg-dry	1	9/22/2015 6:58:53 PM
Silver	ND	0.151		mg/Kg-dry	1	9/22/2015 6:58:53 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	46.1			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509300-005

Matrix: Soil

Client Sample ID: GP-14-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Herbicides by EPA Method 8151A			Batch ID: 11938		Analyst: MD	
Dicamba	ND	49.7		µg/Kg-dry	1	10/5/2015 11:16:00 AM
2,4-D	ND	42.6		µg/Kg-dry	1	10/5/2015 11:16:00 AM
2,4-DP	ND	35.5		µg/Kg-dry	1	10/5/2015 11:16:00 AM
2,4,5-TP (Silvex)	ND	28.4		µg/Kg-dry	1	10/5/2015 11:16:00 AM
2,4,5-T	ND	71.0		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Dinoseb	ND	42.6		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Dalapon	ND	284		µg/Kg-dry	1	10/5/2015 11:16:00 AM
2,4-DB	ND	35.5		µg/Kg-dry	1	10/5/2015 11:16:00 AM
MCPP	ND	6,250		µg/Kg-dry	1	10/5/2015 11:16:00 AM
MCPA	ND	3,980		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Picloram	ND	71.0		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Bentazon	ND	49.7		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Chloramben	ND	28.4		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Acifluorfen	ND	114		µg/Kg-dry	1	10/5/2015 11:16:00 AM
3,5-Dichlorobenzoic acid	ND	56.8		µg/Kg-dry	1	10/5/2015 11:16:00 AM
4-Nitrophenol	ND	42.6		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Dacthal (DCPA)	ND	42.6		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Surr: 2,4-Dichlorophenylacetic acid	92.5	20.1-168		%REC	1	10/5/2015 11:16:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Alpha BHC	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Beta BHC	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Gamma BHC (Lindane)	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Delta BHC	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Heptachlor	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Aldrin	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Heptachlor epoxide	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
gamma-Chlordane	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Endosulfan I	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
alpha-Chlordane	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Dieldrin	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
4,4'-DDE	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Endrin	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Endosulfan II	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM
4,4'-DDD	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Endrin aldehyde	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Endosulfan sulfate	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509300-005

Matrix: Soil

Client Sample ID: GP-14-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Endrin ketone	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Methoxychlor	ND	0.0664		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Surr: Decachlorobiphenyl	73.7	26.5-158		%REC	1	9/24/2015 4:16:00 AM
Surr: Tetrachloro-m-xylene	77.7	11-150		%REC	1	9/24/2015 4:16:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	26.6		mg/Kg-dry	1	9/23/2015 10:09:00 PM
Heavy Oil	ND	66.4		mg/Kg-dry	1	9/23/2015 10:09:00 PM
Surr: 2-Fluorobiphenyl	88.9	50-150		%REC	1	9/23/2015 10:09:00 PM
Surr: o-Terphenyl	90.6	50-150		%REC	1	9/23/2015 10:09:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Bis(2-chloroethyl) ether	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2-Chlorophenol	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
1,3-Dichlorobenzene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
1,4-Dichlorobenzene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
1,2-Dichlorobenzene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Benzyl alcohol	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2-Methylphenol (o-cresol)	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Hexachloroethane	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
N-Nitrosodi-n-propylamine	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Nitrobenzene	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Isophorone	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4-Methylphenol (p-cresol)	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2-Nitrophenol	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2,4-Dimethylphenol	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Bis(2-chloroethoxy)methane	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2,4-Dichlorophenol	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
1,2,4-Trichlorobenzene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Naphthalene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4-Chloroaniline	ND	711		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Hexachlorobutadiene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4-Chloro-3-methylphenol	ND	711		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2-Methylnaphthalene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
1-Methylnaphthalene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509300-005

Matrix: Soil

Client Sample ID: GP-14-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Hexachlorocyclopentadiene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2,4,6-Trichlorophenol	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2,4,5-Trichlorophenol	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2-Chloronaphthalene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2-Nitroaniline	ND	711		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Acenaphthene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Dimethylphthalate	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2,6-Dinitrotoluene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Acenaphthylene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2,4-Dinitrophenol	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Dibenzofuran	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2,4-Dinitrotoluene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4-Nitrophenol	ND	711		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Fluorene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4-Chlorophenyl phenyl ether	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Diethylphthalate	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4,6-Dinitro-2-methylphenol	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4-Bromophenyl phenyl ether	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Hexachlorobenzene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Pentachlorophenol	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Phenanthrene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Anthracene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Carbazole	ND	711		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Di-n-butylphthalate	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Fluoranthene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Pyrene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Butyl Benzylphthalate	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
bis(2-Ethylhexyl)adipate	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Benz (a) anthracene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Chrysene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
bis (2-Ethylhexyl) phthalate	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Di-n-octyl phthalate	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Benzo (b) fluoranthene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Benzo (k) fluoranthene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Benzo (a) pyrene	535	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Indeno (1,2,3-cd) pyrene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Dibenz (a,h) anthracene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Benzo (g,h,i) perylene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Surr: 2,4,6-Tribromophenol	46.6	11.1-127		%REC	1	9/25/2015 4:10:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509300-005

Matrix: Soil

Client Sample ID: GP-14-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Surr: 2-Fluorobiphenyl	25.7	16.1-150	%REC	1	9/25/2015 4:10:00 PM
Surr: Nitrobenzene-d5	18.0	10-133	%REC	1	9/25/2015 4:10:00 PM
Surr: Phenol-d6	35.4	11.6-133	%REC	1	9/25/2015 4:10:00 PM
Surr: p-Terphenyl	60.2	21.8-150	%REC	1	9/25/2015 4:10:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	4.00	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Surr: Toluene-d8	101	65-135	%REC	1	9/24/2015 7:11:00 AM
Surr: 4-Bromofluorobenzene	99.7	65-135	%REC	1	9/24/2015 7:11:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0480	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Chloromethane	ND	0.0480	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Vinyl chloride	ND	0.00160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Bromomethane	ND	0.0720	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0400	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Chloroethane	ND	0.0480	mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,1-Dichloroethene	ND	0.0400	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Methylene chloride	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
trans-1,2-Dichloroethene	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0400	mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,1-Dichloroethane	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
2,2-Dichloropropane	ND	0.0400	mg/Kg-dry	1	9/24/2015 7:11:00 AM
cis-1,2-Dichloroethene	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Chloroform	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,1-Dichloropropene	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Carbon tetrachloride	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2-Dichloroethane (EDC)	ND	0.0240	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Benzene	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Trichloroethene (TCE)	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2-Dichloropropane	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Bromodichloromethane	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Dibromomethane	ND	0.0320	mg/Kg-dry	1	9/24/2015 7:11:00 AM
cis-1,3-Dichloropropene	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Toluene	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
trans-1,3-Dichloropropylene	ND	0.0240	mg/Kg-dry	1	9/24/2015 7:11:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509300-005

Matrix: Soil

Client Sample ID: GP-14-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

1,1,2-Trichloroethane	ND	0.0240		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,3-Dichloropropane	ND	0.0400		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Tetrachloroethene (PCE)	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Dibromochloromethane	ND	0.0240		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2-Dibromoethane (EDB)	ND	0.00400		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Chlorobenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0240		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Ethylbenzene	ND	0.0240		mg/Kg-dry	1	9/24/2015 7:11:00 AM
m,p-Xylene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
o-Xylene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Styrene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Isopropylbenzene	ND	0.0640		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Bromoform	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
n-Propylbenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Bromobenzene	ND	0.0240		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,3,5-Trimethylbenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
2-Chlorotoluene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
4-Chlorotoluene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
tert-Butylbenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2,3-Trichloropropane	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2,4-Trichlorobenzene	ND	0.0400		mg/Kg-dry	1	9/24/2015 7:11:00 AM
sec-Butylbenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
4-Isopropyltoluene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,3-Dichlorobenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,4-Dichlorobenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
n-Butylbenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2-Dichlorobenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2-Dibromo-3-chloropropane	ND	0.400		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2,4-Trimethylbenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Hexachlorobutadiene	ND	0.0800		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Naphthalene	ND	0.0240		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2,3-Trichlorobenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Surr: Dibromofluoromethane	96.4	56.5-129		%REC	1	9/24/2015 7:11:00 AM
Surr: Toluene-d8	96.5	64.3-131		%REC	1	9/24/2015 7:11:00 AM
Surr: 1-Bromo-4-fluorobenzene	96.1	63.1-141		%REC	1	9/24/2015 7:11:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509300-005

Matrix: Soil

Client Sample ID: GP-14-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.314		mg/Kg-dry	1	9/24/2015 4:44:25 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	4.61	0.117		mg/Kg-dry	1	9/22/2015 7:02:24 PM
Barium	103	0.587		mg/Kg-dry	1	9/22/2015 7:02:24 PM
Cadmium	ND	0.235		mg/Kg-dry	1	9/22/2015 7:02:24 PM
Chromium	32.4	0.117		mg/Kg-dry	1	9/22/2015 7:02:24 PM
Lead	6.18	0.235		mg/Kg-dry	1	9/22/2015 7:02:24 PM
Selenium	2.50	0.587		mg/Kg-dry	1	9/22/2015 7:02:24 PM
Silver	ND	0.117		mg/Kg-dry	1	9/22/2015 7:02:24 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	30.2			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:25:00 AM

Project: Pacific Park

Lab ID: 1509300-006

Matrix: Soil

Client Sample ID: GP-15-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	50.8		µg/Kg-dry	1	10/5/2015 11:33:00 AM
2,4-D	ND	43.5		µg/Kg-dry	1	10/5/2015 11:33:00 AM
2,4-DP	ND	36.3		µg/Kg-dry	1	10/5/2015 11:33:00 AM
2,4,5-TP (Silvex)	ND	29.0		µg/Kg-dry	1	10/5/2015 11:33:00 AM
2,4,5-T	ND	72.5		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Dinoseb	ND	43.5		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Dalapon	ND	290		µg/Kg-dry	1	10/5/2015 11:33:00 AM
2,4-DB	ND	36.3		µg/Kg-dry	1	10/5/2015 11:33:00 AM
MCPP	ND	6,380		µg/Kg-dry	1	10/5/2015 11:33:00 AM
MCPA	ND	4,060		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Picloram	ND	72.5		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Bentazon	ND	50.8		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Chloramben	ND	29.0		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Acifluorfen	ND	116		µg/Kg-dry	1	10/5/2015 11:33:00 AM
3,5-Dichlorobenzoic acid	ND	58.0		µg/Kg-dry	1	10/5/2015 11:33:00 AM
4-Nitrophenol	ND	43.5		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Dacthal (DCPA)	ND	43.5		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Surr: 2,4-Dichlorophenylacetic acid	93.9	20.1-168		%REC	1	10/5/2015 11:33:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Alpha BHC	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Beta BHC	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Gamma BHC (Lindane)	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Delta BHC	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Heptachlor	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Aldrin	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Heptachlor epoxide	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
gamma-Chlordane	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Endosulfan I	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
alpha-Chlordane	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Dieldrin	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
4,4'-DDE	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Endrin	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Endosulfan II	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM
4,4'-DDD	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Endrin aldehyde	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Endosulfan sulfate	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:25:00 AM

Project: Pacific Park

Lab ID: 1509300-006

Matrix: Soil

Client Sample ID: GP-15-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Endrin ketone	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Methoxychlor	ND	0.0686		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Surr: Decachlorobiphenyl	106	26.5-158		%REC	1	9/25/2015 3:48:00 PM
Surr: Tetrachloro-m-xylene	52.1	11-150		%REC	1	9/25/2015 3:48:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11919

Analyst: AK

Diesel (Fuel Oil)	ND	25.4		mg/Kg-dry	1	9/24/2015 12:24:00 PM
Heavy Oil	ND	63.5		mg/Kg-dry	1	9/24/2015 12:24:00 PM
Surr: 2-Fluorobiphenyl	128	50-150		%REC	1	9/24/2015 12:24:00 PM
Surr: o-Terphenyl	128	50-150		%REC	1	9/24/2015 12:24:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Bis(2-chloroethyl) ether	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2-Chlorophenol	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
1,3-Dichlorobenzene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
1,4-Dichlorobenzene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
1,2-Dichlorobenzene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Benzyl alcohol	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2-Methylphenol (o-cresol)	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Hexachloroethane	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
N-Nitrosodi-n-propylamine	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Nitrobenzene	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Isophorone	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
4-Methylphenol (p-cresol)	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2-Nitrophenol	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2,4-Dimethylphenol	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Bis(2-chloroethoxy)methane	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2,4-Dichlorophenol	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
1,2,4-Trichlorobenzene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Naphthalene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
4-Chloroaniline	ND	732		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Hexachlorobutadiene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
4-Chloro-3-methylphenol	ND	732		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2-Methylnaphthalene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
1-Methylnaphthalene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:25:00 AM

Project: Pacific Park

Lab ID: 1509300-006

Matrix: Soil

Client Sample ID: GP-15-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	146	*	µg/Kg-dry	1	9/29/2015 9:01:00 PM
2,4,6-Trichlorophenol	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2,4,5-Trichlorophenol	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2-Chloronaphthalene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2-Nitroaniline	ND	732		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Acenaphthene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Dimethylphthalate	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2,6-Dinitrotoluene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Acenaphthylene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2,4-Dinitrophenol	ND	293	*	µg/Kg-dry	1	9/29/2015 9:01:00 PM
Dibenzofuran	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2,4-Dinitrotoluene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
4-Nitrophenol	ND	732		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Fluorene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
4-Chlorophenyl phenyl ether	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Diethylphthalate	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
4,6-Dinitro-2-methylphenol	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
4-Bromophenyl phenyl ether	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Hexachlorobenzene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Pentachlorophenol	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Phenanthrene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Anthracene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Carbazole	ND	732		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Di-n-butylphthalate	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Fluoranthene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Pyrene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Butyl Benzylphthalate	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
bis(2-Ethylhexyl)adipate	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Benz (a) anthracene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Chrysene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
bis (2-Ethylhexyl) phthalate	147	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Di-n-octyl phthalate	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Benzo (b) fluoranthene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Benzo (k) fluoranthene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Benzo (a) pyrene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Indeno (1,2,3-cd) pyrene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Dibenz (a,h) anthracene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Benzo (g,h,i) perylene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Surr: 2,4,6-Tribromophenol	71.1	11.1-127		%REC	1	9/29/2015 9:01:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:25:00 AM

Project: Pacific Park

Lab ID: 1509300-006

Matrix: Soil

Client Sample ID: GP-15-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	73.5	16.1-150	%REC	1	9/29/2015 9:01:00 PM
Surr: Nitrobenzene-d5	51.5	13.1-124	%REC	1	9/29/2015 9:01:00 PM
Surr: Phenol-d6	46.4	11.6-133	%REC	1	9/29/2015 9:01:00 PM
Surr: p-Terphenyl	84.5	21.8-150	%REC	1	9/29/2015 9:01:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	4.43	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Surr: Toluene-d8	97.7	65-135	%REC	1	9/24/2015 7:40:00 AM
Surr: 4-Bromofluorobenzene	105	65-135	%REC	1	9/24/2015 7:40:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0531	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Chloromethane	ND	0.0531	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Vinyl chloride	ND	0.00177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Bromomethane	ND	0.0797	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0443	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Chloroethane	ND	0.0531	mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,1-Dichloroethene	ND	0.0443	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Methylene chloride	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
trans-1,2-Dichloroethene	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0443	mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,1-Dichloroethane	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
2,2-Dichloropropane	ND	0.0443	mg/Kg-dry	1	9/24/2015 7:40:00 AM
cis-1,2-Dichloroethene	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Chloroform	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,1-Dichloropropene	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Carbon tetrachloride	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2-Dichloroethane (EDC)	ND	0.0266	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Benzene	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Trichloroethene (TCE)	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2-Dichloropropane	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Bromodichloromethane	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Dibromomethane	ND	0.0354	mg/Kg-dry	1	9/24/2015 7:40:00 AM
cis-1,3-Dichloropropene	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:25:00 AM

Project: Pacific Park

Lab ID: 1509300-006

Matrix: Soil

Client Sample ID: GP-15-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Toluene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
trans-1,3-Dichloropropylene	ND	0.0266		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,1,2-Trichloroethane	ND	0.0266		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,3-Dichloropropane	ND	0.0443		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Tetrachloroethene (PCE)	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Dibromochloromethane	ND	0.0266		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2-Dibromoethane (EDB)	ND	0.00443		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Chlorobenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0266		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Ethylbenzene	ND	0.0266		mg/Kg-dry	1	9/24/2015 7:40:00 AM
m,p-Xylene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
o-Xylene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Styrene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Isopropylbenzene	ND	0.0708		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Bromoform	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
n-Propylbenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Bromobenzene	ND	0.0266		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,3,5-Trimethylbenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
2-Chlorotoluene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
4-Chlorotoluene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
tert-Butylbenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2,3-Trichloropropane	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2,4-Trichlorobenzene	ND	0.0443		mg/Kg-dry	1	9/24/2015 7:40:00 AM
sec-Butylbenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
4-Isopropyltoluene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,3-Dichlorobenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,4-Dichlorobenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
n-Butylbenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2-Dichlorobenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2-Dibromo-3-chloropropane	ND	0.443		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2,4-Trimethylbenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Hexachlorobutadiene	ND	0.0885		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Naphthalene	ND	0.0266		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2,3-Trichlorobenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Surr: Dibromofluoromethane	93.1	56.5-129		%REC	1	9/24/2015 7:40:00 AM
Surr: Toluene-d8	96.7	64.3-131		%REC	1	9/24/2015 7:40:00 AM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/24/2015 7:40:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:25:00 AM

Project: Pacific Park

Lab ID: 1509300-006

Matrix: Soil

Client Sample ID: GP-15-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.329		mg/Kg-dry	1	9/24/2015 4:49:17 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	2.51	0.121		mg/Kg-dry	1	9/22/2015 7:05:55 PM
Barium	42.1	0.605		mg/Kg-dry	1	9/22/2015 7:05:55 PM
Cadmium	0.393	0.242		mg/Kg-dry	1	9/22/2015 7:05:55 PM
Chromium	18.4	0.121		mg/Kg-dry	1	9/22/2015 7:05:55 PM
Lead	14.6	0.242		mg/Kg-dry	1	9/22/2015 7:05:55 PM
Selenium	0.656	0.605		mg/Kg-dry	1	9/22/2015 7:05:55 PM
Silver	ND	0.121		mg/Kg-dry	1	9/22/2015 7:05:55 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	32.2			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:30:00 AM

Project: Pacific Park

Lab ID: 1509300-007

Matrix: Soil

Client Sample ID: GP-15-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	46.7		µg/Kg-dry	1	10/5/2015 11:50:00 AM
2,4-D	ND	40.0		µg/Kg-dry	1	10/5/2015 11:50:00 AM
2,4-DP	ND	33.3		µg/Kg-dry	1	10/5/2015 11:50:00 AM
2,4,5-TP (Silvex)	ND	26.7		µg/Kg-dry	1	10/5/2015 11:50:00 AM
2,4,5-T	ND	66.7		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Dinoseb	ND	40.0		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Dalapon	ND	267		µg/Kg-dry	1	10/5/2015 11:50:00 AM
2,4-DB	ND	33.3		µg/Kg-dry	1	10/5/2015 11:50:00 AM
MCPP	ND	5,870		µg/Kg-dry	1	10/5/2015 11:50:00 AM
MCPA	ND	3,730		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Picloram	ND	66.7		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Bentazon	ND	46.7		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Chloramben	ND	26.7		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Acifluorfen	ND	107		µg/Kg-dry	1	10/5/2015 11:50:00 AM
3,5-Dichlorobenzoic acid	ND	53.3		µg/Kg-dry	1	10/5/2015 11:50:00 AM
4-Nitrophenol	ND	40.0		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Dacthal (DCPA)	ND	40.0		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Surr: 2,4-Dichlorophenylacetic acid	98.4	20.1-168		%REC	1	10/5/2015 11:50:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Alpha BHC	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Beta BHC	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Gamma BHC (Lindane)	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Delta BHC	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Heptachlor	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Aldrin	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Heptachlor epoxide	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
gamma-Chlordane	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Endosulfan I	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
alpha-Chlordane	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Dieldrin	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4,4'-DDE	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Endrin	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Endosulfan II	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4,4'-DDD	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Endrin aldehyde	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Endosulfan sulfate	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:30:00 AM

Project: Pacific Park

Lab ID: 1509300-007

Matrix: Soil

Client Sample ID: GP-15-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Endrin ketone	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Methoxychlor	ND	0.0622		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Surr: Decachlorobiphenyl	132	26.5-158		%REC	1	9/25/2015 4:10:00 PM
Surr: Tetrachloro-m-xylene	65.2	11-150		%REC	1	9/25/2015 4:10:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11919

Analyst: AK

Diesel (Fuel Oil)	ND	26.0		mg/Kg-dry	1	9/23/2015 11:14:00 PM
Heavy Oil	ND	65.0		mg/Kg-dry	1	9/23/2015 11:14:00 PM
Surr: 2-Fluorobiphenyl	109	50-150		%REC	1	9/23/2015 11:14:00 PM
Surr: o-Terphenyl	110	50-150		%REC	1	9/23/2015 11:14:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Bis(2-chloroethyl) ether	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2-Chlorophenol	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
1,3-Dichlorobenzene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
1,4-Dichlorobenzene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
1,2-Dichlorobenzene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Benzyl alcohol	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2-Methylphenol (o-cresol)	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Hexachloroethane	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
N-Nitrosodi-n-propylamine	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Nitrobenzene	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Isophorone	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4-Methylphenol (p-cresol)	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2-Nitrophenol	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-Dimethylphenol	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Bis(2-chloroethoxy)methane	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-Dichlorophenol	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
1,2,4-Trichlorobenzene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Naphthalene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4-Chloroaniline	ND	672		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Hexachlorobutadiene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4-Chloro-3-methylphenol	ND	672		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2-Methylnaphthalene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
1-Methylnaphthalene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:30:00 AM

Project: Pacific Park

Lab ID: 1509300-007

Matrix: Soil

Client Sample ID: GP-15-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Hexachlorocyclopentadiene	ND	134	*	µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4,6-Trichlorophenol	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4,5-Trichlorophenol	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2-Chloronaphthalene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2-Nitroaniline	ND	672		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Acenaphthene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Dimethylphthalate	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,6-Dinitrotoluene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Acenaphthylene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-Dinitrophenol	ND	269	*	µg/Kg-dry	1	9/29/2015 9:45:00 PM
Dibenzofuran	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-Dinitrotoluene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4-Nitrophenol	ND	672		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Fluorene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4-Chlorophenyl phenyl ether	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Diethylphthalate	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4,6-Dinitro-2-methylphenol	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4-Bromophenyl phenyl ether	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Hexachlorobenzene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Pentachlorophenol	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Phenanthrene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Anthracene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Carbazole	ND	672		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Di-n-butylphthalate	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Fluoranthene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Pyrene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Butyl Benzylphthalate	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
bis(2-Ethylhexyl)adipate	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Benz (a) anthracene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Chrysene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
bis (2-Ethylhexyl) phthalate	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Di-n-octyl phthalate	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Benzo (b) fluoranthene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Benzo (k) fluoranthene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Benzo (a) pyrene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Indeno (1,2,3-cd) pyrene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Dibenz (a,h) anthracene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Benzo (g,h,i) perylene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Surr: 2,4,6-Tribromophenol	69.1	11.1-127		%REC	1	9/29/2015 9:45:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:30:00 AM

Project: Pacific Park

Lab ID: 1509300-007

Matrix: Soil

Client Sample ID: GP-15-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	52.5	16.1-150	%REC	1	9/29/2015 9:45:00 PM
Surr: Nitrobenzene-d5	33.0	13.1-124	%REC	1	9/29/2015 9:45:00 PM
Surr: Phenol-d6	46.0	11.6-133	%REC	1	9/29/2015 9:45:00 PM
Surr: p-Terphenyl	87.6	21.8-150	%REC	1	9/29/2015 9:45:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	3.66	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Surr: Toluene-d8	98.0	65-135	%REC	1	9/24/2015 8:09:00 AM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/24/2015 8:09:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0439	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Chloromethane	ND	0.0439	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Vinyl chloride	ND	0.00146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Bromomethane	ND	0.0659	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0366	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Chloroethane	ND	0.0439	mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,1-Dichloroethene	ND	0.0366	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Methylene chloride	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
trans-1,2-Dichloroethene	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0366	mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,1-Dichloroethane	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
2,2-Dichloropropane	ND	0.0366	mg/Kg-dry	1	9/24/2015 8:09:00 AM
cis-1,2-Dichloroethene	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Chloroform	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,1-Dichloropropene	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Carbon tetrachloride	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2-Dichloroethane (EDC)	ND	0.0220	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Benzene	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Trichloroethene (TCE)	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2-Dichloropropane	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Bromodichloromethane	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Dibromomethane	ND	0.0293	mg/Kg-dry	1	9/24/2015 8:09:00 AM
cis-1,3-Dichloropropene	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:30:00 AM

Project: Pacific Park

Lab ID: 1509300-007

Matrix: Soil

Client Sample ID: GP-15-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Toluene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
trans-1,3-Dichloropropylene	ND	0.0220		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,1,2-Trichloroethane	ND	0.0220		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,3-Dichloropropane	ND	0.0366		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Tetrachloroethene (PCE)	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Dibromochloromethane	ND	0.0220		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2-Dibromoethane (EDB)	ND	0.00366		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Chlorobenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0220		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Ethylbenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 8:09:00 AM
m,p-Xylene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
o-Xylene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Styrene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Isopropylbenzene	ND	0.0586		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Bromoform	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
n-Propylbenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Bromobenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,3,5-Trimethylbenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
2-Chlorotoluene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
4-Chlorotoluene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
tert-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2,3-Trichloropropane	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2,4-Trichlorobenzene	ND	0.0366		mg/Kg-dry	1	9/24/2015 8:09:00 AM
sec-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
4-Isopropyltoluene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,3-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,4-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
n-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2-Dibromo-3-chloropropane	ND	0.366		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2,4-Trimethylbenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Hexachlorobutadiene	ND	0.0732		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Naphthalene	ND	0.0220		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2,3-Trichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Surr: Dibromofluoromethane	93.6	56.5-129		%REC	1	9/24/2015 8:09:00 AM
Surr: Toluene-d8	96.4	64.3-131		%REC	1	9/24/2015 8:09:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/24/2015 8:09:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:30:00 AM

Project: Pacific Park

Lab ID: 1509300-007

Matrix: Soil

Client Sample ID: GP-15-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.295		mg/Kg-dry	1	9/24/2015 4:50:54 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	1.74	0.105		mg/Kg-dry	1	9/22/2015 7:09:27 PM
Barium	32.2	0.526		mg/Kg-dry	1	9/22/2015 7:09:27 PM
Cadmium	ND	0.211		mg/Kg-dry	1	9/22/2015 7:09:27 PM
Chromium	11.8	0.105		mg/Kg-dry	1	9/22/2015 7:09:27 PM
Lead	1.57	0.211		mg/Kg-dry	1	9/22/2015 7:09:27 PM
Selenium	0.832	0.526		mg/Kg-dry	1	9/22/2015 7:09:27 PM
Silver	ND	0.105		mg/Kg-dry	1	9/22/2015 7:09:27 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	26.9			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1509300-008

Matrix: Soil

Client Sample ID: GP-16-15:8.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	57.3		µg/Kg-dry	1	10/5/2015 12:07:00 PM
2,4-D	ND	49.1		µg/Kg-dry	1	10/5/2015 12:07:00 PM
2,4-DP	ND	40.9		µg/Kg-dry	1	10/5/2015 12:07:00 PM
2,4,5-TP (Silvex)	ND	32.8		µg/Kg-dry	1	10/5/2015 12:07:00 PM
2,4,5-T	ND	81.9		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Dinoseb	ND	49.1		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Dalapon	ND	328		µg/Kg-dry	1	10/5/2015 12:07:00 PM
2,4-DB	ND	40.9		µg/Kg-dry	1	10/5/2015 12:07:00 PM
MCPP	ND	7,210		µg/Kg-dry	1	10/5/2015 12:07:00 PM
MCPA	ND	4,590		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Picloram	ND	81.9		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Bentazon	ND	57.3		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Chloramben	ND	32.8		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Acifluorfen	ND	131		µg/Kg-dry	1	10/5/2015 12:07:00 PM
3,5-Dichlorobenzoic acid	ND	65.5		µg/Kg-dry	1	10/5/2015 12:07:00 PM
4-Nitrophenol	ND	49.1		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Dacthal (DCPA)	ND	49.1		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Surr: 2,4-Dichlorophenylacetic acid	96.8	20.1-168		%REC	1	10/5/2015 12:07:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Alpha BHC	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Beta BHC	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Gamma BHC (Lindane)	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Delta BHC	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Heptachlor	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Aldrin	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Heptachlor epoxide	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
gamma-Chlordane	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Endosulfan I	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
alpha-Chlordane	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Dieldrin	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
4,4'-DDE	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Endrin	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Endosulfan II	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM
4,4'-DDD	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Endrin aldehyde	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Endosulfan sulfate	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1509300-008

Matrix: Soil

Client Sample ID: GP-16-15:8.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Endrin ketone	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Methoxychlor	ND	0.0729		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Surr: Decachlorobiphenyl	63.4	26.5-158		%REC	1	9/25/2015 4:32:00 PM
Surr: Tetrachloro-m-xylene	56.8	11-150		%REC	1	9/25/2015 4:32:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	71.7	33.1		mg/Kg-dry	1	9/24/2015 12:19:00 AM
Heavy Oil	427	82.8		mg/Kg-dry	1	9/24/2015 12:19:00 AM
Surr: 2-Fluorobiphenyl	114	50-150		%REC	1	9/24/2015 12:19:00 AM
Surr: o-Terphenyl	114	50-150		%REC	1	9/24/2015 12:19:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Bis(2-chloroethyl) ether	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2-Chlorophenol	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
1,3-Dichlorobenzene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
1,4-Dichlorobenzene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
1,2-Dichlorobenzene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Benzyl alcohol	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2-Methylphenol (o-cresol)	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Hexachloroethane	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
N-Nitrosodi-n-propylamine	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Nitrobenzene	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Isophorone	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
4-Methylphenol (p-cresol)	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2-Nitrophenol	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2,4-Dimethylphenol	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Bis(2-chloroethoxy)methane	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2,4-Dichlorophenol	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
1,2,4-Trichlorobenzene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Naphthalene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
4-Chloroaniline	ND	831		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Hexachlorobutadiene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
4-Chloro-3-methylphenol	ND	831		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2-Methylnaphthalene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
1-Methylnaphthalene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1509300-008

Matrix: Soil

Client Sample ID: GP-16-15:8.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	166	*	µg/Kg-dry	1	9/29/2015 10:30:00 PM
2,4,6-Trichlorophenol	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2,4,5-Trichlorophenol	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2-Chloronaphthalene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2-Nitroaniline	ND	831		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Acenaphthene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Dimethylphthalate	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2,6-Dinitrotoluene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Acenaphthylene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2,4-Dinitrophenol	ND	333	*	µg/Kg-dry	1	9/29/2015 10:30:00 PM
Dibenzofuran	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2,4-Dinitrotoluene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
4-Nitrophenol	ND	831		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Fluorene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
4-Chlorophenyl phenyl ether	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Diethylphthalate	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
4,6-Dinitro-2-methylphenol	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
4-Bromophenyl phenyl ether	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Hexachlorobenzene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Pentachlorophenol	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Phenanthrene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Anthracene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Carbazole	ND	831		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Di-n-butylphthalate	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Fluoranthene	148	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Pyrene	192	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Butyl Benzylphthalate	171	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
bis(2-Ethylhexyl)adipate	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Benz (a) anthracene	206	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Chrysene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
bis (2-Ethylhexyl) phthalate	2,460	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Di-n-octyl phthalate	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Benzo (b) fluoranthene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Benzo (k) fluoranthene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Benzo (a) pyrene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Indeno (1,2,3-cd) pyrene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Dibenz (a,h) anthracene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Benzo (g,h,i) perylene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Surr: 2,4,6-Tribromophenol	77.4	11.1-127		%REC	1	9/29/2015 10:30:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1509300-008

Matrix: Soil

Client Sample ID: GP-16-15:8.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	25.4	16.1-150	%REC	1	9/29/2015 10:30:00 PM
Surr: Nitrobenzene-d5	23.4	13.1-124	%REC	1	9/29/2015 10:30:00 PM
Surr: Phenol-d6	26.8	11.6-133	%REC	1	9/29/2015 10:30:00 PM
Surr: p-Terphenyl	78.7	21.8-150	%REC	1	9/29/2015 10:30:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	4.83	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Surr: Toluene-d8	99.1	65-135	%REC	1	9/24/2015 8:37:00 AM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/24/2015 8:37:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0580	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Chloromethane	ND	0.0580	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Vinyl chloride	ND	0.00193	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Bromomethane	ND	0.0870	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0483	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Chloroethane	ND	0.0580	mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,1-Dichloroethene	ND	0.0483	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Methylene chloride	ND	0.0193	mg/Kg-dry	1	9/24/2015 8:37:00 AM
trans-1,2-Dichloroethene	ND	0.0193	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0483	mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,1-Dichloroethane	ND	0.0193	mg/Kg-dry	1	9/24/2015 8:37:00 AM
2,2-Dichloropropane	ND	0.0483	mg/Kg-dry	1	9/24/2015 8:37:00 AM
cis-1,2-Dichloroethene	ND	0.0193	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Chloroform	ND	0.0193	mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0193	mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,1-Dichloropropene	ND	0.0193	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Carbon tetrachloride	ND	0.0193	mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2-Dichloroethane (EDC)	ND	0.0290	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Benzene	ND	0.0193	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Trichloroethene (TCE)	ND	0.0193	mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2-Dichloropropane	ND	0.0193	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Bromodichloromethane	ND	0.0193	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Dibromomethane	ND	0.0387	mg/Kg-dry	1	9/24/2015 8:37:00 AM
cis-1,3-Dichloropropene	ND	0.0193	mg/Kg-dry	1	9/24/2015 8:37:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1509300-008

Matrix: Soil

Client Sample ID: GP-16-15:8.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Toluene	0.0215	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
trans-1,3-Dichloropropylene	ND	0.0290		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,1,2-Trichloroethane	ND	0.0290		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,3-Dichloropropane	ND	0.0483		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Tetrachloroethene (PCE)	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Dibromochloromethane	ND	0.0290		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2-Dibromoethane (EDB)	ND	0.00483		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Chlorobenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0290		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Ethylbenzene	ND	0.0290		mg/Kg-dry	1	9/24/2015 8:37:00 AM
m,p-Xylene	0.0286	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
o-Xylene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Styrene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Isopropylbenzene	ND	0.0773		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Bromoform	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
n-Propylbenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Bromobenzene	ND	0.0290		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,3,5-Trimethylbenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
2-Chlorotoluene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
4-Chlorotoluene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
tert-Butylbenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2,3-Trichloropropane	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2,4-Trichlorobenzene	ND	0.0483		mg/Kg-dry	1	9/24/2015 8:37:00 AM
sec-Butylbenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
4-Isopropyltoluene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,3-Dichlorobenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,4-Dichlorobenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
n-Butylbenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2-Dichlorobenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2-Dibromo-3-chloropropane	ND	0.483		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2,4-Trimethylbenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Hexachlorobutadiene	ND	0.0967		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Naphthalene	ND	0.0290		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2,3-Trichlorobenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Surr: Dibromofluoromethane	94.6	56.5-129		%REC	1	9/24/2015 8:37:00 AM
Surr: Toluene-d8	96.4	64.3-131		%REC	1	9/24/2015 8:37:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.3	63.1-141		%REC	1	9/24/2015 8:37:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1509300-008

Matrix: Soil

Client Sample ID: GP-16-15:8.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.418		mg/Kg-dry	1	9/24/2015 4:52:32 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	18.5	0.127		mg/Kg-dry	1	9/22/2015 7:12:58 PM
Barium	77.5	0.633		mg/Kg-dry	1	9/22/2015 7:12:58 PM
Cadmium	1.94	0.253		mg/Kg-dry	1	9/22/2015 7:12:58 PM
Chromium	56.5	0.127		mg/Kg-dry	1	9/22/2015 7:12:58 PM
Lead	552	0.253		mg/Kg-dry	1	9/22/2015 7:12:58 PM
Selenium	ND	0.633		mg/Kg-dry	1	9/22/2015 7:12:58 PM
Silver	0.184	0.127		mg/Kg-dry	1	9/22/2015 7:12:58 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	40.2			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509300-009

Matrix: Soil

Client Sample ID: GP-16-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	43.8		µg/Kg-dry	1	10/5/2015 12:24:00 PM
2,4-D	ND	37.5		µg/Kg-dry	1	10/5/2015 12:24:00 PM
2,4-DP	ND	31.3		µg/Kg-dry	1	10/5/2015 12:24:00 PM
2,4,5-TP (Silvex)	ND	25.0		µg/Kg-dry	1	10/5/2015 12:24:00 PM
2,4,5-T	ND	62.5		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Dinoseb	ND	37.5		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Dalapon	ND	250		µg/Kg-dry	1	10/5/2015 12:24:00 PM
2,4-DB	ND	31.3		µg/Kg-dry	1	10/5/2015 12:24:00 PM
MCPP	ND	5,500		µg/Kg-dry	1	10/5/2015 12:24:00 PM
MCPA	ND	3,500		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Picloram	ND	62.5		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Bentazon	ND	43.8		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Chloramben	ND	25.0		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Acifluorfen	ND	100		µg/Kg-dry	1	10/5/2015 12:24:00 PM
3,5-Dichlorobenzoic acid	ND	50.0		µg/Kg-dry	1	10/5/2015 12:24:00 PM
4-Nitrophenol	ND	37.5		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Dacthal (DCPA)	ND	37.5		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Surr: 2,4-Dichlorophenylacetic acid	110	20.1-168		%REC	1	10/5/2015 12:24:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Alpha BHC	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Beta BHC	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Gamma BHC (Lindane)	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Delta BHC	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Heptachlor	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Aldrin	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Heptachlor epoxide	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
gamma-Chlordane	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Endosulfan I	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
alpha-Chlordane	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Dieldrin	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
4,4'-DDE	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Endrin	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Endosulfan II	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM
4,4'-DDD	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Endrin aldehyde	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Endosulfan sulfate	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509300-009

Matrix: Soil

Client Sample ID: GP-16-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Endrin ketone	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Methoxychlor	ND	0.0618		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Surr: Decachlorobiphenyl	72.5	26.5-158		%REC	1	9/25/2015 4:42:00 PM
Surr: Tetrachloro-m-xylene	72.1	11-150		%REC	1	9/25/2015 4:42:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	25.1		mg/Kg-dry	1	9/24/2015 12:52:00 AM
Heavy Oil	ND	62.8		mg/Kg-dry	1	9/24/2015 12:52:00 AM
Surr: 2-Fluorobiphenyl	115	50-150		%REC	1	9/24/2015 12:52:00 AM
Surr: o-Terphenyl	116	50-150		%REC	1	9/24/2015 12:52:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Bis(2-chloroethyl) ether	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2-Chlorophenol	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
1,3-Dichlorobenzene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
1,4-Dichlorobenzene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
1,2-Dichlorobenzene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Benzyl alcohol	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2-Methylphenol (o-cresol)	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Hexachloroethane	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
N-Nitrosodi-n-propylamine	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Nitrobenzene	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Isophorone	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4-Methylphenol (p-cresol)	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2-Nitrophenol	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-Dimethylphenol	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Bis(2-chloroethoxy)methane	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-Dichlorophenol	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
1,2,4-Trichlorobenzene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Naphthalene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4-Chloroaniline	ND	605		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Hexachlorobutadiene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4-Chloro-3-methylphenol	ND	605		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2-Methylnaphthalene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
1-Methylnaphthalene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509300-009

Matrix: Soil

Client Sample ID: GP-16-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	121	*	µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4,6-Trichlorophenol	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4,5-Trichlorophenol	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2-Chloronaphthalene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2-Nitroaniline	ND	605		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Acenaphthene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Dimethylphthalate	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,6-Dinitrotoluene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Acenaphthylene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-Dinitrophenol	ND	242	*	µg/Kg-dry	1	9/29/2015 10:52:00 PM
Dibenzofuran	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-Dinitrotoluene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4-Nitrophenol	ND	605		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Fluorene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4-Chlorophenyl phenyl ether	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Diethylphthalate	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4,6-Dinitro-2-methylphenol	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4-Bromophenyl phenyl ether	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Hexachlorobenzene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Pentachlorophenol	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Phenanthrene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Anthracene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Carbazole	ND	605		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Di-n-butylphthalate	191	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Fluoranthene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Pyrene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Butyl Benzylphthalate	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
bis(2-Ethylhexyl)adipate	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Benz (a) anthracene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Chrysene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
bis (2-Ethylhexyl) phthalate	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Di-n-octyl phthalate	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Benzo (b) fluoranthene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Benzo (k) fluoranthene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Benzo (a) pyrene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Indeno (1,2,3-cd) pyrene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Dibenz (a,h) anthracene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Benzo (g,h,i) perylene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Surr: 2,4,6-Tribromophenol	75.1	11.1-127		%REC	1	9/29/2015 10:52:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509300-009

Matrix: Soil

Client Sample ID: GP-16-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Surr: 2-Fluorobiphenyl	29.9	16.1-150		%REC	1	9/29/2015 10:52:00 PM
Surr: Nitrobenzene-d5	15.4	13.1-124		%REC	1	9/29/2015 10:52:00 PM
Surr: Phenol-d6	54.7	11.6-133		%REC	1	9/29/2015 10:52:00 PM
Surr: p-Terphenyl	90.3	21.8-150		%REC	1	9/29/2015 10:52:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	3.95	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Surr: Toluene-d8	99.9	65-135	%REC	1	9/24/2015 8:26:00 PM
Surr: 4-Bromofluorobenzene	103	65-135	%REC	1	9/24/2015 8:26:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0474	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Chloromethane	ND	0.0474	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Vinyl chloride	ND	0.00158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Bromomethane	ND	0.0711	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0395	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Chloroethane	ND	0.0474	mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,1-Dichloroethene	ND	0.0395	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Methylene chloride	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
trans-1,2-Dichloroethene	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0395	mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,1-Dichloroethane	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
2,2-Dichloropropane	ND	0.0395	mg/Kg-dry	1	9/24/2015 8:26:00 PM
cis-1,2-Dichloroethene	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Chloroform	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,1-Dichloropropene	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Carbon tetrachloride	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2-Dichloroethane (EDC)	ND	0.0237	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Benzene	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Trichloroethene (TCE)	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2-Dichloropropane	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Bromodichloromethane	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Dibromomethane	ND	0.0316	mg/Kg-dry	1	9/24/2015 8:26:00 PM
cis-1,3-Dichloropropene	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509300-009

Matrix: Soil

Client Sample ID: GP-16-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Toluene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
trans-1,3-Dichloropropylene	ND	0.0237		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,1,2-Trichloroethane	ND	0.0237		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,3-Dichloropropane	ND	0.0395		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Tetrachloroethene (PCE)	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Dibromochloromethane	ND	0.0237		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2-Dibromoethane (EDB)	ND	0.00395		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Chlorobenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0237		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Ethylbenzene	ND	0.0237		mg/Kg-dry	1	9/24/2015 8:26:00 PM
m,p-Xylene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
o-Xylene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Styrene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Isopropylbenzene	ND	0.0632		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Bromoform	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
n-Propylbenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Bromobenzene	ND	0.0237		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,3,5-Trimethylbenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
2-Chlorotoluene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
4-Chlorotoluene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
tert-Butylbenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2,3-Trichloropropane	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2,4-Trichlorobenzene	ND	0.0395		mg/Kg-dry	1	9/24/2015 8:26:00 PM
sec-Butylbenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
4-Isopropyltoluene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,3-Dichlorobenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,4-Dichlorobenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
n-Butylbenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2-Dichlorobenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2-Dibromo-3-chloropropane	ND	0.395		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2,4-Trimethylbenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Hexachlorobutadiene	ND	0.0790		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Naphthalene	ND	0.0237		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2,3-Trichlorobenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Surr: Dibromofluoromethane	94.0	56.5-129		%REC	1	9/24/2015 8:26:00 PM
Surr: Toluene-d8	97.8	64.3-131		%REC	1	9/24/2015 8:26:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.8	63.1-141		%REC	1	9/24/2015 8:26:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509300-009

Matrix: Soil

Client Sample ID: GP-16-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.293		mg/Kg-dry	1	9/24/2015 4:54:10 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	1.75	0.0989		mg/Kg-dry	1	9/22/2015 7:16:30 PM
Barium	26.1	0.494		mg/Kg-dry	1	9/22/2015 7:16:30 PM
Cadmium	ND	0.198		mg/Kg-dry	1	9/22/2015 7:16:30 PM
Chromium	12.8	0.0989		mg/Kg-dry	1	9/22/2015 7:16:30 PM
Lead	2.21	0.198		mg/Kg-dry	1	9/22/2015 7:16:30 PM
Selenium	0.886	0.494		mg/Kg-dry	1	9/22/2015 7:16:30 PM
Silver	ND	0.0989		mg/Kg-dry	1	9/22/2015 7:16:30 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	21.0			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509300-010

Matrix: Soil

Client Sample ID: GP-17-15:7.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	49.4		µg/Kg-dry	1	10/5/2015 12:58:00 PM
2,4-D	ND	42.3		µg/Kg-dry	1	10/5/2015 12:58:00 PM
2,4-DP	ND	35.3		µg/Kg-dry	1	10/5/2015 12:58:00 PM
2,4,5-TP (Silvex)	ND	28.2		µg/Kg-dry	1	10/5/2015 12:58:00 PM
2,4,5-T	ND	70.5		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Dinoseb	ND	42.3		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Dalapon	ND	282		µg/Kg-dry	1	10/5/2015 12:58:00 PM
2,4-DB	ND	35.3		µg/Kg-dry	1	10/5/2015 12:58:00 PM
MCPP	ND	6,210		µg/Kg-dry	1	10/5/2015 12:58:00 PM
MCPA	ND	3,950		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Picloram	ND	70.5		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Bentazon	ND	49.4		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Chloramben	ND	28.2		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Acifluorfen	ND	113		µg/Kg-dry	1	10/5/2015 12:58:00 PM
3,5-Dichlorobenzoic acid	ND	56.4		µg/Kg-dry	1	10/5/2015 12:58:00 PM
4-Nitrophenol	ND	42.3		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Dacthal (DCPA)	ND	42.3		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Surr: 2,4-Dichlorophenylacetic acid	104	20.1-168		%REC	1	10/5/2015 12:58:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Alpha BHC	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Beta BHC	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Gamma BHC (Lindane)	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Delta BHC	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Heptachlor	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Aldrin	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Heptachlor epoxide	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
gamma-Chlordane	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Endosulfan I	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
alpha-Chlordane	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Dieldrin	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
4,4'-DDE	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Endrin	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Endosulfan II	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM
4,4'-DDD	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Endrin aldehyde	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Endosulfan sulfate	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509300-010

Matrix: Soil

Client Sample ID: GP-17-15:7.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Endrin ketone	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Methoxychlor	ND	0.0668		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Surr: Decachlorobiphenyl	52.9	26.5-158		%REC	1	9/25/2015 4:53:00 PM
Surr: Tetrachloro-m-xylene	55.9	11-150		%REC	1	9/25/2015 4:53:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	27.2		mg/Kg-dry	1	9/24/2015 7:47:00 PM
Heavy Oil	69.7	68.0		mg/Kg-dry	1	9/24/2015 7:47:00 PM
Surr: 2-Fluorobiphenyl	83.3	50-150		%REC	1	9/24/2015 7:47:00 PM
Surr: o-Terphenyl	81.7	50-150		%REC	1	9/24/2015 7:47:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Bis(2-chloroethyl) ether	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2-Chlorophenol	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
1,3-Dichlorobenzene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
1,4-Dichlorobenzene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
1,2-Dichlorobenzene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Benzyl alcohol	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2-Methylphenol (o-cresol)	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Hexachloroethane	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
N-Nitrosodi-n-propylamine	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Nitrobenzene	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Isophorone	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
4-Methylphenol (p-cresol)	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2-Nitrophenol	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2,4-Dimethylphenol	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Bis(2-chloroethoxy)methane	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2,4-Dichlorophenol	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
1,2,4-Trichlorobenzene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Naphthalene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
4-Chloroaniline	ND	694		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Hexachlorobutadiene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
4-Chloro-3-methylphenol	ND	694		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2-Methylnaphthalene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
1-Methylnaphthalene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509300-010

Matrix: Soil

Client Sample ID: GP-17-15:7.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	139	*	µg/Kg-dry	1	9/29/2015 11:14:00 PM
2,4,6-Trichlorophenol	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2,4,5-Trichlorophenol	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2-Chloronaphthalene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2-Nitroaniline	ND	694		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Acenaphthene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Dimethylphthalate	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2,6-Dinitrotoluene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Acenaphthylene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2,4-Dinitrophenol	ND	278	*	µg/Kg-dry	1	9/29/2015 11:14:00 PM
Dibenzofuran	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2,4-Dinitrotoluene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
4-Nitrophenol	ND	694		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Fluorene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
4-Chlorophenyl phenyl ether	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Diethylphthalate	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
4,6-Dinitro-2-methylphenol	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
4-Bromophenyl phenyl ether	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Hexachlorobenzene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Pentachlorophenol	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Phenanthrene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Anthracene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Carbazole	ND	694		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Di-n-butylphthalate	190	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Fluoranthene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Pyrene	129	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Butyl Benzylphthalate	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
bis(2-Ethylhexyl)adipate	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Benz (a) anthracene	194	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Chrysene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
bis (2-Ethylhexyl) phthalate	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Di-n-octyl phthalate	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Benzo (b) fluoranthene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Benzo (k) fluoranthene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Benzo (a) pyrene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Indeno (1,2,3-cd) pyrene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Dibenz (a,h) anthracene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Benzo (g,h,i) perylene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Surr: 2,4,6-Tribromophenol	84.3	11.1-127		%REC	1	9/29/2015 11:14:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509300-010

Matrix: Soil

Client Sample ID: GP-17-15:7.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	44.6	16.1-150	%REC	1	9/29/2015 11:14:00 PM
Surr: Nitrobenzene-d5	34.4	13.1-124	%REC	1	9/29/2015 11:14:00 PM
Surr: Phenol-d6	50.3	11.6-133	%REC	1	9/29/2015 11:14:00 PM
Surr: p-Terphenyl	96.8	21.8-150	%REC	1	9/29/2015 11:14:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	4.20	mg/Kg-dry	1	9/24/2015 9:24:00 PM
Surr: Toluene-d8	101	65-135	%REC	1	9/24/2015 9:24:00 PM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/24/2015 9:24:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0504	mg/Kg-dry	1	9/24/2015 9:24:00 PM
Chloromethane	ND	0.0504	mg/Kg-dry	1	9/24/2015 9:24:00 PM
Vinyl chloride	ND	0.00168	mg/Kg-dry	1	9/24/2015 9:24:00 PM
Bromomethane	ND	0.0756	mg/Kg-dry	1	9/24/2015 9:24:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0420	mg/Kg-dry	1	9/24/2015 9:24:00 PM
Chloroethane	ND	0.0504	mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,1-Dichloroethene	ND	0.0420	mg/Kg-dry	1	9/24/2015 9:24:00 PM
Methylene chloride	ND	0.0168	mg/Kg-dry	1	9/24/2015 9:24:00 PM
trans-1,2-Dichloroethene	ND	0.0168	mg/Kg-dry	1	9/24/2015 9:24:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0420	mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,1-Dichloroethane	ND	0.0168	mg/Kg-dry	1	9/24/2015 9:24:00 PM
2,2-Dichloropropane	ND	0.0420	mg/Kg-dry	1	9/24/2015 9:24:00 PM
cis-1,2-Dichloroethene	ND	0.0168	mg/Kg-dry	1	9/24/2015 9:24:00 PM
Chloroform	ND	0.0168	mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0168	mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,1-Dichloropropene	ND	0.0168	mg/Kg-dry	1	9/24/2015 9:24:00 PM
Carbon tetrachloride	ND	0.0168	mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2-Dichloroethane (EDC)	ND	0.0252	mg/Kg-dry	1	9/24/2015 9:24:00 PM
Benzene	ND	0.0168	mg/Kg-dry	1	9/24/2015 9:24:00 PM
Trichloroethene (TCE)	ND	0.0168	mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2-Dichloropropane	ND	0.0168	mg/Kg-dry	1	9/24/2015 9:24:00 PM
Bromodichloromethane	ND	0.0168	mg/Kg-dry	1	9/24/2015 9:24:00 PM
Dibromomethane	ND	0.0336	mg/Kg-dry	1	9/24/2015 9:24:00 PM
cis-1,3-Dichloropropene	ND	0.0168	mg/Kg-dry	1	9/24/2015 9:24:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509300-010

Matrix: Soil

Client Sample ID: GP-17-15:7.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Toluene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
trans-1,3-Dichloropropylene	ND	0.0252		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,1,2-Trichloroethane	ND	0.0252		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,3-Dichloropropane	ND	0.0420		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Tetrachloroethene (PCE)	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Dibromochloromethane	ND	0.0252		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2-Dibromoethane (EDB)	ND	0.00420		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Chlorobenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0252		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Ethylbenzene	ND	0.0252		mg/Kg-dry	1	9/24/2015 9:24:00 PM
m,p-Xylene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
o-Xylene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Styrene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Isopropylbenzene	ND	0.0672		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Bromoform	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
n-Propylbenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Bromobenzene	ND	0.0252		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,3,5-Trimethylbenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
2-Chlorotoluene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
4-Chlorotoluene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
tert-Butylbenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2,3-Trichloropropane	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2,4-Trichlorobenzene	ND	0.0420		mg/Kg-dry	1	9/24/2015 9:24:00 PM
sec-Butylbenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
4-Isopropyltoluene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,3-Dichlorobenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,4-Dichlorobenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
n-Butylbenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2-Dichlorobenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2-Dibromo-3-chloropropane	ND	0.420		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2,4-Trimethylbenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Hexachlorobutadiene	ND	0.0840		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Naphthalene	ND	0.0252		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2,3-Trichlorobenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Surr: Dibromofluoromethane	94.7	56.5-129		%REC	1	9/24/2015 9:24:00 PM
Surr: Toluene-d8	97.4	64.3-131		%REC	1	9/24/2015 9:24:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	63.1-141		%REC	1	9/24/2015 9:24:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509300-010

Matrix: Soil

Client Sample ID: GP-17-15:7.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.311		mg/Kg-dry	1	9/24/2015 4:55:46 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	8.66	0.117		mg/Kg-dry	1	9/22/2015 7:58:51 PM
Barium	51.7	0.585		mg/Kg-dry	1	9/22/2015 7:58:51 PM
Cadmium	0.356	0.234		mg/Kg-dry	1	9/22/2015 7:58:51 PM
Chromium	15.7	0.117		mg/Kg-dry	1	9/22/2015 7:58:51 PM
Lead	49.1	0.234		mg/Kg-dry	1	9/22/2015 7:58:51 PM
Selenium	1.54	0.585		mg/Kg-dry	1	9/22/2015 7:58:51 PM
Silver	ND	0.117		mg/Kg-dry	1	9/22/2015 7:58:51 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	29.4			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509300-011

Matrix: Soil

Client Sample ID: GP-17-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	40.0		µg/Kg-dry	1	10/5/2015 1:32:00 PM
2,4-D	ND	34.3		µg/Kg-dry	1	10/5/2015 1:32:00 PM
2,4-DP	ND	28.5		µg/Kg-dry	1	10/5/2015 1:32:00 PM
2,4,5-TP (Silvex)	ND	22.8		µg/Kg-dry	1	10/5/2015 1:32:00 PM
2,4,5-T	ND	57.1		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Dinoseb	ND	34.3		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Dalapon	ND	228		µg/Kg-dry	1	10/5/2015 1:32:00 PM
2,4-DB	ND	28.5		µg/Kg-dry	1	10/5/2015 1:32:00 PM
MCPP	ND	5,020		µg/Kg-dry	1	10/5/2015 1:32:00 PM
MCPA	ND	3,200		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Picloram	ND	57.1		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Bentazon	ND	40.0		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Chloramben	ND	22.8		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Acifluorfen	ND	91.3		µg/Kg-dry	1	10/5/2015 1:32:00 PM
3,5-Dichlorobenzoic acid	ND	45.7		µg/Kg-dry	1	10/5/2015 1:32:00 PM
4-Nitrophenol	ND	34.3		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Dacthal (DCPA)	ND	34.3		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Surr: 2,4-Dichlorophenylacetic acid	105	20.1-168		%REC	1	10/5/2015 1:32:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Alpha BHC	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Beta BHC	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Gamma BHC (Lindane)	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Delta BHC	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Heptachlor	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Aldrin	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Heptachlor epoxide	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
gamma-Chlordane	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Endosulfan I	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
alpha-Chlordane	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Dieldrin	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
4,4'-DDE	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Endrin	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Endosulfan II	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM
4,4'-DDD	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Endrin aldehyde	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Endosulfan sulfate	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509300-011

Matrix: Soil

Client Sample ID: GP-17-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Endrin ketone	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Methoxychlor	ND	0.0524		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Surr: Decachlorobiphenyl	69.1	26.5-158		%REC	1	9/25/2015 5:04:00 PM
Surr: Tetrachloro-m-xylene	66.9	11-150		%REC	1	9/25/2015 5:04:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	20.2		mg/Kg-dry	1	9/24/2015 8:18:00 PM
Heavy Oil	ND	50.6		mg/Kg-dry	1	9/24/2015 8:18:00 PM
Surr: 2-Fluorobiphenyl	94.9	50-150		%REC	1	9/24/2015 8:18:00 PM
Surr: o-Terphenyl	93.4	50-150		%REC	1	9/24/2015 8:18:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Bis(2-chloroethyl) ether	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2-Chlorophenol	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
1,3-Dichlorobenzene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
1,4-Dichlorobenzene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
1,2-Dichlorobenzene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Benzyl alcohol	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2-Methylphenol (o-cresol)	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Hexachloroethane	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
N-Nitrosodi-n-propylamine	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Nitrobenzene	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Isophorone	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
4-Methylphenol (p-cresol)	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2-Nitrophenol	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2,4-Dimethylphenol	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Bis(2-chloroethoxy)methane	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2,4-Dichlorophenol	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
1,2,4-Trichlorobenzene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Naphthalene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
4-Chloroaniline	ND	566		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Hexachlorobutadiene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
4-Chloro-3-methylphenol	ND	566		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2-Methylnaphthalene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
1-Methylnaphthalene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509300-011

Matrix: Soil

Client Sample ID: GP-17-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	113	*	µg/Kg-dry	1	9/29/2015 11:36:00 PM
2,4,6-Trichlorophenol	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2,4,5-Trichlorophenol	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2-Chloronaphthalene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2-Nitroaniline	ND	566		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Acenaphthene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Dimethylphthalate	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2,6-Dinitrotoluene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Acenaphthylene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2,4-Dinitrophenol	ND	226	*	µg/Kg-dry	1	9/29/2015 11:36:00 PM
Dibenzofuran	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2,4-Dinitrotoluene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
4-Nitrophenol	ND	566		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Fluorene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
4-Chlorophenyl phenyl ether	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Diethylphthalate	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
4,6-Dinitro-2-methylphenol	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
4-Bromophenyl phenyl ether	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Hexachlorobenzene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Pentachlorophenol	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Phenanthrene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Anthracene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Carbazole	ND	566		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Di-n-butylphthalate	140	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Fluoranthene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Pyrene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Butyl Benzylphthalate	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
bis(2-Ethylhexyl)adipate	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Benz (a) anthracene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Chrysene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
bis (2-Ethylhexyl) phthalate	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Di-n-octyl phthalate	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Benzo (b) fluoranthene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Benzo (k) fluoranthene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Benzo (a) pyrene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Indeno (1,2,3-cd) pyrene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Dibenz (a,h) anthracene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Benzo (g,h,i) perylene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Surr: 2,4,6-Tribromophenol	66.4	11.1-127		%REC	1	9/29/2015 11:36:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509300-011

Matrix: Soil

Client Sample ID: GP-17-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	70.0	16.1-150	%REC	1	9/29/2015 11:36:00 PM
Surr: Nitrobenzene-d5	59.9	13.1-124	%REC	1	9/29/2015 11:36:00 PM
Surr: Phenol-d6	39.5	11.6-133	%REC	1	9/29/2015 11:36:00 PM
Surr: p-Terphenyl	76.7	21.8-150	%REC	1	9/29/2015 11:36:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	3.88	mg/Kg-dry	1	9/24/2015 9:52:00 PM
Surr: Toluene-d8	98.5	65-135	%REC	1	9/24/2015 9:52:00 PM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/24/2015 9:52:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0466	mg/Kg-dry	1	9/24/2015 9:52:00 PM
Chloromethane	ND	0.0466	mg/Kg-dry	1	9/24/2015 9:52:00 PM
Vinyl chloride	ND	0.00155	mg/Kg-dry	1	9/24/2015 9:52:00 PM
Bromomethane	ND	0.0699	mg/Kg-dry	1	9/24/2015 9:52:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0388	mg/Kg-dry	1	9/24/2015 9:52:00 PM
Chloroethane	ND	0.0466	mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,1-Dichloroethene	ND	0.0388	mg/Kg-dry	1	9/24/2015 9:52:00 PM
Methylene chloride	ND	0.0155	mg/Kg-dry	1	9/24/2015 9:52:00 PM
trans-1,2-Dichloroethene	ND	0.0155	mg/Kg-dry	1	9/24/2015 9:52:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0388	mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,1-Dichloroethane	ND	0.0155	mg/Kg-dry	1	9/24/2015 9:52:00 PM
2,2-Dichloropropane	ND	0.0388	mg/Kg-dry	1	9/24/2015 9:52:00 PM
cis-1,2-Dichloroethene	ND	0.0155	mg/Kg-dry	1	9/24/2015 9:52:00 PM
Chloroform	ND	0.0155	mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0155	mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,1-Dichloropropene	ND	0.0155	mg/Kg-dry	1	9/24/2015 9:52:00 PM
Carbon tetrachloride	ND	0.0155	mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2-Dichloroethane (EDC)	ND	0.0233	mg/Kg-dry	1	9/24/2015 9:52:00 PM
Benzene	ND	0.0155	mg/Kg-dry	1	9/24/2015 9:52:00 PM
Trichloroethene (TCE)	ND	0.0155	mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2-Dichloropropane	ND	0.0155	mg/Kg-dry	1	9/24/2015 9:52:00 PM
Bromodichloromethane	ND	0.0155	mg/Kg-dry	1	9/24/2015 9:52:00 PM
Dibromomethane	ND	0.0311	mg/Kg-dry	1	9/24/2015 9:52:00 PM
cis-1,3-Dichloropropene	ND	0.0155	mg/Kg-dry	1	9/24/2015 9:52:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509300-011

Matrix: Soil

Client Sample ID: GP-17-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Toluene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
trans-1,3-Dichloropropylene	ND	0.0233		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,1,2-Trichloroethane	ND	0.0233		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,3-Dichloropropane	ND	0.0388		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Tetrachloroethene (PCE)	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Dibromochloromethane	ND	0.0233		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2-Dibromoethane (EDB)	ND	0.00388		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Chlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0233		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Ethylbenzene	ND	0.0233		mg/Kg-dry	1	9/24/2015 9:52:00 PM
m,p-Xylene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
o-Xylene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Styrene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Isopropylbenzene	ND	0.0622		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Bromoform	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
n-Propylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Bromobenzene	ND	0.0233		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,3,5-Trimethylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
2-Chlorotoluene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
4-Chlorotoluene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
tert-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2,3-Trichloropropane	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2,4-Trichlorobenzene	ND	0.0388		mg/Kg-dry	1	9/24/2015 9:52:00 PM
sec-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
4-Isopropyltoluene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,3-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,4-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
n-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2-Dibromo-3-chloropropane	ND	0.388		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2,4-Trimethylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Hexachlorobutadiene	ND	0.0777		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Naphthalene	ND	0.0233		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2,3-Trichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Surr: Dibromofluoromethane	93.1	56.5-129		%REC	1	9/24/2015 9:52:00 PM
Surr: Toluene-d8	97.4	64.3-131		%REC	1	9/24/2015 9:52:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.8	63.1-141		%REC	1	9/24/2015 9:52:00 PM



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Client Sample ID: GP-17-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11908

Analyst: MW

Mercury	ND	0.256		mg/Kg-dry	1	9/22/2015 5:43:09 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	2.01	0.0950		mg/Kg-dry	1	9/22/2015 7:20:02 PM
Barium	21.5	0.475		mg/Kg-dry	1	9/22/2015 7:20:02 PM
Cadmium	ND	0.190		mg/Kg-dry	1	9/22/2015 7:20:02 PM
Chromium	12.3	0.0950		mg/Kg-dry	1	9/22/2015 7:20:02 PM
Lead	2.59	0.190		mg/Kg-dry	1	9/22/2015 7:20:02 PM
Selenium	0.992	0.475		mg/Kg-dry	1	9/22/2015 7:20:02 PM
Silver	ND	0.0950		mg/Kg-dry	1	9/22/2015 7:20:02 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	15.8			wt%	1	9/25/2015 11:01:12 AM
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Client: Shannon & Wilson

Collection Date: 9/21/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509300-012

Matrix: Soil

Client Sample ID: GP-18-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	38.4		µg/Kg-dry	1	10/5/2015 1:49:00 PM
2,4-D	ND	32.9		µg/Kg-dry	1	10/5/2015 1:49:00 PM
2,4-DP	ND	27.4		µg/Kg-dry	1	10/5/2015 1:49:00 PM
2,4,5-TP (Silvex)	ND	21.9		µg/Kg-dry	1	10/5/2015 1:49:00 PM
2,4,5-T	ND	54.8		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Dinoseb	ND	32.9		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Dalapon	ND	219		µg/Kg-dry	1	10/5/2015 1:49:00 PM
2,4-DB	ND	27.4		µg/Kg-dry	1	10/5/2015 1:49:00 PM
MCPP	ND	4,830		µg/Kg-dry	1	10/5/2015 1:49:00 PM
MCPA	ND	3,070		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Picloram	ND	54.8		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Bentazon	ND	38.4		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Chloramben	ND	21.9		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Acifluorfen	ND	87.7		µg/Kg-dry	1	10/5/2015 1:49:00 PM
3,5-Dichlorobenzoic acid	ND	43.9		µg/Kg-dry	1	10/5/2015 1:49:00 PM
4-Nitrophenol	ND	32.9		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Dacthal (DCPA)	ND	32.9		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Surr: 2,4-Dichlorophenylacetic acid	95.0	20.1-168		%REC	1	10/5/2015 1:49:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Alpha BHC	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Beta BHC	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Gamma BHC (Lindane)	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Delta BHC	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Heptachlor	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Aldrin	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Heptachlor epoxide	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
gamma-Chlordane	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Endosulfan I	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
alpha-Chlordane	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Dieldrin	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
4,4'-DDE	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Endrin	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Endosulfan II	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM
4,4'-DDD	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Endrin aldehyde	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Endosulfan sulfate	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM



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Project: Pacific Park

Lab ID: 1509300-012

Matrix: Soil

Client Sample ID: GP-18-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Endrin ketone	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Methoxychlor	ND	0.0516		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Surr: Decachlorobiphenyl	87.2	26.5-158		%REC	1	9/25/2015 5:15:00 PM
Surr: Tetrachloro-m-xylene	86.0	11-150		%REC	1	9/25/2015 5:15:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	20.3		mg/Kg-dry	1	9/24/2015 2:30:00 AM
Heavy Oil	302	50.7		mg/Kg-dry	1	9/24/2015 2:30:00 AM
Surr: 2-Fluorobiphenyl	120	50-150		%REC	1	9/24/2015 2:30:00 AM
Surr: o-Terphenyl	121	50-150		%REC	1	9/24/2015 2:30:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Bis(2-chloroethyl) ether	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2-Chlorophenol	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
1,3-Dichlorobenzene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
1,4-Dichlorobenzene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
1,2-Dichlorobenzene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Benzyl alcohol	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2-Methylphenol (o-cresol)	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Hexachloroethane	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
N-Nitrosodi-n-propylamine	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Nitrobenzene	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Isophorone	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
4-Methylphenol (p-cresol)	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2-Nitrophenol	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2,4-Dimethylphenol	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Bis(2-chloroethoxy)methane	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2,4-Dichlorophenol	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
1,2,4-Trichlorobenzene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Naphthalene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
4-Chloroaniline	ND	533		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Hexachlorobutadiene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
4-Chloro-3-methylphenol	ND	533		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2-Methylnaphthalene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
1-Methylnaphthalene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509300-012

Matrix: Soil

Client Sample ID: GP-18-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	107	*	µg/Kg-dry	1	9/29/2015 11:58:00 PM
2,4,6-Trichlorophenol	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2,4,5-Trichlorophenol	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2-Chloronaphthalene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2-Nitroaniline	ND	533		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Acenaphthene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Dimethylphthalate	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2,6-Dinitrotoluene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Acenaphthylene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2,4-Dinitrophenol	ND	213	*	µg/Kg-dry	1	9/29/2015 11:58:00 PM
Dibenzofuran	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2,4-Dinitrotoluene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
4-Nitrophenol	ND	533		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Fluorene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
4-Chlorophenyl phenyl ether	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Diethylphthalate	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
4,6-Dinitro-2-methylphenol	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
4-Bromophenyl phenyl ether	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Hexachlorobenzene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Pentachlorophenol	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Phenanthrene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Anthracene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Carbazole	ND	533		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Di-n-butylphthalate	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Fluoranthene	111	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Pyrene	123	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Butyl Benzylphthalate	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
bis(2-Ethylhexyl)adipate	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Benz (a) anthracene	157	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Chrysene	95.4	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
bis (2-Ethylhexyl) phthalate	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Di-n-octyl phthalate	165	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Benzo (b) fluoranthene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Benzo (k) fluoranthene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Benzo (a) pyrene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Indeno (1,2,3-cd) pyrene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Dibenz (a,h) anthracene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Benzo (g,h,i) perylene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Surr: 2,4,6-Tribromophenol	71.6	11.1-127		%REC	1	9/29/2015 11:58:00 PM



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Matrix: Soil

Client Sample ID: GP-18-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Surr: 2-Fluorobiphenyl	80.9	16.1-150		%REC	1	9/29/2015 11:58:00 PM
Surr: Nitrobenzene-d5	80.9	13.1-124		%REC	1	9/29/2015 11:58:00 PM
Surr: Phenol-d6	53.7	11.6-133		%REC	1	9/29/2015 11:58:00 PM
Surr: p-Terphenyl	89.8	21.8-150		%REC	1	9/29/2015 11:58:00 PM
Gasoline by NWTPH-Gx				Batch ID: 11943		Analyst: BC
Gasoline	ND	3.49		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Surr: Toluene-d8	97.8	65-135		%REC	1	9/24/2015 10:21:00 PM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/24/2015 10:21:00 PM
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11943		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0418		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Chloromethane	ND	0.0418		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Vinyl chloride	ND	0.00139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Bromomethane	ND	0.0627		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Chloroethane	ND	0.0418		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,1-Dichloroethene	ND	0.0349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Methylene chloride	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
trans-1,2-Dichloroethene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,1-Dichloroethane	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
2,2-Dichloropropane	ND	0.0349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
cis-1,2-Dichloroethene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Chloroform	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,1-Dichloropropene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Carbon tetrachloride	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2-Dichloroethane (EDC)	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Benzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Trichloroethene (TCE)	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2-Dichloropropane	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Bromodichloromethane	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Dibromomethane	ND	0.0279		mg/Kg-dry	1	9/24/2015 10:21:00 PM
cis-1,3-Dichloropropene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Toluene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
trans-1,3-Dichloropropylene	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM



Analytical Report

WO#: 1509300

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Collection Date: 9/21/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509300-012

Matrix: Soil

Client Sample ID: GP-18-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11943		Analyst: BC
1,1,2-Trichloroethane	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,3-Dichloropropane	ND	0.0349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Tetrachloroethene (PCE)	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Dibromochloromethane	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2-Dibromoethane (EDB)	ND	0.00349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Chlorobenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Ethylbenzene	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM
m,p-Xylene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
o-Xylene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Styrene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Isopropylbenzene	ND	0.0558		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Bromoform	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
n-Propylbenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Bromobenzene	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,3,5-Trimethylbenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
2-Chlorotoluene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
4-Chlorotoluene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
tert-Butylbenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2,3-Trichloropropane	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2,4-Trichlorobenzene	ND	0.0349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
sec-Butylbenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
4-Isopropyltoluene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,3-Dichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,4-Dichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
n-Butylbenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2-Dichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2-Dibromo-3-chloropropane	ND	0.349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2,4-Trimethylbenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Hexachlorobutadiene	ND	0.0697		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Naphthalene	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2,3-Trichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Surr: Dibromofluoromethane	93.1	56.5-129		%REC	1	9/24/2015 10:21:00 PM
Surr: Toluene-d8	98.2	64.3-131		%REC	1	9/24/2015 10:21:00 PM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/24/2015 10:21:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509300-012

Matrix: Soil

Client Sample ID: GP-18-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11908

Analyst: MW

Mercury	ND	0.235		mg/Kg-dry	1	9/22/2015 5:44:46 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	5.18	0.0910		mg/Kg-dry	1	9/22/2015 7:23:33 PM
Barium	47.4	0.455		mg/Kg-dry	1	9/22/2015 7:23:33 PM
Cadmium	0.318	0.182		mg/Kg-dry	1	9/22/2015 7:23:33 PM
Chromium	18.4	0.0910		mg/Kg-dry	1	9/22/2015 7:23:33 PM
Lead	59.6	0.182		mg/Kg-dry	1	9/22/2015 7:23:33 PM
Selenium	1.08	0.455		mg/Kg-dry	1	9/22/2015 7:23:33 PM
Silver	ND	0.0910		mg/Kg-dry	1	9/22/2015 7:23:33 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	9.90			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509300-013

Matrix: Soil

Client Sample ID: GP-18-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	41.4		µg/Kg-dry	1	10/5/2015 2:06:00 PM
2,4-D	ND	35.4		µg/Kg-dry	1	10/5/2015 2:06:00 PM
2,4-DP	ND	29.5		µg/Kg-dry	1	10/5/2015 2:06:00 PM
2,4,5-TP (Silvex)	ND	23.6		µg/Kg-dry	1	10/5/2015 2:06:00 PM
2,4,5-T	ND	59.1		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Dinoseb	ND	35.4		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Dalapon	ND	236		µg/Kg-dry	1	10/5/2015 2:06:00 PM
2,4-DB	ND	29.5		µg/Kg-dry	1	10/5/2015 2:06:00 PM
MCPP	ND	5,200		µg/Kg-dry	1	10/5/2015 2:06:00 PM
MCPA	ND	3,310		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Picloram	ND	59.1		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Bentazon	ND	41.4		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Chloramben	ND	23.6		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Acifluorfen	ND	94.5		µg/Kg-dry	1	10/5/2015 2:06:00 PM
3,5-Dichlorobenzoic acid	ND	47.3		µg/Kg-dry	1	10/5/2015 2:06:00 PM
4-Nitrophenol	ND	35.4		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Dacthal (DCPA)	ND	35.4		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Surr: 2,4-Dichlorophenylacetic acid	103	20.1-168		%REC	1	10/5/2015 2:06:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Alpha BHC	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Beta BHC	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Gamma BHC (Lindane)	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Delta BHC	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Heptachlor	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Aldrin	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Heptachlor epoxide	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
gamma-Chlordane	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Endosulfan I	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
alpha-Chlordane	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Dieldrin	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
4,4'-DDE	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Endrin	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Endosulfan II	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM
4,4'-DDD	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Endrin aldehyde	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Endosulfan sulfate	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509300-013

Matrix: Soil

Client Sample ID: GP-18-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Endrin ketone	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Methoxychlor	ND	0.0538		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Surr: Decachlorobiphenyl	86.4	26.5-158		%REC	1	9/25/2015 5:26:00 PM
Surr: Tetrachloro-m-xylene	75.8	11-150		%REC	1	9/25/2015 5:26:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11919

Analyst: AK

Diesel (Fuel Oil)	ND	23.6		mg/Kg-dry	1	9/24/2015 8:50:00 PM
Heavy Oil	ND	59.0		mg/Kg-dry	1	9/24/2015 8:50:00 PM
Surr: 2-Fluorobiphenyl	93.8	50-150		%REC	1	9/24/2015 8:50:00 PM
Surr: o-Terphenyl	94.4	50-150		%REC	1	9/24/2015 8:50:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Bis(2-chloroethyl) ether	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2-Chlorophenol	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
1,3-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
1,4-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
1,2-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Benzyl alcohol	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2-Methylphenol (o-cresol)	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Hexachloroethane	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
N-Nitrosodi-n-propylamine	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Nitrobenzene	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Isophorone	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
4-Methylphenol (p-cresol)	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2-Nitrophenol	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2,4-Dimethylphenol	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Bis(2-chloroethoxy)methane	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2,4-Dichlorophenol	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
1,2,4-Trichlorobenzene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Naphthalene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
4-Chloroaniline	ND	596		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Hexachlorobutadiene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
4-Chloro-3-methylphenol	ND	596		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2-Methylnaphthalene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
1-Methylnaphthalene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509300-013

Matrix: Soil

Client Sample ID: GP-18-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	119	*	µg/Kg-dry	1	9/30/2015 12:20:00 AM
2,4,6-Trichlorophenol	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2,4,5-Trichlorophenol	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2-Chloronaphthalene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2-Nitroaniline	ND	596		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Acenaphthene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Dimethylphthalate	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2,6-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Acenaphthylene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2,4-Dinitrophenol	ND	238	*	µg/Kg-dry	1	9/30/2015 12:20:00 AM
Dibenzofuran	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2,4-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
4-Nitrophenol	ND	596		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Fluorene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
4-Chlorophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Diethylphthalate	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
4,6-Dinitro-2-methylphenol	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
4-Bromophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Hexachlorobenzene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Pentachlorophenol	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Phenanthrene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Anthracene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Carbazole	ND	596		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Di-n-butylphthalate	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Fluoranthene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Pyrene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Butyl Benzylphthalate	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
bis(2-Ethylhexyl)adipate	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Benz (a) anthracene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Chrysene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
bis (2-Ethylhexyl) phthalate	376	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Di-n-octyl phthalate	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Benzo (b) fluoranthene	188	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Benzo (k) fluoranthene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Benzo (a) pyrene	174	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Indeno (1,2,3-cd) pyrene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Dibenz (a,h) anthracene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Benzo (g,h,i) perylene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Surr: 2,4,6-Tribromophenol	80.1	11.1-127		%REC	1	9/30/2015 12:20:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509300-013

Matrix: Soil

Client Sample ID: GP-18-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	61.0	16.1-150	%REC	1	9/30/2015 12:20:00 AM
Surr: Nitrobenzene-d5	43.8	13.1-124	%REC	1	9/30/2015 12:20:00 AM
Surr: Phenol-d6	53.7	11.6-133	%REC	1	9/30/2015 12:20:00 AM
Surr: p-Terphenyl	94.3	21.8-150	%REC	1	9/30/2015 12:20:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	3.70	mg/Kg-dry	1	9/24/2015 10:50:00 PM
Surr: Toluene-d8	98.7	65-135	%REC	1	9/24/2015 10:50:00 PM
Surr: 4-Bromofluorobenzene	105	65-135	%REC	1	9/24/2015 10:50:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0444	mg/Kg-dry	1	9/24/2015 10:50:00 PM
Chloromethane	ND	0.0444	mg/Kg-dry	1	9/24/2015 10:50:00 PM
Vinyl chloride	ND	0.00148	mg/Kg-dry	1	9/24/2015 10:50:00 PM
Bromomethane	ND	0.0666	mg/Kg-dry	1	9/24/2015 10:50:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0370	mg/Kg-dry	1	9/24/2015 10:50:00 PM
Chloroethane	ND	0.0444	mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,1-Dichloroethene	ND	0.0370	mg/Kg-dry	1	9/24/2015 10:50:00 PM
Methylene chloride	ND	0.0148	mg/Kg-dry	1	9/24/2015 10:50:00 PM
trans-1,2-Dichloroethene	ND	0.0148	mg/Kg-dry	1	9/24/2015 10:50:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0370	mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,1-Dichloroethane	ND	0.0148	mg/Kg-dry	1	9/24/2015 10:50:00 PM
2,2-Dichloropropane	ND	0.0370	mg/Kg-dry	1	9/24/2015 10:50:00 PM
cis-1,2-Dichloroethene	ND	0.0148	mg/Kg-dry	1	9/24/2015 10:50:00 PM
Chloroform	ND	0.0148	mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0148	mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,1-Dichloropropene	ND	0.0148	mg/Kg-dry	1	9/24/2015 10:50:00 PM
Carbon tetrachloride	ND	0.0148	mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2-Dichloroethane (EDC)	ND	0.0222	mg/Kg-dry	1	9/24/2015 10:50:00 PM
Benzene	ND	0.0148	mg/Kg-dry	1	9/24/2015 10:50:00 PM
Trichloroethene (TCE)	ND	0.0148	mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2-Dichloropropane	ND	0.0148	mg/Kg-dry	1	9/24/2015 10:50:00 PM
Bromodichloromethane	ND	0.0148	mg/Kg-dry	1	9/24/2015 10:50:00 PM
Dibromomethane	ND	0.0296	mg/Kg-dry	1	9/24/2015 10:50:00 PM
cis-1,3-Dichloropropene	ND	0.0148	mg/Kg-dry	1	9/24/2015 10:50:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509300-013

Matrix: Soil

Client Sample ID: GP-18-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11943		Analyst: BC
Toluene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
trans-1,3-Dichloropropylene	ND	0.0222		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,1,2-Trichloroethane	ND	0.0222		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,3-Dichloropropane	ND	0.0370		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Tetrachloroethene (PCE)	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Dibromochloromethane	ND	0.0222		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2-Dibromoethane (EDB)	ND	0.00370		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Chlorobenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0222		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Ethylbenzene	ND	0.0222		mg/Kg-dry	1	9/24/2015 10:50:00 PM
m,p-Xylene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
o-Xylene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Styrene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Isopropylbenzene	ND	0.0592		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Bromoform	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
n-Propylbenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Bromobenzene	ND	0.0222		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,3,5-Trimethylbenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
2-Chlorotoluene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
4-Chlorotoluene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
tert-Butylbenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2,3-Trichloropropane	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2,4-Trichlorobenzene	ND	0.0370		mg/Kg-dry	1	9/24/2015 10:50:00 PM
sec-Butylbenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
4-Isopropyltoluene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,3-Dichlorobenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,4-Dichlorobenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
n-Butylbenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2-Dichlorobenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2-Dibromo-3-chloropropane	ND	0.370		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2,4-Trimethylbenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Hexachlorobutadiene	ND	0.0740		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Naphthalene	ND	0.0222		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2,3-Trichlorobenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Surr: Dibromofluoromethane	92.2	56.5-129		%REC	1	9/24/2015 10:50:00 PM
Surr: Toluene-d8	98.4	64.3-131		%REC	1	9/24/2015 10:50:00 PM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/24/2015 10:50:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509300-013

Matrix: Soil

Client Sample ID: GP-18-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.259		mg/Kg-dry	1	9/24/2015 4:57:22 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	5.56	0.0898		mg/Kg-dry	1	9/22/2015 7:27:04 PM
Barium	24.5	0.449		mg/Kg-dry	1	9/22/2015 7:27:04 PM
Cadmium	ND	0.180		mg/Kg-dry	1	9/22/2015 7:27:04 PM
Chromium	56.4	0.0898		mg/Kg-dry	1	9/22/2015 7:27:04 PM
Lead	5.71	0.180		mg/Kg-dry	1	9/22/2015 7:27:04 PM
Selenium	0.898	0.449		mg/Kg-dry	1	9/22/2015 7:27:04 PM
Silver	ND	0.0898		mg/Kg-dry	1	9/22/2015 7:27:04 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	18.1			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509300-014

Matrix: Soil

Client Sample ID: GP-19-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	38.3		µg/Kg-dry	1	10/5/2015 2:24:00 PM
2,4-D	ND	32.8		µg/Kg-dry	1	10/5/2015 2:24:00 PM
2,4-DP	ND	27.4		µg/Kg-dry	1	10/5/2015 2:24:00 PM
2,4,5-TP (Silvex)	ND	21.9		µg/Kg-dry	1	10/5/2015 2:24:00 PM
2,4,5-T	ND	54.7		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Dinoseb	ND	32.8		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Dalapon	ND	219		µg/Kg-dry	1	10/5/2015 2:24:00 PM
2,4-DB	ND	27.4		µg/Kg-dry	1	10/5/2015 2:24:00 PM
MCPP	ND	4,820		µg/Kg-dry	1	10/5/2015 2:24:00 PM
MCPA	ND	3,070		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Picloram	ND	54.7		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Bentazon	ND	38.3		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Chloramben	ND	21.9		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Acifluorfen	ND	87.6		µg/Kg-dry	1	10/5/2015 2:24:00 PM
3,5-Dichlorobenzoic acid	ND	43.8		µg/Kg-dry	1	10/5/2015 2:24:00 PM
4-Nitrophenol	ND	32.8		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Dacthal (DCPA)	ND	32.8		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Surr: 2,4-Dichlorophenylacetic acid	92.5	20.1-168		%REC	1	10/5/2015 2:24:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Alpha BHC	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Beta BHC	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Gamma BHC (Lindane)	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Delta BHC	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Heptachlor	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Aldrin	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Heptachlor epoxide	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
gamma-Chlordane	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Endosulfan I	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
alpha-Chlordane	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Dieldrin	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
4,4'-DDE	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Endrin	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Endosulfan II	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM
4,4'-DDD	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Endrin aldehyde	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Endosulfan sulfate	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509300-014

Matrix: Soil

Client Sample ID: GP-19-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Endrin ketone	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Methoxychlor	ND	0.0509		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Surr: Decachlorobiphenyl	52.1	26.5-158		%REC	1	9/25/2015 5:36:00 PM
Surr: Tetrachloro-m-xylene	46.5	11-150		%REC	1	9/25/2015 5:36:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	20.7		mg/Kg-dry	1	9/24/2015 3:35:00 AM
Heavy Oil	ND	51.9		mg/Kg-dry	1	9/24/2015 3:35:00 AM
Surr: 2-Fluorobiphenyl	136	50-150		%REC	1	9/24/2015 3:35:00 AM
Surr: o-Terphenyl	136	50-150		%REC	1	9/24/2015 3:35:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Bis(2-chloroethyl) ether	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2-Chlorophenol	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
1,3-Dichlorobenzene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
1,4-Dichlorobenzene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
1,2-Dichlorobenzene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Benzyl alcohol	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2-Methylphenol (o-cresol)	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Hexachloroethane	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
N-Nitrosodi-n-propylamine	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Nitrobenzene	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Isophorone	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
4-Methylphenol (p-cresol)	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2-Nitrophenol	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2,4-Dimethylphenol	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Bis(2-chloroethoxy)methane	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2,4-Dichlorophenol	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
1,2,4-Trichlorobenzene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Naphthalene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
4-Chloroaniline	ND	539		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Hexachlorobutadiene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
4-Chloro-3-methylphenol	ND	539		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2-Methylnaphthalene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
1-Methylnaphthalene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509300-014

Matrix: Soil

Client Sample ID: GP-19-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	108	*	µg/Kg-dry	1	9/30/2015 12:42:00 AM
2,4,6-Trichlorophenol	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2,4,5-Trichlorophenol	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2-Chloronaphthalene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2-Nitroaniline	ND	539		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Acenaphthene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Dimethylphthalate	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2,6-Dinitrotoluene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Acenaphthylene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2,4-Dinitrophenol	ND	216	*	µg/Kg-dry	1	9/30/2015 12:42:00 AM
Dibenzofuran	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2,4-Dinitrotoluene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
4-Nitrophenol	ND	539		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Fluorene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
4-Chlorophenyl phenyl ether	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Diethylphthalate	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
4,6-Dinitro-2-methylphenol	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
4-Bromophenyl phenyl ether	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Hexachlorobenzene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Pentachlorophenol	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Phenanthrene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Anthracene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Carbazole	ND	539		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Di-n-butylphthalate	134	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Fluoranthene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Pyrene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Butyl Benzylphthalate	269	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
bis(2-Ethylhexyl)adipate	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Benz (a) anthracene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Chrysene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
bis (2-Ethylhexyl) phthalate	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Di-n-octyl phthalate	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Benzo (b) fluoranthene	168	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Benzo (k) fluoranthene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Benzo (a) pyrene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Indeno (1,2,3-cd) pyrene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Dibenz (a,h) anthracene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Benzo (g,h,i) perylene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Surr: 2,4,6-Tribromophenol	77.3	11.1-127		%REC	1	9/30/2015 12:42:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509300-014

Matrix: Soil

Client Sample ID: GP-19-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	69.8	16.1-150	%REC	1	9/30/2015 12:42:00 AM
Surr: Nitrobenzene-d5	49.8	13.1-124	%REC	1	9/30/2015 12:42:00 AM
Surr: Phenol-d6	50.4	11.6-133	%REC	1	9/30/2015 12:42:00 AM
Surr: p-Terphenyl	95.1	21.8-150	%REC	1	9/30/2015 12:42:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	3.09	mg/Kg-dry	1	9/24/2015 11:18:00 PM
Gasoline Range Organics (C6-C12)	21.3	3.09	mg/Kg-dry	1	9/24/2015 11:18:00 PM
Surr: Toluene-d8	99.8	65-135	%REC	1	9/24/2015 11:18:00 PM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/24/2015 11:18:00 PM

NOTES:

GRO - Indicates the presence of unresolved compounds eluting from toluene to dodecane (~C7->C12).

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0371	mg/Kg-dry	1	9/24/2015 11:18:00 PM
Chloromethane	ND	0.0371	mg/Kg-dry	1	9/24/2015 11:18:00 PM
Vinyl chloride	ND	0.00124	mg/Kg-dry	1	9/24/2015 11:18:00 PM
Bromomethane	ND	0.0557	mg/Kg-dry	1	9/24/2015 11:18:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0309	mg/Kg-dry	1	9/24/2015 11:18:00 PM
Chloroethane	ND	0.0371	mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,1-Dichloroethene	ND	0.0309	mg/Kg-dry	1	9/24/2015 11:18:00 PM
Methylene chloride	ND	0.0124	mg/Kg-dry	1	9/24/2015 11:18:00 PM
trans-1,2-Dichloroethene	ND	0.0124	mg/Kg-dry	1	9/24/2015 11:18:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0309	mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,1-Dichloroethane	ND	0.0124	mg/Kg-dry	1	9/24/2015 11:18:00 PM
2,2-Dichloropropane	ND	0.0309	mg/Kg-dry	1	9/24/2015 11:18:00 PM
cis-1,2-Dichloroethene	ND	0.0124	mg/Kg-dry	1	9/24/2015 11:18:00 PM
Chloroform	ND	0.0124	mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0124	mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,1-Dichloropropene	ND	0.0124	mg/Kg-dry	1	9/24/2015 11:18:00 PM
Carbon tetrachloride	ND	0.0124	mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2-Dichloroethane (EDC)	ND	0.0186	mg/Kg-dry	1	9/24/2015 11:18:00 PM
Benzene	ND	0.0124	mg/Kg-dry	1	9/24/2015 11:18:00 PM
Trichloroethene (TCE)	ND	0.0124	mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2-Dichloropropane	ND	0.0124	mg/Kg-dry	1	9/24/2015 11:18:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509300-014

Matrix: Soil

Client Sample ID: GP-19-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11943	Analyst: BC	
Bromodichloromethane	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Dibromomethane	ND	0.0248		mg/Kg-dry	1	9/24/2015 11:18:00 PM
cis-1,3-Dichloropropene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Toluene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
trans-1,3-Dichloropropylene	ND	0.0186		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,1,2-Trichloroethane	ND	0.0186		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,3-Dichloropropane	ND	0.0309		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Tetrachloroethene (PCE)	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Dibromochloromethane	ND	0.0186		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2-Dibromoethane (EDB)	ND	0.00309		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Chlorobenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0186		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Ethylbenzene	ND	0.0186		mg/Kg-dry	1	9/24/2015 11:18:00 PM
m,p-Xylene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
o-Xylene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Styrene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Isopropylbenzene	ND	0.0495		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Bromoform	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
n-Propylbenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Bromobenzene	ND	0.0186		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,3,5-Trimethylbenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
2-Chlorotoluene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
4-Chlorotoluene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
tert-Butylbenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2,3-Trichloropropane	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2,4-Trichlorobenzene	ND	0.0309		mg/Kg-dry	1	9/24/2015 11:18:00 PM
sec-Butylbenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
4-Isopropyltoluene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,3-Dichlorobenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,4-Dichlorobenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
n-Butylbenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2-Dichlorobenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2-Dibromo-3-chloropropane	ND	0.309		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2,4-Trimethylbenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Hexachlorobutadiene	ND	0.0619		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Naphthalene	ND	0.0186		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2,3-Trichlorobenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Surr: Dibromofluoromethane	92.9	56.5-129		%REC	1	9/24/2015 11:18:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509300-014

Matrix: Soil

Client Sample ID: GP-19-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Surr: Toluene-d8	98.1	64.3-131	%REC	1	9/24/2015 11:18:00 PM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141	%REC	1	9/24/2015 11:18:00 PM

Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.236	mg/Kg-dry	1	9/24/2015 4:58:58 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	3.46	0.0877	mg/Kg-dry	1	9/22/2015 7:37:42 PM
Barium	43.9	0.439	mg/Kg-dry	1	9/22/2015 7:37:42 PM
Cadmium	ND	0.175	mg/Kg-dry	1	9/22/2015 7:37:42 PM
Chromium	21.6	0.0877	mg/Kg-dry	1	9/22/2015 7:37:42 PM
Lead	5.41	0.175	mg/Kg-dry	1	9/22/2015 7:37:42 PM
Selenium	1.12	0.439	mg/Kg-dry	1	9/22/2015 7:37:42 PM
Silver	ND	0.0877	mg/Kg-dry	1	9/22/2015 7:37:42 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	10.2		wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:55:00 PM

Project: Pacific Park

Lab ID: 1509300-015

Matrix: Soil

Client Sample ID: GP-19-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	44.8		µg/Kg-dry	1	10/5/2015 2:41:00 PM
2,4-D	ND	38.4		µg/Kg-dry	1	10/5/2015 2:41:00 PM
2,4-DP	ND	32.0		µg/Kg-dry	1	10/5/2015 2:41:00 PM
2,4,5-TP (Silvex)	ND	25.6		µg/Kg-dry	1	10/5/2015 2:41:00 PM
2,4,5-T	ND	64.0		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Dinoseb	ND	38.4		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Dalapon	ND	256		µg/Kg-dry	1	10/5/2015 2:41:00 PM
2,4-DB	ND	32.0		µg/Kg-dry	1	10/5/2015 2:41:00 PM
MCPP	ND	5,630		µg/Kg-dry	1	10/5/2015 2:41:00 PM
MCPA	ND	3,580		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Picloram	ND	64.0		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Bentazon	ND	44.8		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Chloramben	ND	25.6		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Acifluorfen	ND	102		µg/Kg-dry	1	10/5/2015 2:41:00 PM
3,5-Dichlorobenzoic acid	ND	51.2		µg/Kg-dry	1	10/5/2015 2:41:00 PM
4-Nitrophenol	ND	38.4		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Dacthal (DCPA)	ND	38.4		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Surr: 2,4-Dichlorophenylacetic acid	95.1	20.1-168		%REC	1	10/5/2015 2:41:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Alpha BHC	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Beta BHC	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Gamma BHC (Lindane)	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Delta BHC	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Heptachlor	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Aldrin	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Heptachlor epoxide	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
gamma-Chlordane	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Endosulfan I	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
alpha-Chlordane	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Dieldrin	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
4,4'-DDE	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Endrin	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Endosulfan II	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM
4,4'-DDD	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Endrin aldehyde	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Endosulfan sulfate	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:55:00 PM

Project: Pacific Park

Lab ID: 1509300-015

Matrix: Soil

Client Sample ID: GP-19-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

4,4'-DDT	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Endrin ketone	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Methoxychlor	ND	0.0564		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Surr: Decachlorobiphenyl	41.0	26.5-158		%REC	1	9/25/2015 5:47:00 PM
Surr: Tetrachloro-m-xylene	42.6	11-150		%REC	1	9/25/2015 5:47:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11919

Analyst: AK

Diesel (Fuel Oil)	ND	24.8		mg/Kg-dry	1	9/24/2015 4:07:00 AM
Heavy Oil	ND	62.1		mg/Kg-dry	1	9/24/2015 4:07:00 AM
Surr: 2-Fluorobiphenyl	96.4	50-150		%REC	1	9/24/2015 4:07:00 AM
Surr: o-Terphenyl	98.3	50-150		%REC	1	9/24/2015 4:07:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Bis(2-chloroethyl) ether	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2-Chlorophenol	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
1,3-Dichlorobenzene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
1,4-Dichlorobenzene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
1,2-Dichlorobenzene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Benzyl alcohol	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2-Methylphenol (o-cresol)	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Hexachloroethane	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
N-Nitrosodi-n-propylamine	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Nitrobenzene	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Isophorone	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
4-Methylphenol (p-cresol)	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2-Nitrophenol	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2,4-Dimethylphenol	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Bis(2-chloroethoxy)methane	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2,4-Dichlorophenol	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
1,2,4-Trichlorobenzene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Naphthalene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
4-Chloroaniline	ND	638		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Hexachlorobutadiene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
4-Chloro-3-methylphenol	ND	638		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2-Methylnaphthalene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
1-Methylnaphthalene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:55:00 PM

Project: Pacific Park

Lab ID: 1509300-015

Matrix: Soil

Client Sample ID: GP-19-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Hexachlorocyclopentadiene	ND	128	*	µg/Kg-dry	1	9/30/2015 1:04:00 AM
2,4,6-Trichlorophenol	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2,4,5-Trichlorophenol	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2-Chloronaphthalene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2-Nitroaniline	ND	638		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Acenaphthene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Dimethylphthalate	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2,6-Dinitrotoluene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Acenaphthylene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2,4-Dinitrophenol	ND	255	*	µg/Kg-dry	1	9/30/2015 1:04:00 AM
Dibenzofuran	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2,4-Dinitrotoluene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
4-Nitrophenol	ND	638		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Fluorene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
4-Chlorophenyl phenyl ether	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Diethylphthalate	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
4,6-Dinitro-2-methylphenol	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
4-Bromophenyl phenyl ether	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Hexachlorobenzene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Pentachlorophenol	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Phenanthrene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Anthracene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Carbazole	ND	638		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Di-n-butylphthalate	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Fluoranthene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Pyrene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Butyl Benzylphthalate	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
bis(2-Ethylhexyl)adipate	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Benz (a) anthracene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Chrysene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
bis (2-Ethylhexyl) phthalate	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Di-n-octyl phthalate	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Benzo (b) fluoranthene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Benzo (k) fluoranthene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Benzo (a) pyrene	276	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Indeno (1,2,3-cd) pyrene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Dibenz (a,h) anthracene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Benzo (g,h,i) perylene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Surr: 2,4,6-Tribromophenol	71.5	11.1-127		%REC	1	9/30/2015 1:04:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:55:00 PM

Project: Pacific Park

Lab ID: 1509300-015

Matrix: Soil

Client Sample ID: GP-19-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	58.6	16.1-150	%REC	1	9/30/2015 1:04:00 AM
Surr: Nitrobenzene-d5	43.0	13.1-124	%REC	1	9/30/2015 1:04:00 AM
Surr: Phenol-d6	51.9	11.6-133	%REC	1	9/30/2015 1:04:00 AM
Surr: p-Terphenyl	81.8	21.8-150	%REC	1	9/30/2015 1:04:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	4.71	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Surr: Toluene-d8	98.9	65-135	%REC	1	9/24/2015 11:47:00 PM
Surr: 4-Bromofluorobenzene	105	65-135	%REC	1	9/24/2015 11:47:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0565	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Chloromethane	ND	0.0565	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Vinyl chloride	ND	0.00188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Bromomethane	ND	0.0847	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0471	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Chloroethane	ND	0.0565	mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,1-Dichloroethene	ND	0.0471	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Methylene chloride	0.0198	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
trans-1,2-Dichloroethene	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0471	mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,1-Dichloroethane	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
2,2-Dichloropropane	ND	0.0471	mg/Kg-dry	1	9/24/2015 11:47:00 PM
cis-1,2-Dichloroethene	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Chloroform	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,1-Dichloropropene	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Carbon tetrachloride	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2-Dichloroethane (EDC)	ND	0.0282	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Benzene	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Trichloroethene (TCE)	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2-Dichloropropane	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Bromodichloromethane	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Dibromomethane	ND	0.0377	mg/Kg-dry	1	9/24/2015 11:47:00 PM
cis-1,3-Dichloropropene	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:55:00 PM

Project: Pacific Park

Lab ID: 1509300-015

Matrix: Soil

Client Sample ID: GP-19-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11943		Analyst: BC
Toluene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
trans-1,3-Dichloropropylene	ND	0.0282		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,1,2-Trichloroethane	ND	0.0282		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,3-Dichloropropane	ND	0.0471		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Tetrachloroethene (PCE)	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Dibromochloromethane	ND	0.0282		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2-Dibromoethane (EDB)	ND	0.00471		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Chlorobenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0282		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Ethylbenzene	ND	0.0282		mg/Kg-dry	1	9/24/2015 11:47:00 PM
m,p-Xylene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
o-Xylene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Styrene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Isopropylbenzene	ND	0.0753		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Bromoform	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
n-Propylbenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Bromobenzene	ND	0.0282		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,3,5-Trimethylbenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
2-Chlorotoluene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
4-Chlorotoluene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
tert-Butylbenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2,3-Trichloropropane	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2,4-Trichlorobenzene	ND	0.0471		mg/Kg-dry	1	9/24/2015 11:47:00 PM
sec-Butylbenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
4-Isopropyltoluene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,3-Dichlorobenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,4-Dichlorobenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
n-Butylbenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2-Dichlorobenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2-Dibromo-3-chloropropane	ND	0.471		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2,4-Trimethylbenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Hexachlorobutadiene	ND	0.0942		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Naphthalene	ND	0.0282		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2,3-Trichlorobenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Surr: Dibromofluoromethane	91.8	56.5-129		%REC	1	9/24/2015 11:47:00 PM
Surr: Toluene-d8	97.3	64.3-131		%REC	1	9/24/2015 11:47:00 PM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/24/2015 11:47:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:55:00 PM

Project: Pacific Park

Lab ID: 1509300-015

Matrix: Soil

Client Sample ID: GP-19-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.278		mg/Kg-dry	1	9/24/2015 5:00:40 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	2.72	0.0994		mg/Kg-dry	1	9/22/2015 7:41:14 PM
Barium	37.6	0.497		mg/Kg-dry	1	9/22/2015 7:41:14 PM
Cadmium	ND	0.199		mg/Kg-dry	1	9/22/2015 7:41:14 PM
Chromium	17.1	0.0994		mg/Kg-dry	1	9/22/2015 7:41:14 PM
Lead	2.16	0.199		mg/Kg-dry	1	9/22/2015 7:41:14 PM
Selenium	0.864	0.497		mg/Kg-dry	1	9/22/2015 7:41:14 PM
Silver	ND	0.0994		mg/Kg-dry	1	9/22/2015 7:41:14 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	22.6			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:20:00 PM

Project: Pacific Park

Lab ID: 1509300-016

Matrix: Soil

Client Sample ID: GP-20-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	37.8		µg/Kg-dry	1	10/5/2015 2:58:00 PM
2,4-D	ND	32.4		µg/Kg-dry	1	10/5/2015 2:58:00 PM
2,4-DP	ND	27.0		µg/Kg-dry	1	10/5/2015 2:58:00 PM
2,4,5-TP (Silvex)	ND	21.6		µg/Kg-dry	1	10/5/2015 2:58:00 PM
2,4,5-T	ND	54.1		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Dinoseb	ND	32.4		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Dalapon	ND	216		µg/Kg-dry	1	10/5/2015 2:58:00 PM
2,4-DB	ND	27.0		µg/Kg-dry	1	10/5/2015 2:58:00 PM
MCPP	ND	4,760		µg/Kg-dry	1	10/5/2015 2:58:00 PM
MCPA	ND	3,030		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Picloram	ND	54.1		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Bentazon	ND	37.8		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Chloramben	ND	21.6		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Acifluorfen	ND	86.5		µg/Kg-dry	1	10/5/2015 2:58:00 PM
3,5-Dichlorobenzoic acid	ND	43.2		µg/Kg-dry	1	10/5/2015 2:58:00 PM
4-Nitrophenol	ND	32.4		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Dacthal (DCPA)	ND	32.4		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Surr: 2,4-Dichlorophenylacetic acid	95.5	20.1-168		%REC	1	10/5/2015 2:58:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.0948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Alpha BHC	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Beta BHC	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Gamma BHC (Lindane)	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Delta BHC	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Heptachlor	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Aldrin	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Heptachlor epoxide	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
gamma-Chlordane	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Endosulfan I	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
alpha-Chlordane	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Dieldrin	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
4,4'-DDE	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Endrin	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Endosulfan II	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM
4,4'-DDD	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Endrin aldehyde	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Endosulfan sulfate	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:20:00 PM

Project: Pacific Park

Lab ID: 1509300-016

Matrix: Soil

Client Sample ID: GP-20-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

4,4'-DDT	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Endrin ketone	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Methoxychlor	ND	0.0474		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Surr: Decachlorobiphenyl	80.1	26.5-158		%REC	1	9/25/2015 5:58:00 PM
Surr: Tetrachloro-m-xylene	80.8	11-150		%REC	1	9/25/2015 5:58:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11919

Analyst: AK

Diesel (Fuel Oil)	ND	19.7		mg/Kg-dry	1	9/24/2015 4:40:00 AM
Heavy Oil	285	49.2		mg/Kg-dry	1	9/24/2015 4:40:00 AM
Surr: 2-Fluorobiphenyl	107	50-150		%REC	1	9/24/2015 4:40:00 AM
Surr: o-Terphenyl	106	50-150		%REC	1	9/24/2015 4:40:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Bis(2-chloroethyl) ether	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2-Chlorophenol	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
1,3-Dichlorobenzene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
1,4-Dichlorobenzene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
1,2-Dichlorobenzene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Benzyl alcohol	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2-Methylphenol (o-cresol)	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Hexachloroethane	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
N-Nitrosodi-n-propylamine	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Nitrobenzene	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Isophorone	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
4-Methylphenol (p-cresol)	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2-Nitrophenol	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2,4-Dimethylphenol	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Bis(2-chloroethoxy)methane	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2,4-Dichlorophenol	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
1,2,4-Trichlorobenzene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Naphthalene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
4-Chloroaniline	ND	530		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Hexachlorobutadiene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
4-Chloro-3-methylphenol	ND	530		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2-Methylnaphthalene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
1-Methylnaphthalene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:20:00 PM

Project: Pacific Park

Lab ID: 1509300-016

Matrix: Soil

Client Sample ID: GP-20-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Hexachlorocyclopentadiene	ND	106	*	µg/Kg-dry	1	9/30/2015 1:26:00 AM
2,4,6-Trichlorophenol	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2,4,5-Trichlorophenol	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2-Chloronaphthalene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2-Nitroaniline	ND	530		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Acenaphthene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Dimethylphthalate	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2,6-Dinitrotoluene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Acenaphthylene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2,4-Dinitrophenol	ND	212	*	µg/Kg-dry	1	9/30/2015 1:26:00 AM
Dibenzofuran	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2,4-Dinitrotoluene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
4-Nitrophenol	ND	530		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Fluorene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
4-Chlorophenyl phenyl ether	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Diethylphthalate	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
4,6-Dinitro-2-methylphenol	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
4-Bromophenyl phenyl ether	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Hexachlorobenzene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Pentachlorophenol	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Phenanthrene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Anthracene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Carbazole	ND	530		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Di-n-butylphthalate	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Fluoranthene	95.5	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Pyrene	90.3	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Butyl Benzylphthalate	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
bis(2-Ethylhexyl)adipate	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Benz (a) anthracene	134	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Chrysene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
bis (2-Ethylhexyl) phthalate	212	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Di-n-octyl phthalate	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Benzo (b) fluoranthene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Benzo (k) fluoranthene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Benzo (a) pyrene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Indeno (1,2,3-cd) pyrene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Dibenz (a,h) anthracene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Benzo (g,h,i) perylene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Surr: 2,4,6-Tribromophenol	74.8	11.1-127		%REC	1	9/30/2015 1:26:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:20:00 PM

Project: Pacific Park

Lab ID: 1509300-016

Matrix: Soil

Client Sample ID: GP-20-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	56.7	16.1-150	%REC	1	9/30/2015 1:26:00 AM
Surr: Nitrobenzene-d5	35.7	13.1-124	%REC	1	9/30/2015 1:26:00 AM
Surr: Phenol-d6	53.0	11.6-133	%REC	1	9/30/2015 1:26:00 AM
Surr: p-Terphenyl	91.9	21.8-150	%REC	1	9/30/2015 1:26:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	3.32	mg/Kg-dry	1	9/25/2015 12:15:00 AM
Surr: Toluene-d8	98.5	65-135	%REC	1	9/25/2015 12:15:00 AM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/25/2015 12:15:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0399	mg/Kg-dry	1	9/25/2015 12:15:00 AM
Chloromethane	ND	0.0399	mg/Kg-dry	1	9/25/2015 12:15:00 AM
Vinyl chloride	ND	0.00133	mg/Kg-dry	1	9/25/2015 12:15:00 AM
Bromomethane	ND	0.0598	mg/Kg-dry	1	9/25/2015 12:15:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0332	mg/Kg-dry	1	9/25/2015 12:15:00 AM
Chloroethane	ND	0.0399	mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,1-Dichloroethene	ND	0.0332	mg/Kg-dry	1	9/25/2015 12:15:00 AM
Methylene chloride	ND	0.0133	mg/Kg-dry	1	9/25/2015 12:15:00 AM
trans-1,2-Dichloroethene	ND	0.0133	mg/Kg-dry	1	9/25/2015 12:15:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0332	mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,1-Dichloroethane	ND	0.0133	mg/Kg-dry	1	9/25/2015 12:15:00 AM
2,2-Dichloropropane	ND	0.0332	mg/Kg-dry	1	9/25/2015 12:15:00 AM
cis-1,2-Dichloroethene	ND	0.0133	mg/Kg-dry	1	9/25/2015 12:15:00 AM
Chloroform	ND	0.0133	mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0133	mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,1-Dichloropropene	ND	0.0133	mg/Kg-dry	1	9/25/2015 12:15:00 AM
Carbon tetrachloride	ND	0.0133	mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2-Dichloroethane (EDC)	ND	0.0199	mg/Kg-dry	1	9/25/2015 12:15:00 AM
Benzene	ND	0.0133	mg/Kg-dry	1	9/25/2015 12:15:00 AM
Trichloroethene (TCE)	ND	0.0133	mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2-Dichloropropane	ND	0.0133	mg/Kg-dry	1	9/25/2015 12:15:00 AM
Bromodichloromethane	ND	0.0133	mg/Kg-dry	1	9/25/2015 12:15:00 AM
Dibromomethane	ND	0.0266	mg/Kg-dry	1	9/25/2015 12:15:00 AM
cis-1,3-Dichloropropene	ND	0.0133	mg/Kg-dry	1	9/25/2015 12:15:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:20:00 PM

Project: Pacific Park

Lab ID: 1509300-016

Matrix: Soil

Client Sample ID: GP-20-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Toluene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
trans-1,3-Dichloropropylene	ND	0.0199		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,1,2-Trichloroethane	ND	0.0199		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,3-Dichloropropane	ND	0.0332		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Tetrachloroethene (PCE)	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Dibromochloromethane	ND	0.0199		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2-Dibromoethane (EDB)	ND	0.00332		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Chlorobenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0199		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Ethylbenzene	ND	0.0199		mg/Kg-dry	1	9/25/2015 12:15:00 AM
m,p-Xylene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
o-Xylene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Styrene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Isopropylbenzene	ND	0.0531		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Bromoform	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
n-Propylbenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Bromobenzene	ND	0.0199		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,3,5-Trimethylbenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
2-Chlorotoluene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
4-Chlorotoluene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
tert-Butylbenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2,3-Trichloropropane	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2,4-Trichlorobenzene	ND	0.0332		mg/Kg-dry	1	9/25/2015 12:15:00 AM
sec-Butylbenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
4-Isopropyltoluene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,3-Dichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,4-Dichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
n-Butylbenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2-Dichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2-Dibromo-3-chloropropane	ND	0.332		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2,4-Trimethylbenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Hexachlorobutadiene	ND	0.0664		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Naphthalene	ND	0.0199		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2,3-Trichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Surr: Dibromofluoromethane	92.9	56.5-129		%REC	1	9/25/2015 12:15:00 AM
Surr: Toluene-d8	98.9	64.3-131		%REC	1	9/25/2015 12:15:00 AM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/25/2015 12:15:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:20:00 PM

Project: Pacific Park

Lab ID: 1509300-016

Matrix: Soil

Client Sample ID: GP-20-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.266		mg/Kg-dry	1	9/24/2015 5:02:18 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	3.97	0.0846		mg/Kg-dry	1	9/22/2015 7:44:45 PM
Barium	31.5	0.423		mg/Kg-dry	1	9/22/2015 7:44:45 PM
Cadmium	ND	0.169		mg/Kg-dry	1	9/22/2015 7:44:45 PM
Chromium	19.1	0.0846		mg/Kg-dry	1	9/22/2015 7:44:45 PM
Lead	19.6	0.169		mg/Kg-dry	1	9/22/2015 7:44:45 PM
Selenium	1.16	0.423		mg/Kg-dry	1	9/22/2015 7:44:45 PM
Silver	ND	0.0846		mg/Kg-dry	1	9/22/2015 7:44:45 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	7.70			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:45:00 PM

Project: Pacific Park

Lab ID: 1509300-017

Matrix: Soil

Client Sample ID: GP-20-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	40.3		µg/Kg-dry	1	10/5/2015 3:15:00 PM
2,4-D	ND	34.5		µg/Kg-dry	1	10/5/2015 3:15:00 PM
2,4-DP	ND	28.8		µg/Kg-dry	1	10/5/2015 3:15:00 PM
2,4,5-TP (Silvex)	ND	23.0		µg/Kg-dry	1	10/5/2015 3:15:00 PM
2,4,5-T	ND	57.5		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Dinoseb	ND	34.5		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Dalapon	ND	230		µg/Kg-dry	1	10/5/2015 3:15:00 PM
2,4-DB	ND	28.8		µg/Kg-dry	1	10/5/2015 3:15:00 PM
MCPP	ND	5,060		µg/Kg-dry	1	10/5/2015 3:15:00 PM
MCPA	ND	3,220		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Picloram	ND	57.5		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Bentazon	ND	40.3		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Chloramben	ND	23.0		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Acifluorfen	ND	92.0		µg/Kg-dry	1	10/5/2015 3:15:00 PM
3,5-Dichlorobenzoic acid	ND	46.0		µg/Kg-dry	1	10/5/2015 3:15:00 PM
4-Nitrophenol	ND	34.5		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Dacthal (DCPA)	ND	34.5		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Surr: 2,4-Dichlorophenylacetic acid	101	20.1-168		%REC	1	10/5/2015 3:15:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Alpha BHC	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Beta BHC	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Gamma BHC (Lindane)	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Delta BHC	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Heptachlor	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Aldrin	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Heptachlor epoxide	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
gamma-Chlordane	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Endosulfan I	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
alpha-Chlordane	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Dieldrin	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
4,4'-DDE	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Endrin	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Endosulfan II	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM
4,4'-DDD	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Endrin aldehyde	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Endosulfan sulfate	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:45:00 PM

Project: Pacific Park

Lab ID: 1509300-017

Matrix: Soil

Client Sample ID: GP-20-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

4,4'-DDT	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Endrin ketone	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Methoxychlor	ND	0.0565		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Surr: Decachlorobiphenyl	78.9	26.5-158		%REC	1	9/25/2015 6:09:00 PM
Surr: Tetrachloro-m-xylene	82.1	11-150		%REC	1	9/25/2015 6:09:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11919

Analyst: AK

Diesel (Fuel Oil)	ND	20.8		mg/Kg-dry	1	9/24/2015 5:12:00 AM
Heavy Oil	ND	51.9		mg/Kg-dry	1	9/24/2015 5:12:00 AM
Surr: 2-Fluorobiphenyl	103	50-150		%REC	1	9/24/2015 5:12:00 AM
Surr: o-Terphenyl	104	50-150		%REC	1	9/24/2015 5:12:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Bis(2-chloroethyl) ether	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2-Chlorophenol	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
1,3-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
1,4-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
1,2-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Benzyl alcohol	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2-Methylphenol (o-cresol)	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Hexachloroethane	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
N-Nitrosodi-n-propylamine	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Nitrobenzene	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Isophorone	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
4-Methylphenol (p-cresol)	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2-Nitrophenol	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2,4-Dimethylphenol	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Bis(2-chloroethoxy)methane	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2,4-Dichlorophenol	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
1,2,4-Trichlorobenzene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Naphthalene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
4-Chloroaniline	ND	575		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Hexachlorobutadiene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
4-Chloro-3-methylphenol	ND	575		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2-Methylnaphthalene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
1-Methylnaphthalene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:45:00 PM

Project: Pacific Park

Lab ID: 1509300-017

Matrix: Soil

Client Sample ID: GP-20-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	115	*	µg/Kg-dry	1	9/30/2015 1:48:00 AM
2,4,6-Trichlorophenol	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2,4,5-Trichlorophenol	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2-Chloronaphthalene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2-Nitroaniline	ND	575		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Acenaphthene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Dimethylphthalate	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2,6-Dinitrotoluene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Acenaphthylene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2,4-Dinitrophenol	ND	230	*	µg/Kg-dry	1	9/30/2015 1:48:00 AM
Dibenzofuran	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2,4-Dinitrotoluene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
4-Nitrophenol	ND	575		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Fluorene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
4-Chlorophenyl phenyl ether	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Diethylphthalate	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
4,6-Dinitro-2-methylphenol	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
4-Bromophenyl phenyl ether	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Hexachlorobenzene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Pentachlorophenol	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Phenanthrene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Anthracene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Carbazole	ND	575		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Di-n-butylphthalate	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Fluoranthene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Pyrene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Butyl Benzylphthalate	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
bis(2-Ethylhexyl)adipate	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Benz (a) anthracene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Chrysene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
bis (2-Ethylhexyl) phthalate	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Di-n-octyl phthalate	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Benzo (b) fluoranthene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Benzo (k) fluoranthene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Benzo (a) pyrene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Indeno (1,2,3-cd) pyrene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Dibenz (a,h) anthracene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Benzo (g,h,i) perylene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Surr: 2,4,6-Tribromophenol	74.4	11.1-127		%REC	1	9/30/2015 1:48:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:45:00 PM

Project: Pacific Park

Lab ID: 1509300-017

Matrix: Soil

Client Sample ID: GP-20-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	45.8	16.1-150	%REC	1	9/30/2015 1:48:00 AM
Surr: Nitrobenzene-d5	27.7	13.1-124	%REC	1	9/30/2015 1:48:00 AM
Surr: Phenol-d6	52.9	11.6-133	%REC	1	9/30/2015 1:48:00 AM
Surr: p-Terphenyl	88.5	21.8-150	%REC	1	9/30/2015 1:48:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	3.60	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Surr: Toluene-d8	99.7	65-135	%REC	1	9/25/2015 2:38:00 AM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/25/2015 2:38:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0432	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Chloromethane	ND	0.0432	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Vinyl chloride	ND	0.00144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Bromomethane	ND	0.0649	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0360	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Chloroethane	ND	0.0432	mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,1-Dichloroethene	ND	0.0360	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Methylene chloride	0.0151	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
trans-1,2-Dichloroethene	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0360	mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,1-Dichloroethane	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
2,2-Dichloropropane	ND	0.0360	mg/Kg-dry	1	9/25/2015 2:38:00 AM
cis-1,2-Dichloroethene	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Chloroform	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,1-Dichloropropene	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Carbon tetrachloride	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2-Dichloroethane (EDC)	ND	0.0216	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Benzene	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Trichloroethene (TCE)	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2-Dichloropropane	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Bromodichloromethane	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Dibromomethane	ND	0.0288	mg/Kg-dry	1	9/25/2015 2:38:00 AM
cis-1,3-Dichloropropene	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:45:00 PM

Project: Pacific Park

Lab ID: 1509300-017

Matrix: Soil

Client Sample ID: GP-20-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Toluene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
trans-1,3-Dichloropropylene	ND	0.0216		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,1,2-Trichloroethane	ND	0.0216		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,3-Dichloropropane	ND	0.0360		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Tetrachloroethene (PCE)	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Dibromochloromethane	ND	0.0216		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2-Dibromoethane (EDB)	ND	0.00360		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Chlorobenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0216		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Ethylbenzene	ND	0.0216		mg/Kg-dry	1	9/25/2015 2:38:00 AM
m,p-Xylene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
o-Xylene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Styrene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Isopropylbenzene	ND	0.0577		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Bromoform	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
n-Propylbenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Bromobenzene	ND	0.0216		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,3,5-Trimethylbenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
2-Chlorotoluene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
4-Chlorotoluene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
tert-Butylbenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2,3-Trichloropropane	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2,4-Trichlorobenzene	ND	0.0360		mg/Kg-dry	1	9/25/2015 2:38:00 AM
sec-Butylbenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
4-Isopropyltoluene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,3-Dichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,4-Dichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
n-Butylbenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2-Dichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2-Dibromo-3-chloropropane	ND	0.360		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2,4-Trimethylbenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Hexachlorobutadiene	ND	0.0721		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Naphthalene	ND	0.0216		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2,3-Trichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Surr: Dibromofluoromethane	94.3	56.5-129		%REC	1	9/25/2015 2:38:00 AM
Surr: Toluene-d8	96.2	64.3-131		%REC	1	9/25/2015 2:38:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.1	63.1-141		%REC	1	9/25/2015 2:38:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:45:00 PM

Project: Pacific Park

Lab ID: 1509300-017

Matrix: Soil

Client Sample ID: GP-20-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.268		mg/Kg-dry	1	9/24/2015 5:03:55 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	1.87	0.0916		mg/Kg-dry	1	9/22/2015 7:48:17 PM
Barium	20.6	0.458		mg/Kg-dry	1	9/22/2015 7:48:17 PM
Cadmium	ND	0.183		mg/Kg-dry	1	9/22/2015 7:48:17 PM
Chromium	11.3	0.0916		mg/Kg-dry	1	9/22/2015 7:48:17 PM
Lead	2.31	0.183		mg/Kg-dry	1	9/22/2015 7:48:17 PM
Selenium	0.923	0.458		mg/Kg-dry	1	9/22/2015 7:48:17 PM
Silver	ND	0.0916		mg/Kg-dry	1	9/22/2015 7:48:17 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	16.7			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:20:00 PM

Project: Pacific Park

Lab ID: 1509300-018

Matrix: Soil

Client Sample ID: GP-21-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	41.0		µg/Kg-dry	1	10/5/2015 3:32:00 PM
2,4-D	ND	35.1		µg/Kg-dry	1	10/5/2015 3:32:00 PM
2,4-DP	ND	29.3		µg/Kg-dry	1	10/5/2015 3:32:00 PM
2,4,5-TP (Silvex)	ND	23.4		µg/Kg-dry	1	10/5/2015 3:32:00 PM
2,4,5-T	ND	58.5		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Dinoseb	ND	35.1		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Dalapon	ND	234		µg/Kg-dry	1	10/5/2015 3:32:00 PM
2,4-DB	ND	29.3		µg/Kg-dry	1	10/5/2015 3:32:00 PM
MCPP	ND	5,150		µg/Kg-dry	1	10/5/2015 3:32:00 PM
MCPA	ND	3,280		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Picloram	ND	58.5		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Bentazon	ND	41.0		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Chloramben	ND	23.4		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Acifluorfen	ND	93.6		µg/Kg-dry	1	10/5/2015 3:32:00 PM
3,5-Dichlorobenzoic acid	ND	46.8		µg/Kg-dry	1	10/5/2015 3:32:00 PM
4-Nitrophenol	ND	35.1		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Dacthal (DCPA)	ND	35.1		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Surr: 2,4-Dichlorophenylacetic acid	95.3	20.1-168		%REC	1	10/5/2015 3:32:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Alpha BHC	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Beta BHC	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Gamma BHC (Lindane)	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Delta BHC	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Heptachlor	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Aldrin	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Heptachlor epoxide	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
gamma-Chlordane	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Endosulfan I	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
alpha-Chlordane	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Dieldrin	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
4,4'-DDE	ND	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Endrin	ND	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Endosulfan II	ND	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM
4,4'-DDD	ND	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Endrin aldehyde	ND	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Endosulfan sulfate	ND	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:20:00 PM

Project: Pacific Park

Lab ID: 1509300-018

Matrix: Soil

Client Sample ID: GP-21-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

4,4'-DDT	ND	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Endrin ketone	0.0226	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Methoxychlor	0.144	0.0558		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Surr: Decachlorobiphenyl	92.5	26.5-158		%REC	1	9/25/2015 6:20:00 PM
Surr: Tetrachloro-m-xylene	58.7	11-150		%REC	1	9/25/2015 6:20:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11945

Analyst: AK

Diesel (Fuel Oil)	ND	23.3		mg/Kg-dry	1	9/25/2015 3:06:00 AM
Heavy Oil	728	58.2		mg/Kg-dry	1	9/25/2015 3:06:00 AM
Surr: 2-Fluorobiphenyl	90.0	50-150		%REC	1	9/25/2015 3:06:00 AM
Surr: o-Terphenyl	89.3	50-150		%REC	1	9/25/2015 3:06:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	569	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Bis(2-chloroethyl) ether	ND	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2-Chlorophenol	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
1,3-Dichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
1,4-Dichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
1,2-Dichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Benzyl alcohol	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2-Methylphenol (o-cresol)	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Hexachloroethane	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
N-Nitrosodi-n-propylamine	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Nitrobenzene	ND	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Isophorone	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
4-Methylphenol (p-cresol)	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2-Nitrophenol	ND	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2,4-Dimethylphenol	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Bis(2-chloroethoxy)methane	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2,4-Dichlorophenol	ND	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
1,2,4-Trichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Naphthalene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
4-Chloroaniline	ND	571		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Hexachlorobutadiene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
4-Chloro-3-methylphenol	ND	571		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2-Methylnaphthalene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
1-Methylnaphthalene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:20:00 PM

Project: Pacific Park

Lab ID: 1509300-018

Matrix: Soil

Client Sample ID: GP-21-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984	Analyst: NG	
Hexachlorocyclopentadiene	ND	114	*	µg/Kg-dry	1	10/2/2015 8:31:00 AM
2,4,6-Trichlorophenol	ND	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2,4,5-Trichlorophenol	ND	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2-Chloronaphthalene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2-Nitroaniline	ND	571		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Acenaphthene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Dimethylphthalate	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2,6-Dinitrotoluene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Acenaphthylene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2,4-Dinitrophenol	ND	228	*	µg/Kg-dry	1	10/2/2015 8:31:00 AM
Dibenzofuran	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2,4-Dinitrotoluene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
4-Nitrophenol	ND	571		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Fluorene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
4-Chlorophenyl phenyl ether	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Diethylphthalate	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
4,6-Dinitro-2-methylphenol	ND	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
4-Bromophenyl phenyl ether	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Hexachlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Pentachlorophenol	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Phenanthrene	112	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Anthracene	130	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Carbazole	ND	571		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Di-n-butylphthalate	134	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Fluoranthene	254	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Pyrene	234	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Butyl Benzylphthalate	179	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
bis(2-Ethylhexyl)adipate	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Benz (a) anthracene	157	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Chrysene	225	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
bis (2-Ethylhexyl) phthalate	2,760	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Di-n-octyl phthalate	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Benzo (b) fluoranthene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Benzo (k) fluoranthene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Benzo (a) pyrene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Indeno (1,2,3-cd) pyrene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Dibenz (a,h) anthracene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Benzo (g,h,i) perylene	181	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Surr: 2,4,6-Tribromophenol	70.4	11.1-127		%REC	1	10/2/2015 8:31:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:20:00 PM

Project: Pacific Park

Lab ID: 1509300-018

Matrix: Soil

Client Sample ID: GP-21-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	62.9	16.1-150	%REC	1	10/2/2015 8:31:00 AM
Surr: Nitrobenzene-d5	35.7	10-133	%REC	1	10/2/2015 8:31:00 AM
Surr: Phenol-d6	31.5	11.6-133	%REC	1	10/2/2015 8:31:00 AM
Surr: p-Terphenyl	89.8	21.8-150	%REC	1	10/2/2015 8:31:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	3.73	3.34	mg/Kg-dry	1	9/25/2015 3:35:00 AM
Surr: Toluene-d8	99.5	65-135	%REC	1	9/25/2015 3:35:00 AM
Surr: 4-Bromofluorobenzene	101	65-135	%REC	1	9/25/2015 3:35:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0401	mg/Kg-dry	1	9/25/2015 3:35:00 AM
Chloromethane	ND	0.0401	mg/Kg-dry	1	9/25/2015 3:35:00 AM
Vinyl chloride	ND	0.00134	mg/Kg-dry	1	9/25/2015 3:35:00 AM
Bromomethane	ND	0.0602	mg/Kg-dry	1	9/25/2015 3:35:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0334	mg/Kg-dry	1	9/25/2015 3:35:00 AM
Chloroethane	ND	0.0401	mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,1-Dichloroethene	ND	0.0334	mg/Kg-dry	1	9/25/2015 3:35:00 AM
Methylene chloride	0.0143	0.0134	mg/Kg-dry	1	9/25/2015 3:35:00 AM
trans-1,2-Dichloroethene	ND	0.0134	mg/Kg-dry	1	9/25/2015 3:35:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0334	mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,1-Dichloroethane	ND	0.0134	mg/Kg-dry	1	9/25/2015 3:35:00 AM
2,2-Dichloropropane	ND	0.0334	mg/Kg-dry	1	9/25/2015 3:35:00 AM
cis-1,2-Dichloroethene	ND	0.0134	mg/Kg-dry	1	9/25/2015 3:35:00 AM
Chloroform	ND	0.0134	mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0134	mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,1-Dichloropropene	ND	0.0134	mg/Kg-dry	1	9/25/2015 3:35:00 AM
Carbon tetrachloride	ND	0.0134	mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2-Dichloroethane (EDC)	ND	0.0201	mg/Kg-dry	1	9/25/2015 3:35:00 AM
Benzene	ND	0.0134	mg/Kg-dry	1	9/25/2015 3:35:00 AM
Trichloroethene (TCE)	ND	0.0134	mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2-Dichloropropane	ND	0.0134	mg/Kg-dry	1	9/25/2015 3:35:00 AM
Bromodichloromethane	ND	0.0134	mg/Kg-dry	1	9/25/2015 3:35:00 AM
Dibromomethane	ND	0.0268	mg/Kg-dry	1	9/25/2015 3:35:00 AM
cis-1,3-Dichloropropene	ND	0.0134	mg/Kg-dry	1	9/25/2015 3:35:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:20:00 PM

Project: Pacific Park

Lab ID: 1509300-018

Matrix: Soil

Client Sample ID: GP-21-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Toluene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
trans-1,3-Dichloropropylene	ND	0.0201		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,1,2-Trichloroethane	ND	0.0201		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,3-Dichloropropane	ND	0.0334		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Tetrachloroethene (PCE)	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Dibromochloromethane	ND	0.0201		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2-Dibromoethane (EDB)	ND	0.00334		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Chlorobenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0201		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Ethylbenzene	ND	0.0201		mg/Kg-dry	1	9/25/2015 3:35:00 AM
m,p-Xylene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
o-Xylene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Styrene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Isopropylbenzene	ND	0.0535		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Bromoform	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
n-Propylbenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Bromobenzene	ND	0.0201		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,3,5-Trimethylbenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
2-Chlorotoluene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
4-Chlorotoluene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
tert-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2,3-Trichloropropane	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2,4-Trichlorobenzene	ND	0.0334		mg/Kg-dry	1	9/25/2015 3:35:00 AM
sec-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
4-Isopropyltoluene	0.131	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,3-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,4-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
n-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2-Dibromo-3-chloropropane	ND	0.334		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2,4-Trimethylbenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Hexachlorobutadiene	ND	0.0669		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Naphthalene	ND	0.0201		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2,3-Trichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Surr: Dibromofluoromethane	95.4	56.5-129		%REC	1	9/25/2015 3:35:00 AM
Surr: Toluene-d8	99.6	64.3-131		%REC	1	9/25/2015 3:35:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.1	63.1-141		%REC	1	9/25/2015 3:35:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:20:00 PM

Project: Pacific Park

Lab ID: 1509300-018

Matrix: Soil

Client Sample ID: GP-21-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.253		mg/Kg-dry	1	9/24/2015 5:08:49 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	2.61	0.0946		mg/Kg-dry	1	9/22/2015 7:51:48 PM
Barium	39.7	0.473		mg/Kg-dry	1	9/22/2015 7:51:48 PM
Cadmium	0.228	0.189		mg/Kg-dry	1	9/22/2015 7:51:48 PM
Chromium	22.0	0.0946		mg/Kg-dry	1	9/22/2015 7:51:48 PM
Lead	18.2	0.189		mg/Kg-dry	1	9/22/2015 7:51:48 PM
Selenium	0.846	0.473		mg/Kg-dry	1	9/22/2015 7:51:48 PM
Silver	ND	0.0946		mg/Kg-dry	1	9/22/2015 7:51:48 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	14.7			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509300-019

Matrix: Soil

Client Sample ID: GP-21-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	41.1		µg/Kg-dry	1	10/1/2015 2:53:00 PM
2,4-D	ND	35.2		µg/Kg-dry	1	10/1/2015 2:53:00 PM
2,4-DP	ND	29.3		µg/Kg-dry	1	10/1/2015 2:53:00 PM
2,4,5-TP (Silvex)	ND	23.5		µg/Kg-dry	1	10/1/2015 2:53:00 PM
2,4,5-T	ND	58.7		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Dinoseb	ND	35.2		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Dalapon	ND	235		µg/Kg-dry	1	10/1/2015 2:53:00 PM
2,4-DB	ND	29.3		µg/Kg-dry	1	10/1/2015 2:53:00 PM
MCPP	ND	5,170		µg/Kg-dry	1	10/1/2015 2:53:00 PM
MCPA	ND	3,290		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Picloram	ND	58.7		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Bentazon	ND	41.1		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Chloramben	ND	23.5		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Acifluorfen	ND	93.9		µg/Kg-dry	1	10/1/2015 2:53:00 PM
3,5-Dichlorobenzoic acid	ND	47.0		µg/Kg-dry	1	10/1/2015 2:53:00 PM
4-Nitrophenol	ND	35.2		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Dacthal (DCPA)	ND	35.2		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Surr: 2,4-Dichlorophenylacetic acid	84.7	20.1-168		%REC	1	10/1/2015 2:53:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Alpha BHC	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Beta BHC	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Gamma BHC (Lindane)	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Delta BHC	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Heptachlor	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Aldrin	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Heptachlor epoxide	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
gamma-Chlordane	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Endosulfan I	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
alpha-Chlordane	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Dieldrin	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
4,4'-DDE	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Endrin	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Endosulfan II	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM
4,4'-DDD	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Endrin aldehyde	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Endosulfan sulfate	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509300-019

Matrix: Soil

Client Sample ID: GP-21-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

4,4'-DDT	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Endrin ketone	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Methoxychlor	ND	0.0517		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Surr: Decachlorobiphenyl	95.1	26.5-158		%REC	1	9/25/2015 6:30:00 PM
Surr: Tetrachloro-m-xylene	66.3	11-150		%REC	1	9/25/2015 6:30:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11945

Analyst: AK

Diesel (Fuel Oil)	ND	21.8		mg/Kg-dry	1	9/25/2015 4:39:00 AM
Heavy Oil	ND	54.6		mg/Kg-dry	1	9/25/2015 4:39:00 AM
Surr: 2-Fluorobiphenyl	93.4	50-150		%REC	1	9/25/2015 4:39:00 AM
Surr: o-Terphenyl	96.5	50-150		%REC	1	9/25/2015 4:39:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Bis(2-chloroethyl) ether	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2-Chlorophenol	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
1,3-Dichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
1,4-Dichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
1,2-Dichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Benzyl alcohol	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2-Methylphenol (o-cresol)	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Hexachloroethane	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
N-Nitrosodi-n-propylamine	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Nitrobenzene	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Isophorone	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
4-Methylphenol (p-cresol)	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2-Nitrophenol	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2,4-Dimethylphenol	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Bis(2-chloroethoxy)methane	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2,4-Dichlorophenol	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
1,2,4-Trichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Naphthalene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
4-Chloroaniline	ND	575		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Hexachlorobutadiene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
4-Chloro-3-methylphenol	ND	575		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2-Methylnaphthalene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
1-Methylnaphthalene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509300-019

Matrix: Soil

Client Sample ID: GP-21-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	115	*	µg/Kg-dry	1	10/2/2015 8:53:00 AM
2,4,6-Trichlorophenol	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2,4,5-Trichlorophenol	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2-Chloronaphthalene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2-Nitroaniline	ND	575		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Acenaphthene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Dimethylphthalate	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2,6-Dinitrotoluene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Acenaphthylene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2,4-Dinitrophenol	ND	230	*	µg/Kg-dry	1	10/2/2015 8:53:00 AM
Dibenzofuran	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2,4-Dinitrotoluene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
4-Nitrophenol	ND	575		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Fluorene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
4-Chlorophenyl phenyl ether	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Diethylphthalate	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
4,6-Dinitro-2-methylphenol	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
4-Bromophenyl phenyl ether	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Hexachlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Pentachlorophenol	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Phenanthrene	127	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Anthracene	147	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Carbazole	ND	575		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Di-n-butylphthalate	137	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Fluoranthene	133	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Pyrene	111	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Butyl Benzylphthalate	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
bis(2-Ethylhexyl)adipate	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Benz (a) anthracene	121	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Chrysene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
bis (2-Ethylhexyl) phthalate	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Di-n-octyl phthalate	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Benzo (b) fluoranthene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Benzo (k) fluoranthene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Benzo (a) pyrene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Indeno (1,2,3-cd) pyrene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Dibenz (a,h) anthracene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Benzo (g,h,i) perylene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Surr: 2,4,6-Tribromophenol	62.5	11.1-127		%REC	1	10/2/2015 8:53:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509300-019

Matrix: Soil

Client Sample ID: GP-21-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	46.9	16.1-150	%REC	1	10/2/2015 8:53:00 AM
Surr: Nitrobenzene-d5	23.6	10-133	%REC	1	10/2/2015 8:53:00 AM
Surr: Phenol-d6	35.9	11.6-133	%REC	1	10/2/2015 8:53:00 AM
Surr: p-Terphenyl	98.9	21.8-150	%REC	1	10/2/2015 8:53:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	4.01	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Surr: Toluene-d8	99.3	65-135	%REC	1	9/25/2015 4:04:00 AM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/25/2015 4:04:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0482	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Chloromethane	ND	0.0482	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Vinyl chloride	ND	0.00161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Bromomethane	ND	0.0723	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0401	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Chloroethane	ND	0.0482	mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,1-Dichloroethene	ND	0.0401	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Methylene chloride	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
trans-1,2-Dichloroethene	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0401	mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,1-Dichloroethane	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
2,2-Dichloropropane	ND	0.0401	mg/Kg-dry	1	9/25/2015 4:04:00 AM
cis-1,2-Dichloroethene	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Chloroform	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,1-Dichloropropene	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Carbon tetrachloride	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2-Dichloroethane (EDC)	ND	0.0241	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Benzene	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Trichloroethene (TCE)	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2-Dichloropropane	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Bromodichloromethane	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Dibromomethane	ND	0.0321	mg/Kg-dry	1	9/25/2015 4:04:00 AM
cis-1,3-Dichloropropene	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509300-019

Matrix: Soil

Client Sample ID: GP-21-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Toluene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
trans-1,3-Dichloropropylene	ND	0.0241		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,1,2-Trichloroethane	ND	0.0241		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,3-Dichloropropane	ND	0.0401		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Tetrachloroethene (PCE)	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Dibromochloromethane	ND	0.0241		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2-Dibromoethane (EDB)	ND	0.00401		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Chlorobenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0241		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Ethylbenzene	ND	0.0241		mg/Kg-dry	1	9/25/2015 4:04:00 AM
m,p-Xylene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
o-Xylene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Styrene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Isopropylbenzene	ND	0.0642		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Bromoform	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
n-Propylbenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Bromobenzene	ND	0.0241		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,3,5-Trimethylbenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
2-Chlorotoluene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
4-Chlorotoluene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
tert-Butylbenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2,3-Trichloropropane	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2,4-Trichlorobenzene	ND	0.0401		mg/Kg-dry	1	9/25/2015 4:04:00 AM
sec-Butylbenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
4-Isopropyltoluene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,3-Dichlorobenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,4-Dichlorobenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
n-Butylbenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2-Dichlorobenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2-Dibromo-3-chloropropane	ND	0.401		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2,4-Trimethylbenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Hexachlorobutadiene	ND	0.0803		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Naphthalene	ND	0.0241		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2,3-Trichlorobenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Surr: Dibromofluoromethane	93.4	56.5-129		%REC	1	9/25/2015 4:04:00 AM
Surr: Toluene-d8	98.3	64.3-131		%REC	1	9/25/2015 4:04:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/25/2015 4:04:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509300-019

Matrix: Soil

Client Sample ID: GP-21-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.280		mg/Kg-dry	1	9/24/2015 5:10:24 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	2.81	0.0990		mg/Kg-dry	1	9/22/2015 7:55:19 PM
Barium	26.8	0.495		mg/Kg-dry	1	9/22/2015 7:55:19 PM
Cadmium	ND	0.198		mg/Kg-dry	1	9/22/2015 7:55:19 PM
Chromium	13.7	0.0990		mg/Kg-dry	1	9/22/2015 7:55:19 PM
Lead	3.42	0.198		mg/Kg-dry	1	9/22/2015 7:55:19 PM
Selenium	0.776	0.495		mg/Kg-dry	1	9/22/2015 7:55:19 PM
Silver	ND	0.0990		mg/Kg-dry	1	9/22/2015 7:55:19 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	15.8			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:25:00 PM

Project: Pacific Park

Lab ID: 1509300-020

Matrix: Groundwater

Client Sample ID: GP-21-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11941

Analyst: AK

Diesel (Fuel Oil)	ND	50.0		µg/L	1	9/25/2015 3:48:00 PM
Heavy Oil	171	100		µg/L	1	9/25/2015 3:48:00 PM
Surr: 2-Fluorobiphenyl	74.1	50-150		%REC	1	9/25/2015 3:48:00 PM
Surr: o-Terphenyl	72.1	50-150		%REC	1	9/25/2015 3:48:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 11916

Analyst: NG

Naphthalene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
2-Methylnaphthalene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
1-Methylnaphthalene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Acenaphthylene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Acenaphthene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Fluorene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Phenanthrene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Anthracene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Fluoranthene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Pyrene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Benz(a)anthracene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Chrysene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Benzo(b)fluoranthene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Benzo(k)fluoranthene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Benzo(a)pyrene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Dibenz(a,h)anthracene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Benzo(g,h,i)perylene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Surr: 2-Fluorobiphenyl	51.5	23.9-122		%REC	1	9/23/2015 9:46:00 PM
Surr: Terphenyl-d14	46.5	33.4-135		%REC	1	9/23/2015 9:46:00 PM

Gasoline by NWTPH-Gx

Batch ID: R25091

Analyst: BC

Gasoline	ND	50.0		µg/L	1	9/23/2015 9:18:00 PM
Surr: Toluene-d8	86.2	65-135		%REC	1	9/23/2015 9:18:00 PM
Surr: 4-Bromofluorobenzene	95.5	65-135		%REC	1	9/23/2015 9:18:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Chloromethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Vinyl chloride	ND	0.200		µg/L	1	9/23/2015 9:18:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:25:00 PM

Project: Pacific Park

Lab ID: 1509300-020

Matrix: Groundwater

Client Sample ID: GP-21-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Bromomethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Chloroethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Methylene chloride	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/23/2015 9:18:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Chloroform	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Benzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/23/2015 9:18:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Dibromomethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Toluene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/23/2015 9:18:00 PM
Chlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Styrene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Bromoform	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Bromobenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:25:00 PM

Project: Pacific Park

Lab ID: 1509300-020

Matrix: Groundwater

Client Sample ID: GP-21-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/23/2015 9:18:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/23/2015 9:18:00 PM
Naphthalene	ND	1.00	Q	µg/L	1	9/23/2015 9:18:00 PM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/23/2015 9:18:00 PM
Surr: Dibromofluoromethane	99.6	45.4-152		%REC	1	9/23/2015 9:18:00 PM
Surr: Toluene-d8	101	40.1-139		%REC	1	9/23/2015 9:18:00 PM
Surr: 1-Bromo-4-fluorobenzene	100	64.2-128		%REC	1	9/23/2015 9:18:00 PM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:27:27 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:17:45 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Antimony	ND	0.200		µg/L	1	9/23/2015 4:43:43 PM
Arsenic	3.98	1.00		µg/L	1	9/23/2015 4:43:43 PM
Beryllium	ND	0.200		µg/L	1	9/23/2015 4:43:43 PM
Cadmium	ND	0.200		µg/L	1	9/23/2015 4:43:43 PM
Chromium	1.25	0.500		µg/L	1	9/23/2015 4:43:43 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:25:00 PM

Project: Pacific Park

Lab ID: 1509300-020

Matrix: Groundwater

Client Sample ID: GP-21-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Copper	1.23	0.500		µg/L	1	9/23/2015 4:43:43 PM
Lead	ND	1.00		µg/L	1	9/23/2015 4:43:43 PM
Nickel	2.03	0.500		µg/L	1	9/23/2015 4:43:43 PM
Selenium	ND	1.00		µg/L	1	9/23/2015 4:43:43 PM
Silver	ND	0.200		µg/L	1	9/23/2015 4:43:43 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 4:43:43 PM
Zinc	7.47	1.50		µg/L	1	9/23/2015 4:43:43 PM

Total Metals by EPA Method 200.8

Batch ID: 11925

Analyst: TN

Antimony	0.201	0.200		µg/L	1	9/23/2015 3:22:34 PM
Arsenic	13.8	1.00		µg/L	1	9/23/2015 3:22:34 PM
Beryllium	0.347	0.200		µg/L	1	9/23/2015 3:22:34 PM
Cadmium	0.258	0.200		µg/L	1	9/23/2015 3:22:34 PM
Chromium	11.2	0.500		µg/L	1	9/23/2015 3:22:34 PM
Copper	15.2	0.500		µg/L	1	9/23/2015 3:22:34 PM
Lead	8.32	1.00		µg/L	1	9/23/2015 3:22:34 PM
Nickel	8.85	0.500		µg/L	1	9/23/2015 3:22:34 PM
Selenium	1.51	1.00		µg/L	1	9/23/2015 3:22:34 PM
Silver	ND	0.200		µg/L	1	9/23/2015 3:22:34 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 3:22:34 PM
Zinc	32.4	1.50		µg/L	1	9/23/2015 3:22:34 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509300-021

Matrix: Groundwater

Client Sample ID: GP-13-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11941		Analyst: AK
Diesel (Fuel Oil)	ND	50.0		µg/L	1	9/25/2015 5:22:00 PM
Heavy Oil	ND	99.9		µg/L	1	9/25/2015 5:22:00 PM
Surr: 2-Fluorobiphenyl	71.7	50-150		%REC	1	9/25/2015 5:22:00 PM
Surr: o-Terphenyl	77.1	50-150		%REC	1	9/25/2015 5:22:00 PM
<u>Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)</u>				Batch ID: 11916		Analyst: NG
Naphthalene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
2-Methylnaphthalene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
1-Methylnaphthalene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Acenaphthylene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Acenaphthene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Fluorene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Phenanthrene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Anthracene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Fluoranthene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Pyrene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Benz(a)anthracene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Chrysene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Benzo(b)fluoranthene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Benzo(k)fluoranthene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Benzo(a)pyrene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Dibenz(a,h)anthracene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Benzo(g,h,i)perylene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Surr: 2-Fluorobiphenyl	65.8	23.9-122		%REC	1	9/23/2015 10:12:00 PM
Surr: Terphenyl-d14	69.4	33.4-135		%REC	1	9/23/2015 10:12:00 PM
NOTES:						
Internal standard areas were outside of the QC limits indicating a high bias. Sample results are ND.						
<u>Gasoline by NWTPH-Gx</u>				Batch ID: R25091		Analyst: BC
Gasoline	ND	50.0		µg/L	1	9/23/2015 9:47:00 PM
Surr: Toluene-d8	86.6	65-135		%REC	1	9/23/2015 9:47:00 PM
Surr: 4-Bromofluorobenzene	96.8	65-135		%REC	1	9/23/2015 9:47:00 PM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: R25077		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509300-021

Matrix: Groundwater

Client Sample ID: GP-13-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Chloromethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Vinyl chloride	ND	0.200		µg/L	1	9/23/2015 9:47:00 PM
Bromomethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Chloroethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Methylene chloride	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/23/2015 9:47:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Chloroform	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Benzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/23/2015 9:47:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Dibromomethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Toluene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/23/2015 9:47:00 PM
Chlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Styrene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Bromoform	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509300-021

Matrix: Groundwater

Client Sample ID: GP-13-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

n-Propylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Bromobenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/23/2015 9:47:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/23/2015 9:47:00 PM
Naphthalene	ND	1.00	Q	µg/L	1	9/23/2015 9:47:00 PM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/23/2015 9:47:00 PM
Surr: Dibromofluoromethane	99.2	45.4-152		%REC	1	9/23/2015 9:47:00 PM
Surr: Toluene-d8	97.7	40.1-139		%REC	1	9/23/2015 9:47:00 PM
Surr: 1-Bromo-4-fluorobenzene	102	64.2-128		%REC	1	9/23/2015 9:47:00 PM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:29:09 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:19:26 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Antimony	ND	0.200		µg/L	1	9/23/2015 4:47:14 PM
Arsenic	ND	1.00		µg/L	1	9/23/2015 4:47:14 PM
Beryllium	ND	0.200		µg/L	1	9/23/2015 4:47:14 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509300-021

Matrix: Groundwater

Client Sample ID: GP-13-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Cadmium	ND	0.200		µg/L	1	9/23/2015 4:47:14 PM
Chromium	ND	0.500		µg/L	1	9/23/2015 4:47:14 PM
Copper	0.658	0.500		µg/L	1	9/23/2015 4:47:14 PM
Lead	ND	1.00		µg/L	1	9/23/2015 4:47:14 PM
Nickel	1.12	0.500		µg/L	1	9/23/2015 4:47:14 PM
Selenium	1.10	1.00		µg/L	1	9/23/2015 4:47:14 PM
Silver	ND	0.200		µg/L	1	9/23/2015 4:47:14 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 4:47:14 PM
Zinc	ND	1.50		µg/L	1	9/23/2015 4:47:14 PM

Total Metals by EPA Method 200.8

Batch ID: 11925

Analyst: TN

Antimony	ND	0.200		µg/L	1	9/23/2015 3:26:06 PM
Arsenic	3.52	1.00		µg/L	1	9/23/2015 3:26:06 PM
Beryllium	ND	0.200		µg/L	1	9/23/2015 3:26:06 PM
Cadmium	ND	0.200		µg/L	1	9/23/2015 3:26:06 PM
Chromium	19.3	0.500		µg/L	1	9/23/2015 3:26:06 PM
Copper	20.0	0.500		µg/L	1	9/23/2015 3:26:06 PM
Lead	10.9	1.00		µg/L	1	9/23/2015 3:26:06 PM
Nickel	8.89	0.500		µg/L	1	9/23/2015 3:26:06 PM
Selenium	1.63	1.00		µg/L	1	9/23/2015 3:26:06 PM
Silver	ND	0.200		µg/L	1	9/23/2015 3:26:06 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 3:26:06 PM
Zinc	16.9	1.50		µg/L	1	9/23/2015 3:26:06 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:45:00 AM

Project: Pacific Park

Lab ID: 1509300-022

Matrix: Soil

Client Sample ID: GP-17-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	43.9		µg/Kg-dry	1	10/1/2015 2:19:00 PM
2,4-D	ND	37.6		µg/Kg-dry	1	10/1/2015 2:19:00 PM
2,4-DP	ND	31.4		µg/Kg-dry	1	10/1/2015 2:19:00 PM
2,4,5-TP (Silvex)	ND	25.1		µg/Kg-dry	1	10/1/2015 2:19:00 PM
2,4,5-T	ND	62.7		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Dinoseb	ND	37.6		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Dalapon	ND	251		µg/Kg-dry	1	10/1/2015 2:19:00 PM
2,4-DB	ND	31.4		µg/Kg-dry	1	10/1/2015 2:19:00 PM
MCPP	ND	5,520		µg/Kg-dry	1	10/1/2015 2:19:00 PM
MCPA	ND	3,510		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Picloram	ND	62.7		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Bentazon	ND	43.9		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Chloramben	ND	25.1		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Acifluorfen	ND	100		µg/Kg-dry	1	10/1/2015 2:19:00 PM
3,5-Dichlorobenzoic acid	ND	50.2		µg/Kg-dry	1	10/1/2015 2:19:00 PM
4-Nitrophenol	ND	37.6		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Dacthal (DCPA)	ND	37.6		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Surr: 2,4-Dichlorophenylacetic acid	86.6	20.1-168		%REC	1	10/1/2015 2:19:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Alpha BHC	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Beta BHC	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Gamma BHC (Lindane)	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Delta BHC	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Heptachlor	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Aldrin	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Heptachlor epoxide	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
gamma-Chlordane	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Endosulfan I	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
alpha-Chlordane	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Dieldrin	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
4,4'-DDE	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Endrin	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Endosulfan II	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM
4,4'-DDD	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Endrin aldehyde	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Endosulfan sulfate	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:45:00 AM

Project: Pacific Park

Lab ID: 1509300-022

Matrix: Soil

Client Sample ID: GP-17-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

4,4'-DDT	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Endrin ketone	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Methoxychlor	ND	0.0635		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Surr: Decachlorobiphenyl	77.8	26.5-158		%REC	1	9/25/2015 6:41:00 PM
Surr: Tetrachloro-m-xylene	72.6	11-150		%REC	1	9/25/2015 6:41:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11945

Analyst: AK

Diesel (Fuel Oil)	ND	23.9		mg/Kg-dry	1	9/25/2015 5:11:00 AM
Heavy Oil	401	59.7		mg/Kg-dry	1	9/25/2015 5:11:00 AM
Surr: 2-Fluorobiphenyl	94.2	50-150		%REC	1	9/25/2015 5:11:00 AM
Surr: o-Terphenyl	97.9	50-150		%REC	1	9/25/2015 5:11:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Bis(2-chloroethyl) ether	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2-Chlorophenol	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
1,3-Dichlorobenzene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
1,4-Dichlorobenzene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
1,2-Dichlorobenzene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Benzyl alcohol	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2-Methylphenol (o-cresol)	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Hexachloroethane	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
N-Nitrosodi-n-propylamine	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Nitrobenzene	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Isophorone	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
4-Methylphenol (p-cresol)	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2-Nitrophenol	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2,4-Dimethylphenol	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Bis(2-chloroethoxy)methane	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2,4-Dichlorophenol	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
1,2,4-Trichlorobenzene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Naphthalene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
4-Chloroaniline	ND	622		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Hexachlorobutadiene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
4-Chloro-3-methylphenol	ND	622		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2-Methylnaphthalene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
1-Methylnaphthalene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:45:00 AM

Project: Pacific Park

Lab ID: 1509300-022

Matrix: Soil

Client Sample ID: GP-17-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	124	*	µg/Kg-dry	1	10/2/2015 9:15:00 AM
2,4,6-Trichlorophenol	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2,4,5-Trichlorophenol	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2-Chloronaphthalene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2-Nitroaniline	ND	622		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Acenaphthene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Dimethylphthalate	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2,6-Dinitrotoluene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Acenaphthylene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2,4-Dinitrophenol	ND	249	*	µg/Kg-dry	1	10/2/2015 9:15:00 AM
Dibenzofuran	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2,4-Dinitrotoluene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
4-Nitrophenol	ND	622		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Fluorene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
4-Chlorophenyl phenyl ether	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Diethylphthalate	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
4,6-Dinitro-2-methylphenol	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
4-Bromophenyl phenyl ether	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Hexachlorobenzene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Pentachlorophenol	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Phenanthrene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Anthracene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Carbazole	ND	622		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Di-n-butylphthalate	662	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Fluoranthene	133	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Pyrene	140	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Butyl Benzylphthalate	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
bis(2-Ethylhexyl)adipate	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Benz (a) anthracene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Chrysene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
bis (2-Ethylhexyl) phthalate	1,090	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Di-n-octyl phthalate	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Benzo (b) fluoranthene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Benzo (k) fluoranthene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Benzo (a) pyrene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Indeno (1,2,3-cd) pyrene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Dibenz (a,h) anthracene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Benzo (g,h,i) perylene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Surr: 2,4,6-Tribromophenol	92.6	11.1-127		%REC	1	10/2/2015 9:15:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:45:00 AM

Project: Pacific Park

Lab ID: 1509300-022

Matrix: Soil

Client Sample ID: GP-17-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	54.6	16.1-150	%REC	1	10/2/2015 9:15:00 AM
Surr: Nitrobenzene-d5	30.8	10-133	%REC	1	10/2/2015 9:15:00 AM
Surr: Phenol-d6	44.8	11.6-133	%REC	1	10/2/2015 9:15:00 AM
Surr: p-Terphenyl	109	21.8-150	%REC	1	10/2/2015 9:15:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	3.80	mg/Kg-dry	1	9/25/2015 4:33:00 AM
Surr: Toluene-d8	101	65-135	%REC	1	9/25/2015 4:33:00 AM
Surr: 4-Bromofluorobenzene	103	65-135	%REC	1	9/25/2015 4:33:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0456	mg/Kg-dry	1	9/25/2015 4:33:00 AM
Chloromethane	ND	0.0456	mg/Kg-dry	1	9/25/2015 4:33:00 AM
Vinyl chloride	ND	0.00152	mg/Kg-dry	1	9/25/2015 4:33:00 AM
Bromomethane	ND	0.0684	mg/Kg-dry	1	9/25/2015 4:33:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0380	mg/Kg-dry	1	9/25/2015 4:33:00 AM
Chloroethane	ND	0.0456	mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,1-Dichloroethene	ND	0.0380	mg/Kg-dry	1	9/25/2015 4:33:00 AM
Methylene chloride	ND	0.0152	mg/Kg-dry	1	9/25/2015 4:33:00 AM
trans-1,2-Dichloroethene	ND	0.0152	mg/Kg-dry	1	9/25/2015 4:33:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0380	mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,1-Dichloroethane	ND	0.0152	mg/Kg-dry	1	9/25/2015 4:33:00 AM
2,2-Dichloropropane	ND	0.0380	mg/Kg-dry	1	9/25/2015 4:33:00 AM
cis-1,2-Dichloroethene	ND	0.0152	mg/Kg-dry	1	9/25/2015 4:33:00 AM
Chloroform	ND	0.0152	mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0152	mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,1-Dichloropropene	ND	0.0152	mg/Kg-dry	1	9/25/2015 4:33:00 AM
Carbon tetrachloride	ND	0.0152	mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2-Dichloroethane (EDC)	ND	0.0228	mg/Kg-dry	1	9/25/2015 4:33:00 AM
Benzene	ND	0.0152	mg/Kg-dry	1	9/25/2015 4:33:00 AM
Trichloroethene (TCE)	ND	0.0152	mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2-Dichloropropane	ND	0.0152	mg/Kg-dry	1	9/25/2015 4:33:00 AM
Bromodichloromethane	ND	0.0152	mg/Kg-dry	1	9/25/2015 4:33:00 AM
Dibromomethane	ND	0.0304	mg/Kg-dry	1	9/25/2015 4:33:00 AM
cis-1,3-Dichloropropene	ND	0.0152	mg/Kg-dry	1	9/25/2015 4:33:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:45:00 AM

Project: Pacific Park

Lab ID: 1509300-022

Matrix: Soil

Client Sample ID: GP-17-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Toluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
trans-1,3-Dichloropropylene	ND	0.0228		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,1,2-Trichloroethane	ND	0.0228		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,3-Dichloropropane	ND	0.0380		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Tetrachloroethene (PCE)	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Dibromochloromethane	ND	0.0228		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2-Dibromoethane (EDB)	ND	0.00380		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Chlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0228		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Ethylbenzene	ND	0.0228		mg/Kg-dry	1	9/25/2015 4:33:00 AM
m,p-Xylene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
o-Xylene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Styrene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Isopropylbenzene	ND	0.0608		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Bromoform	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
n-Propylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Bromobenzene	ND	0.0228		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,3,5-Trimethylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
2-Chlorotoluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
4-Chlorotoluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
tert-Butylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2,3-Trichloropropane	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2,4-Trichlorobenzene	ND	0.0380		mg/Kg-dry	1	9/25/2015 4:33:00 AM
sec-Butylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
4-Isopropyltoluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,3-Dichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,4-Dichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
n-Butylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2-Dichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2-Dibromo-3-chloropropane	ND	0.380		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2,4-Trimethylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Hexachlorobutadiene	ND	0.0760		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Naphthalene	ND	0.0228		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2,3-Trichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Surr: Dibromofluoromethane	94.1	56.5-129		%REC	1	9/25/2015 4:33:00 AM
Surr: Toluene-d8	97.2	64.3-131		%REC	1	9/25/2015 4:33:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.1	63.1-141		%REC	1	9/25/2015 4:33:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:45:00 AM

Project: Pacific Park

Lab ID: 1509300-022

Matrix: Soil

Client Sample ID: GP-17-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.285		mg/Kg-dry	1	9/24/2015 5:12:00 PM
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Total Metals by EPA Method 6020

Batch ID: 11921

Analyst: TN

Arsenic	5.67	0.102		mg/Kg-dry	1	9/23/2015 5:01:21 PM
Barium	38.2	0.511		mg/Kg-dry	1	9/23/2015 5:01:21 PM
Cadmium	3.16	0.204		mg/Kg-dry	1	9/23/2015 5:01:21 PM
Chromium	18.8	0.102		mg/Kg-dry	1	9/23/2015 5:01:21 PM
Lead	39.3	0.204		mg/Kg-dry	1	9/23/2015 5:01:21 PM
Selenium	1.47	0.511		mg/Kg-dry	1	9/23/2015 5:01:21 PM
Silver	ND	0.102		mg/Kg-dry	1	9/23/2015 5:01:21 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	21.7			wt%	1	9/25/2015 11:01:12 AM
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Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID: MB-11927FB		SampType: MBLK			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25059		
Client ID: MBLKW		Batch ID: 11926						Analysis Date: 9/23/2015			SeqNo: 472286	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Antimony	ND	0.200
Arsenic	ND	1.00
Beryllium	ND	0.200
Cadmium	ND	0.200
Chromium	ND	0.500
Copper	ND	0.500
Lead	ND	1.00
Nickel	ND	0.500
Selenium	ND	1.00
Silver	ND	0.200
Thallium	ND	0.200
Zinc	ND	1.50

NOTES:
Filter Blank

Sample ID: MB-11926	SampType: MBLK	Units: µg/L			Prep Date: 9/23/2015				RunNo: 25059		
Client ID: MBLKW	Batch ID: 11926	Analysis Date: 9/23/2015							SeqNo: 472287		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	ND	0.200
Arsenic	ND	1.00
Beryllium	ND	0.200
Cadmium	ND	0.200
Chromium	ND	0.500
Copper	ND	0.500
Lead	ND	1.00
Nickel	ND	0.500
Selenium	ND	1.00
Silver	ND	0.200
Thallium	ND	0.200
Zinc	ND	1.50



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID: LCS-11926		SampType: LCS		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25059		
Client ID: LCSW		Batch ID: 11926					Analysis Date: 9/23/2015			SeqNo: 472288	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	4.63	0.200	5.000	0	92.7	85	115				
Arsenic	99.7	1.00	100.0	0	99.7	85	115				
Beryllium	5.06	0.200	5.000	0	101	85	115				
Cadmium	4.95	0.200	5.000	0	99.0	85	115				
Chromium	103	0.500	100.0	0	103	85	115				
Copper	103	0.500	100.0	0	103	85	115				
Lead	49.1	1.00	50.00	0	98.2	85	115				
Nickel	102	0.500	100.0	0	102	85	115				
Selenium	11.0	1.00	10.00	0	110	85	115				
Silver	5.09	0.200	5.000	0	102	85	115				
Thallium	2.44	0.200	2.500	0	97.8	85	115				
Zinc	102	1.50	100.0	0	102	85	115				

Sample ID: 1509311-005EDUP		SampType: DUP			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25059		
Client ID: BATCH		Batch ID: 11926			Analysis Date: 9/23/2015			SeqNo: 472290				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Antimony	0.331	0.200						0.4670	34.1	30		
Arsenic	ND	1.00						0		30		
Beryllium	ND	0.200						0		30		
Cadmium	ND	0.200						0		30		
Chromium	ND	0.500						0		30		
Copper	1.15	0.500						1.061	7.92	30		
Lead	ND	1.00						0		30		
Nickel	2.49	0.500						2.525	1.54	30		
Selenium	ND	1.00						0		30		
Silver	ND	0.200						0		30		
Thallium	ND	0.200						0		30		
Zinc	5.54	1.50						5.833	5.16	30		



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID: 1509311-005EMS	SampType: MS	Units: µg/L			Prep Date: 9/23/2015			RunNo: 25059			
Client ID: BATCH	Batch ID: 11926				Analysis Date: 9/23/2015			SeqNo: 472291			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	23.3	0.200	25.00	0.4670	91.4	70	130				
Arsenic	521	1.00	500.0	0.6690	104	70	130				
Beryllium	26.6	0.200	25.00	0	106	70	130				
Cadmium	26.2	0.200	25.00	0.05850	105	70	130				
Chromium	524	0.500	500.0	0.2315	105	70	130				
Copper	519	0.500	500.0	1.061	104	70	130				
Lead	238	1.00	250.0	0.6610	95.1	70	130				
Nickel	517	0.500	500.0	2.525	103	70	130				
Selenium	53.4	1.00	50.00	0.8505	105	70	130				
Silver	22.5	0.200	25.00	0.05450	89.6	70	130				
Thallium	12.2	0.200	12.50	0.007000	97.4	70	130				
Zinc	553	1.50	500.0	5.833	109	70	130				

Sample ID: 1509311-005EMSD		SampType: MSD		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25059			
Client ID: BATCH		Batch ID: 11926		Analysis Date: 9/23/2015							SeqNo: 472294	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Antimony	23.2	0.200	25.00	0.4670	91.1	70	130	23.31	0.312	30		
Arsenic	512	1.00	500.0	0.6690	102	70	130	520.8	1.71	30		
Beryllium	26.6	0.200	25.00	0	107	70	130	26.62	0.0601	30		
Cadmium	25.0	0.200	25.00	0.05850	99.6	70	130	26.19	4.77	30		
Chromium	504	0.500	500.0	0.2315	101	70	130	524.4	3.99	30		
Copper	499	0.500	500.0	1.061	99.6	70	130	518.9	3.92	30		
Lead	233	1.00	250.0	0.6610	93.1	70	130	238.3	2.09	30		
Nickel	506	0.500	500.0	2.525	101	70	130	517.2	2.13	30		
Selenium	54.8	1.00	50.00	0.8505	108	70	130	53.36	2.59	30		
Silver	22.1	0.200	25.00	0.05450	88.1	70	130	22.46	1.70	30		
Thallium	11.8	0.200	12.50	0.007000	94.5	70	130	12.18	3.07	30		
Zinc	520	1.50	500.0	5.833	103	70	130	553.3	6.15	30		



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID: MB-11925		SampType: MBLK		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25056		
Client ID: MBLKW		Batch ID: 11925					Analysis Date: 9/23/2015			SeqNo: 472197	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.200									
Arsenic	ND	1.00									
Beryllium	ND	0.200									
Cadmium	ND	0.200									
Chromium	ND	0.500									
Copper	ND	0.500									
Lead	ND	1.00									
Nickel	ND	0.500									
Selenium	ND	1.00									
Silver	0.202	0.200									
Thallium	ND	0.200									
Zinc	ND	1.50									

Sample ID: LCS-11925		SampType: LCS		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25056		
Client ID: LCSW		Batch ID: 11925					Analysis Date: 9/23/2015			SeqNo: 472198	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	4.91	0.200	5.000	0	98.2	85	115				
Arsenic	104	1.00	100.0	0	104	85	115				
Beryllium	5.23	0.200	5.000	0	105	85	115				
Cadmium	4.97	0.200	5.000	0	99.5	85	115				
Chromium	105	0.500	100.0	0	105	85	115				
Copper	102	0.500	100.0	0	102	85	115				
Lead	49.2	1.00	50.00	0	98.3	85	115				
Nickel	102	0.500	100.0	0	102	85	115				
Selenium	10.8	1.00	10.00	0	108	85	115				
Silver	5.25	0.200	5.000	0	105	85	115				B
Thallium	2.52	0.200	2.500	0	101	85	115				
Zinc	109	1.50	100.0	0	109	85	115				



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 200.8

Sample ID: 1509275-001ADUP		SampType: DUP			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25056		
Client ID: BATCH		Batch ID: 11925						Analysis Date: 9/23/2015			SeqNo: 472200	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Antimony	ND	0.200						0.2655		90.6	30	
Arsenic	1.45	1.00						1.630		11.8	30	
Beryllium	ND	0.200						0			30	
Cadmium	ND	0.200						0			30	
Chromium	0.713	0.500						0.6925		2.85	30	
Copper	0.847	0.500						0.9350		9.88	30	
Lead	ND	1.00						0			30	
Nickel	1.80	0.500						2.008		10.9	30	
Selenium	ND	1.00						0			30	
Silver	ND	0.200						0			30	
Thallium	ND	0.200						0			30	
Zinc	1.96	1.50						1.940		1.05	30	

Sample ID: 1509275-001AMS		SampType: MS		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25056		
Client ID: BATCH		Batch ID: 11925					Analysis Date: 9/23/2015			SeqNo: 472201	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	24.6	0.200	25.00	0.2655	97.2	70	130				
Arsenic	509	1.00	500.0	1.630	101	70	130				
Beryllium	25.4	0.200	25.00	0.05100	102	70	130				
Cadmium	24.0	0.200	25.00	0	96.0	70	130				
Chromium	525	0.500	500.0	0.6925	105	70	130				
Copper	497	0.500	500.0	0.9350	99.2	70	130				
Lead	240	1.00	250.0	0.9360	95.7	70	130				
Nickel	509	0.500	500.0	2.008	101	70	130				
Selenium	50.5	1.00	50.00	0.5305	100	70	130				
Silver	26.1	0.200	25.00	0.06550	104	70	130				B
Thallium	12.0	0.200	12.50	0.003500	95.8	70	130				
Zinc	545	1.50	500.0	1.940	109	70	130				



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID: 1509275-001AMSD		SampType: MSD		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25056		
Client ID: BATCH		Batch ID: 11925		Analysis Date: 9/23/2015					SeqNo: 472202		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	24.9	0.200	25.00	0.2655	98.5	70	130	24.56	1.35	30	B
Arsenic	527	1.00	500.0	1.630	105	70	130	509.0	3.44	30	
Beryllium	25.8	0.200	25.00	0.05100	103	70	130	25.43	1.28	30	
Cadmium	25.7	0.200	25.00	0	103	70	130	24.00	6.63	30	
Chromium	541	0.500	500.0	0.6925	108	70	130	525.4	2.90	30	
Copper	509	0.500	500.0	0.9350	102	70	130	497.0	2.37	30	
Lead	245	1.00	250.0	0.9360	97.6	70	130	240.2	1.97	30	
Nickel	524	0.500	500.0	2.008	104	70	130	508.8	2.97	30	
Selenium	51.4	1.00	50.00	0.5305	102	70	130	50.53	1.69	30	
Silver	25.6	0.200	25.00	0.06550	102	70	130	26.11	1.87	30	
Thallium	12.4	0.200	12.50	0.003500	99.0	70	130	11.97	3.36	30	
Zinc	544	1.50	500.0	1.940	108	70	130	544.9	0.197	30	



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 245.1

Sample ID: MB-11934	SampType: MBLK	Units: µg/L		Prep Date: 9/23/2015	RunNo: 25090
Client ID: MBLKW	Batch ID: 11934	Analysis Date: 9/24/2015		SeqNo: 472885	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	ND	0.100			

Sample ID: LCS-11934	SampType: LCS	Units: µg/L		Prep Date: 9/23/2015	RunNo: 25090
Client ID: LCSW	Batch ID: 11934	Analysis Date: 9/24/2015		SeqNo: 472886	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	2.50	0.100	2.500	0	100 85 115

Sample ID: 1509270-027CDUP	SampType: DUP	Units: µg/L		Prep Date: 9/23/2015	RunNo: 25090
Client ID: BATCH	Batch ID: 11934	Analysis Date: 9/24/2015		SeqNo: 472888	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	ND	0.100			0 20

Sample ID: 1509270-027CMS	SampType: MS	Units: µg/L		Prep Date: 9/23/2015	RunNo: 25090
Client ID: BATCH	Batch ID: 11934	Analysis Date: 9/24/2015		SeqNo: 472889	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	2.51	0.100	2.500	0.01400	99.8 80 120

Sample ID: 1509270-027CMSD	SampType: MSD	Units: µg/L		Prep Date: 9/23/2015	RunNo: 25090
Client ID: BATCH	Batch ID: 11934	Analysis Date: 9/24/2015		SeqNo: 472890	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	2.47	0.100	2.500	0.01400	98.2 80 120 2.510 1.61 20



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Mercury by EPA Method 245.1

Sample ID: MB-11933	SampType: MBLK	Units: µg/L		Prep Date: 9/23/2015	RunNo: 25075
Client ID: MBLKW	Batch ID: 11933	Analysis Date: 9/24/2015		SeqNo: 472581	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury ND 0.100

Sample ID: LCS-11933	SampType: LCS	Units: µg/L		Prep Date: 9/23/2015	RunNo: 25075
Client ID: LCSW	Batch ID: 11933	Analysis Date: 9/24/2015		SeqNo: 472582	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury 2.37 0.100 2.500 0 94.8 85 115

Sample ID: 1509270-027DDUP	SampType: DUP	Units: µg/L		Prep Date: 9/23/2015	RunNo: 25075
Client ID: BATCH	Batch ID: 11933	Analysis Date: 9/24/2015		SeqNo: 472584	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury ND 0.100 0 20

Sample ID: 1509270-027DMS	SampType: MS	Units: µg/L		Prep Date: 9/23/2015	RunNo: 25075
Client ID: BATCH	Batch ID: 11933	Analysis Date: 9/24/2015		SeqNo: 472585	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury 2.38 0.100 2.500 0.01700 94.5 80 120

Sample ID: 1509270-027DMSD	SampType: MSD	Units: µg/L		Prep Date: 9/23/2015	RunNo: 25075
Client ID: BATCH	Batch ID: 11933	Analysis Date: 9/24/2015		SeqNo: 472586	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury 2.54 0.100 2.500 0.01700 101 80 120 2.380 6.50 20



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 6020

Sample ID: MB-11909	SampType: MBLK	Units: mg/Kg				Prep Date: 9/22/2015			RunNo: 25025		
Client ID: MBLKS	Batch ID: 11909	Analysis Date: 9/22/2015							SeqNo: 471948		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.100									
Barium	ND	0.500									
Cadmium	ND	0.200									
Chromium	ND	0.100									
Lead	ND	0.200									
Selenium	ND	0.500									
Silver	ND	0.100									

Sample ID: LCS-11909	SampType: LCS	Units: mg/Kg				Prep Date: 9/22/2015			RunNo: 25025		
Client ID: LCSS	Batch ID: 11909	Analysis Date: 9/22/2015						SeqNo: 471949			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	50.0	0.100	50.00	0	100	80	120				
Barium	47.5	0.500	50.00	0	95.1	80	120				
Cadmium	2.58	0.200	2.500	0	103	80	120				
Chromium	53.8	0.100	50.00	0	108	80	120				
Lead	25.4	0.200	25.00	0	102	80	120				
Selenium	4.58	0.500	5.000	0	91.6	80	120				
Silver	2.47	0.100	2.500	0	98.7	80	120				

Sample ID: 1509278-003ADUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 9/22/2015			RunNo: 25025		
Client ID: BATCH	Batch ID: 11909	Analysis Date: 9/22/2015							SeqNo: 471951		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	3.71	0.0818						3.459	6.91	20	
Barium	33.2	0.409						29.66	11.3	20	
Cadmium	ND	0.164						0		20	
Chromium	12.5	0.0818						12.80	2.12	20	
Lead	29.4	0.164						18.59	45.0	20	R
Selenium	1.05	0.409						1.090	3.70	20	



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID: 1509278-003ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/22/2015			RunNo: 25025		
Client ID: BATCH		Batch ID: 11909					Analysis Date: 9/22/2015			SeqNo: 471951	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	ND	0.0818						0		20	

NOTES:

R - High RPD observed. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID: 1509278-003AMS	SampType: MS			Units: mg/Kg-dry	Prep Date: 9/22/2015			RunNo: 25025			
Client ID: BATCH	Batch ID: 11909			Analysis Date: 9/22/2015			SeqNo: 471953				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	48.0	0.0884	44.20	3.459	101	75	125				
Barium	67.2	0.442	44.20	29.66	85.0	75	125				
Cadmium	2.37	0.177	2.210	0.06015	104	75	125				
Chromium	62.6	0.0884	44.20	12.80	113	75	125				
Lead	35.7	0.177	22.10	18.59	77.6	75	125				
Selenium	4.90	0.442	4.420	1.090	86.2	75	125				
Silver	2.03	0.0884	2.210	0.02882	90.5	75	125				

Sample ID: 1509278-003AMSD	SampType: MSD			Units: mg/Kg-dry		Prep Date: 9/22/2015			RunNo: 25025		
Client ID: BATCH	Batch ID: 11909			Analysis Date: 9/22/2015					SeqNo: 471954		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	49.5	0.0906	45.29	3.459	102	75	125	48.02	2.97	20	R
Barium	69.1	0.453	45.29	29.66	87.1	75	125	67.23	2.75	20	
Cadmium	2.46	0.181	2.265	0.06015	106	75	125	2.368	3.82	20	
Chromium	66.1	0.0906	45.29	12.80	118	75	125	62.61	5.44	20	
Lead	45.1	0.181	22.65	18.59	117	75	125	35.73	23.3	20	
Selenium	5.24	0.453	4.529	1.090	91.7	75	125	4.901	6.72	20	
Silver	2.12	0.0906	2.265	0.02882	92.1	75	125	2.030	4.13	20	

NOTES:

R - Outlying RPD observed, spike recovery is within range.



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID: MB-11921		SampType: MBLK			Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25083		
Client ID: MBLKS		Batch ID: 11921			Analysis Date: 9/23/2015					SeqNo: 472652		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	ND	0.100									
Barium	ND	0.500									
Cadmium	ND	0.200									
Chromium	ND	0.100									
Lead	ND	0.200									
Selenium	ND	0.500									
Silver	ND	0.100									

Sample ID: LCS-11921		SampType: LCS			Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25083		
Client ID: LCSS		Batch ID: 11921			Analysis Date: 9/23/2015			SeqNo: 472653				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	50.6	0.100	50.00	0	101	80	120				
Barium	46.8	0.500	50.00	0	93.6	80	120				
Cadmium	2.30	0.200	2.500	0	92.2	80	120				
Chromium	54.0	0.100	50.00	0	108	80	120				
Lead	23.6	0.200	25.00	0	94.4	80	120				
Selenium	5.14	0.500	5.000	0	103	80	120				
Silver	2.46	0.100	2.500	0	98.3	80	120				

Sample ID: 1509300-022ADUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25083		
Client ID: GP-17-15:DUP		Batch ID: 11921			Analysis Date: 9/23/2015			SeqNo: 472655				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	6.75	0.102						5.671	17.4	20	
Barium	36.9	0.511						38.20	3.38	20	
Cadmium	17.1	0.204						3.160	138	20	R
Chromium	26.1	0.102						18.79	32.5	20	R
Lead	53.3	0.204						39.25	30.4	20	R
Selenium	1.29	0.511						1.467	12.7	20	



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID: 1509300-022ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25083			
Client ID: GP-17-15:DUP		Batch ID: 11921					Analysis Date: 9/23/2015			SeqNo: 472655		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Silver	ND	0.102						0		20		

NOTES:

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID: 1509300-022AMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 9/23/2015			RunNo: 25083		
Client ID: GP-17-15:DUP	Batch ID: 11921	Analysis Date: 9/23/2015						SeqNo: 472659			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	59.9	0.101	50.70	5.671	107	75	125				
Barium	77.2	0.507	50.70	38.20	76.8	75	125				
Cadmium	6.62	0.203	2.535	3.160	136	75	125				S
Chromium	80.8	0.101	50.70	18.79	122	75	125				
Lead	86.6	0.203	25.35	39.25	187	75	125				S
Selenium	6.24	0.507	5.070	1.467	94.1	75	125				
Silver	2.35	0.101	2.535	0.06659	90.2	75	125				

NOTES:

S - Outlying spike recoveries observed, a duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: 1509300-022AMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 9/23/2015			RunNo: 25083		
Client ID: GP-17-15:DUP	Batch ID: 11921	Analysis Date: 9/23/2015							SeqNo: 472660		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	61.6	0.101	50.70	5.671	110	75	125	59.93	2.72	20	
Barium	79.9	0.507	50.70	38.20	82.3	75	125	77.16	3.55	20	
Cadmium	7.42	0.203	2.535	3.160	168	75	125	6.619	11.4	20	S
Chromium	87.1	0.101	50.70	18.79	135	75	125	80.81	7.54	20	S
Lead	81.7	0.203	25.35	39.25	168	75	125	86.60	5.80	20	S
Selenium	6.47	0.507	5.070	1.467	98.7	75	125	6.240	3.64	20	
Silver	2.54	0.101	2.535	0.06659	97.5	75	125	2.354	7.55	20	

NOTES:

S - Outlying spike recoveries observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

S - Outlying spike recovery observed for Cr. A duplicate analysis was performed and recovered within range.



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 6020

Sample ID: 1509300-022APDS		SampType: PDS			Units: mg/Kg-dry		Prep Date: 9/23/2015		RunNo: 25083		
Client ID: GP-17-15:DUP		Batch ID: 11921			Analysis Date: 9/23/2015				SeqNo: 472661		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	11.1	0.204	2.50	6.18	98.2	80	120				
Lead	119	0.204	25.0	76.8	85.0	80	120				



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 7471

Sample ID: MB-11908	SampType: MBLK	Units: mg/Kg		Prep Date: 9/22/2015	RunNo: 25040
Client ID: MBLKS	Batch ID: 11908	Analysis Date: 9/22/2015		SeqNo: 471857	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury	ND	0.250			
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Sample ID: LCS-11908	SampType: LCS	Units: mg/Kg		Prep Date: 9/22/2015	RunNo: 25040
Client ID: LCSS	Batch ID: 11908	Analysis Date: 9/22/2015		SeqNo: 471858	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury	0.450	0.250	0.5000	0	89.9	80	120			
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Sample ID: 1509270-019ADUP	SampType: DUP	Units: mg/Kg-dry		Prep Date: 9/22/2015	RunNo: 25040
Client ID: BATCH	Batch ID: 11908	Analysis Date: 9/22/2015		SeqNo: 471860	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury	ND	0.261						0		20	
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Sample ID: 1509270-019AMS	SampType: MS	Units: mg/Kg-dry		Prep Date: 9/22/2015	RunNo: 25040
Client ID: BATCH	Batch ID: 11908	Analysis Date: 9/22/2015		SeqNo: 471861	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury	0.576	0.309	0.6171	0.005595	92.4	70	130			
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Sample ID: 1509270-019AMSD	SampType: MSD	Units: mg/Kg-dry		Prep Date: 9/22/2015	RunNo: 25040
Client ID: BATCH	Batch ID: 11908	Analysis Date: 9/22/2015		SeqNo: 471862	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury	0.541	0.291	0.5822	0.005595	92.0	70	130	0.5758	6.16	20	
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Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 7471

Sample ID: MB-11920	SampType: MBLK	Units: mg/Kg		Prep Date: 9/23/2015	RunNo: 25106
Client ID: MBLKS	Batch ID: 11920	Analysis Date: 9/24/2015		SeqNo: 473205	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury ND 0.250

Sample ID: LCS-11920	SampType: LCS	Units: mg/Kg		Prep Date: 9/23/2015	RunNo: 25106
Client ID: LCSS	Batch ID: 11920	Analysis Date: 9/24/2015		SeqNo: 473206	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury 0.522 0.250 0.5000 0 104 80 120

Sample ID: 1509300-001ADUP	SampType: DUP	Units: mg/Kg-dry		Prep Date: 9/23/2015	RunNo: 25106
Client ID: GP-13-15:4.5	Batch ID: 11920	Analysis Date: 9/24/2015		SeqNo: 473208	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury ND 0.280 0 20

Sample ID: 1509300-001AMS	SampType: MS	Units: mg/Kg-dry		Prep Date: 9/23/2015	RunNo: 25106
Client ID: GP-13-15:4.5	Batch ID: 11920	Analysis Date: 9/24/2015		SeqNo: 473209	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury 0.558 0.265 0.5291 0.02003 102 70 130

Sample ID: 1509300-001AMSD	SampType: MSD	Units: mg/Kg-dry		Prep Date: 9/23/2015	RunNo: 25106
Client ID: GP-13-15:4.5	Batch ID: 11920	Analysis Date: 9/24/2015		SeqNo: 473210	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury 0.535 0.255 0.5098 0.02003 101 70 130 0.5576 4.11 20



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: MB-11919	SampType: MBLK	Units: mg/Kg		Prep Date: 9/23/2015	RunNo: 25074
Client ID: MBLKS	Batch ID: 11919	Analysis Date: 9/23/2015		SeqNo: 472568	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	20.4		20.00		102	50	150				
Surr: o-Terphenyl	20.6		20.00		103	50	150				

Sample ID: LCS-11919	SampType: LCS	Units: mg/Kg		Prep Date: 9/23/2015	RunNo: 25074
Client ID: LCSS	Batch ID: 11919	Analysis Date: 9/23/2015		SeqNo: 472567	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel (Fuel Oil)	546	20.0	500.0	0	109	65	135				
Surr: 2-Fluorobiphenyl	23.8		20.00		119	50	150				
Surr: o-Terphenyl	20.3		20.00		102	50	150				

Sample ID: 1509278-001ADUP	SampType: DUP	Units: mg/Kg-dry		Prep Date: 9/23/2015	RunNo: 25074
Client ID: BATCH	Batch ID: 11919	Analysis Date: 9/23/2015		SeqNo: 472543	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel (Fuel Oil)	ND	21.5						0			30
Heavy Oil	ND	53.7						0			30
Surr: 2-Fluorobiphenyl	23.3		21.48		109	50	150		0		
Surr: o-Terphenyl	23.4		21.48		109	50	150		0		

Sample ID: 1509300-007ADUP	SampType: DUP	Units: mg/Kg-dry		Prep Date: 9/23/2015	RunNo: 25074
Client ID: GP-15-15:14.0	Batch ID: 11919	Analysis Date: 9/23/2015		SeqNo: 472553	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel (Fuel Oil)	ND	26.4						0			30
Heavy Oil	ND	66.1						0			30
Surr: 2-Fluorobiphenyl	19.6		26.42		74.1	50	150		0		
Surr: o-Terphenyl	19.8		26.42		74.8	50	150		0		



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: 1509300-007ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25074		
Client ID: GP-15-15:14.0		Batch ID: 11919					Analysis Date: 9/23/2015			SeqNo: 472553	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: MB-11945	SampType: MBLK	Units: mg/Kg			Prep Date: 9/24/2015			RunNo: 25122			
Client ID: MBLKS	Batch ID: 11945				Analysis Date: 9/24/2015			SeqNo: 473714			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	19.1		20.00		95.7	50	150				
Surr: o-Terphenyl	19.1		20.00		95.6	50	150				

Sample ID: LCS-11945	SampType: LCS	Units: mg/Kg				Prep Date: 9/24/2015			RunNo: 25122		
Client ID: LCSS	Batch ID: 11945					Analysis Date: 9/24/2015			SeqNo: 473713		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	429	20.0	500.0	0	85.9	65	135				
Surr: 2-Fluorobiphenyl	20.4		20.00		102	50	150				
Surr: o-Terphenyl	19.7		20.00		98.4	50	150				

Sample ID: 1509332-008ADUP	SampType: DUP	Units: mg/Kg-dry			Prep Date: 9/24/2015			RunNo: 25122			
Client ID: BATCH	Batch ID: 11945				Analysis Date: 9/24/2015			SeqNo: 473703			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	23.2						0		30	
Heavy Oil	ND	57.9						0		30	
Surr: 2-Fluorobiphenyl	26.5		23.15		114	50	150		0		
Surr: o-Terphenyl	26.7		23.15		115	50	150		0		



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: MB-11941	SampType: MBLK	Units: µg/L		Prep Date: 9/24/2015	RunNo: 25133
Client ID: MBLKW	Batch ID: 11941	Analysis Date: 9/25/2015		SeqNo: 473905	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel (Fuel Oil)	ND	50.0									
Heavy Oil	ND	100									
Surr: 2-Fluorobiphenyl	59.8		80.00		74.8	50	150				
Surr: o-Terphenyl	67.3		80.00		84.1	50	150				

Sample ID: LCS-11941	SampType: LCS	Units: µg/L		Prep Date: 9/24/2015	RunNo: 25133
Client ID: LCSW	Batch ID: 11941	Analysis Date: 9/25/2015		SeqNo: 473904	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel (Fuel Oil)	675	50.0	1,000	0	67.5	65	135				
Surr: 2-Fluorobiphenyl	65.7		80.00		82.1	50	150				
Surr: o-Terphenyl	59.8		80.00		74.8	50	150				

Sample ID: 1509300-020BDUP	SampType: DUP	Units: µg/L		Prep Date: 9/24/2015	RunNo: 25133
Client ID: GP-21-15:GW	Batch ID: 11941	Analysis Date: 9/25/2015		SeqNo: 473912	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel (Fuel Oil)	ND	50.0						0		30	
Heavy Oil	169	100						170.8	0.880	30	
Surr: 2-Fluorobiphenyl	45.4		79.97		56.8	50	150		0		
Surr: o-Terphenyl	48.5		79.97		60.6	50	150		0		



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Herbicides by EPA Method 8151A

Sample ID: 1509270-022AMS	SampType: MS	Units: µg/Kg-dry				Prep Date: 9/24/2015			RunNo: 25248		
Client ID: BATCH	Batch ID: 11938	Analysis Date: 10/1/2015							SeqNo: 476095		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	113	45.1	128.9	0	87.4	31.9	118				
2,4-D	116	38.7	128.9	0	90.1	12.4	134				
2,4-DP	124	32.2	128.9	0	95.8	27.2	129				
2,4,5-TP (Silvex)	123	25.8	128.9	0	95.5	28.6	134				
2,4,5-T	108	64.5	128.9	0	83.9	13.1	147				
Dinoseb	113	38.7	128.9	0	87.9	10	179				
Dalapon	5,480	258	6,445	0	85.0	24.9	139				
2,4-DB	102	32.2	128.9	0	79.1	50.2	152				
MCPP	1040	5,670	1,289	0	80.8	37.8	140				
MCPA	1,440	361	1,289	0	111	13.7	147				
Picloram	116	64.5	128.9	0	89.6	5	153				
Bentazon	91.8	45.1	128.9	0	71.2	15	140				
Chloramben	88.7	25.8	128.9	10.45	60.7	5	162				
Acifluorfen	94.5	103	128.9	0	73.3	15	140				
3,5-Dichlorobenzoic acid	122	51.6	128.9	0	94.6	10	164				
4-Nitrophenol	115	38.7	128.9	8.524	82.3	44.8	125				
Dacthal (DCPA)	102	38.7	128.9	15.85	67.1	5	132				
Surr: 2,4-Dichlorophenylacetic acid	134		128.9		104	20.1	168				

Sample ID: MB-11955		SampType: MBLK		Units: µg/Kg		Prep Date: 9/25/2015			RunNo: 25248		
Client ID: MBLKS		Batch ID: 11955					Analysis Date: 10/1/2015			SeqNo: 476118	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	ND	35.0									
2,4-D	ND	30.0									
2,4-DP	ND	25.0									
2,4,5-TP (Silvex)	ND	20.0									
2,4,5-T	ND	50.0									
Dinoseb	ND	30.0									
Dalapon	ND	200									
2,4-DB	ND	25.0									



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CLIENT: Shannon & Wilson
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QC SUMMARY REPORT
Herbicides by EPA Method 8151A

Sample ID: MB-11955	SampType: MBLK	Units: µg/Kg				Prep Date: 9/25/2015			RunNo: 25248		
Client ID: MBLKS	Batch ID: 11955	Analysis Date: 10/1/2015							SeqNo: 476118		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MCPP	ND	4,400									
MCPA	ND	280									
Picloram	ND	50.0									
Bentazon	ND	35.0									
Chloramben	ND	20.0									
Acifluorfen	ND	80.0									
3,5-Dichlorobenzoic acid	ND	40.0									
4-Nitrophenol	ND	30.0									
Dacthal (DCPA)	ND	30.0									
Surr: 2,4-Dichlorophenylacetic acid	89.6		100.0		89.6	20.1	168				

Sample ID: LCS-11955	SampType: LCS		Units: µg/Kg		Prep Date: 9/25/2015			RunNo: 25248			
Client ID: LCSS	Batch ID: 11955		Analysis Date: 10/1/2015						SeqNo: 476117		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	82.3	35.0	100.0	0	82.3	32.1	135				
2,4-D	88.5	30.0	100.0	0	88.5	22.4	130				
2,4-DP	97.6	25.0	100.0	0	97.6	26.4	130				
2,4,5-TP (Silvex)	103	20.0	100.0	0	103	21.2	138				
2,4,5-T	84.9	50.0	100.0	0	84.9	39	117				
Dinoseb	56.7	30.0	100.0	0	56.7	5	165				
Dalapon	8,630	200	10,000	0	86.3	18.4	162				
2,4-DB	82.2	25.0	100.0	0	82.2	5	164				
MCPP	886	4,400	1,000	0	88.6	22.2	157				
MCPA	1,060	280	1,000	0	106	47.4	128				
Picloram	99.5	50.0	100.0	0	99.5	5	175				
Bentazon	68.6	35.0	100.0	0	68.6	7.59	162				
Chloramben	68.7	20.0	100.0	0	68.7	5	147				
Acifluorfen	80.7	80.0	100.0	0	80.7	5	163				
3,5-Dichlorobenzoic acid	103	40.0	100.0	0	103	18.7	139				
4-Nitrophenol	45.9	30.0	100.0	0	45.9	5	163				



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID: LCS-11955	SampType: LCS	Units: µg/Kg			Prep Date: 9/25/2015			RunNo: 25248			
Client ID: LCSS	Batch ID: 11955	Analysis Date: 10/1/2015						SeqNo: 476117			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dacthal (DCPA)	91.1	30.0	100.0	0	91.1	5	164				
Surr: 2,4-Dichlorophenylacetic acid	108		100.0		108	20.1	168				

Sample ID: MB-11955		SampType: MBLK			Units: µg/Kg		Prep Date: 9/25/2015			RunNo: 25303		
Client ID: MBLKS		Batch ID: 11955			Analysis Date: 10/5/2015			SeqNo: 477218				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dicamba	ND	35.0									
2,4-D	ND	30.0									
2,4-DP	ND	25.0									
2,4,5-TP (Silvex)	ND	20.0									
2,4,5-T	ND	50.0									
Dinoseb	ND	30.0									
Dalapon	ND	200									
2,4-DB	ND	25.0									
MCPP	ND	4,400									
MCPA	ND	2,800									
Picloram	ND	50.0									
Bentazon	ND	35.0									
Chloramben	ND	20.0									
Acifluorfen	ND	80.0									
3,5-Dichlorobenzoic acid	ND	40.0									
4-Nitrophenol	ND	30.0									
Dacthal (DCPA)	ND	30.0									
Surr: 2,4-Dichlorophenylacetic acid	107		100.0		107	20.1	168				



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QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID: LCS-11955	SampType: LCS	Units: µg/Kg			Prep Date: 9/25/2015			RunNo: 25303			
Client ID: LCSS	Batch ID: 11955	Analysis Date: 10/5/2015						SeqNo: 477217			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	105	35.0	100.0	0	105	32.1	135				
2,4-D	110	30.0	100.0	0	110	22.4	130				
2,4-DP	118	25.0	100.0	0	118	26.4	130				
2,4,5-TP (Silvex)	126	20.0	100.0	0	126	21.2	138				
2,4,5-T	102	50.0	100.0	0	102	39	117				
Dinoseb	50.0	30.0	100.0	0	50.0	5	165				
Dalapon	11,100	200	10,000	0	111	18.4	162				
2,4-DB	109	25.0	100.0	0	109	5	164				
MCP	1220	4,400	2,500	0	48.9	22.2	157				
MCPA	1510	2,800	2,500	0	60.5	47.4	128				
Picloram	119	50.0	100.0	0	119	5	175				
Bentazon	95.2	35.0	100.0	0	95.2	7.59	162				
Chloramben	88.2	20.0	100.0	0	88.2	5	147				
Acifluorfen	109	80.0	100.0	0	109	5	163				
3,5-Dichlorobenzoic acid	131	40.0	100.0	0	131	18.7	139				
4-Nitrophenol	64.9	30.0	100.0	0	64.9	5	163				
Dacthal (DCPA)	116	30.0	100.0	0	116	5	164				
Surr: 2,4-Dichlorophenylacetic acid	112		100.0		112	20.1	168				

Sample ID: 1509300-009ADUP	SampType: DUP	Units: µg/Kg-dry				Prep Date: 9/25/2015			RunNo: 25303		
Client ID: GP-16-15:13.5	Batch ID: 11955					Analysis Date: 10/5/2015			SeqNo: 477205		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	ND	43.9						0		30	
2,4-D	ND	37.6						0		30	
2,4-DP	ND	31.4						0		30	
2,4,5-TP (Silvex)	ND	25.1						0		30	
2,4,5-T	ND	62.7						0		30	
Dinoseb	ND	37.6						0		30	
Dalapon	ND	251						0		30	
2,4-DB	ND	31.4						0		30	



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID: 1509300-009ADUP		SampType: DUP		Units: µg/Kg-dry		Prep Date: 9/25/2015			RunNo: 25303		
Client ID: GP-16-15:13.5		Batch ID: 11955		Analysis Date: 10/5/2015						SeqNo: 477205	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MCPP	ND	5,520						0		30	
MCPA	ND	3,510						0		30	
Picloram	ND	62.7						0		30	
Bentazon	ND	43.9						0		30	
Chloramben	ND	25.1						0		30	
Acifluorfen	ND	100						0		30	
3,5-Dichlorobenzoic acid	ND	50.2						0		30	
4-Nitrophenol	ND	37.6						0		30	
Dacthal (DCPA)	ND	37.6						0		30	
Surr: 2,4-Dichlorophenylacetic acid	131		125.4		104	20.1	168		0		

Sample ID: 1509300-010AMS		SampType: MS		Units: µg/Kg-dry		Prep Date: 9/25/2015			RunNo: 25303		
Client ID: GP-17-15:7.0		Batch ID: 11955		Analysis Date: 10/5/2015						SeqNo: 477207	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	109	47.6	136.0	0	80.5	31.9	118				
2,4-D	116	40.8	136.0	0	85.2	12.4	134				
2,4-DP	125	34.0	136.0	0	92.3	27.2	129				
2,4,5-TP (Silvex)	133	27.2	136.0	0	97.7	28.6	134				
2,4,5-T	107	68.0	136.0	0	78.9	13.1	147				
Dinoseb	136	40.8	136.0	0	100	10	179				
Dalapon	5,650	272	13,600	0	41.6	24.9	139				
2,4-DB	117	34.0	136.0	0	86.3	50.2	152				
MCP	1340	5,980	3,399	0	39.4	37.8	140				
MCPA	2400	3,810	3,399	0	70.5	13.7	147				
Picloram	126	68.0	136.0	0	92.8	5	153				
Bentazon	106	47.6	136.0	0	78.3	15	140				
Chloramben	116	27.2	136.0	0	85.3	5	162				
Acifluorfen	167	109	136.0	0	123	15	140				
3,5-Dichlorobenzoic acid	146	54.4	136.0	0	107	10	164				
4-Nitrophenol	145	40.8	136.0	0	107	44.8	125				

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID: 1509300-010AMS		SampType: MS		Units: µg/Kg-dry		Prep Date: 9/25/2015			RunNo: 25303		
Client ID: GP-17-15:7.0		Batch ID: 11955					Analysis Date: 10/5/2015			SeqNo: 477207	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dacthal (DCPA)	ND	40.8	136.0	0	23.0	5	132				
Surr: 2,4-Dichlorophenylacetic acid	122		136.0		89.4	20.1	168				



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: MB-11916	SampType: MBLK	Units: µg/L			Prep Date: 9/22/2015			RunNo: 25071			
Client ID: MBLKW	Batch ID: 11916				Analysis Date: 9/23/2015			SeqNo: 472505			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0996									
2-Methylnaphthalene	ND	0.0996									
1-Methylnaphthalene	ND	0.0996									
Acenaphthylene	ND	0.0996									
Acenaphthene	ND	0.0996									
Fluorene	ND	0.0996									
Phenanthrene	ND	0.0996									
Anthracene	ND	0.0996									
Fluoranthene	ND	0.0996									
Pyrene	ND	0.0996									
Benz(a)anthracene	ND	0.0996									
Chrysene	ND	0.0996									
Benzo(b)fluoranthene	ND	0.0996									
Benzo(k)fluoranthene	ND	0.0996									
Benzo(a)pyrene	ND	0.0996									
Indeno(1,2,3-cd)pyrene	ND	0.0996									
Dibenz(a,h)anthracene	ND	0.0996									
Benzo(g,h,i)perylene	ND	0.0996									
Surr: 2-Fluorobiphenyl	1.29		1.992		64.7	23.9	122				
Surr: Terphenyl-d14	1.54		1.992		77.5	33.4	135				

Sample ID: LCS-11916	SampType: LCS	Units: µg/L				Prep Date: 9/22/2015			RunNo: 25071		
Client ID: LCSW	Batch ID: 11916					Analysis Date: 9/23/2015			SeqNo: 472504		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.27	0.0998	3.993	0	56.8	26.7	106				
2-Methylnaphthalene	2.33	0.0998	3.993	0	58.3	35.4	110				
1-Methylnaphthalene	2.31	0.0998	3.993	0	57.9	37.5	116				
Acenaphthylene	2.88	0.0998	3.993	0	72.2	39.2	114				
Acenaphthene	2.44	0.0998	3.993	0	61.1	37	113				
Fluorene	1.80	0.0998	3.993	0	45.0	40.3	117				



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: LCS-11916	SampType: LCS	Units: µg/L			Prep Date: 9/22/2015			RunNo: 25071			
Client ID: LCSW	Batch ID: 11916				Analysis Date: 9/23/2015			SeqNo: 472504			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	2.42	0.0998	3.993	0	60.6	35.1	118				
Anthracene	2.33	0.0998	3.993	0	58.4	45.4	115				
Fluoranthene	2.48	0.0998	3.993	0	62.2	47.1	123				
Pyrene	3.05	0.0998	3.993	0	76.3	47.6	123				
Benz(a)anthracene	2.40	0.0998	3.993	0	60.0	48.7	126				
Chrysene	2.42	0.0998	3.993	0	60.5	45.1	114				
Benzo(b)fluoranthene	2.36	0.0998	3.993	0	59.1	52.2	126				
Benzo(k)fluoranthene	2.67	0.0998	3.993	0	66.8	45.5	121				
Benzo(a)pyrene	2.37	0.0998	3.993	0	59.3	38.4	121				
Indeno(1,2,3-cd)pyrene	2.28	0.0998	3.993	0	57.1	23.9	143				
Dibenz(a,h)anthracene	2.56	0.0998	3.993	0	64.0	24.9	141				
Benzo(g,h,i)perylene	2.12	0.0998	3.993	0	53.1	35.9	139				
Surr: 2-Fluorobiphenyl	1.39		1.997		69.7	23.9	122				
Surr: Terphenyl-d14	1.50		1.997		74.9	33.4	135				

Sample ID: 1509270-027EDUP	SampType: DUP	Units: µg/L			Prep Date: 9/22/2015			RunNo: 25071			
Client ID: BATCH	Batch ID: 11916				Analysis Date: 9/23/2015			SeqNo: 472491			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0997						0		30	
2-Methylnaphthalene	ND	0.0997						0		30	
1-Methylnaphthalene	ND	0.0997						0		30	
Acenaphthylene	ND	0.0997						0		30	
Acenaphthene	ND	0.0997						0		30	
Fluorene	ND	0.0997						0		30	
Phenanthrene	ND	0.0997						0		30	
Anthracene	ND	0.0997						0		30	
Fluoranthene	ND	0.0997						0		30	
Pyrene	ND	0.0997						0		30	
Benz(a)anthracene	ND	0.0997						0		30	
Chrysene	ND	0.0997						0		30	



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QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 1509270-027EDUP	SampType: DUP	Units: µg/L			Prep Date: 9/22/2015			RunNo: 25071			
Client ID: BATCH	Batch ID: 11916	Analysis Date: 9/23/2015						SeqNo: 472491			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	ND	0.0997						0		30	
Benzo(k)fluoranthene	ND	0.0997						0		30	
Benzo(a)pyrene	ND	0.0997						0		30	
Indeno(1,2,3-cd)pyrene	ND	0.0997						0		30	
Dibenz(a,h)anthracene	ND	0.0997						0		30	
Benzo(g,h,i)perylene	ND	0.0997						0		30	
Surr: 2-Fluorobiphenyl	1.14		1.995		56.9	23.9	122		0		
Surr: Terphenyl-d14	0.798		1.995		40.0	33.4	135		0		

Sample ID: 1509270-032EMS	SampType: MS	Units: µg/L			Prep Date: 9/22/2015			RunNo: 25071			
Client ID: BATCH	Batch ID: 11916				Analysis Date: 9/23/2015			SeqNo: 472493			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.33	0.0999	3.997	0	58.3	31.2	104				
2-Methylnaphthalene	2.30	0.0999	3.997	0	57.7	33.9	109				
1-Methylnaphthalene	2.28	0.0999	3.997	0	57.1	33.2	110				
Acenaphthylene	2.81	0.0999	3.997	0	70.4	40.5	98.7				
Acenaphthene	2.38	0.0999	3.997	0	59.6	30.6	117				
Fluorene	2.35	0.0999	3.997	0	58.8	35.2	99.1				
Phenanthrene	2.21	0.0999	3.997	0	55.4	42.7	111				
Anthracene	2.02	0.0999	3.997	0	50.5	43.9	103				
Fluoranthene	2.10	0.0999	3.997	0	52.5	56.1	115				S
Pyrene	2.49	0.0999	3.997	0	62.2	44.2	134				
Benz(a)anthracene	1.65	0.0999	3.997	0	41.4	50.4	128				S
Chrysene	1.53	0.0999	3.997	0	38.4	41.4	118				S
Benzo(b)fluoranthene	1.25	0.0999	3.997	0	31.2	50.8	121				S
Benzo(k)fluoranthene	1.33	0.0999	3.997	0	33.2	43.4	113				S
Benzo(a)pyrene	1.21	0.0999	3.997	0	30.2	40.8	128				S
Indeno(1,2,3-cd)pyrene	1.08	0.0999	3.997	0	26.9	29.5	126				S
Dibenz(a,h)anthracene	1.27	0.0999	3.997	0	31.8	31.4	120				
Benzo(g,h,i)perylene	0.925	0.0999	3.997	0	23.2	30	116				S



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 1509270-032EMS		SampType: MS			Units: µg/L		Prep Date: 9/22/2015			RunNo: 25071		
Client ID: BATCH		Batch ID: 11916			Analysis Date: 9/23/2015					SeqNo: 472493		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Surr: 2-Fluorobiphenyl	1.14		1.999		57.0	23.9	122				
Surr: Terphenyl-d14	0.865		1.999		43.3	33.4	135				

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.



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CLIENT: Shannon & Wilson
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QC SUMMARY REPORT
Organochlorine Pesticides by EPA Method 8081

Sample ID: TOXIPHENE	SampType: CCV	Units: mg/L				Prep Date: 9/23/2015			RunNo: 25086		
Client ID: CCV	Batch ID: R25086					Analysis Date: 9/23/2015			SeqNo: 472772		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	1.200	0.100	1.000	0	120	50	150				

Sample ID: MB-11935	SampType: MBLK	Units: mg/Kg			Prep Date: 9/23/2015			RunNo: 25086			
Client ID: MBLKS	Batch ID: 11935				Analysis Date: 9/24/2015			SeqNo: 472762			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.100									
Alpha BHC	ND	0.0100									
Beta BHC	ND	0.0100									
Gamma BHC (Lindane)	ND	0.0100									
Delta BHC	ND	0.0100									
Heptachlor	ND	0.0100									
Aldrin	ND	0.0100									
Heptachlor epoxide	ND	0.0100									
gamma-Chlordane	ND	0.0100									
Endosulfan I	ND	0.0100									
alpha-Chlordane	ND	0.0100									
Dieldrin	ND	0.0100									
4,4'-DDE	ND	0.0200									
Endrin	ND	0.0200									
Endosulfan II	ND	0.0200									
4,4'-DDD	ND	0.0200									
Endrin aldehyde	ND	0.0200									
Endosulfan sulfate	ND	0.0200									
4,4'-DDT	ND	0.0200									
Endrin ketone	ND	0.0200									
Methoxychlor	ND	0.0500									
Surr: Decachlorobiphenyl	0.0418		0.05000		83.6	26.5	158				
Surr: Tetrachloro-m-xylene	0.0417		0.05000		83.5	11	150				



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID: LCS-11935		SampType: LCS		Units: µg/Kg		Prep Date: 9/23/2015			RunNo: 25086		
Client ID: LCSS		Batch ID: 11935					Analysis Date: 9/24/2015			SeqNo: 472760	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.183	0.0100	0.2000	0	91.6	54.2	139				
Beta BHC	0.189	0.0100	0.2000	0	94.7	56.5	142				
Gamma BHC (Lindane)	0.189	0.0100	0.2000	0	94.4	55.5	142				
Delta BHC	0.184	0.0100	0.2000	0	92.1	47.4	157				
Heptachlor	0.196	0.0100	0.2000	0	97.9	54	141				
Aldrin	0.187	0.0100	0.2000	0	93.7	43.7	147				
Heptachlor epoxide	0.193	0.0100	0.2000	0	96.5	56.2	137				
gamma-Chlordane	0.200	0.0100	0.2000	0	100	58.5	136				
Endosulfan I	0.188	0.0100	0.2000	0	94.1	60	132				
alpha-Chlordane	0.217	0.0100	0.2000	0	108	46.1	140				
Dieldrin	0.190	0.0100	0.2000	0	94.9	61.2	133				
4,4'-DDE	0.189	0.0200	0.2000	0	94.6	55.4	142				
Endrin	0.197	0.0200	0.2000	0	98.4	56.5	143				
Endosulfan II	0.192	0.0200	0.2000	0	96.0	62	143				
4,4'-DDD	0.187	0.0200	0.2000	0	93.7	53.3	145				
Endrin aldehyde	0.183	0.0200	0.2000	0	91.4	39.5	153				
Endosulfan sulfate	0.188	0.0200	0.2000	0	93.9	53.8	148				
4,4'-DDT	0.193	0.0200	0.2000	0	96.7	48.2	152				
Endrin ketone	0.199	0.0200	0.2000	0	99.5	28.5	162				
Methoxychlor	0.194	0.0500	0.2000	0	96.8	34.6	159				
Surr: Decachlorobiphenyl	0.0490		0.05000		98.0	26.5	158				
Surr: Tetrachloro-m-xylene	0.0507		0.05000		101	11	150				

Sample ID: 1509270-018ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25086		
Client ID: BATCH		Batch ID: 11935				Analysis Date: 9/24/2015			SeqNo: 472731		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.123						0		30	
Alpha BHC	ND	0.0123						0		30	
Beta BHC	ND	0.0123						0		30	
Gamma BHC (Lindane)	ND	0.0123						0		30	



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Sample ID: 1509270-018ADUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 9/23/2015		RunNo: 25086		
Client ID: BATCH		Batch ID: 11935			Analysis Date: 9/24/2015				SeqNo: 472731		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Delta BHC	ND	0.0123						0		30	
Heptachlor	ND	0.0123						0		30	
Aldrin	ND	0.0123						0		30	
Heptachlor epoxide	ND	0.0123						0		30	
gamma-Chlordane	ND	0.0123						0		30	
Endosulfan I	ND	0.0123						0		30	
alpha-Chlordane	ND	0.0123						0		30	
Dieldrin	ND	0.0123						0		30	
4,4'-DDE	ND	0.0246						0		30	
Endrin	ND	0.0246						0		30	
Endosulfan II	ND	0.0246						0		30	
4,4'-DDD	ND	0.0246						0		30	
Endrin aldehyde	ND	0.0246						0		30	
Endosulfan sulfate	ND	0.0246						0		30	
4,4'-DDT	ND	0.0246						0		30	
Endrin ketone	ND	0.0246						0		30	
Methoxychlor	ND	0.0614						0		30	
Surr: Decachlorobiphenyl	0.0509		0.06140		82.9	26.5	158		0		
Surr: Tetrachloro-m-xylene	0.0553		0.06140		90.1	11	150		0		

Sample ID: 1509270-019AMS		SampType: MS			Units: µg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25086		
Client ID: BATCH		Batch ID: 11935			Analysis Date: 9/24/2015			SeqNo: 472733				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Alpha BHC	0.192	0.0112	0.2248	0	85.5	49.1	158				
Beta BHC	0.196	0.0112	0.2248	0	87.4	50.9	160				
Gamma BHC (Lindane)	0.198	0.0112	0.2248	0	88.0	55.3	157				
Delta BHC	0.194	0.0112	0.2248	0	86.1	55.8	160				
Heptachlor	0.206	0.0112	0.2248	0	91.6	59.1	150				
Aldrin	0.202	0.0112	0.2248	0	90.0	46.4	145				
Heptachlor epoxide	0.205	0.0112	0.2248	0	91.2	48.5	151				



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Sample ID: 1509270-019AMS		SampType: MS		Units: µg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25086		
Client ID: BATCH		Batch ID: 11935					Analysis Date: 9/24/2015			SeqNo: 472733	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
gamma-Chlordane	0.253	0.0112	0.2248	0	113	50.9	143				
Endosulfan I	0.202	0.0112	0.2248	0	90.0	46.4	149				
alpha-Chlordane	0.128	0.0112	0.2248	0	56.8	46.3	153				
Dieldrin	0.203	0.0112	0.2248	0	90.5	51	147				
4,4'-DDE	0.207	0.0225	0.2248	0	92.2	39.9	162				
Endrin	0.210	0.0225	0.2248	0	93.5	51.3	151				
Endosulfan II	0.218	0.0225	0.2248	0	96.9	51	152				
4,4'-DDD	0.207	0.0225	0.2248	0	92.0	45.8	160				
Endrin aldehyde	0.215	0.0225	0.2248	0	95.8	38.3	156				
Endosulfan sulfate	0.217	0.0225	0.2248	0	96.6	53.2	154				
4,4'-DDT	0.215	0.0225	0.2248	0	95.6	45.7	168				
Endrin ketone	0.217	0.0225	0.2248	0	96.6	68.3	144				
Methoxychlor	0.220	0.0562	0.2248	0	97.7	43.4	178				
Surr: Decachlorobiphenyl	0.0537		0.05621		95.5	26.5	158				
Surr: Tetrachloro-m-xylene	0.0504		0.05621		89.7	11	150				

Sample ID: TOXIPHENE		SampType: CCV		Units: mg/L		Prep Date: 9/24/2015			RunNo: 25086		
Client ID: CCV		Batch ID: R25086					Analysis Date: 9/24/2015			SeqNo: 472770	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	1,150	0.100	1,000	0	115	50	150				

Sample ID: TOXIPHENE		SampType: CCV		Units: mg/L		Prep Date: 9/24/2015			RunNo: 25086		
Client ID: CCV		Batch ID: R25086				Analysis Date: 9/24/2015			SeqNo: 472771		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	1,170	0.100	1,000	0	117	50	150				



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Organochlorine Pesticides by EPA Method 8081

Sample ID: MB-11947		SampType: MBLK			Units: mg/Kg		Prep Date: 9/24/2015			RunNo: 25271		
Client ID: MBLKS		Batch ID: 11947			Analysis Date: 9/25/2015					SeqNo: 476525		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Toxaphene	ND	0.100									
Alpha BHC	ND	0.0100									
Beta BHC	ND	0.0100									
Gamma BHC (Lindane)	ND	0.0100									
Delta BHC	ND	0.0100									
Heptachlor	ND	0.0100									
Aldrin	ND	0.0100									
Heptachlor epoxide	ND	0.0100									
gamma-Chlordane	ND	0.0100									
Endosulfan I	ND	0.0100									
alpha-Chlordane	ND	0.0100									
Dieldrin	ND	0.0100									
4,4'-DDE	ND	0.0200									
Endrin	ND	0.0200									
Endosulfan II	ND	0.0200									
4,4'-DDD	ND	0.0200									
Endrin aldehyde	ND	0.0200									
Endosulfan sulfate	ND	0.0200									
4,4'-DDT	ND	0.0200									
Endrin ketone	ND	0.0200									
Methoxychlor	ND	0.0500									
Surr: Decachlorobiphenyl	0.0623		0.1000		62.3	26.5	158				
Surr: Tetrachloro-m-xylene	0.0293		0.05000		58.6	11	150				

Sample ID: LCS-11947		SampType: LCS			Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25271	
Client ID: LCSS		Batch ID: 11947			Analysis Date: 9/25/2015			SeqNo: 476524			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alpha BHC	0.173	0.0100	0.2000	0	86.3	54.2	139				
Beta BHC	0.178	0.0100	0.2000	0	89.0	56.5	142				
Gamma BHC (Lindane)	0.178	0.0100	0.2000	0	88.8	55.5	142				



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Organochlorine Pesticides by EPA Method 8081

Sample ID: LCS-11947	SampType: LCS	Units: µg/Kg			Prep Date: 9/24/2015			RunNo: 25271			
Client ID: LCSS	Batch ID: 11947				Analysis Date: 9/25/2015			SeqNo: 476524			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Delta BHC	0.181	0.0100	0.2000	0	90.4	47.4	157				
Heptachlor	0.191	0.0100	0.2000	0	95.3	54	141				
Aldrin	0.204	0.0100	0.2000	0	102	43.7	147				
Heptachlor epoxide	0.162	0.0100	0.2000	0	81.0	56.2	137				
gamma-Chlordane	0.179	0.0100	0.2000	0	89.4	58.5	136				
Endosulfan I	0.160	0.0100	0.2000	0	80.1	60	132				
alpha-Chlordane	0.0861	0.0100	0.2000	0	43.0	46.1	140				S
Dieldrin	0.161	0.0100	0.2000	0	80.7	61.2	133				
4,4'-DDE	0.174	0.0200	0.2000	0	87.2	55.4	142				
Endrin	0.168	0.0200	0.2000	0	84.2	56.5	143				
Endosulfan II	0.184	0.0200	0.2000	0	91.9	62	143				
4,4'-DDD	0.174	0.0200	0.2000	0	86.8	53.3	145				
Endrin aldehyde	0.178	0.0200	0.2000	0	88.9	39.5	153				
Endosulfan sulfate	0.188	0.0200	0.2000	0	94.0	53.8	148				
4,4'-DDT	0.187	0.0200	0.2000	0	93.7	48.2	152				
Endrin ketone	0.189	0.0200	0.2000	0	94.7	28.5	162				
Methoxychlor	0.221	0.0500	0.2000	0	110	34.6	159				
Surr: Decachlorobiphenyl	0.0658		0.1000		65.8	26.5	158				
Surr: Tetrachloro-m-xylene	0.0321		0.05000		64.3	11	150				

NOTES:

S - Outlying spike recovery observed for Alpha Chlordane. The MS recovered within specifications.

Sample ID: 1509300-006ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25271		
Client ID: GP-15-15:6.0		Batch ID: 11947					Analysis Date: 9/25/2015			SeqNo: 476500	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.143						0		30	
Alpha BHC	ND	0.0143						0		30	
Beta BHC	ND	0.0143						0		30	
Gamma BHC (Lindane)	ND	0.0143						0		30	
Delta BHC	ND	0.0143						0		30	
Heptachlor	ND	0.0143						0		30	



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Organochlorine Pesticides by EPA Method 8081

Sample ID: 1509300-006ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25271		
Client ID: GP-15-15:6.0		Batch ID: 11947		Analysis Date: 9/25/2015						SeqNo: 476500	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aldrin	ND	0.0143						0		30	
Heptachlor epoxide	ND	0.0143						0		30	
gamma-Chlordane	ND	0.0143						0		30	
Endosulfan I	ND	0.0143						0		30	
alpha-Chlordane	ND	0.0143						0		30	
Dieldrin	ND	0.0143						0		30	
4,4'-DDE	ND	0.0286						0		30	
Endrin	ND	0.0286						0		30	
Endosulfan II	ND	0.0286						0		30	
4,4'-DDD	ND	0.0286						0		30	
Endrin aldehyde	ND	0.0286						0		30	
Endosulfan sulfate	ND	0.0286						0		30	
4,4'-DDT	ND	0.0286						0		30	
Endrin ketone	ND	0.0286						0		30	
Methoxychlor	ND	0.0716						0		30	
Surr: Decachlorobiphenyl	0.0826		0.07161		115	26.5	158		0		
Surr: Tetrachloro-m-xylene	0.0406		0.07161		56.8	11	150		0		



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QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID: MB-11937		SampType: MBLK		Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25119		
Client ID: MBLKS		Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473647	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	ND	200
Bis(2-chloroethyl) ether	ND	200
2-Chlorophenol	ND	100
1,3-Dichlorobenzene	ND	100
1,4-Dichlorobenzene	ND	100
1,2-Dichlorobenzene	ND	100
Benzyl alcohol	ND	100
2-Methylphenol (o-cresol)	ND	100
Hexachloroethane	ND	100
N-Nitrosodi-n-propylamine	ND	100
Nitrobenzene	ND	200
Isophorone	ND	100
4-Methylphenol (p-cresol)	ND	100
2-Nitrophenol	ND	200
2,4-Dimethylphenol	ND	100
Bis(2-chloroethoxy)methane	ND	100
2,4-Dichlorophenol	ND	200
1,2,4-Trichlorobenzene	ND	100
Naphthalene	ND	80.0
4-Chloroaniline	ND	500
Hexachlorobutadiene	ND	100
4-Chloro-3-methylphenol	ND	500
2-Methylnaphthalene	ND	80.0
1-Methylnaphthalene	ND	80.0
Hexachlorocyclopentadiene	ND	100
2,4,6-Trichlorophenol	ND	200
2,4,5-Trichlorophenol	ND	200
2-Chloronaphthalene	ND	100
2-Nitroaniline	ND	500
Acenaphthene	ND	80.0
Dimethylphthalate	ND	100



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QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID: MB-11937		SampType: MBLK		Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25119		
Client ID: MBLKS		Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473647	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

2,6-Dinitrotoluene	ND	100									
Acenaphthylene	ND	80.0									
2,4-Dinitrophenol	ND	200									
Dibenzofuran	ND	100									
2,4-Dinitrotoluene	ND	100									
4-Nitrophenol	ND	500									
Fluorene	ND	80.0									
4-Chlorophenyl phenyl ether	ND	100									
Diethylphthalate	ND	100									
4,6-Dinitro-2-methylphenol	ND	200									
4-Bromophenyl phenyl ether	ND	100									
Hexachlorobenzene	ND	100									
Pentachlorophenol	ND	100									
Phenanthrene	ND	80.0									
Anthracene	ND	80.0									
Carbazole	ND	500									
Di-n-butylphthalate	ND	100									
Fluoranthene	ND	80.0									
Pyrene	ND	80.0									
Butyl Benzylphthalate	ND	100									
bis(2-Ethylhexyl)adipate	ND	100									
Benz (a) anthracene	ND	80.0									
Chrysene	ND	80.0									
bis (2-Ethylhexyl) phthalate	ND	100									
Di-n-octyl phthalate	ND	100									
Benzo (b) fluoranthene	ND	80.0									
Benzo (k) fluoranthene	ND	80.0									
Benzo (a) pyrene	ND	80.0									
Indeno (1,2,3-cd) pyrene	ND	80.0									
Dibenz (a,h) anthracene	ND	80.0									
Benzo (g,h,i) perylene	ND	80.0									



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Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID: MB-11937	SampType: MBLK	Units: µg/Kg			Prep Date: 9/24/2015			RunNo: 25119			
Client ID: MBLKS	Batch ID: 11937				Analysis Date: 9/24/2015			SeqNo: 473647			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	199		1,000		19.9	11.1	127				
Surr: 2-Fluorobiphenyl	315		500.0		62.9	16.1	150				
Surr: Nitrobenzene-d5	160		500.0		32.0	10	133				
Surr: Phenol-d6	629		1,000		62.9	11.6	133				
Surr: p-Terphenyl	363		500.0		72.5	21.8	150				

Sample ID: LCS-11937	SampType: LCS	Units: µg/Kg				Prep Date: 9/24/2015			RunNo: 25119		
Client ID: LCSS	Batch ID: 11937	Analysis Date: 9/24/2015							SeqNo: 473648		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	901	200	1,000	0	90.1	41.8	138				
Bis(2-chloroethyl) ether	775	200	1,000	0	77.5	65	116				
2-Chlorophenol	823	100	1,000	0	82.3	49.3	132				
1,3-Dichlorobenzene	857	100	1,000	0	85.7	50.9	133				
1,4-Dichlorobenzene	779	100	1,000	0	77.9	51.3	133				
1,2-Dichlorobenzene	851	100	1,000	0	85.1	54.2	129				
Benzyl alcohol	1,300	100	1,000	0	130	42.4	131				
2-Methylphenol (o-cresol)	924	100	1,000	0	92.4	47.2	134				
Hexachloroethane	829	100	1,000	0	82.9	48.9	133				
N-Nitrosodi-n-propylamine	932	100	1,000	0	93.2	39.8	135				
Nitrobenzene	883	200	1,000	0	88.3	62.3	126				
Isophorone	944	100	1,000	0	94.4	62.7	131				
4-Methylphenol (p-cresol)	865	100	1,000	0	86.5	57.4	131				
2-Nitrophenol	640	200	1,000	0	64.0	44.2	129				
2,4-Dimethylphenol	883	100	1,000	0	88.3	57.8	121				
Bis(2-chloroethoxy)methane	914	100	1,000	0	91.4	67.5	124				
2,4-Dichlorophenol	801	200	1,000	0	80.1	57.1	128				
1,2,4-Trichlorobenzene	877	100	1,000	0	87.7	36.2	140				
Naphthalene	888	80.0	1,000	0	88.8	56.8	130				
4-Chloroaniline	891	500	1,000	0	89.1	10.4	130				
Hexachlorobutadiene	859	100	1,000	0	85.9	55.9	131				



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Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID: LCS-11937	SampType: LCS		Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25119			
Client ID: LCSS	Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473648		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chloro-3-methylphenol	869	500	1,000	0	86.9	49.4	138				
2-Methylnaphthalene	877	80.0	1,000	0	87.7	68.3	121				
1-Methylnaphthalene	888	80.0	1,000	0	88.8	64.1	126				
Hexachlorocyclopentadiene	667	100	1,000	0	66.7	36.7	128				
2,4,6-Trichlorophenol	641	200	1,000	0	64.1	36.4	132				
2,4,5-Trichlorophenol	819	200	1,000	0	81.9	52.3	128				
2-Chloronaphthalene	872	100	1,000	0	87.2	67.1	123				
2-Nitroaniline	768	500	1,000	0	76.8	43.9	135				
Acenaphthene	907	80.0	1,000	0	90.7	49.2	127				
Dimethylphthalate	840	100	1,000	0	84.0	62.4	130				
2,6-Dinitrotoluene	825	100	1,000	0	82.5	54.6	127				
Acenaphthylene	882	80.0	1,000	0	88.2	64.8	127				
2,4-Dinitrophenol	331	200	1,000	0	33.1	7.9	119				
Dibenzofuran	865	100	1,000	0	86.5	67.5	123				
2,4-Dinitrotoluene	745	100	1,000	0	74.5	21.9	136				
4-Nitrophenol	2,620	500	1,000	0	262	25.4	138				S
Fluorene	863	80.0	1,000	0	86.3	64.8	126				
4-Chlorophenyl phenyl ether	888	100	1,000	0	88.8	66.6	124				
Diethylphthalate	803	100	1,000	0	80.3	42.9	132				
4,6-Dinitro-2-methylphenol	472	200	1,000	0	47.2	12.9	110				
4-Bromophenyl phenyl ether	846	100	1,000	0	84.6	61.8	128				
Hexachlorobenzene	829	100	1,000	0	82.9	66.8	124				
Pentachlorophenol	366	100	1,000	0	36.6	10	123				
Phenanthrene	854	80.0	1,000	0	85.4	61.2	130				
Anthracene	863	80.0	1,000	0	86.3	68.9	122				
Carbazole	804	500	1,000	0	80.4	64.5	135				
Di-n-butylphthalate	727	100	1,000	0	72.7	50.6	130				
Fluoranthene	841	80.0	1,000	0	84.1	66	129				
Pyrene	842	80.0	1,000	0	84.2	45.4	140				
Butyl Benzylphthalate	629	100	1,000	0	62.9	31.1	157				
bis(2-Ethylhexyl)adipate	661	100	1,000	0	66.1	28.7	160				



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID: LCS-11937		SampType: LCS		Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25119		
Client ID: LCSS		Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473648	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz (a) anthracene	742	80.0	1,000	0	74.2	44	150				
Chrysene	908	80.0	1,000	0	90.8	65.8	128				
bis (2-Ethylhexyl) phthalate	682	100	1,000	0	68.2	36.3	149				
Di-n-octyl phthalate	699	100	1,000	0	69.9	37.2	135				
Benzo (b) fluoranthene	658	80.0	1,000	0	65.8	45.6	146				
Benzo (k) fluoranthene	705	80.0	1,000	0	70.5	45.5	138				
Benzo (a) pyrene	599	80.0	1,000	0	59.9	49.2	137				
Indeno (1,2,3-cd) pyrene	731	80.0	1,000	0	73.1	44.2	146				
Dibenz (a,h) anthracene	519	80.0	1,000	0	51.9	37.5	152				
Benzo (g,h,i) perylene	860	80.0	1,000	0	86.0	24.1	156				
Surr: 2,4,6-Tribromophenol	457		1,000		45.7	11.1	127				
Surr: 2-Fluorobiphenyl	424		500.0		84.8	16.1	150				
Surr: Nitrobenzene-d5	243		500.0		48.5	10	133				
Surr: Phenol-d6	758		1,000		75.8	11.6	133				
Surr: p-Terphenyl	431		500.0		86.2	21.8	150				

NOTES:

S - Outlying spike recovery observed for 4-Nitrophenol (high bias). Detections of this analyte will be qualified with an *. No further action required for samples without detections.

Sample ID: 1509270-021ADUP	SampType: DUP	Units: µg/Kg-dry				Prep Date: 9/24/2015			RunNo: 25119		
Client ID: BATCH	Batch ID: 11937	Analysis Date: 9/24/2015						SeqNo: 473650			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	275						0		50	
Bis(2-chloroethyl) ether	ND	275						0		50	
2-Chlorophenol	ND	138						0		50	
1,3-Dichlorobenzene	ND	138						0		50	
1,4-Dichlorobenzene	ND	138						0		50	
1,2-Dichlorobenzene	ND	138						0		50	
Benzyl alcohol	ND	138						0		50	
2-Methylphenol (o-cresol)	ND	138						0		50	
Hexachloroethane	ND	138						0		50	
N-Nitrosodi-n-propylamine	ND	138						0		50	



Date: 10/6/2015

Work Order: 1509300
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID: 1509270-021ADUP	SampType: DUP	Units: µg/Kg-dry				Prep Date: 9/24/2015			RunNo: 25119		
Client ID: BATCH	Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473650		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrobenzene	ND	275						0		50	
Isophorone	ND	138						0		50	
4-Methylphenol (p-cresol)	279	138						202.0	31.9	50	
2-Nitrophenol	ND	275						0		50	
2,4-Dimethylphenol	155	138						133.2	15.3	50	
Bis(2-chloroethoxy)methane	ND	138						0		50	
2,4-Dichlorophenol	ND	275						0		50	
1,2,4-Trichlorobenzene	ND	138						0		50	
Naphthalene	4,470	110						4,420	1.05	50	
4-Chloroaniline	ND	689						0		50	
Hexachlorobutadiene	ND	138						0		50	
4-Chloro-3-methylphenol	ND	689						0		50	
2-Methylnaphthalene	3,210	110						3,098	3.70	50	
Hexachlorocyclopentadiene	ND	138						0		50	
2,4,6-Trichlorophenol	ND	275						0		50	
2,4,5-Trichlorophenol	ND	275						0		50	
2-Chloronaphthalene	ND	138						0		50	
2-Nitroaniline	ND	689						0		50	
Dimethylphthalate	ND	138						0		50	
2,6-Dinitrotoluene	ND	138						0		50	
Acenaphthylene	137	110						127.0	7.85	50	
2,4-Dinitrophenol	ND	275						0		50	
Dibenzofuran	ND	138						0		50	
2,4-Dinitrotoluene	ND	138						0		50	
4-Nitrophenol	1,500	689						1,430	4.63	50	*
4-Chlorophenyl phenyl ether	ND	138						0		50	
Diethylphthalate	ND	138						0		50	
4,6-Dinitro-2-methylphenol	ND	275						0		50	
4-Bromophenyl phenyl ether	ND	138						0		50	
Hexachlorobenzene	ND	138						0		50	
Pentachlorophenol	ND	138						0		50	



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID: 1509270-021ADUP	SampType: DUP	Units: µg/Kg-dry				Prep Date: 9/24/2015			RunNo: 25119		
Client ID: BATCH	Batch ID: 11937	Analysis Date: 9/24/2015						SeqNo: 473650			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Di-n-butylphthalate	ND	138						178.8	200	50	R
Butyl Benzylphthalate	ND	138						0		50	
bis(2-Ethylhexyl)adipate	ND	138						0		50	
Chrysene	ND	110						131,100	200	50	R
bis (2-Ethylhexyl) phthalate	2,090	138						1,623	25.0	50	
Di-n-octyl phthalate	ND	138						0		50	
Benzo (k) fluoranthene	ND	110						28,380	200	50	R
Benzo (a) pyrene	49,800	110						43,060	14.5	50	
Indeno (1,2,3-cd) pyrene	51,300	110						61,540	18.2	50	
Dibenz (a,h) anthracene	50,000	110						52,540	5.00	50	
Benzo (g,h,l) perylene	51,100	110						56,570	10.1	50	
Surr: 2,4,6-Tribromophenol	801		1,377		58.1	11.1	127		0		
Surr: 2-Fluorobiphenyl	279		688.7		40.5	16.1	150		0		
Surr: Nitrobenzene-d5	266		688.7		38.6	10	133		0		
Surr: Phenol-d6	613		1,377		44.5	11.6	133		0		
Surr: p-Terphenyl	775		688.7		113	21.8	150		0		

NOTES:

* - Flagged value is not within established control limits.

R - High RPD observed, the method is in control as indicated by the LCS.

Sample ID: 1509270-022AMS	SampType: MS			Units: µg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25119		
Client ID: BATCH	Batch ID: 11937			Analysis Date: 9/24/2015					SeqNo: 473652		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	870	242	1,209	0	72.0	29.2	146				
Bis(2-chloroethyl) ether	671	242	1,209	0	55.5	34.4	135				
2-Chlorophenol	799	121	1,209	0	66.1	44	134				
1,3-Dichlorobenzene	415	121	1,209	0	34.4	21.3	133				
1,4-Dichlorobenzene	465	121	1,209	0	38.4	20.9	131				
1,2-Dichlorobenzene	505	121	1,209	0	41.8	35	131				
Benzyl alcohol	1,200	121	1,209	0	99.4	30.8	159				
2-Methylphenol (o-cresol)	897	121	1,209	0	74.2	57.7	125				



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID: 1509270-022AMS		SampType: MS		Units: µg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25119		
Client ID: BATCH		Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473652	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Hexachloroethane	465	121	1,209	0	38.4	15.4	139				
N-Nitrosodi-n-propylamine	1,010	121	1,209	0	83.2	26.4	151				
Nitrobenzene	832	242	1,209	0	68.8	61.4	130				
Isophorone	1,060	121	1,209	0	87.5	61.8	132				
4-Methylphenol (p-cresol)	940	121	1,209	0	77.7	65.5	127				
2-Nitrophenol	830	242	1,209	0	68.7	46.3	118				
2,4-Dimethylphenol	941	121	1,209	0	77.8	46	158				
Bis(2-chloroethoxy)methane	908	121	1,209	0	75.2	66.8	124				
2,4-Dichlorophenol	887	242	1,209	0	73.4	56.2	128				
1,2,4-Trichlorobenzene	730	121	1,209	0	60.4	29.2	140				
Naphthalene	756	96.7	1,209	0	62.5	44.4	136				
4-Chloroaniline	838	604	1,209	0	69.3	27	126				
Hexachlorobutadiene	722	121	1,209	0	59.8	38.2	138				
4-Chloro-3-methylphenol	1,060	604	1,209	0	87.3	36.8	159				
2-Methylnaphthalene	831	96.7	1,209	0	68.8	51.7	138				
1-Methylnaphthalene	846	96.7	1,209	0	70.0	51.8	131				
Hexachlorocyclopentadiene	276	121	1,209	0	22.8	10	133				
2,4,6-Trichlorophenol	912	242	1,209	0	75.4	62.7	122				
2,4,5-Trichlorophenol	990	242	1,209	0	81.9	54.7	127				
2-Chloronaphthalene	856	121	1,209	0	70.8	69.8	126				
2-Nitroaniline	1,010	604	1,209	0	83.5	39.3	145				
Acenaphthene	912	96.7	1,209	0	75.4	49.6	129				
Dimethylphthalate	956	121	1,209	0	79.1	61.5	131				
2,6-Dinitrotoluene	894	121	1,209	0	74.0	56.8	137				
Acenaphthylene	904	96.7	1,209	0	74.8	64	128				
2,4-Dinitrophenol	733	242	1,209	0	60.7	35.3	144				
Dibenzofuran	861	121	1,209	0	71.2	64.7	131				
2,4-Dinitrotoluene	868	121	1,209	0	71.8	30.9	139				
4-Nitrophenol	2,770	604	1,209	0	230	15.6	160				S
Fluorene	900	96.7	1,209	0	74.5	64.2	127				
4-Chlorophenyl phenyl ether	865	121	1,209	0	71.6	70.9	128				



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID: 1509270-022AMS		SampType: MS		Units: µg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25119		
Client ID: BATCH		Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473652	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diethylphthalate	978	121	1,209	0	80.9	61.7	129				
4,6-Dinitro-2-methylphenol	694	242	1,209	0	57.4	21.9	143				
4-Bromophenyl phenyl ether	855	121	1,209	0	70.7	69.6	136				
Hexachlorobenzene	879	121	1,209	0	72.7	66.5	123				
Pentachlorophenol	935	121	1,209	0	77.4	28.2	156				
Phenanthrene	890	96.7	1,209	0	73.7	57	134				
Anthracene	932	96.7	1,209	0	77.1	68.2	123				
Carbazole	907	604	1,209	0	75.0	64.1	152				
Di-n-butylphthalate	943	121	1,209	0	78.0	52.4	130				
Fluoranthene	916	96.7	1,209	106.1	67.0	46.5	165				
Pyrene	899	96.7	1,209	0	74.4	31.4	151				
Butyl Benzylphthalate	1,030	121	1,209	0	85.2	30.4	138				
bis(2-Ethylhexyl)adipate	1,120	121	1,209	0	92.3	32	136				
Benz (a) anthracene	921	96.7	1,209	0	76.2	43.9	151				
Chrysene	870	96.7	1,209	0	72.0	71.1	126				
bis (2-Ethylhexyl) phthalate	1,030	121	1,209	0	85.1	40.8	170				
Di-n-octyl phthalate	1,270	121	1,209	0	105	34.6	142				
Benzo (b) fluoranthene	948	96.7	1,209	0	78.4	52.1	136				
Benzo (k) fluoranthene	809	96.7	1,209	0	67.0	64.5	135				
Benzo (a) pyrene	867	96.7	1,209	213.4	54.1	50.5	137				
Indeno (1,2,3-cd) pyrene	1,140	96.7	1,209	0	94.5	49.7	143				
Dibenz (a,h) anthracene	944	96.7	1,209	0	78.1	40.7	152				
Benzo (g,h,i) perylene	900	96.7	1,209	0	74.5	34	157				
Surr: 2,4,6-Tribromophenol	837		1,209		69.2	11.1	127				
Surr: 2-Fluorobiphenyl	247		604.4		40.9	16.1	150				
Surr: Nitrobenzene-d5	121		604.4		20.0	10	133				
Surr: Phenol-d6	693		1,209		57.3	11.6	133				
Surr: p-Terphenyl	499		604.4		82.6	21.8	150				

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-11930		SampType: LCS			Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25069		
Client ID: LCSS		Batch ID: 11930			Analysis Date: 9/23/2015					SeqNo: 472470		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	27.1	5.00	25.00	0	108	65	135				
Surr: Toluene-d8	1.24		1.250		99.1	65	135				
Surr: 4-Bromofluorobenzene	1.24		1.250		99.5	65	135				

Sample ID: MB-11930		SampType: MBLK			Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25069		
Client ID: MBLKS		Batch ID: 11930			Analysis Date: 9/23/2015			SeqNo: 472471				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	5.00									
Surr: Toluene-d8	1.23		1.250		98.8	65	135				
Surr: 4-Bromofluorobenzene	1.28		1.250		102	65	135				

Sample ID: 1509270-024BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25069		
Client ID: BATCH		Batch ID: 11930			Analysis Date: 9/23/2015					SeqNo: 472446		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	6.73						0		30	
Surr: Toluene-d8	1.69		1.683		100	65	135		0		
Surr: 4-Bromofluorobenzene	1.70		1.683		101	65	135		0		

Sample ID: 1509270-033BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25069		
Client ID: BATCH		Batch ID: 11930			Analysis Date: 9/24/2015					SeqNo: 472454		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	3.88						0		30	
Surr: Toluene-d8	0.973		0.9689		100	65	135		0		
Surr: 4-Bromofluorobenzene	0.987		0.9689		102	65	135		0		



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-11943	SampType: LCS	Units: mg/Kg		Prep Date: 9/24/2015	RunNo: 25121
Client ID: LCSS	Batch ID: 11943	Analysis Date: 9/24/2015		SeqNo: 473693	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Gasoline	25.7	5.00	25.00	0	103	65	135
Surr: Toluene-d8	1.22		1.250		97.6	65	135
Surr: 4-Bromofluorobenzene	1.26		1.250		101	65	135

Sample ID: MB-11943	SampType: MBLK	Units: mg/Kg		Prep Date: 9/24/2015	RunNo: 25121
Client ID: MBLKS	Batch ID: 11943	Analysis Date: 9/24/2015		SeqNo: 473694	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Gasoline	ND	5.00					
Surr: Toluene-d8	1.24		1.250		99.4	65	135
Surr: 4-Bromofluorobenzene	1.30		1.250		104	65	135

Sample ID: 1509300-009BDUP	SampType: DUP	Units: mg/Kg-dry		Prep Date: 9/24/2015	RunNo: 25121
Client ID: GP-16-15:13.5	Batch ID: 11943	Analysis Date: 9/24/2015		SeqNo: 473669	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Gasoline	ND	3.95					0	30
Surr: Toluene-d8	0.958		0.9873		97.0	65	135	0
Surr: 4-Bromofluorobenzene	1.02		0.9873		104	65	135	0

Sample ID: 1509300-017BDUP	SampType: DUP	Units: mg/Kg-dry		Prep Date: 9/24/2015	RunNo: 25121
Client ID: GP-20-15:14.0	Batch ID: 11943	Analysis Date: 9/25/2015		SeqNo: 473678	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Gasoline	ND	3.60					0	30
Surr: Toluene-d8	0.898		0.9009		99.6	65	135	0
Surr: 4-Bromofluorobenzene	0.920		0.9009		102	65	135	0



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-R25091		SampType: LCS			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25091		
Client ID: LCSW		Batch ID: R25091			Analysis Date: 9/23/2015					SeqNo: 472835		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	435	50.0	500.0	0	86.9	65	135				
Surr: Toluene-d8	21.8		25.00		87.2	65	135				
Surr: 4-Bromofluorobenzene	23.5		25.00		93.8	65	135				

Sample ID: MB-R25091		SampType: MBLK			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25091		
Client ID: MBLKW		Batch ID: R25091			Analysis Date: 9/23/2015					SeqNo: 472925		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	50.0									
Surr: Toluene-d8	21.6		25.00		86.4	65	135				
Surr: 4-Bromofluorobenzene	24.0		25.00		96.1	65	135				

Sample ID: 1509311-005ADUP		SampType: DUP			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25091		
Client ID: BATCH		Batch ID: R25091			Analysis Date: 9/23/2015					SeqNo: 472840		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	21.5		25.00		86.2	65	135		0	0	
Surr: 4-Bromofluorobenzene	23.4		25.00		93.6	65	135		0	0	

Sample ID: 1509315-003CDUP		SampType: DUP			Units: µg/L		Prep Date: 9/24/2015			RunNo: 25091		
Client ID: BATCH		Batch ID: R25091			Analysis Date: 9/24/2015					SeqNo: 472846		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	7,610	50.0						7,079	7.29	30	E
Surr: Toluene-d8	22.0		25.00		87.8	65	135		0	0	
Surr: 4-Bromofluorobenzene	24.5		25.00		97.9	65	135		0	0	



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Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-11930	SampType: LCS	Units: mg/Kg				Prep Date: 9/23/2015			RunNo: 25067		
Client ID: LCSS	Batch ID: 11930					Analysis Date: 9/23/2015			SeqNo: 472414		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.49	0.0600	1.000	0	149	37.2	139				S
Chloromethane	1.06	0.0600	1.000	0	106	38.8	132				
Vinyl chloride	1.15	0.00200	1.000	0	115	56.1	130				
Bromomethane	1.14	0.0900	1.000	0	114	41.3	148				
Trichlorofluoromethane (CFC-11)	1.18	0.0500	1.000	0	118	42.9	147				
Chloroethane	1.22	0.0600	1.000	0	122	37.1	144				
1,1-Dichloroethene	1.13	0.0500	1.000	0	113	49.7	142				
Methylene chloride	0.938	0.0200	1.000	0	93.8	46.3	140				
trans-1,2-Dichloroethene	1.10	0.0200	1.000	0	110	68	130				
Methyl tert-butyl ether (MTBE)	0.922	0.0500	1.000	0	92.2	59.1	138				
1,1-Dichloroethane	1.07	0.0200	1.000	0	107	61.9	137				
2,2-Dichloropropane	1.49	0.0500	1.000	0	149	28.1	149				
cis-1,2-Dichloroethene	1.06	0.0200	1.000	0	106	71.3	135				
Chloroform	1.01	0.0200	1.000	0	101	67.5	129				
1,1,1-Trichloroethane (TCA)	1.17	0.0200	1.000	0	117	69	132				
1,1-Dichloropropene	1.04	0.0200	1.000	0	104	72.7	131				
Carbon tetrachloride	1.05	0.0200	1.000	0	105	63.4	137				
1,2-Dichloroethane (EDC)	0.981	0.0300	1.000	0	98.1	61.9	136				
Benzene	0.993	0.0200	1.000	0	99.3	64.3	133				
Trichloroethene (TCE)	1.06	0.0200	1.000	0	106	65.5	137				
1,2-Dichloropropane	1.05	0.0200	1.000	0	105	63.2	142				
Bromodichloromethane	0.925	0.0200	1.000	0	92.5	73.2	131				
Dibromomethane	1.13	0.0400	1.000	0	113	70	130				
cis-1,3-Dichloropropene	0.961	0.0200	1.000	0	96.1	59.1	143				
Toluene	0.960	0.0200	1.000	0	96.0	67.3	138				
trans-1,3-Dichloropropylene	1.00	0.0300	1.000	0	100	49.2	149				
1,1,2-Trichloroethane	1.07	0.0300	1.000	0	107	74.5	129				
1,3-Dichloropropane	1.03	0.0500	1.000	0	103	70	130				
Tetrachloroethene (PCE)	1.07	0.0200	1.000	0	107	52.7	150				
Dibromochloromethane	1.04	0.0300	1.000	0	104	70.6	144				
1,2-Dibromoethane (EDB)	1.15	0.00500	1.000	0	115	70	130				



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-11930	SampType: LCS	Units: mg/Kg				Prep Date: 9/23/2015			RunNo: 25067		
Client ID: LCSS	Batch ID: 11930	Analysis Date: 9/23/2015							SeqNo: 472414		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	1.05	0.0200	1.000	0	105	76.1	123				
1,1,1,2-Tetrachloroethane	1.04	0.0300	1.000	0	104	74.8	131				
Ethylbenzene	0.973	0.0300	1.000	0	97.3	74	129				
m,p-Xylene	1.94	0.0200	2.000	0	97.1	79.8	128				
o-Xylene	0.940	0.0200	1.000	0	94.0	72.7	124				
Styrene	1.12	0.0200	1.000	0	112	76.8	130				
Isopropylbenzene	1.09	0.0800	1.000	0	109	70	130				
Bromoform	1.06	0.0200	1.000	0	106	67	154				
1,1,2,2-Tetrachloroethane	1.14	0.0200	1.000	0	114	60	130				
n-Propylbenzene	1.09	0.0200	1.000	0	109	74.8	125				
Bromobenzene	1.08	0.0300	1.000	0	108	49.2	144				
1,3,5-Trimethylbenzene	1.05	0.0200	1.000	0	105	74.6	123				
2-Chlorotoluene	1.07	0.0200	1.000	0	107	76.7	129				
4-Chlorotoluene	1.09	0.0200	1.000	0	109	77.5	125				
tert-Butylbenzene	1.10	0.0200	1.000	0	110	66.2	130				
1,2,3-Trichloropropane	1.10	0.0200	1.000	0	110	67.9	136				
1,2,4-Trichlorobenzene	1.07	0.0500	1.000	0	107	65.6	137				
sec-Butylbenzene	1.11	0.0200	1.000	0	111	75.6	133				
4-Isopropyltoluene	1.11	0.0200	1.000	0	111	76.8	131				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	128				
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	72.6	126				
n-Butylbenzene	1.08	0.0200	1.000	0	108	65.3	136				
1,2-Dichlorobenzene	1.01	0.0200	1.000	0	101	72.8	126				
1,2-Dibromo-3-chloropropane	1.03	0.500	1.000	0	103	61.2	139				
1,2,4-Trimethylbenzene	0.957	0.0200	1.000	0	95.7	77.5	129				
Hexachlorobutadiene	1.11	0.100	1.000	0	111	42	151				
Naphthalene	0.915	0.0300	1.000	0	91.5	62.3	134				
1,2,3-Trichlorobenzene	1.01	0.0200	1.000	0	101	62.1	140				
Surr: Dibromofluoromethane	1.28		1.250		102	56.5	129				
Surr: Toluene-d8	1.24		1.250		99.4	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		100	63.1	141				



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-11930		SampType: LCS			Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: LCSS		Batch ID: 11930			Analysis Date: 9/23/2015			SeqNo: 472414				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

NOTES:

S - Outlying QC recoveries were observed (High bias). There were no detections of this analyte in the following samples. No further action is required.

Sample ID: MB-11930		SampType: MBLK			Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: MBLKS		Batch ID: 11930			Analysis Date: 9/23/2015			SeqNo: 472415				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	ND	0.0600
Chloromethane	ND	0.0600
Vinyl chloride	ND	0.00200
Bromomethane	ND	0.0900
Trichlorofluoromethane (CFC-11)	ND	0.0500
Chloroethane	ND	0.0600
1,1-Dichloroethene	ND	0.0500
Methylene chloride	ND	0.0200
trans-1,2-Dichloroethene	ND	0.0200
Methyl tert-butyl ether (MTBE)	ND	0.0500
1,1-Dichloroethane	ND	0.0200
2,2-Dichloropropane	ND	0.0500
cis-1,2-Dichloroethene	ND	0.0200
Chloroform	ND	0.0200
1,1,1-Trichloroethane (TCA)	ND	0.0200
1,1-Dichloropropene	ND	0.0200
Carbon tetrachloride	ND	0.0200
1,2-Dichloroethane (EDC)	ND	0.0300
Benzene	ND	0.0200
Trichloroethene (TCE)	ND	0.0200
1,2-Dichloropropane	ND	0.0200
Bromodichloromethane	ND	0.0200
Dibromomethane	ND	0.0400
cis-1,3-Dichloropropene	ND	0.0200
Toluene	ND	0.0200



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: MB-11930	SampType: MBLK	Units: mg/Kg			Prep Date: 9/23/2015			RunNo: 25067			
Client ID: MBLKS	Batch ID: 11930				Analysis Date: 9/23/2015			SeqNo: 472415			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

trans-1,3-Dichloropropylene	ND	0.0300
1,1,2-Trichloroethane	ND	0.0300
1,3-Dichloropropane	ND	0.0500
Tetrachloroethene (PCE)	ND	0.0200
Dibromochloromethane	ND	0.0300
1,2-Dibromoethane (EDB)	ND	0.00500
Chlorobenzene	ND	0.0200
1,1,1,2-Tetrachloroethane	ND	0.0300
Ethylbenzene	ND	0.0300
m,p-Xylene	ND	0.0200
o-Xylene	ND	0.0200
Styrene	ND	0.0200
Isopropylbenzene	ND	0.0800
Bromoform	ND	0.0200
1,1,2,2-Tetrachloroethane	ND	0.0200
n-Propylbenzene	ND	0.0200
Bromobenzene	ND	0.0300
1,3,5-Trimethylbenzene	ND	0.0200
2-Chlorotoluene	ND	0.0200
4-Chlorotoluene	ND	0.0200
tert-Butylbenzene	ND	0.0200
1,2,3-Trichloropropane	ND	0.0200
1,2,4-Trichlorobenzene	ND	0.0500
sec-Butylbenzene	ND	0.0200
4-Isopropyltoluene	ND	0.0200
1,3-Dichlorobenzene	ND	0.0200
1,4-Dichlorobenzene	ND	0.0200
n-Butylbenzene	ND	0.0200
1,2-Dichlorobenzene	ND	0.0200
1,2-Dibromo-3-chloropropane	ND	0.500
1,2,4-Trimethylbenzene	ND	0.0200



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: MB-11930		SampType: MBLK			Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: MBLKS		Batch ID: 11930						Analysis Date: 9/23/2015			SeqNo: 472415	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Hexachlorobutadiene	ND	0.100									
Naphthalene	ND	0.0300									
1,2,3-Trichlorobenzene	ND	0.0200									

Surr: Dibromofluoromethane	1.17		1.250		93.3	56.5	129				
Surr: Toluene-d8	1.24		1.250		98.9	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.4	63.1	141				

Sample ID: 1509270-024BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH		Batch ID: 11930			Analysis Date: 9/23/2015			SeqNo: 472416				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	ND	0.0808						0		30	
Chloromethane	ND	0.0808						0		30	
Vinyl chloride	ND	0.00269						0		30	
Bromomethane	ND	0.121						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0673						0		30	
Chloroethane	ND	0.0808						0		30	
1,1-Dichloroethene	ND	0.0673						0		30	
Methylene chloride	ND	0.0269						0		30	
trans-1,2-Dichloroethene	ND	0.0269						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0673						0		30	
1,1-Dichloroethane	ND	0.0269						0		30	
2,2-Dichloropropane	ND	0.0673						0		30	
cis-1,2-Dichloroethene	ND	0.0269						0		30	
Chloroform	ND	0.0269						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0269						0		30	
1,1-Dichloropropene	ND	0.0269						0		30	
Carbon tetrachloride	ND	0.0269						0		30	
1,2-Dichloroethane (EDC)	ND	0.0404						0		30	
Benzene	ND	0.0269						0		30	
Trichloroethene (TCE)	ND	0.0269						0		30	



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509270-024BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH		Batch ID: 11930					Analysis Date: 9/23/2015			SeqNo: 472416	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dichloropropane	ND	0.0269						0		30	
Bromodichloromethane	ND	0.0269						0		30	
Dibromomethane	ND	0.0539						0		30	
cis-1,3-Dichloropropene	ND	0.0269						0		30	
Toluene	ND	0.0269						0		30	
trans-1,3-Dichloropropylene	ND	0.0404						0		30	
1,1,2-Trichloroethane	ND	0.0404						0		30	
1,3-Dichloropropane	ND	0.0673						0		30	
Tetrachloroethene (PCE)	ND	0.0269						0		30	
Dibromochloromethane	ND	0.0404						0		30	
1,2-Dibromoethane (EDB)	ND	0.00673						0		30	
Chlorobenzene	ND	0.0269						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0404						0		30	
Ethylbenzene	ND	0.0404						0		30	
m,p-Xylene	ND	0.0269						0		30	
o-Xylene	ND	0.0269						0		30	
Styrene	ND	0.0269						0		30	
Isopropylbenzene	ND	0.108						0		30	
Bromoform	ND	0.0269						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0269						0		30	
n-Propylbenzene	ND	0.0269						0		30	
Bromobenzene	ND	0.0404						0		30	
1,3,5-Trimethylbenzene	ND	0.0269						0		30	
2-Chlorotoluene	ND	0.0269						0		30	
4-Chlorotoluene	ND	0.0269						0		30	
tert-Butylbenzene	ND	0.0269						0		30	
1,2,3-Trichloropropane	ND	0.0269						0		30	
1,2,4-Trichlorobenzene	ND	0.0673						0		30	
sec-Butylbenzene	ND	0.0269						0		30	
4-Isopropyltoluene	ND	0.0269						0		30	
1,3-Dichlorobenzene	ND	0.0269						0		30	



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Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509270-024BDUP	SampType: DUP	Units: mg/Kg-dry			Prep Date: 9/23/2015			RunNo: 25067			
Client ID: BATCH	Batch ID: 11930				Analysis Date: 9/23/2015			SeqNo: 472416			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.0269						0		30	
n-Butylbenzene	ND	0.0269						0		30	
1,2-Dichlorobenzene	ND	0.0269						0		30	
1,2-Dibromo-3-chloropropane	ND	0.673						0		30	
1,2,4-Trimethylbenzene	ND	0.0269						0		30	
Hexachlorobutadiene	ND	0.135						0		30	
Naphthalene	ND	0.0404						0		30	
1,2,3-Trichlorobenzene	ND	0.0269						0		30	
Surr: Dibromofluoromethane	1.62		1.683		96.1	56.5	129		0		
Surr: Toluene-d8	1.64		1.683		97.5	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	1.64		1.683		97.2	63.1	141		0		

Sample ID: 1509270-031BMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH	Batch ID: 11930	Analysis Date: 9/24/2015							SeqNo: 472417		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.82	0.0661	1.101	0	165	43.5	121				S
Chloromethane	1.24	0.0661	1.101	0.006264	112	45	130				
Vinyl chloride	1.39	0.00220	1.101	0	126	51.2	146				
Bromomethane	1.31	0.0991	1.101	0	119	21.3	120				
Trichlorofluoromethane (CFC-11)	3.57	0.0550	1.101	0	324	35	131				S
Chloroethane	1.43	0.0661	1.101	0	130	43.8	117				S
1,1-Dichloroethene	1.39	0.0550	1.101	0	127	61.9	141				
Methylene chloride	1.05	0.0220	1.101	0	95.4	54.7	142				
trans-1,2-Dichloroethene	1.33	0.0220	1.101	0	121	52	136				
Methyl tert-butyl ether (MTBE)	1.08	0.0550	1.101	0.02699	95.8	54.4	132				
1,1-Dichloroethane	1.27	0.0220	1.101	0	115	51.8	141				
2,2-Dichloropropane	1.37	0.0550	1.101	0	125	36	123				S
cis-1,2-Dichloroethene	1.25	0.0220	1.101	0	114	58.6	136				
Chloroform	1.20	0.0220	1.101	0.003969	109	53.2	129				
1,1,1-Trichloroethane (TCA)	1.46	0.0220	1.101	0	132	58.3	145				



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Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509270-031BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH		Batch ID: 11930					Analysis Date: 9/24/2015			SeqNo: 472417	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloropropene	1.28	0.0220	1.101	0	116	55.1	138				
Carbon tetrachloride	1.28	0.0220	1.101	0	117	53.3	144				
1,2-Dichloroethane (EDC)	1.16	0.0330	1.101	0	105	51.3	139				
Benzene	1.19	0.0220	1.101	0	108	63.5	133				
Trichloroethene (TCE)	1.27	0.0220	1.101	0	116	68.6	132				
1,2-Dichloropropane	1.24	0.0220	1.101	0	113	59	136				
Bromodichloromethane	1.09	0.0220	1.101	0	99.1	50.7	141				
Dibromomethane	1.31	0.0440	1.101	0	119	50.6	137				
cis-1,3-Dichloropropene	1.09	0.0220	1.101	0	98.6	50.4	138				
Toluene	1.12	0.0220	1.101	0.006105	101	63.4	132				
trans-1,3-Dichloropropylene	1.18	0.0330	1.101	0	107	44.1	147				
1,1,2-Trichloroethane	1.25	0.0330	1.101	0	114	51.6	137				
1,3-Dichloropropane	1.21	0.0550	1.101	0	110	53.1	134				
Tetrachloroethene (PCE)	1.28	0.0220	1.101	0	116	35.6	158				
Dibromochloromethane	1.21	0.0330	1.101	0	109	55.3	140				
1,2-Dibromoethane (EDB)	1.34	0.00550	1.101	0	122	50.4	136				
Chlorobenzene	1.23	0.0220	1.101	0	112	60	133				
1,1,1,2-Tetrachloroethane	1.24	0.0330	1.101	0	112	53.1	142				
Ethylbenzene	1.16	0.0330	1.101	0.002730	105	54.5	134				
m,p-Xylene	2.26	0.0220	2.202	0.009974	102	53.1	132				
o-Xylene	1.10	0.0220	1.101	0.004349	99.4	53.3	139				
Styrene	1.27	0.0220	1.101	0	116	51.1	132				
Isopropylbenzene	1.28	0.0881	1.101	0	116	58.9	138				
Bromoform	1.19	0.0220	1.101	0	108	57.9	130				
1,1,1,2,2-Tetrachloroethane	1.35	0.0220	1.101	0	123	51.9	131				
n-Propylbenzene	1.27	0.0220	1.101	0	115	53.6	140				
Bromobenzene	1.25	0.0330	1.101	0	114	54.2	140				
1,3,5-Trimethylbenzene	1.22	0.0220	1.101	0	111	51.8	136				
2-Chlorotoluene	1.24	0.0220	1.101	0	113	51.6	136				
4-Chlorotoluene	1.26	0.0220	1.101	0	114	50.1	139				
tert-Butylbenzene	1.29	0.0220	1.101	0	117	50.5	135				



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Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509270-031BMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH	Batch ID: 11930	Analysis Date: 9/24/2015							SeqNo: 472417		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichloropropane	1.26	0.0220	1.101	0	115	50.5	131				
1,2,4-Trichlorobenzene	1.16	0.0550	1.101	0	105	50.8	130				
sec-Butylbenzene	1.31	0.0220	1.101	0	119	52.6	141				
4-Isopropyltoluene	1.29	0.0220	1.101	0	117	52.9	134				
1,3-Dichlorobenzene	1.16	0.0220	1.101	0	105	52.6	131				
1,4-Dichlorobenzene	1.15	0.0220	1.101	0	105	52.9	129				
n-Butylbenzene	1.21	0.0220	1.101	0	110	52.6	130				
1,2-Dichlorobenzene	1.14	0.0220	1.101	0	104	55.8	129				
1,2-Dibromo-3-chloropropane	1.13	0.550	1.101	0	102	40.5	131				
1,2,4-Trimethylbenzene	1.10	0.0220	1.101	0.003110	99.7	50.6	137				
Hexachlorobutadiene	1.23	0.110	1.101	0	112	40.6	158				
Naphthalene	1.01	0.0330	1.101	0	91.5	52.3	124				
1,2,3-Trichlorobenzene	1.11	0.0220	1.101	0	101	54.4	124				
Surr: Dibromofluoromethane	1.43		1.376		104	56.5	129				
Surr: Toluene-d8	1.35		1.376		98.4	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.40		1.376		102	63.1	141				

NOTES:

S - Outlying QC recoveries were observed.

Sample ID: 1509270-033BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH		Batch ID: 11930					Analysis Date: 9/24/2015			SeqNo: 472418	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0465						0		30	
Chloromethane	ND	0.0465						0		30	
Vinyl chloride	ND	0.00155						0		30	
Bromomethane	ND	0.0698						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0388						0		30	
Chloroethane	ND	0.0465						0		30	
1,1-Dichloroethene	ND	0.0388						0		30	
Methylene chloride	ND	0.0155						0		30	
trans-1,2-Dichloroethene	ND	0.0155						0		30	



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Sample ID: 1509270-033BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH		Batch ID: 11930					Analysis Date: 9/24/2015			SeqNo: 472418	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE)	ND	0.0388						0		30	
1,1-Dichloroethane	ND	0.0155						0		30	
2,2-Dichloropropane	ND	0.0388						0		30	
cis-1,2-Dichloroethene	ND	0.0155						0		30	
Chloroform	ND	0.0155						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0155						0		30	
1,1-Dichloropropene	ND	0.0155						0		30	
Carbon tetrachloride	ND	0.0155						0		30	
1,2-Dichloroethane (EDC)	ND	0.0233						0		30	
Benzene	ND	0.0155						0		30	
Trichloroethene (TCE)	ND	0.0155						0		30	
1,2-Dichloropropane	ND	0.0155						0		30	
Bromodichloromethane	ND	0.0155						0		30	
Dibromomethane	ND	0.0310						0		30	
cis-1,3-Dichloropropene	ND	0.0155						0		30	
Toluene	ND	0.0155						0		30	
trans-1,3-Dichloropropylene	ND	0.0233						0		30	
1,1,2-Trichloroethane	ND	0.0233						0		30	
1,3-Dichloropropane	ND	0.0388						0		30	
Tetrachloroethene (PCE)	ND	0.0155						0		30	
Dibromochloromethane	ND	0.0233						0		30	
1,2-Dibromoethane (EDB)	ND	0.00388						0		30	
Chlorobenzene	ND	0.0155						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0233						0		30	
Ethylbenzene	ND	0.0233						0		30	
m,p-Xylene	ND	0.0155						0		30	
o-Xylene	ND	0.0155						0		30	
Styrene	ND	0.0155						0		30	
Isopropylbenzene	ND	0.0620						0		30	
Bromoform	ND	0.0155						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0155						0		30	



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Sample ID: 1509270-033BDUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH	Batch ID: 11930	Analysis Date: 9/24/2015							SeqNo: 472418		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Propylbenzene	ND	0.0155						0		30	
Bromobenzene	ND	0.0233						0		30	
1,3,5-Trimethylbenzene	ND	0.0155						0		30	
2-Chlorotoluene	ND	0.0155						0		30	
4-Chlorotoluene	ND	0.0155						0		30	
tert-Butylbenzene	ND	0.0155						0		30	
1,2,3-Trichloropropane	ND	0.0155						0		30	
1,2,4-Trichlorobenzene	ND	0.0388						0		30	
sec-Butylbenzene	ND	0.0155						0		30	
4-Isopropyltoluene	ND	0.0155						0		30	
1,3-Dichlorobenzene	ND	0.0155						0		30	
1,4-Dichlorobenzene	ND	0.0155						0		30	
n-Butylbenzene	ND	0.0155						0		30	
1,2-Dichlorobenzene	ND	0.0155						0		30	
1,2-Dibromo-3-chloropropane	ND	0.388						0		30	
1,2,4-Trimethylbenzene	ND	0.0155						0		30	
Hexachlorobutadiene	ND	0.0775						0		30	
Naphthalene	ND	0.0233						0		30	
1,2,3-Trichlorobenzene	ND	0.0155						0		30	
Surr: Dibromofluoromethane	0.921		0.9689		95.0	56.5	129		0		
Surr: Toluene-d8	0.946		0.9689		97.6	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.950		0.9689		98.0	63.1	141		0		

Sample ID: LCS-11943	SampType: LCS	Units: mg/Kg			Prep Date: 9/24/2015			RunNo: 25120			
Client ID: LCSS	Batch ID: 11943				Analysis Date: 9/24/2015			SeqNo: 473642			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.911	0.0600	1.000	0	91.1	37.2	139				
Chloromethane	0.839	0.0600	1.000	0	83.9	38.8	132				
Vinyl chloride	0.980	0.00200	1.000	0	98.0	56.1	130				
Bromomethane	1.23	0.0900	1.000	0	123	41.3	148				



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Sample ID: LCS-11943	SampType: LCS	Units: mg/Kg			Prep Date: 9/24/2015			RunNo: 25120			
Client ID: LCSS	Batch ID: 11943				Analysis Date: 9/24/2015			SeqNo: 473642			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Trichlorofluoromethane (CFC-11)	1.07	0.0500	1.000	0	107	42.9	147				
Chloroethane	1.09	0.0600	1.000	0	109	37.1	144				
1,1-Dichloroethene	1.10	0.0500	1.000	0	110	49.7	142				
Methylene chloride	0.921	0.0200	1.000	0	92.1	46.3	140				
trans-1,2-Dichloroethene	1.10	0.0200	1.000	0	110	68	130				
Methyl tert-butyl ether (MTBE)	0.882	0.0500	1.000	0	88.2	59.1	138				
1,1-Dichloroethane	1.03	0.0200	1.000	0	103	61.9	137				
2,2-Dichloropropane	1.38	0.0500	1.000	0	138	28.1	149				
cis-1,2-Dichloroethene	1.07	0.0200	1.000	0	107	71.3	135				
Chloroform	1.01	0.0200	1.000	0	101	67.5	129				
1,1,1-Trichloroethane (TCA)	1.19	0.0200	1.000	0	119	69	132				
1,1-Dichloropropene	1.04	0.0200	1.000	0	104	72.7	131				
Carbon tetrachloride	1.08	0.0200	1.000	0	108	63.4	137				
1,2-Dichloroethane (EDC)	0.962	0.0300	1.000	0	96.2	61.9	136				
Benzene	0.985	0.0200	1.000	0	98.5	64.3	133				
Trichloroethene (TCE)	1.06	0.0200	1.000	0	106	65.5	137				
1,2-Dichloropropane	1.04	0.0200	1.000	0	104	63.2	142				
Bromodichloromethane	0.946	0.0200	1.000	0	94.6	73.2	131				
Dibromomethane	1.13	0.0400	1.000	0	113	70	130				
cis-1,3-Dichloropropene	0.952	0.0200	1.000	0	95.2	59.1	143				
Toluene	0.962	0.0200	1.000	0	96.2	67.3	138				
trans-1,3-Dichloropropylene	1.06	0.0300	1.000	0	106	49.2	149				
1,1,2-Trichloroethane	1.07	0.0300	1.000	0	107	74.5	129				
1,3-Dichloropropane	1.03	0.0500	1.000	0	103	70	130				
Tetrachloroethene (PCE)	1.09	0.0200	1.000	0	109	52.7	150				
Dibromochloromethane	1.08	0.0300	1.000	0	108	70.6	144				
1,2-Dibromoethane (EDB)	1.17	0.00500	1.000	0	117	70	130				
Chlorobenzene	1.05	0.0200	1.000	0	105	76.1	123				
1,1,1,2-Tetrachloroethane	1.06	0.0300	1.000	0	106	74.8	131				
Ethylbenzene	0.983	0.0300	1.000	0	98.3	74	129				
m,p-Xylene	1.92	0.0200	2.000	0	96.2	79.8	128				



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Sample ID: LCS-11943		SampType: LCS		Units: mg/Kg		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: LCSS		Batch ID: 11943					Analysis Date: 9/24/2015			SeqNo: 473642	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	0.949	0.0200	1.000	0	94.9	72.7	124				
Styrene	1.11	0.0200	1.000	0	111	76.8	130				
Isopropylbenzene	1.10	0.0800	1.000	0	110	70	130				
Bromoform	1.06	0.0200	1.000	0	106	67	154				
1,1,2,2-Tetrachloroethane	1.15	0.0200	1.000	0	115	60	130				
n-Propylbenzene	1.08	0.0200	1.000	0	108	74.8	125				
Bromobenzene	1.08	0.0300	1.000	0	108	49.2	144				
1,3,5-Trimethylbenzene	1.05	0.0200	1.000	0	105	74.6	123				
2-Chlorotoluene	1.06	0.0200	1.000	0	106	76.7	129				
4-Chlorotoluene	1.08	0.0200	1.000	0	108	77.5	125				
tert-Butylbenzene	1.10	0.0200	1.000	0	110	66.2	130				
1,2,3-Trichloropropane	1.10	0.0200	1.000	0	110	67.9	136				
1,2,4-Trichlorobenzene	1.07	0.0500	1.000	0	107	65.6	137				
sec-Butylbenzene	1.11	0.0200	1.000	0	111	75.6	133				
4-Isopropyltoluene	1.10	0.0200	1.000	0	110	76.8	131				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	128				
1,4-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.6	126				
n-Butylbenzene	1.06	0.0200	1.000	0	106	65.3	136				
1,2-Dichlorobenzene	1.01	0.0200	1.000	0	101	72.8	126				
1,2-Dibromo-3-chloropropane	1.01	0.500	1.000	0	101	61.2	139				
1,2,4-Trimethylbenzene	0.948	0.0200	1.000	0	94.8	77.5	129				
Hexachlorobutadiene	1.11	0.100	1.000	0	111	42	151				
Naphthalene	0.912	0.0300	1.000	0	91.2	62.3	134				
1,2,3-Trichlorobenzene	1.01	0.0200	1.000	0	101	62.1	140				
Surr: Dibromofluoromethane	1.29		1.250		103	56.5	129				
Surr: Toluene-d8	1.23		1.250		98.0	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.26		1.250		100	63.1	141				



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Sample ID: MB-11943	SampType: MBLK	Units: mg/Kg	Prep Date: 9/24/2015	RunNo: 25120							
Client ID: MBLKS	Batch ID: 11943		Analysis Date: 9/24/2015	SeqNo: 473644							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	0.0600
Chloromethane	ND	0.0600
Vinyl chloride	ND	0.00200
Bromomethane	ND	0.0900
Trichlorofluoromethane (CFC-11)	ND	0.0500
Chloroethane	ND	0.0600
1,1-Dichloroethene	ND	0.0500
Methylene chloride	ND	0.0200
trans-1,2-Dichloroethene	ND	0.0200
Methyl tert-butyl ether (MTBE)	ND	0.0500
1,1-Dichloroethane	ND	0.0200
2,2-Dichloropropane	ND	0.0500
cis-1,2-Dichloroethene	ND	0.0200
Chloroform	ND	0.0200
1,1,1-Trichloroethane (TCA)	ND	0.0200
1,1-Dichloropropene	ND	0.0200
Carbon tetrachloride	ND	0.0200
1,2-Dichloroethane (EDC)	ND	0.0300
Benzene	ND	0.0200
Trichloroethene (TCE)	ND	0.0200
1,2-Dichloropropane	ND	0.0200
Bromodichloromethane	ND	0.0200
Dibromomethane	ND	0.0400
cis-1,3-Dichloropropene	ND	0.0200
Toluene	ND	0.0200
trans-1,3-Dichloropropylene	ND	0.0300
1,1,2-Trichloroethane	ND	0.0300
1,3-Dichloropropane	ND	0.0500
Tetrachloroethene (PCE)	ND	0.0200
Dibromochloromethane	ND	0.0300
1,2-Dibromoethane (EDB)	ND	0.00500



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Sample ID: MB-11943	SampType: MBLK	Units: mg/Kg			Prep Date: 9/24/2015			RunNo: 25120			
Client ID: MBLKS	Batch ID: 11943	Analysis Date: 9/24/2015						SeqNo: 473644			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	ND	0.0200									
1,1,1,2-Tetrachloroethane	ND	0.0300									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Styrene	ND	0.0200									
Isopropylbenzene	ND	0.0800									
Bromoform	ND	0.0200									
1,1,2,2-Tetrachloroethane	ND	0.0200									
n-Propylbenzene	ND	0.0200									
Bromobenzene	ND	0.0300									
1,3,5-Trimethylbenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0200									
4-Chlorotoluene	ND	0.0200									
tert-Butylbenzene	ND	0.0200									
1,2,3-Trichloropropane	ND	0.0200									
1,2,4-Trichlorobenzene	ND	0.0500									
sec-Butylbenzene	ND	0.0200									
4-Isopropyltoluene	ND	0.0200									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
n-Butylbenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
1,2,4-Trimethylbenzene	ND	0.0200									
Hexachlorobutadiene	ND	0.100									
Naphthalene	ND	0.0300									
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.17		1.250		93.6	56.5	129				
Surr: Toluene-d8	1.23		1.250		98.6	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		99.8	63.1	141				



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Sample ID: MB-11943		SampType: MBLK			Units: mg/Kg		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: MBLKS		Batch ID: 11943			Analysis Date: 9/24/2015			SeqNo: 473644				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Sample ID: 1509300-009BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-16-15:13.5		Batch ID: 11943					Analysis Date: 9/24/2015			SeqNo: 473611	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	0.0474						0		30	
Chloromethane	ND	0.0474						0		30	
Vinyl chloride	ND	0.00158						0		30	
Bromomethane	ND	0.0711						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0395						0		30	
Chloroethane	ND	0.0474						0		30	
1,1-Dichloroethene	ND	0.0395						0		30	
Methylene chloride	ND	0.0158						0		30	
trans-1,2-Dichloroethene	ND	0.0158						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0395						0		30	
1,1-Dichloroethane	ND	0.0158						0		30	
2,2-Dichloropropane	ND	0.0395						0		30	
cis-1,2-Dichloroethene	ND	0.0158						0		30	
Chloroform	ND	0.0158						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0158						0		30	
1,1-Dichloropropene	ND	0.0158						0		30	
Carbon tetrachloride	ND	0.0158						0		30	
1,2-Dichloroethane (EDC)	ND	0.0237						0		30	
Benzene	ND	0.0158						0		30	
Trichloroethene (TCE)	ND	0.0158						0		30	
1,2-Dichloropropane	ND	0.0158						0		30	
Bromodichloromethane	ND	0.0158						0		30	
Dibromomethane	ND	0.0316						0		30	
cis-1,3-Dichloropropene	ND	0.0158						0		30	
Toluene	ND	0.0158						0		30	
trans-1,3-Dichloropropylene	ND	0.0237						0		30	



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Sample ID: 1509300-009BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-16-15:13.5		Batch ID: 11943					Analysis Date: 9/24/2015			SeqNo: 473611	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,2-Trichloroethane	ND	0.0237						0		30	
1,3-Dichloropropane	ND	0.0395						0		30	
Tetrachloroethene (PCE)	ND	0.0158						0		30	
Dibromochloromethane	ND	0.0237						0		30	
1,2-Dibromoethane (EDB)	ND	0.00395						0		30	
Chlorobenzene	ND	0.0158						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0237						0		30	
Ethylbenzene	ND	0.0237						0		30	
m,p-Xylene	ND	0.0158						0		30	
o-Xylene	ND	0.0158						0		30	
Styrene	ND	0.0158						0		30	
Isopropylbenzene	ND	0.0632						0		30	
Bromoform	ND	0.0158						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0158						0		30	
n-Propylbenzene	ND	0.0158						0		30	
Bromobenzene	ND	0.0237						0		30	
1,3,5-Trimethylbenzene	ND	0.0158						0		30	
2-Chlorotoluene	ND	0.0158						0		30	
4-Chlorotoluene	ND	0.0158						0		30	
tert-Butylbenzene	ND	0.0158						0		30	
1,2,3-Trichloropropane	ND	0.0158						0		30	
1,2,4-Trichlorobenzene	ND	0.0395						0		30	
sec-Butylbenzene	ND	0.0158						0		30	
4-Isopropyltoluene	ND	0.0158						0		30	
1,3-Dichlorobenzene	ND	0.0158						0		30	
1,4-Dichlorobenzene	ND	0.0158						0		30	
n-Butylbenzene	ND	0.0158						0		30	
1,2-Dichlorobenzene	ND	0.0158						0		30	
1,2-Dibromo-3-chloropropane	ND	0.395						0		30	
1,2,4-Trimethylbenzene	ND	0.0158						0		30	
Hexachlorobutadiene	ND	0.0790						0		30	



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509300-009BDUP	SampType: DUP	Units: mg/Kg-dry			Prep Date: 9/24/2015			RunNo: 25120			
Client ID: GP-16-15:13.5	Batch ID: 11943				Analysis Date: 9/24/2015			SeqNo: 473611			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0237						0		30	
1,2,3-Trichlorobenzene	ND	0.0158						0		30	
Surr: Dibromofluoromethane	0.916		0.9873		92.8	56.5	129		0		
Surr: Toluene-d8	0.969		0.9873		98.1	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.988		0.9873		100	63.1	141		0		

Sample ID: 1509300-016BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-20-15:5.5		Batch ID: 11943		Analysis Date: 9/25/2015						SeqNo: 473619	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.717	0.0399	0.6643	0	108	43.5	121				
Chloromethane	0.649	0.0399	0.6643	0.004199	97.1	45	130				
Vinyl chloride	0.756	0.00133	0.6643	0	114	51.2	146				
Bromomethane	0.818	0.0598	0.6643	0	123	21.3	120				S
Trichlorofluoromethane (CFC-11)	0.758	0.0332	0.6643	0	114	35	131				
Chloroethane	0.824	0.0399	0.6643	0	124	43.8	117				S
1,1-Dichloroethene	0.808	0.0332	0.6643	0	122	61.9	141				
Methylene chloride	0.653	0.0133	0.6643	0.003773	97.7	54.7	142				
trans-1,2-Dichloroethene	0.794	0.0133	0.6643	0	120	52	136				
Methyl tert-butyl ether (MTBE)	0.605	0.0332	0.6643	0	91.1	54.4	132				
1,1-Dichloroethane	0.770	0.0133	0.6643	0	116	51.8	141				
2,2-Dichloropropane	0.822	0.0332	0.6643	0	124	36	123				S
cis-1,2-Dichloroethene	0.750	0.0133	0.6643	0	113	58.6	136				
Chloroform	0.717	0.0133	0.6643	0.002129	108	53.2	129				
1,1,1-Trichloroethane (TCA)	0.850	0.0133	0.6643	0	128	58.3	145				
1,1-Dichloropropene	0.753	0.0133	0.6643	0	113	55.1	138				
Carbon tetrachloride	0.748	0.0133	0.6643	0	113	53.3	144				
1,2-Dichloroethane (EDC)	0.665	0.0199	0.6643	0	100	51.3	139				
Benzene	0.708	0.0133	0.6643	0	107	63.5	133				
Trichloroethene (TCE)	0.760	0.0133	0.6643	0	114	68.6	132				
1,2-Dichloropropane	0.735	0.0133	0.6643	0	111	59	136				



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509300-016BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-20-15:5.5		Batch ID: 11943		Analysis Date: 9/25/2015						SeqNo: 473619	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	0.624	0.0133	0.6643	0	94.0	50.7	141				
Dibromomethane	0.774	0.0266	0.6643	0	117	50.6	137				
cis-1,3-Dichloropropene	0.637	0.0133	0.6643	0	95.9	50.4	138				
Toluene	0.698	0.0133	0.6643	0	105	63.4	132				
trans-1,3-Dichloropropylene	0.677	0.0199	0.6643	0	102	44.1	147				
1,1,2-Trichloroethane	0.733	0.0199	0.6643	0	110	51.6	137				
1,3-Dichloropropane	0.703	0.0332	0.6643	0	106	53.1	134				
Tetrachloroethene (PCE)	0.768	0.0133	0.6643	0	116	35.6	158				
Dibromochloromethane	0.669	0.0199	0.6643	0	101	55.3	140				
1,2-Dibromoethane (EDB)	0.796	0.00332	0.6643	0	120	50.4	136				
Chlorobenzene	0.738	0.0133	0.6643	0	111	60	133				
1,1,1,2-Tetrachloroethane	0.715	0.0199	0.6643	0	108	53.1	142				
Ethylbenzene	0.695	0.0199	0.6643	0	105	54.5	134				
m,p-Xylene	1.37	0.0133	1.329	0.001930	103	53.1	132				
o-Xylene	0.668	0.0133	0.6643	0	100	53.3	139				
Styrene	0.782	0.0133	0.6643	0	118	51.1	132				
Isopropylbenzene	0.776	0.0531	0.6643	0	117	58.9	138				
Bromoform	0.688	0.0133	0.6643	0	104	57.9	130				
1,1,1,2,2-Tetrachloroethane	0.783	0.0133	0.6643	0	118	51.9	131				
n-Propylbenzene	0.766	0.0133	0.6643	0	115	53.6	140				
Bromobenzene	0.754	0.0199	0.6643	0	114	54.2	140				
1,3,5-Trimethylbenzene	0.741	0.0133	0.6643	0	112	51.8	136				
2-Chlorotoluene	0.749	0.0133	0.6643	0	113	51.6	136				
4-Chlorotoluene	0.762	0.0133	0.6643	0	115	50.1	139				
tert-Butylbenzene	0.791	0.0133	0.6643	0	119	50.5	135				
1,2,3-Trichloropropane	0.736	0.0133	0.6643	0	111	50.5	131				
1,2,4-Trichlorobenzene	0.716	0.0332	0.6643	0	108	50.8	130				
sec-Butylbenzene	0.797	0.0133	0.6643	0	120	52.6	141				
4-Isopropyltoluene	0.791	0.0133	0.6643	0.002279	119	52.9	134				
1,3-Dichlorobenzene	0.707	0.0133	0.6643	0	106	52.6	131				
1,4-Dichlorobenzene	0.700	0.0133	0.6643	0	105	52.9	129				



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509300-016BMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-20-15:5.5	Batch ID: 11943	Analysis Date: 9/25/2015							SeqNo: 473619		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Butylbenzene	0.748	0.0133	0.6643	0	113	52.6	130				
1,2-Dichlorobenzene	0.691	0.0133	0.6643	0	104	55.8	129				
1,2-Dibromo-3-chloropropane	0.687	0.332	0.6643	0	103	40.5	131				
1,2,4-Trimethylbenzene	0.668	0.0133	0.6643	0.001365	100	50.6	137				
Hexachlorobutadiene	0.828	0.0664	0.6643	0	125	40.6	158				
Naphthalene	0.616	0.0199	0.6643	0.002020	92.5	52.3	124				
1,2,3-Trichlorobenzene	0.674	0.0133	0.6643	0	101	54.4	124				
Surr: Dibromofluoromethane	0.848		0.8304		102	56.5	129				
Surr: Toluene-d8	0.827		0.8304		99.6	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	0.847		0.8304		102	63.1	141				

Sample ID: 1509300-017BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-20-15:14.0		Batch ID: 11943		Analysis Date: 9/25/2015						SeqNo: 473621	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0432						0		30	
Chloromethane	ND	0.0432						0		30	
Vinyl chloride	ND	0.00144						0		30	
Bromomethane	ND	0.0649						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0360						0		30	
Chloroethane	ND	0.0432						0		30	
1,1-Dichloroethene	ND	0.0360						0		30	
Methylene chloride	ND	0.0144						0.01512	149	30	
trans-1,2-Dichloroethene	ND	0.0144						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0360						0		30	
1,1-Dichloroethane	ND	0.0144						0		30	
2,2-Dichloropropane	ND	0.0360						0		30	
cis-1,2-Dichloroethene	ND	0.0144						0		30	
Chloroform	ND	0.0144						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0144						0		30	
1,1-Dichloropropene	ND	0.0144						0		30	



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Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509300-017BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-20-15:14.0		Batch ID: 11943					Analysis Date: 9/25/2015			SeqNo: 473621	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Carbon tetrachloride	ND	0.0144						0		30	
1,2-Dichloroethane (EDC)	ND	0.0216						0		30	
Benzene	ND	0.0144						0		30	
Trichloroethene (TCE)	ND	0.0144						0		30	
1,2-Dichloropropane	ND	0.0144						0		30	
Bromodichloromethane	ND	0.0144						0		30	
Dibromomethane	ND	0.0288						0		30	
cis-1,3-Dichloropropene	ND	0.0144						0		30	
Toluene	ND	0.0144						0		30	
trans-1,3-Dichloropropylene	ND	0.0216						0		30	
1,1,2-Trichloroethane	ND	0.0216						0		30	
1,3-Dichloropropane	ND	0.0360						0		30	
Tetrachloroethene (PCE)	ND	0.0144						0		30	
Dibromochloromethane	ND	0.0216						0		30	
1,2-Dibromoethane (EDB)	ND	0.00360						0		30	
Chlorobenzene	ND	0.0144						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0216						0		30	
Ethylbenzene	ND	0.0216						0		30	
m,p-Xylene	ND	0.0144						0		30	
o-Xylene	ND	0.0144						0		30	
Styrene	ND	0.0144						0		30	
Isopropylbenzene	ND	0.0577						0		30	
Bromoform	ND	0.0144						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0144						0		30	
n-Propylbenzene	ND	0.0144						0		30	
Bromobenzene	ND	0.0216						0		30	
1,3,5-Trimethylbenzene	ND	0.0144						0		30	
2-Chlorotoluene	ND	0.0144						0		30	
4-Chlorotoluene	ND	0.0144						0		30	
tert-Butylbenzene	ND	0.0144						0		30	
1,2,3-Trichloropropane	ND	0.0144						0		30	



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509300-017BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25120			
Client ID: GP-20-15:14.0		Batch ID: 11943		Analysis Date: 9/25/2015							SeqNo: 473621	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,2,4-Trichlorobenzene	ND	0.0360						0		30		
sec-Butylbenzene	ND	0.0144						0		30		
4-Isopropyltoluene	ND	0.0144						0		30		
1,3-Dichlorobenzene	ND	0.0144						0		30		
1,4-Dichlorobenzene	ND	0.0144						0		30		
n-Butylbenzene	ND	0.0144						0		30		
1,2-Dichlorobenzene	ND	0.0144						0		30		
1,2-Dibromo-3-chloropropane	ND	0.360						0		30		
1,2,4-Trimethylbenzene	ND	0.0144						0		30		
Hexachlorobutadiene	ND	0.0721						0		30		
Naphthalene	ND	0.0216						0		30		
1,2,3-Trichlorobenzene	ND	0.0144						0		30		
Surr: Dibromofluoromethane	0.850		0.9009		94.4	56.5	129		0			
Surr: Toluene-d8	0.874		0.9009		97.1	64.3	131		0			
Surr: 1-Bromo-4-fluorobenzene	0.886		0.9009		98.4	63.1	141		0			



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-R25077	SampType: LCS	Units: µg/L				Prep Date: 9/23/2015			RunNo: 25077		
Client ID: LCSW	Batch ID: R25077	Analysis Date: 9/23/2015							SeqNo: 472630		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	18.3	1.00	20.00	0	91.6	43	136				
Chloromethane	18.2	1.00	20.00	0	91.0	43.9	139				
Vinyl chloride	21.8	0.200	20.00	0	109	53.6	139				
Bromomethane	27.1	1.00	20.00	0	136	42.5	152				
Trichlorofluoromethane (CFC-11)	20.4	1.00	20.00	0	102	63.7	133				
Chloroethane	19.4	1.00	20.00	0	96.9	53	141				
1,1-Dichloroethene	17.3	1.00	20.00	0	86.4	65.6	136				
Methylene chloride	17.9	1.00	20.00	0	89.7	67.1	131				
trans-1,2-Dichloroethene	18.7	1.00	20.00	0	93.3	71.7	129				
Methyl tert-butyl ether (MTBE)	18.7	1.00	20.00	0	93.5	67.7	131				
1,1-Dichloroethane	18.4	1.00	20.00	0	92.2	67.9	134				
2,2-Dichloropropane	17.7	2.00	20.00	0	88.7	33.7	152				
cis-1,2-Dichloroethene	17.8	1.00	20.00	0	89.0	71.1	130				
Chloroform	18.9	1.00	20.00	0	94.4	66.3	131				
1,1,1-Trichloroethane (TCA)	19.9	1.00	20.00	0	99.6	71	131				
1,1-Dichloropropene	18.1	1.00	20.00	0	90.4	74.5	126				
Carbon tetrachloride	20.8	1.00	20.00	0	104	66.2	134				
1,2-Dichloroethane (EDC)	18.2	1.00	20.00	0	91.1	68.8	123				
Benzene	18.3	1.00	20.00	0	91.4	69.3	132				
Trichloroethene (TCE)	19.2	0.500	20.00	0	96.1	65.2	136				
1,2-Dichloropropane	18.2	1.00	20.00	0	91.2	70.5	130				
Bromodichloromethane	20.6	1.00	20.00	0	103	67.2	137				
Dibromomethane	20.0	1.00	20.00	0	99.8	75.5	126				
cis-1,3-Dichloropropene	22.0	1.00	20.00	0	110	62.6	137				
Toluene	17.5	1.00	20.00	0	87.4	61.3	145				
trans-1,3-Dichloropropene	21.3	1.00	20.00	0	106	58.5	142				
1,1,2-Trichloroethane	17.9	1.00	20.00	0	89.5	71.7	131				
1,3-Dichloropropane	19.0	1.00	20.00	0	95.2	73.5	127				
Tetrachloroethene (PCE)	20.9	1.00	20.00	0	104	47.5	147				
Dibromochloromethane	21.3	1.00	20.00	0	107	67.2	134				
1,2-Dibromoethane (EDB)	20.0	0.0600	20.00	0	100	73.6	125				



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-R25077		SampType: LCS		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25077		
Client ID: LCSW		Batch ID: R25077		Analysis Date: 9/23/2015						SeqNo: 472630	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	21.3	1.00	20.00	0	107	73.9	126				
1,1,1,2-Tetrachloroethane	19.0	1.00	20.00	0	94.8	76.8	124				
Ethylbenzene	19.2	1.00	20.00	0	96.2	72	130				
m,p-Xylene	38.3	1.00	40.00	0	95.7	70.3	134				
o-Xylene	18.3	1.00	20.00	0	91.4	72.1	131				
Styrene	21.1	1.00	20.00	0	106	64.3	140				
Isopropylbenzene	20.9	1.00	20.00	0	104	73.9	128				
Bromoform	23.8	1.00	20.00	0	119	63.8	135				
1,1,2,2-Tetrachloroethane	20.2	1.00	20.00	0	101	62.9	132				
n-Propylbenzene	19.2	1.00	20.00	0	96.1	74.5	127				
Bromobenzene	19.2	1.00	20.00	0	96.1	71	131				
1,3,5-Trimethylbenzene	20.1	1.00	20.00	0	101	73.1	128				
2-Chlorotoluene	19.5	1.00	20.00	0	97.6	70.8	130				
4-Chlorotoluene	20.2	1.00	20.00	0	101	70.1	131				
tert-Butylbenzene	19.8	1.00	20.00	0	99.0	68.2	131				
1,2,3-Trichloropropane	18.8	1.00	20.00	0	93.8	67.7	131				
1,2,4-Trichlorobenzene	19.7	2.00	20.00	0	98.6	51.8	152				Q
sec-Butylbenzene	20.8	1.00	20.00	0	104	72	129				
4-Isopropyltoluene	20.3	1.00	20.00	0	102	69.2	130				
1,3-Dichlorobenzene	20.3	1.00	20.00	0	102	72.4	129				
1,4-Dichlorobenzene	20.4	1.00	20.00	0	102	70.6	128				
n-Butylbenzene	21.0	1.00	20.00	0	105	73.8	127				
1,2-Dichlorobenzene	21.5	1.00	20.00	0	107	74.2	129				
1,2-Dibromo-3-chloropropane	15.9	1.00	20.00	0	79.5	63.1	136				
1,2,4-Trimethylbenzene	19.4	1.00	20.00	0	97.2	73.4	127				
Hexachlorobutadiene	19.8	4.00	20.00	0	99.0	58.6	138				
Naphthalene	15.7	1.00	20.00	0	78.6	41.8	165				Q
1,2,3-Trichlorobenzene	17.2	4.00	20.00	0	86.0	48.7	156				Q
Surr: Dibromofluoromethane	23.1		25.00		92.3	45.4	152				
Surr: Toluene-d8	23.8		25.00		95.0	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	64.2	128				



Date: 10/6/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-R25077		SampType: LCS		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25077		
Client ID: LCSW		Batch ID: R25077					Analysis Date: 9/23/2015			SeqNo: 472630	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID: MB-R25077		SampType: MBLK			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25077		
Client ID: MBLKW		Batch ID: R25077			Analysis Date: 9/23/2015					SeqNo: 472631		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	1.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: MB-R25077		SampType: MBLK		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25077		
Client ID: MBLKW		Batch ID: R25077					Analysis Date: 9/23/2015			SeqNo: 472631	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

trans-1,3-Dichloropropene	ND	1.00
1,1,2-Trichloroethane	ND	1.00
1,3-Dichloropropane	ND	1.00
Tetrachloroethene (PCE)	ND	1.00
Dibromochloromethane	ND	1.00
1,2-Dibromoethane (EDB)	ND	0.0600
Chlorobenzene	ND	1.00
1,1,1,2-Tetrachloroethane	ND	1.00
Ethylbenzene	ND	1.00
m,p-Xylene	ND	1.00
o-Xylene	ND	1.00
Styrene	ND	1.00
Isopropylbenzene	ND	1.00
Bromoform	ND	1.00
1,1,2,2-Tetrachloroethane	ND	1.00
n-Propylbenzene	ND	1.00
Bromobenzene	ND	1.00
1,3,5-Trimethylbenzene	ND	1.00
2-Chlorotoluene	ND	1.00
4-Chlorotoluene	ND	1.00
tert-Butylbenzene	ND	1.00
1,2,3-Trichloropropane	ND	1.00
1,2,4-Trichlorobenzene	ND	2.00
sec-Butylbenzene	ND	1.00
4-Isopropyltoluene	ND	1.00
1,3-Dichlorobenzene	ND	1.00
1,4-Dichlorobenzene	ND	1.00
n-Butylbenzene	ND	1.00
1,2-Dichlorobenzene	ND	1.00
1,2-Dibromo-3-chloropropane	ND	1.00
1,2,4-Trimethylbenzene	ND	1.00

Q



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: MB-R25077	SampType: MBLK	Units: µg/L			Prep Date: 9/23/2015			RunNo: 25077			
Client ID: MBLKW	Batch ID: R25077				Analysis Date: 9/23/2015			SeqNo: 472631			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	4.00									
Naphthalene	ND	1.00									Q
1,2,3-Trichlorobenzene	ND	4.00									Q
Surr: Dibromofluoromethane	24.2		25.00		96.8	45.4	152				
Surr: Toluene-d8	24.0		25.00		96.1	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.2		25.00		101	64.2	128				

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID: 1509311-005ADUP	SampType: DUP	Units: µg/L			Prep Date: 9/23/2015			RunNo: 25077			
Client ID: BATCH	Batch ID: R25077	Analysis Date: 9/23/2015						SeqNo: 472607			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	1.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	



Date: 10/6/2015

Work Order: 1509300
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509311-005ADUP		SampType: DUP		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25077		
Client ID: BATCH		Batch ID: R25077		Analysis Date: 9/23/2015						SeqNo: 472607	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	1.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	Q
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509311-005ADUP		SampType: DUP		Units: µg/L		Prep Date: 9/23/2015		RunNo: 25077			
Client ID: BATCH		Batch ID: R25077				Analysis Date: 9/23/2015		SeqNo: 472607			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachlorobutadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	Q
1,2,3-Trichlorobenzene	ND	4.00						0		30	Q
Surr: Dibromofluoromethane	23.5		25.00		94.0	45.4	152		0		
Surr: Toluene-d8	24.6		25.00		98.5	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.2	64.2	128		0		

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID: 1509312-002AMS		SampType: MS		Units: µg/L		Prep Date: 9/24/2015		RunNo: 25077			
Client ID: BATCH		Batch ID: R25077				Analysis Date: 9/24/2015		SeqNo: 472612			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	22.0	1.00	20.00	0	110	33.3	122				
Chloromethane	16.8	1.00	20.00	0.8700	79.5	48.2	145				
Vinyl chloride	24.8	0.200	20.00	0.1800	123	58.1	158				
Bromomethane	24.1	1.00	20.00	10.39	68.6	31.5	135				
Trichlorofluoromethane (CFC-11)	26.1	1.00	20.00	0	131	54.7	138				
Chloroethane	23.3	1.00	20.00	0	117	49.9	143				
1,1-Dichloroethene	21.8	1.00	20.00	0	109	63	141				
Methylene chloride	21.0	1.00	20.00	0	105	61.6	135				
trans-1,2-Dichloroethene	21.5	1.00	20.00	0	108	63.5	138				
Methyl tert-butyl ether (MTBE)	19.7	1.00	20.00	0	98.6	60.9	132				
1,1-Dichloroethane	21.8	1.00	20.00	0	109	67.8	136				
2,2-Dichloropropane	18.2	2.00	20.00	0	91.2	31.5	121				
cis-1,2-Dichloroethene	23.4	1.00	20.00	1.540	109	67.1	123				



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509312-002AMS	SampType: MS	Units: µg/L				Prep Date: 9/24/2015			RunNo: 25077		
Client ID: BATCH	Batch ID: R25077	Analysis Date: 9/24/2015							SeqNo: 472612		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	22.3	1.00	20.00	0	112	66.7	136				
1,1,1-Trichloroethane (TCA)	23.6	1.00	20.00	0	118	64.2	146				
1,1-Dichloropropene	21.7	1.00	20.00	0	109	73.8	136				
Carbon tetrachloride	20.5	1.00	20.00	1.200	96.4	62.7	146				
1,2-Dichloroethane (EDC)	20.7	1.00	20.00	0	103	63.4	137				
Benzene	21.7	1.00	20.00	0	108	65.4	138				
Trichloroethene (TCE)	27.0	0.500	20.00	2.790	121	60.4	134				
1,2-Dichloropropane	21.3	1.00	20.00	0	106	62.6	138				
Bromodichloromethane	22.4	1.00	20.00	0	112	59.4	139				
Dibromomethane	22.6	1.00	20.00	0	113	63.6	139				
cis-1,3-Dichloropropene	22.6	1.00	20.00	0	113	63.8	132				
Toluene	20.2	1.00	20.00	0	101	64	139				
trans-1,3-Dichloropropene	22.1	1.00	20.00	0	110	57.7	125				
1,1,2-Trichloroethane	21.1	1.00	20.00	0	105	59.4	127				
1,3-Dichloropropane	20.8	1.00	20.00	0	104	64.3	135				
Tetrachloroethene (PCE)	24.4	1.00	20.00	0	122	50.3	133				
Dibromochloromethane	22.6	1.00	20.00	0	113	61.6	139				
1,2-Dibromoethane (EDB)	23.2	0.0600	20.00	0	116	63.2	134				
Chlorobenzene	22.2	1.00	20.00	0	111	65.8	134				
1,1,1,2-Tetrachloroethane	20.0	1.00	20.00	0.1400	99.2	65.4	135				
Ethylbenzene	21.6	1.00	20.00	0	108	64.5	136				
m,p-Xylene	43.3	1.00	40.00	0	108	63.3	135				
o-Xylene	21.2	1.00	20.00	0	106	65.4	134				
Styrene	23.2	1.00	20.00	0	116	59.1	134				
Isopropylbenzene	22.9	1.00	20.00	0	115	56	147				
Bromoform	24.3	1.00	20.00	0	122	57.7	139				
1,1,2,2-Tetrachloroethane	21.6	1.00	20.00	0	108	59.8	146				
n-Propylbenzene	21.5	1.00	20.00	0	107	57.6	142				
Bromobenzene	20.6	1.00	20.00	0	103	63.6	130				
1,3,5-Trimethylbenzene	21.5	1.00	20.00	0	108	59.9	136				
2-Chlorotoluene	21.6	1.00	20.00	0	108	61.7	134				



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509312-002AMS	SampType: MS	Units: µg/L			Prep Date: 9/24/2015			RunNo: 25077			
Client ID: BATCH	Batch ID: R25077				Analysis Date: 9/24/2015			SeqNo: 472612			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	21.6	1.00	20.00	0	108	58.4	134				
tert-Butylbenzene	21.8	1.00	20.00	0	109	66.8	141				
1,2,3-Trichloropropane	21.6	1.00	20.00	0	108	62.4	129				
1,2,4-Trichlorobenzene	21.1	2.00	20.00	0.5300	103	50.9	133				Q
sec-Butylbenzene	23.1	1.00	20.00	0	116	56	146				
4-Isopropyltoluene	21.8	1.00	20.00	0	109	56.4	136				
1,3-Dichlorobenzene	22.0	1.00	20.00	0	110	58.2	128				
1,4-Dichlorobenzene	21.6	1.00	20.00	0	108	60.1	123				
n-Butylbenzene	22.2	1.00	20.00	0	111	54.6	135				
1,2-Dichlorobenzene	23.5	1.00	20.00	0	118	65.4	133				
1,2-Dibromo-3-chloropropane	19.7	1.00	20.00	0	98.6	51.8	142				
1,2,4-Trimethylbenzene	20.2	1.00	20.00	0	101	63.7	132				
Hexachlorobutadiene	26.2	4.00	20.00	0	131	58.1	130				S
Naphthalene	15.0	1.00	20.00	0.6600	71.8	54.5	132				Q
1,2,3-Trichlorobenzene	16.0	4.00	20.00	0	80.2	57	131				Q
Surr: Dibromofluoromethane	24.0		25.00		96.2	45.4	152				
Surr: Toluene-d8	24.6		25.00		98.6	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.4	64.2	128				

NOTES:

S - Outlying QC recoveries were observed. The method is in control as indicated by the LCS.

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID: 1509315-003CDUP	SampType: DUP	Units: µg/L			Prep Date: 9/24/2015			RunNo: 25077			
Client ID: BATCH	Batch ID: R25077				Analysis Date: 9/24/2015			SeqNo: 472622			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	1.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509315-003CDUP		SampType: DUP		Units: µg/L		Prep Date: 9/24/2015			RunNo: 25077		
Client ID: BATCH		Batch ID: R25077					Analysis Date: 9/24/2015			SeqNo: 472622	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	3.37	1.00						3.470	2.92	30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	23.5	1.00						22.32	5.19	30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	157	1.00						153.6	2.15	30	E
m,p-Xylene	361	1.00						352.4	2.34	30	E
o-Xylene	30.3	1.00						29.08	4.11	30	
Styrene	ND	1.00						0		30	



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509315-003CDUP	SampType: DUP	Units: µg/L			Prep Date: 9/24/2015			RunNo: 25077			
Client ID: BATCH	Batch ID: R25077				Analysis Date: 9/24/2015			SeqNo: 472622			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Isopropylbenzene	20.8	1.00						19.82	4.92	30	
Bromoform	ND	1.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	71.3	1.00						70.13	1.67	30	E
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	128	1.00						124.6	2.44	30	E
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	51.2	1.00						49.50	3.42	30	E
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	6.65	1.00						5.880	12.3	30	
4-Isopropyltoluene	2.92	1.00						9.380	105	30	R
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	28.8	1.00						26.63	7.86	30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	11.6	1.00						0	200	30	
1,2,4-Trimethylbenzene	334	1.00						325.0	2.70	30	E
Hexachlorobutadiene	ND	4.00						0		30	
Naphthalene	120	1.00						59.38	67.8	30	RE
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	23.4		25.00		93.7	45.4	152		0		
Surr: Toluene-d8	24.9		25.00		99.7	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	25.7		25.00		103	64.2	128		0		



Date: 10/6/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID: 1509332-006BDUP		SampType: DUP		Units: wt%		Prep Date: 9/25/2015			RunNo: 25116		
Client ID: BATCH		Batch ID: R25116					Analysis Date: 9/25/2015			SeqNo: 473527	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	19.1	0.500						19.59	2.27	20	

Sample ID: 1509300-001ADUP		SampType: DUP			Units: wt%		Prep Date: 9/25/2015			RunNo: 25116		
Client ID: GP-13-15:4.5		Batch ID: R25116						Analysis Date: 9/25/2015			SeqNo: 473537	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Percent Moisture	14.2	0.500						10.84	26.9	20	R	

Client Name: **SW**

 Work Order Number: **1509300**

 Logged by: **Clare Griggs**

 Date Received: **9/21/2015 4:18:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of >0°C to 10.0°C * Yes ☐ No ☒ NA ☐
- Please refer to item information.
8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☒ No ☐ NA ☐

Person Notified:	Ed Ptak	Date:	9/22/2015
By Whom:	Clare Griggs	Via:	☒ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	Received sample not on COC - " GP-17-15:DUP"		
Client Instructions:	See updated COC.		

19. Additional remarks:

GP-20-15:15.5 @13:20 should be GP-20-15:15.0

Item Information

Item #	Temp °C
Cooler 1	13.5
Cooler 2	6.9
Temp Blank 1	10.2
Temp Blank 2	3.8



Fremont

Analytical

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/21/15

Page: 1 of 3

Laboratory Project No (Internal):

Chain of Custody Record
15093802

Client: Shannon & Wilson Inc.
Address: 400 N 34th St, Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-652-8020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 21-22055-006
Location: Pacific Park, Pacific, WA
Report To (PM): Elvin Pak
PM Email: npeshmvi.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 8241)	DX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HC-ID)	Diesel/Heavy Oil Range Organics (DO)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8280 / 605)	Metals** (EPA 6010 / 200.8)	Total (T) / Dissolved (D)	Anions (AC)***	ECOs (8011)	Herbicides/Insecticides/pesticides/rodenticides	Comments
1 GP-13-15:4.5	9/21/15	0845	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 GP-13-15:13.5		0855		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3 GP-14-15:3.5		0940		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
4 GP-14-15:13.5		0950		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5 GP-14-15:DMF		1000		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
6 GP-15-15:6.0		1025		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
7 GP-15-15:4.0		1030		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
8 GP-16-15:8.0		105		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
9 GP-16-15:13.5		1100		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
10 GP-17-15:7.0		1145		X	X	X	X	X	X	X	X	X	X	X	X	X	X	

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide C-Phosphate Fluoride Nitrate-Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (a fee may be assessed if samples are retained after 30 days.)

Relinquished Date/Time: 9/21/15 1515 Received Date/Time: 9/21/15 1516

Relinquished Signature: [Signature] Received Signature: [Signature]

TAT → SameDay NextDay 2 Day 3 Day STD

*Please coordinate with the lab in advance

Distribution: White - Lab, Yellow - File, Pink - Originator

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3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/21/15

Page: 2 of 3

9/22/15 Chain of Custody Record
Laboratory Project No (Internal): ~~1509274~~ 1509300

Client: Sharon & Wilson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle, WA 98103
Telephone: 206-632-8030 Fax: 206-695-0771

Project Name: Pacific Park
Project No: 21-2055-006 Collected by: EVP
Location: City of Pacific WA
Report To (PM): Edwin Park
PM Email: evp@shawnw.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	LOCs (EPA 8260 / 624)	GC/MS	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DO)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8280 / 608)	Metals** (EPA 8210 / 200.8)	Total (T) / Dissolved (D)	Anions (AC)**	ECB (801)	Herbicides	Pesticides	Comments
1 GP-17-15:14.5	9/21/15	15:55	S																
2 GP-18-15:3.0		12:15																	
3 GP-18-15:14.0		12:20																	
4 GP-19-15:5.0		12:50																	
5 GP-19-15:14.5		12:55																	
6 GP-20-15:5.5		13:20																	
7 GP-20-15:14.0		13:45																	
8 GP-21-15:4.0		14:20																	
9 GP-21-15:14.0		14:50																	
10 GP-21-15:6W		14:25	GW																

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide C-Phosphate Fluoride Nitrate-Nitrite
Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (a fee may be assessed if samples are retained after 30 days.)
Relinquished: 9/21/15 15:15 Received: 9/21/15 15:16
Relinquished: 9/21/15 16:18 Received: 9/21/15 16:18
TAT → SameDay NextDay 2 Day 3 Day STD
*Please coordinate with the lab in advance.

Special Remarks: GP-21-15:6W not field filled for PPL metals.

Distribution: White - Lab, Yellow - File, Pink - Originator

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Chain of Custody Record

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/21/15

Page: 3 of 3

Laboratory Project No (Internal):

1509300

Client: Shannon & Wilson Inc.
Address: 400 N 34th St.
City, State, Zip: Seattle, WA 98103
Telephone: 206-632-8030 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 21-1-2005-006
Location: City of Pacific, WA
Report To (PM): Edwin Pak
PM Email: evp@shwml.com

Collected by: EVP

* Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Matrix	VOCs (EPA 8260 / 824)	SVOCs (EPA 8270 / 828)	PAHs (EPA 8270 / 828)	PCBs (EPA 8082 / 808)	Metal** (EPA 8210 / 200.9)	Total (T) + Dissolved (D)	Anions (K)***	EDs (8211)	Comments
1 GP-13-15:GW	9/21/15	0915	GW	X	X	X	X	X	X	X	X	
2 GP-17-15:DW	9/21/15	1145	S	X	X	X	X	X	X	X	X	edits per ED 9/21/15 cgy
3												
4												
5												
6												
7												
8												
9												
10												

Distribution: White - Lab, Yellow - File, Pink - Originator

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Shannon & Wilson

Ed Ptak

400 N. 34th Street, Suite 100

Seattle, WA 98103

RE: Pacific Park

Lab ID: 1509300

October 28, 2015

Attention Ed Ptak:

Fremont Analytical, Inc. received 22 sample(s) on 9/21/2015 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Dissolved Mercury by EPA Method 245.1

Dissolved Metals by EPA Method 200.8

Gasoline by NWTPH-Gx

Herbicides by EPA Method 8151A

Mercury by EPA Method 245.1

Mercury by EPA Method 7471

Metals (SW6020) with TCLP Extraction (EPA 1311)

Organochlorine Pesticides by EPA Method 8081

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample Moisture (Percent Moisture)

Semi-Volatile Organic Compounds by EPA Method 8270

Total Metals by EPA Method 200.8

Total Metals by EPA Method 6020

Volatile Organic Compounds by EPA Method 8260

This report consists of the following:

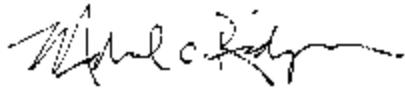
- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

www.fremontanalytical.com

A handwritten signature in black ink, appearing to read "Mike Ridgeway". The signature is fluid and cursive, with a prominent initial "M" and a long, sweeping underline.

Mike Ridgeway
President



Date: 10/28/2015

CLIENT: Shannon & Wilson
Project: Pacific Park
Lab Order: 1509300

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1509300-001	GP-13-15:4.5	09/21/2015 8:45 AM	09/21/2015 4:18 PM
1509300-002	GP-13-15:13.5	09/21/2015 8:55 AM	09/21/2015 4:18 PM
1509300-003	GP-14-15:3.5	09/21/2015 9:40 AM	09/21/2015 4:18 PM
1509300-004	GP-14-15:13.5	09/21/2015 9:50 AM	09/21/2015 4:18 PM
1509300-005	GP-14-15:DUP	09/21/2015 10:10 AM	09/21/2015 4:18 PM
1509300-006	GP-15-15:6.0	09/21/2015 10:25 AM	09/21/2015 4:18 PM
1509300-007	GP-15-15:14.0	09/21/2015 10:30 AM	09/21/2015 4:18 PM
1509300-008	GP-16-15:8.0	09/21/2015 11:05 AM	09/21/2015 4:18 PM
1509300-009	GP-16-15:13.5	09/21/2015 11:00 AM	09/21/2015 4:18 PM
1509300-010	GP-17-15:7.0	09/21/2015 11:40 AM	09/21/2015 4:18 PM
1509300-011	GP-17-15:14.5	09/21/2015 11:55 AM	09/21/2015 4:18 PM
1509300-012	GP-18-15:3.0	09/21/2015 12:15 PM	09/21/2015 4:18 PM
1509300-013	GP-18-15:14.0	09/21/2015 12:20 PM	09/21/2015 4:18 PM
1509300-014	GP-19-15:5.0	09/21/2015 12:50 PM	09/21/2015 4:18 PM
1509300-015	GP-19-15:14.5	09/21/2015 12:55 PM	09/21/2015 4:18 PM
1509300-016	GP-20-15:5.5	09/21/2015 1:20 PM	09/21/2015 4:18 PM
1509300-017	GP-20-15:14.0	09/21/2015 1:45 PM	09/21/2015 4:18 PM
1509300-018	GP-21-15:4.0	09/21/2015 2:20 PM	09/21/2015 4:18 PM
1509300-019	GP-21-15:14.0	09/21/2015 2:50 PM	09/21/2015 4:18 PM
1509300-020	GP-21-15:GW	09/21/2015 2:25 PM	09/21/2015 4:18 PM
1509300-021	GP-13-15:GW	09/21/2015 9:15 AM	09/21/2015 4:18 PM
1509300-022	GP-17-15:DUP	09/21/2015 11:45 AM	09/21/2015 4:18 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned



Case Narrative

WO#: 1509300

Date: 10/28/2015

CLIENT: Shannon & Wilson

Project: Pacific Park

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:45:00 AM

Project: Pacific Park

Lab ID: 1509300-001

Matrix: Soil

Client Sample ID: GP-13-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	39.1		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4-D	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4-DP	ND	27.9		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4,5-TP (Silvex)	ND	22.3		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4,5-T	ND	55.8		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Dinoseb	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Dalapon	ND	223		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4-DB	ND	27.9		µg/Kg-dry	1	10/1/2015 3:27:00 PM
MCPP	ND	4,910		µg/Kg-dry	1	10/1/2015 3:27:00 PM
MCPA	ND	3,130		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Picloram	ND	55.8		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Bentazon	ND	39.1		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Chloramben	ND	22.3		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Acifluorfen	ND	89.3		µg/Kg-dry	1	10/1/2015 3:27:00 PM
3,5-Dichlorobenzoic acid	ND	44.7		µg/Kg-dry	1	10/1/2015 3:27:00 PM
4-Nitrophenol	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Dacthal (DCPA)	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Surr: 2,4-Dichlorophenylacetic acid	98.4	20.1-168		%REC	1	10/1/2015 3:27:00 PM

Polychlorinated Biphenyls (PCB) by EPA 8082

Batch ID: 12180

Analyst: CM

Aroclor 1016	ND	0.106		mg/Kg-dry	1	10/22/2015 6:06:00 PM
Aroclor 1221	ND	0.106		mg/Kg-dry	1	10/22/2015 6:06:00 PM
Aroclor 1232	ND	0.106		mg/Kg-dry	1	10/22/2015 6:06:00 PM
Aroclor 1242	ND	0.106		mg/Kg-dry	1	10/22/2015 6:06:00 PM
Aroclor 1248	ND	0.106		mg/Kg-dry	1	10/22/2015 6:06:00 PM
Aroclor 1254	ND	0.106		mg/Kg-dry	1	10/22/2015 6:06:00 PM
Aroclor 1260	ND	0.106		mg/Kg-dry	1	10/22/2015 6:06:00 PM
Aroclor 1262	ND	0.106		mg/Kg-dry	1	10/22/2015 6:06:00 PM
Aroclor 1268	ND	0.106		mg/Kg-dry	1	10/22/2015 6:06:00 PM
Total PCBs	ND	0.106		mg/Kg-dry	1	10/22/2015 6:06:00 PM
Surr: Decachlorobiphenyl	81.9	41.2-143		%REC	1	10/22/2015 6:06:00 PM
Surr: Tetrachloro-m-xylene	87.5	26-140		%REC	1	10/22/2015 6:06:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Alpha BHC	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Beta BHC	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:45:00 AM

Project: Pacific Park

Lab ID: 1509300-001

Matrix: Soil

Client Sample ID: GP-13-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
Gamma BHC (Lindane)	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Delta BHC	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Heptachlor	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Aldrin	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Heptachlor epoxide	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
gamma-Chlordane	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Endosulfan I	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
alpha-Chlordane	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Dieldrin	ND	0.0105		mg/Kg-dry	1	9/24/2015 3:32:00 AM
4,4'-DDE	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Endrin	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Endosulfan II	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM
4,4'-DDD	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Endrin aldehyde	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Endosulfan sulfate	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM
4,4'-DDT	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Endrin ketone	ND	0.0210		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Methoxychlor	ND	0.0526		mg/Kg-dry	1	9/24/2015 3:32:00 AM
Surr: Decachlorobiphenyl	59.2	26.5-158		%REC	1	9/24/2015 3:32:00 AM
Surr: Tetrachloro-m-xylene	74.9	11-150		%REC	1	9/24/2015 3:32:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	22.2		mg/Kg-dry	1	9/23/2015 6:52:00 PM
Heavy Oil	462	55.5		mg/Kg-dry	1	9/23/2015 6:52:00 PM
Surr: 2-Fluorobiphenyl	117	50-150		%REC	1	9/23/2015 6:52:00 PM
Surr: o-Terphenyl	117	50-150		%REC	1	9/23/2015 6:52:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Bis(2-chloroethyl) ether	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2-Chlorophenol	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
1,3-Dichlorobenzene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
1,4-Dichlorobenzene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
1,2-Dichlorobenzene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Benzyl alcohol	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2-Methylphenol (o-cresol)	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Hexachloroethane	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:45:00 AM

Project: Pacific Park

Lab ID: 1509300-001

Matrix: Soil

Client Sample ID: GP-13-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

N-Nitrosodi-n-propylamine	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Nitrobenzene	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Isophorone	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
4-Methylphenol (p-cresol)	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2-Nitrophenol	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2,4-Dimethylphenol	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Bis(2-chloroethoxy)methane	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2,4-Dichlorophenol	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
1,2,4-Trichlorobenzene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Naphthalene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
4-Chloroaniline	ND	546		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Hexachlorobutadiene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
4-Chloro-3-methylphenol	ND	546		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2-Methylnaphthalene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
1-Methylnaphthalene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Hexachlorocyclopentadiene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2,4,6-Trichlorophenol	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2,4,5-Trichlorophenol	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2-Chloronaphthalene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2-Nitroaniline	ND	546		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Acenaphthene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Dimethylphthalate	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2,6-Dinitrotoluene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Acenaphthylene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2,4-Dinitrophenol	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Dibenzofuran	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
2,4-Dinitrotoluene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
4-Nitrophenol	ND	546		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Fluorene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
4-Chlorophenyl phenyl ether	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Diethylphthalate	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
4,6-Dinitro-2-methylphenol	ND	218		µg/Kg-dry	1	9/25/2015 2:41:00 PM
4-Bromophenyl phenyl ether	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Hexachlorobenzene	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Pentachlorophenol	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Phenanthrene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Anthracene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Carbazole	ND	546		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Di-n-butylphthalate	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:45:00 AM

Project: Pacific Park

Lab ID: 1509300-001

Matrix: Soil

Client Sample ID: GP-13-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Fluoranthene	142	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Pyrene	130	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Butyl Benzylphthalate	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
bis(2-Ethylhexyl)adipate	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Benz (a) anthracene	131	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Chrysene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
bis (2-Ethylhexyl) phthalate	167	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Di-n-octyl phthalate	ND	109		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Benzo (b) fluoranthene	232	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Benzo (k) fluoranthene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Benzo (a) pyrene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Indeno (1,2,3-cd) pyrene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Dibenz (a,h) anthracene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Benzo (g,h,i) perylene	ND	87.3		µg/Kg-dry	1	9/25/2015 2:41:00 PM
Surr: 2,4,6-Tribromophenol	59.0	11.1-127		%REC	1	9/25/2015 2:41:00 PM
Surr: 2-Fluorobiphenyl	82.2	16.1-150		%REC	1	9/25/2015 2:41:00 PM
Surr: Nitrobenzene-d5	75.8	10-133		%REC	1	9/25/2015 2:41:00 PM
Surr: Phenol-d6	68.5	11.6-133		%REC	1	9/25/2015 2:41:00 PM
Surr: p-Terphenyl	83.5	21.8-150		%REC	1	9/25/2015 2:41:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	3.30		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Surr: Toluene-d8	98.0	65-135		%REC	1	9/24/2015 5:17:00 AM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/24/2015 5:17:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0396		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Chloromethane	ND	0.0396		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Vinyl chloride	ND	0.00132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Bromomethane	ND	0.0594		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Chloroethane	ND	0.0396		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,1-Dichloroethene	ND	0.0330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Methylene chloride	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
trans-1,2-Dichloroethene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,1-Dichloroethane	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:45:00 AM

Project: Pacific Park

Lab ID: 1509300-001

Matrix: Soil

Client Sample ID: GP-13-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

2,2-Dichloropropane	ND	0.0330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
cis-1,2-Dichloroethene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Chloroform	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,1-Dichloropropene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Carbon tetrachloride	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2-Dichloroethane (EDC)	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Benzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Trichloroethene (TCE)	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2-Dichloropropane	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Bromodichloromethane	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Dibromomethane	ND	0.0264		mg/Kg-dry	1	9/24/2015 5:17:00 AM
cis-1,3-Dichloropropene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Toluene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
trans-1,3-Dichloropropylene	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,1,2-Trichloroethane	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,3-Dichloropropane	ND	0.0330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Tetrachloroethene (PCE)	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Dibromochloromethane	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2-Dibromoethane (EDB)	ND	0.00330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Chlorobenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Ethylbenzene	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM
m,p-Xylene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
o-Xylene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Styrene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Isopropylbenzene	ND	0.0528		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Bromoform	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
n-Propylbenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Bromobenzene	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,3,5-Trimethylbenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
2-Chlorotoluene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
4-Chlorotoluene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
tert-Butylbenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2,3-Trichloropropane	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2,4-Trichlorobenzene	ND	0.0330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
sec-Butylbenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
4-Isopropyltoluene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:45:00 AM

Project: Pacific Park

Lab ID: 1509300-001

Matrix: Soil

Client Sample ID: GP-13-15:4.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

1,3-Dichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,4-Dichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
n-Butylbenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2-Dichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2-Dibromo-3-chloropropane	ND	0.330		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2,4-Trimethylbenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Hexachlorobutadiene	ND	0.0660		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Naphthalene	ND	0.0198		mg/Kg-dry	1	9/24/2015 5:17:00 AM
1,2,3-Trichlorobenzene	ND	0.0132		mg/Kg-dry	1	9/24/2015 5:17:00 AM
Surr: Dibromofluoromethane	94.2	56.5-129		%REC	1	9/24/2015 5:17:00 AM
Surr: Toluene-d8	98.4	64.3-131		%REC	1	9/24/2015 5:17:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/24/2015 5:17:00 AM

Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.260		mg/Kg-dry	1	9/24/2015 4:33:00 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	3.38	0.0912		mg/Kg-dry	1	9/22/2015 6:41:14 PM
Barium	40.2	0.456		mg/Kg-dry	1	9/22/2015 6:41:14 PM
Cadmium	0.191	0.182		mg/Kg-dry	1	9/22/2015 6:41:14 PM
Chromium	18.6	0.0912		mg/Kg-dry	1	9/22/2015 6:41:14 PM
Lead	424	0.182		mg/Kg-dry	1	9/22/2015 6:41:14 PM
Selenium	0.992	0.456		mg/Kg-dry	1	9/22/2015 6:41:14 PM
Silver	ND	0.0912		mg/Kg-dry	1	9/22/2015 6:41:14 PM

Metals (SW6020) with TCLP Extraction (EPA 1311)

Batch ID: 12222

Analyst: TN

Lead	ND	0.200		mg/L	1	10/26/2015 7:09:54 PM
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Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	10.8			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509300-002

Matrix: Soil

Client Sample ID: GP-13-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	47.7		µg/Kg-dry	1	10/1/2015 3:55:00 AM
2,4-D	ND	40.9		µg/Kg-dry	1	10/1/2015 3:55:00 AM
2,4-DP	ND	34.1		µg/Kg-dry	1	10/1/2015 3:55:00 AM
2,4,5-TP (Silvex)	ND	27.3		µg/Kg-dry	1	10/1/2015 3:55:00 AM
2,4,5-T	ND	68.2		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Dinoseb	ND	40.9		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Dalapon	ND	273		µg/Kg-dry	1	10/1/2015 3:55:00 AM
2,4-DB	ND	34.1		µg/Kg-dry	1	10/1/2015 3:55:00 AM
MCPP	ND	6,000		µg/Kg-dry	1	10/1/2015 3:55:00 AM
MCPA	ND	382		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Picloram	ND	68.2		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Bentazon	ND	47.7		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Chloramben	ND	27.3		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Acifluorfen	ND	109		µg/Kg-dry	1	10/1/2015 3:55:00 AM
3,5-Dichlorobenzoic acid	ND	54.5		µg/Kg-dry	1	10/1/2015 3:55:00 AM
4-Nitrophenol	ND	40.9		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Dacthal (DCPA)	ND	40.9		µg/Kg-dry	1	10/1/2015 3:55:00 AM
Surr: 2,4-Dichlorophenylacetic acid	105	20.1-168		%REC	1	10/1/2015 3:55:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Alpha BHC	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Beta BHC	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Gamma BHC (Lindane)	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Delta BHC	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Heptachlor	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Aldrin	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Heptachlor epoxide	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
gamma-Chlordane	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Endosulfan I	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
alpha-Chlordane	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Dieldrin	ND	0.0135		mg/Kg-dry	1	9/24/2015 3:43:00 AM
4,4'-DDE	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Endrin	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Endosulfan II	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM
4,4'-DDD	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Endrin aldehyde	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Endosulfan sulfate	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509300-002

Matrix: Soil

Client Sample ID: GP-13-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

4,4'-DDT	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Endrin ketone	ND	0.0269		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Methoxychlor	ND	0.0673		mg/Kg-dry	1	9/24/2015 3:43:00 AM
Surr: Decachlorobiphenyl	72.5	26.5-158		%REC	1	9/24/2015 3:43:00 AM
Surr: Tetrachloro-m-xylene	80.4	11-150		%REC	1	9/24/2015 3:43:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11919

Analyst: AK

Diesel (Fuel Oil)	ND	27.2		mg/Kg-dry	1	9/23/2015 7:25:00 PM
Heavy Oil	ND	68.0		mg/Kg-dry	1	9/23/2015 7:25:00 PM
Surr: 2-Fluorobiphenyl	80.7	50-150		%REC	1	9/23/2015 7:25:00 PM
Surr: o-Terphenyl	82.6	50-150		%REC	1	9/23/2015 7:25:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Bis(2-chloroethyl) ether	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2-Chlorophenol	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
1,3-Dichlorobenzene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
1,4-Dichlorobenzene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
1,2-Dichlorobenzene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Benzyl alcohol	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2-Methylphenol (o-cresol)	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Hexachloroethane	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
N-Nitrosodi-n-propylamine	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Nitrobenzene	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Isophorone	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
4-Methylphenol (p-cresol)	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2-Nitrophenol	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2,4-Dimethylphenol	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Bis(2-chloroethoxy)methane	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2,4-Dichlorophenol	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
1,2,4-Trichlorobenzene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Naphthalene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
4-Chloroaniline	ND	693		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Hexachlorobutadiene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
4-Chloro-3-methylphenol	ND	693		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2-Methylnaphthalene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
1-Methylnaphthalene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509300-002

Matrix: Soil

Client Sample ID: GP-13-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Hexachlorocyclopentadiene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2,4,6-Trichlorophenol	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2,4,5-Trichlorophenol	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2-Chloronaphthalene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2-Nitroaniline	ND	693		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Acenaphthene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Dimethylphthalate	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2,6-Dinitrotoluene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Acenaphthylene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2,4-Dinitrophenol	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Dibenzofuran	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
2,4-Dinitrotoluene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
4-Nitrophenol	ND	693		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Fluorene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
4-Chlorophenyl phenyl ether	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Diethylphthalate	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
4,6-Dinitro-2-methylphenol	ND	277		µg/Kg-dry	1	9/25/2015 3:03:00 PM
4-Bromophenyl phenyl ether	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Hexachlorobenzene	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Pentachlorophenol	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Phenanthrene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Anthracene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Carbazole	ND	693		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Di-n-butylphthalate	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Fluoranthene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Pyrene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Butyl Benzylphthalate	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
bis(2-Ethylhexyl)adipate	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Benz (a) anthracene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Chrysene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
bis (2-Ethylhexyl) phthalate	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Di-n-octyl phthalate	ND	139		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Benzo (b) fluoranthene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Benzo (k) fluoranthene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Benzo (a) pyrene	445	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Indeno (1,2,3-cd) pyrene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Dibenz (a,h) anthracene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Benzo (g,h,i) perylene	ND	111		µg/Kg-dry	1	9/25/2015 3:03:00 PM
Surr: 2,4,6-Tribromophenol	58.0	11.1-127		%REC	1	9/25/2015 3:03:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509300-002

Matrix: Soil

Client Sample ID: GP-13-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Surr: 2-Fluorobiphenyl	50.2	16.1-150	%REC	1	9/25/2015 3:03:00 PM
Surr: Nitrobenzene-d5	37.3	10-133	%REC	1	9/25/2015 3:03:00 PM
Surr: Phenol-d6	57.0	11.6-133	%REC	1	9/25/2015 3:03:00 PM
Surr: p-Terphenyl	71.4	21.8-150	%REC	1	9/25/2015 3:03:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	3.98	mg/Kg-dry	1	9/24/2015 5:46:00 AM
Surr: Toluene-d8	97.2	65-135	%REC	1	9/24/2015 5:46:00 AM
Surr: 4-Bromofluorobenzene	105	65-135	%REC	1	9/24/2015 5:46:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0477	mg/Kg-dry	1	9/24/2015 5:46:00 AM
Chloromethane	ND	0.0477	mg/Kg-dry	1	9/24/2015 5:46:00 AM
Vinyl chloride	ND	0.00159	mg/Kg-dry	1	9/24/2015 5:46:00 AM
Bromomethane	ND	0.0716	mg/Kg-dry	1	9/24/2015 5:46:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0398	mg/Kg-dry	1	9/24/2015 5:46:00 AM
Chloroethane	ND	0.0477	mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,1-Dichloroethene	ND	0.0398	mg/Kg-dry	1	9/24/2015 5:46:00 AM
Methylene chloride	ND	0.0159	mg/Kg-dry	1	9/24/2015 5:46:00 AM
trans-1,2-Dichloroethene	ND	0.0159	mg/Kg-dry	1	9/24/2015 5:46:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0398	mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,1-Dichloroethane	ND	0.0159	mg/Kg-dry	1	9/24/2015 5:46:00 AM
2,2-Dichloropropane	ND	0.0398	mg/Kg-dry	1	9/24/2015 5:46:00 AM
cis-1,2-Dichloroethene	ND	0.0159	mg/Kg-dry	1	9/24/2015 5:46:00 AM
Chloroform	ND	0.0159	mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0159	mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,1-Dichloropropene	ND	0.0159	mg/Kg-dry	1	9/24/2015 5:46:00 AM
Carbon tetrachloride	ND	0.0159	mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2-Dichloroethane (EDC)	ND	0.0239	mg/Kg-dry	1	9/24/2015 5:46:00 AM
Benzene	ND	0.0159	mg/Kg-dry	1	9/24/2015 5:46:00 AM
Trichloroethene (TCE)	ND	0.0159	mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2-Dichloropropane	ND	0.0159	mg/Kg-dry	1	9/24/2015 5:46:00 AM
Bromodichloromethane	ND	0.0159	mg/Kg-dry	1	9/24/2015 5:46:00 AM
Dibromomethane	ND	0.0318	mg/Kg-dry	1	9/24/2015 5:46:00 AM
cis-1,3-Dichloropropene	ND	0.0159	mg/Kg-dry	1	9/24/2015 5:46:00 AM
Toluene	ND	0.0159	mg/Kg-dry	1	9/24/2015 5:46:00 AM
trans-1,3-Dichloropropylene	ND	0.0239	mg/Kg-dry	1	9/24/2015 5:46:00 AM



Client: Shannon & Wilson

Collection Date: 9/21/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509300-002

Matrix: Soil

Client Sample ID: GP-13-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11930		Analyst: BC
1,1,2-Trichloroethane	ND	0.0239		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,3-Dichloropropane	ND	0.0398		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Tetrachloroethene (PCE)	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Dibromochloromethane	ND	0.0239		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2-Dibromoethane (EDB)	ND	0.00398		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Chlorobenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0239		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Ethylbenzene	ND	0.0239		mg/Kg-dry	1	9/24/2015 5:46:00 AM
m,p-Xylene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
o-Xylene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Styrene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Isopropylbenzene	ND	0.0637		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Bromoform	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
n-Propylbenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Bromobenzene	ND	0.0239		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,3,5-Trimethylbenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
2-Chlorotoluene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
4-Chlorotoluene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
tert-Butylbenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2,3-Trichloropropane	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2,4-Trichlorobenzene	ND	0.0398		mg/Kg-dry	1	9/24/2015 5:46:00 AM
sec-Butylbenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
4-Isopropyltoluene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,3-Dichlorobenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,4-Dichlorobenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
n-Butylbenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2-Dichlorobenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2-Dibromo-3-chloropropane	ND	0.398		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2,4-Trimethylbenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Hexachlorobutadiene	ND	0.0796		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Naphthalene	ND	0.0239		mg/Kg-dry	1	9/24/2015 5:46:00 AM
1,2,3-Trichlorobenzene	ND	0.0159		mg/Kg-dry	1	9/24/2015 5:46:00 AM
Surr: Dibromofluoromethane	94.6	56.5-129		%REC	1	9/24/2015 5:46:00 AM
Surr: Toluene-d8	98.0	64.3-131		%REC	1	9/24/2015 5:46:00 AM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/24/2015 5:46:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509300-002

Matrix: Soil

Client Sample ID: GP-13-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.325		mg/Kg-dry	1	9/24/2015 4:39:32 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	3.27	0.111		mg/Kg-dry	1	9/22/2015 6:44:45 PM
Barium	73.4	0.557		mg/Kg-dry	1	9/22/2015 6:44:45 PM
Cadmium	ND	0.223		mg/Kg-dry	1	9/22/2015 6:44:45 PM
Chromium	24.1	0.111		mg/Kg-dry	1	9/22/2015 6:44:45 PM
Lead	4.32	0.223		mg/Kg-dry	1	9/22/2015 6:44:45 PM
Selenium	2.12	0.557		mg/Kg-dry	1	9/22/2015 6:44:45 PM
Silver	ND	0.111		mg/Kg-dry	1	9/22/2015 6:44:45 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	28.8			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509300-003

Matrix: Soil

Client Sample ID: GP-14-15:3.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11938			Analyst: MD
Dicamba	ND	39.8		µg/Kg-dry	1	10/5/2015 10:59:00 AM
2,4-D	ND	34.1		µg/Kg-dry	1	10/5/2015 10:59:00 AM
2,4-DP	ND	28.4		µg/Kg-dry	1	10/5/2015 10:59:00 AM
2,4,5-TP (Silvex)	ND	22.7		µg/Kg-dry	1	10/5/2015 10:59:00 AM
2,4,5-T	ND	56.8		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Dinoseb	ND	34.1		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Dalapon	ND	227		µg/Kg-dry	1	10/5/2015 10:59:00 AM
2,4-DB	ND	28.4		µg/Kg-dry	1	10/5/2015 10:59:00 AM
MCPP	ND	5,000		µg/Kg-dry	1	10/5/2015 10:59:00 AM
MCPA	ND	3,180		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Picloram	ND	56.8		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Bentazon	ND	39.8		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Chloramben	ND	22.7		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Acifluorfen	ND	90.9		µg/Kg-dry	1	10/5/2015 10:59:00 AM
3,5-Dichlorobenzoic acid	ND	45.4		µg/Kg-dry	1	10/5/2015 10:59:00 AM
4-Nitrophenol	ND	34.1		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Dacthal (DCPA)	ND	34.1		µg/Kg-dry	1	10/5/2015 10:59:00 AM
Surr: 2,4-Dichlorophenylacetic acid	106	20.1-168		%REC	1	10/5/2015 10:59:00 AM
<u>Organochlorine Pesticides by EPA Method 8081</u>			Batch ID: 11935			Analyst: MD
Toxaphene	ND	0.107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Alpha BHC	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Beta BHC	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Gamma BHC (Lindane)	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Delta BHC	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Heptachlor	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Aldrin	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Heptachlor epoxide	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
gamma-Chlordane	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Endosulfan I	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
alpha-Chlordane	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Dieldrin	ND	0.0107		mg/Kg-dry	1	9/24/2015 3:54:00 AM
4,4'-DDE	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Endrin	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Endosulfan II	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM
4,4'-DDD	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Endrin aldehyde	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Endosulfan sulfate	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509300-003

Matrix: Soil

Client Sample ID: GP-14-15:3.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Endrin ketone	ND	0.0214		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Methoxychlor	ND	0.0534		mg/Kg-dry	1	9/24/2015 3:54:00 AM
Surr: Decachlorobiphenyl	73.6	26.5-158		%REC	1	9/24/2015 3:54:00 AM
Surr: Tetrachloro-m-xylene	84.3	11-150		%REC	1	9/24/2015 3:54:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	20.1		mg/Kg-dry	1	9/23/2015 7:57:00 PM
Heavy Oil	ND	50.2		mg/Kg-dry	1	9/23/2015 7:57:00 PM
Surr: 2-Fluorobiphenyl	128	50-150		%REC	1	9/23/2015 7:57:00 PM
Surr: o-Terphenyl	127	50-150		%REC	1	9/23/2015 7:57:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Bis(2-chloroethyl) ether	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2-Chlorophenol	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
1,3-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
1,4-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
1,2-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Benzyl alcohol	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2-Methylphenol (o-cresol)	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Hexachloroethane	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
N-Nitrosodi-n-propylamine	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Nitrobenzene	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Isophorone	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
4-Methylphenol (p-cresol)	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2-Nitrophenol	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2,4-Dimethylphenol	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Bis(2-chloroethoxy)methane	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2,4-Dichlorophenol	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
1,2,4-Trichlorobenzene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Naphthalene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
4-Chloroaniline	ND	576		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Hexachlorobutadiene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
4-Chloro-3-methylphenol	ND	576		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2-Methylnaphthalene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
1-Methylnaphthalene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509300-003

Matrix: Soil

Client Sample ID: GP-14-15:3.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Hexachlorocyclopentadiene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2,4,6-Trichlorophenol	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2,4,5-Trichlorophenol	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2-Chloronaphthalene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2-Nitroaniline	ND	576		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Acenaphthene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Dimethylphthalate	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2,6-Dinitrotoluene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Acenaphthylene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2,4-Dinitrophenol	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Dibenzofuran	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
2,4-Dinitrotoluene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
4-Nitrophenol	ND	576		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Fluorene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
4-Chlorophenyl phenyl ether	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Diethylphthalate	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
4,6-Dinitro-2-methylphenol	ND	231		µg/Kg-dry	1	9/25/2015 3:25:00 PM
4-Bromophenyl phenyl ether	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Hexachlorobenzene	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Pentachlorophenol	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Phenanthrene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Anthracene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Carbazole	ND	576		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Di-n-butylphthalate	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Fluoranthene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Pyrene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Butyl Benzylphthalate	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
bis(2-Ethylhexyl)adipate	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Benz (a) anthracene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Chrysene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
bis (2-Ethylhexyl) phthalate	119	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Di-n-octyl phthalate	ND	115		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Benzo (b) fluoranthene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Benzo (k) fluoranthene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Benzo (a) pyrene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Indeno (1,2,3-cd) pyrene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Dibenz (a,h) anthracene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Benzo (g,h,i) perylene	ND	92.2		µg/Kg-dry	1	9/25/2015 3:25:00 PM
Surr: 2,4,6-Tribromophenol	61.7	11.1-127		%REC	1	9/25/2015 3:25:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509300-003

Matrix: Soil

Client Sample ID: GP-14-15:3.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	72.2	16.1-150		%REC	1	9/25/2015 3:25:00 PM
Surr: Nitrobenzene-d5	54.3	10-133		%REC	1	9/25/2015 3:25:00 PM
Surr: Phenol-d6	65.1	11.6-133		%REC	1	9/25/2015 3:25:00 PM
Surr: p-Terphenyl	81.9	21.8-150		%REC	1	9/25/2015 3:25:00 PM
Gasoline by NWTPH-Gx				Batch ID: 11930		Analyst: BC
Gasoline	ND	3.45		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Surr: Toluene-d8	97.3	65-135		%REC	1	9/24/2015 6:14:00 AM
Surr: 4-Bromofluorobenzene	103	65-135		%REC	1	9/24/2015 6:14:00 AM
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11930		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0414		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Chloromethane	ND	0.0414		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Vinyl chloride	ND	0.00138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Bromomethane	ND	0.0622		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0345		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Chloroethane	ND	0.0414		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,1-Dichloroethene	ND	0.0345		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Methylene chloride	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
trans-1,2-Dichloroethene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0345		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,1-Dichloroethane	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
2,2-Dichloropropane	ND	0.0345		mg/Kg-dry	1	9/24/2015 6:14:00 AM
cis-1,2-Dichloroethene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Chloroform	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,1-Dichloropropene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Carbon tetrachloride	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2-Dichloroethane (EDC)	ND	0.0207		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Benzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Trichloroethene (TCE)	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2-Dichloropropane	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Bromodichloromethane	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Dibromomethane	ND	0.0276		mg/Kg-dry	1	9/24/2015 6:14:00 AM
cis-1,3-Dichloropropene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Toluene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
trans-1,3-Dichloropropylene	ND	0.0207		mg/Kg-dry	1	9/24/2015 6:14:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509300-003

Matrix: Soil

Client Sample ID: GP-14-15:3.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

1,1,2-Trichloroethane	ND	0.0207		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,3-Dichloropropane	ND	0.0345		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Tetrachloroethene (PCE)	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Dibromochloromethane	ND	0.0207		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2-Dibromoethane (EDB)	ND	0.00345		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Chlorobenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0207		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Ethylbenzene	ND	0.0207		mg/Kg-dry	1	9/24/2015 6:14:00 AM
m,p-Xylene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
o-Xylene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Styrene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Isopropylbenzene	ND	0.0553		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Bromoform	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
n-Propylbenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Bromobenzene	ND	0.0207		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,3,5-Trimethylbenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
2-Chlorotoluene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
4-Chlorotoluene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
tert-Butylbenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2,3-Trichloropropane	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2,4-Trichlorobenzene	ND	0.0345		mg/Kg-dry	1	9/24/2015 6:14:00 AM
sec-Butylbenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
4-Isopropyltoluene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,3-Dichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,4-Dichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
n-Butylbenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2-Dichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2-Dibromo-3-chloropropane	ND	0.345		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2,4-Trimethylbenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Hexachlorobutadiene	ND	0.0691		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Naphthalene	ND	0.0207		mg/Kg-dry	1	9/24/2015 6:14:00 AM
1,2,3-Trichlorobenzene	ND	0.0138		mg/Kg-dry	1	9/24/2015 6:14:00 AM
Surr: Dibromofluoromethane	93.6	56.5-129		%REC	1	9/24/2015 6:14:00 AM
Surr: Toluene-d8	97.9	64.3-131		%REC	1	9/24/2015 6:14:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.7	63.1-141		%REC	1	9/24/2015 6:14:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:40:00 AM

Project: Pacific Park

Lab ID: 1509300-003

Matrix: Soil

Client Sample ID: GP-14-15:3.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.284		mg/Kg-dry	1	9/24/2015 4:41:07 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	2.92	0.0933		mg/Kg-dry	1	9/22/2015 6:55:22 PM
Barium	35.5	0.467		mg/Kg-dry	1	9/22/2015 6:55:22 PM
Cadmium	0.188	0.187		mg/Kg-dry	1	9/22/2015 6:55:22 PM
Chromium	13.3	0.0933		mg/Kg-dry	1	9/22/2015 6:55:22 PM
Lead	20.0	0.187		mg/Kg-dry	1	9/22/2015 6:55:22 PM
Selenium	0.955	0.467		mg/Kg-dry	1	9/22/2015 6:55:22 PM
Silver	ND	0.0933		mg/Kg-dry	1	9/22/2015 6:55:22 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	13.6			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:50:00 AM

Project: Pacific Park

Lab ID: 1509300-004

Matrix: Soil

Client Sample ID: GP-14-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11938

Analyst: MD

Dicamba	ND	64.4		µg/Kg-dry	1	10/1/2015 4:12:00 AM
2,4-D	ND	55.2		µg/Kg-dry	1	10/1/2015 4:12:00 AM
2,4-DP	ND	46.0		µg/Kg-dry	1	10/1/2015 4:12:00 AM
2,4,5-TP (Silvex)	ND	36.8		µg/Kg-dry	1	10/1/2015 4:12:00 AM
2,4,5-T	ND	92.0		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Dinoseb	ND	55.2		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Dalapon	ND	368		µg/Kg-dry	1	10/1/2015 4:12:00 AM
2,4-DB	ND	46.0		µg/Kg-dry	1	10/1/2015 4:12:00 AM
MCPP	ND	8,100		µg/Kg-dry	1	10/1/2015 4:12:00 AM
MCPA	ND	515		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Picloram	ND	92.0		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Bentazon	ND	64.4		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Chloramben	ND	36.8		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Acifluorfen	ND	147		µg/Kg-dry	1	10/1/2015 4:12:00 AM
3,5-Dichlorobenzoic acid	ND	73.6		µg/Kg-dry	1	10/1/2015 4:12:00 AM
4-Nitrophenol	ND	55.2		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Dacthal (DCPA)	ND	55.2		µg/Kg-dry	1	10/1/2015 4:12:00 AM
Surr: 2,4-Dichlorophenylacetic acid	117	20.1-168		%REC	1	10/1/2015 4:12:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Alpha BHC	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Beta BHC	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Gamma BHC (Lindane)	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Delta BHC	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Heptachlor	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Aldrin	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Heptachlor epoxide	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
gamma-Chlordane	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Endosulfan I	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
alpha-Chlordane	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Dieldrin	ND	0.0170		mg/Kg-dry	1	9/24/2015 4:05:00 AM
4,4'-DDE	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Endrin	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Endosulfan II	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM
4,4'-DDD	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Endrin aldehyde	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Endosulfan sulfate	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:50:00 AM

Project: Pacific Park

Lab ID: 1509300-004

Matrix: Soil

Client Sample ID: GP-14-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

4,4'-DDT	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Endrin ketone	ND	0.0340		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Methoxychlor	ND	0.0850		mg/Kg-dry	1	9/24/2015 4:05:00 AM
Surr: Decachlorobiphenyl	70.8	26.5-158		%REC	1	9/24/2015 4:05:00 AM
Surr: Tetrachloro-m-xylene	80.7	11-150		%REC	1	9/24/2015 4:05:00 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11919

Analyst: AK

Diesel (Fuel Oil)	ND	34.4		mg/Kg-dry	1	9/23/2015 8:30:00 PM
Heavy Oil	ND	85.9		mg/Kg-dry	1	9/23/2015 8:30:00 PM
Surr: 2-Fluorobiphenyl	101	50-150		%REC	1	9/23/2015 8:30:00 PM
Surr: o-Terphenyl	102	50-150		%REC	1	9/23/2015 8:30:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Phenol	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Bis(2-chloroethyl) ether	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2-Chlorophenol	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
1,3-Dichlorobenzene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
1,4-Dichlorobenzene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
1,2-Dichlorobenzene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Benzyl alcohol	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2-Methylphenol (o-cresol)	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Hexachloroethane	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
N-Nitrosodi-n-propylamine	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Nitrobenzene	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Isophorone	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
4-Methylphenol (p-cresol)	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2-Nitrophenol	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2,4-Dimethylphenol	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Bis(2-chloroethoxy)methane	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2,4-Dichlorophenol	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
1,2,4-Trichlorobenzene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Naphthalene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
4-Chloroaniline	ND	910		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Hexachlorobutadiene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
4-Chloro-3-methylphenol	ND	910		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2-Methylnaphthalene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
1-Methylnaphthalene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:50:00 AM

Project: Pacific Park

Lab ID: 1509300-004

Matrix: Soil

Client Sample ID: GP-14-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Hexachlorocyclopentadiene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2,4,6-Trichlorophenol	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2,4,5-Trichlorophenol	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2-Chloronaphthalene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2-Nitroaniline	ND	910		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Acenaphthene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Dimethylphthalate	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2,6-Dinitrotoluene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Acenaphthylene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2,4-Dinitrophenol	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Dibenzofuran	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
2,4-Dinitrotoluene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
4-Nitrophenol	ND	910		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Fluorene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
4-Chlorophenyl phenyl ether	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Diethylphthalate	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
4,6-Dinitro-2-methylphenol	ND	364		µg/Kg-dry	1	9/25/2015 3:48:00 PM
4-Bromophenyl phenyl ether	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Hexachlorobenzene	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Pentachlorophenol	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Phenanthrene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Anthracene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Carbazole	ND	910		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Di-n-butylphthalate	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Fluoranthene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Pyrene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Butyl Benzylphthalate	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
bis(2-Ethylhexyl)adipate	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Benz (a) anthracene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Chrysene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
bis (2-Ethylhexyl) phthalate	245	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Di-n-octyl phthalate	ND	182		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Benzo (b) fluoranthene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Benzo (k) fluoranthene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Benzo (a) pyrene	639	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Indeno (1,2,3-cd) pyrene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Dibenz (a,h) anthracene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Benzo (g,h,i) perylene	ND	146		µg/Kg-dry	1	9/25/2015 3:48:00 PM
Surr: 2,4,6-Tribromophenol	58.1	11.1-127		%REC	1	9/25/2015 3:48:00 PM



Analytical Report

WO#: 1509300

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Client: Shannon & Wilson

Collection Date: 9/21/2015 9:50:00 AM

Project: Pacific Park

Lab ID: 1509300-004

Matrix: Soil

Client Sample ID: GP-14-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11937		Analyst: NG
Surr: 2-Fluorobiphenyl	59.5	16.1-150		%REC	1	9/25/2015 3:48:00 PM
Surr: Nitrobenzene-d5	60.0	10-133		%REC	1	9/25/2015 3:48:00 PM
Surr: Phenol-d6	62.1	11.6-133		%REC	1	9/25/2015 3:48:00 PM
Surr: p-Terphenyl	79.8	21.8-150		%REC	1	9/25/2015 3:48:00 PM
Gasoline by NWTPH-Gx				Batch ID: 11930		Analyst: BC
Gasoline	ND	6.22		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Surr: Toluene-d8	98.9	65-135		%REC	1	9/24/2015 6:43:00 AM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/24/2015 6:43:00 AM
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11930		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0747		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Chloromethane	ND	0.0747		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Vinyl chloride	ND	0.00249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Bromomethane	ND	0.112		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0622		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Chloroethane	ND	0.0747		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,1-Dichloroethene	ND	0.0622		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Methylene chloride	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
trans-1,2-Dichloroethene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0622		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,1-Dichloroethane	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
2,2-Dichloropropane	ND	0.0622		mg/Kg-dry	1	9/24/2015 6:43:00 AM
cis-1,2-Dichloroethene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Chloroform	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,1-Dichloropropene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Carbon tetrachloride	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2-Dichloroethane (EDC)	ND	0.0373		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Benzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Trichloroethene (TCE)	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2-Dichloropropane	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Bromodichloromethane	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Dibromomethane	ND	0.0498		mg/Kg-dry	1	9/24/2015 6:43:00 AM
cis-1,3-Dichloropropene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Toluene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
trans-1,3-Dichloropropylene	ND	0.0373		mg/Kg-dry	1	9/24/2015 6:43:00 AM



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Client: Shannon & Wilson

Collection Date: 9/21/2015 9:50:00 AM

Project: Pacific Park

Lab ID: 1509300-004

Matrix: Soil

Client Sample ID: GP-14-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11930		Analyst: BC
1,1,2-Trichloroethane	ND	0.0373		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,3-Dichloropropane	ND	0.0622		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Tetrachloroethene (PCE)	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Dibromochloromethane	ND	0.0373		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2-Dibromoethane (EDB)	ND	0.00622		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Chlorobenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0373		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Ethylbenzene	ND	0.0373		mg/Kg-dry	1	9/24/2015 6:43:00 AM
m,p-Xylene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
o-Xylene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Styrene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Isopropylbenzene	ND	0.0996		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Bromoform	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
n-Propylbenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Bromobenzene	ND	0.0373		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,3,5-Trimethylbenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
2-Chlorotoluene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
4-Chlorotoluene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
tert-Butylbenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2,3-Trichloropropane	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2,4-Trichlorobenzene	ND	0.0622		mg/Kg-dry	1	9/24/2015 6:43:00 AM
sec-Butylbenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
4-Isopropyltoluene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,3-Dichlorobenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,4-Dichlorobenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
n-Butylbenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2-Dichlorobenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2-Dibromo-3-chloropropane	ND	0.622		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2,4-Trimethylbenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Hexachlorobutadiene	ND	0.124		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Naphthalene	ND	0.0373		mg/Kg-dry	1	9/24/2015 6:43:00 AM
1,2,3-Trichlorobenzene	ND	0.0249		mg/Kg-dry	1	9/24/2015 6:43:00 AM
Surr: Dibromofluoromethane	94.3	56.5-129		%REC	1	9/24/2015 6:43:00 AM
Surr: Toluene-d8	99.1	64.3-131		%REC	1	9/24/2015 6:43:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/24/2015 6:43:00 AM



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Project: Pacific Park

Lab ID: 1509300-004

Matrix: Soil

Client Sample ID: GP-14-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.464		mg/Kg-dry	1	9/24/2015 4:42:43 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	7.72	0.151		mg/Kg-dry	1	9/22/2015 6:58:53 PM
Barium	95.1	0.755		mg/Kg-dry	1	9/22/2015 6:58:53 PM
Cadmium	ND	0.302		mg/Kg-dry	1	9/22/2015 6:58:53 PM
Chromium	23.4	0.151		mg/Kg-dry	1	9/22/2015 6:58:53 PM
Lead	5.22	0.302		mg/Kg-dry	1	9/22/2015 6:58:53 PM
Selenium	3.21	0.755		mg/Kg-dry	1	9/22/2015 6:58:53 PM
Silver	ND	0.151		mg/Kg-dry	1	9/22/2015 6:58:53 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	46.1			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509300-005

Matrix: Soil

Client Sample ID: GP-14-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Herbicides by EPA Method 8151A			Batch ID: 11938		Analyst: MD	
Dicamba	ND	49.7		µg/Kg-dry	1	10/5/2015 11:16:00 AM
2,4-D	ND	42.6		µg/Kg-dry	1	10/5/2015 11:16:00 AM
2,4-DP	ND	35.5		µg/Kg-dry	1	10/5/2015 11:16:00 AM
2,4,5-TP (Silvex)	ND	28.4		µg/Kg-dry	1	10/5/2015 11:16:00 AM
2,4,5-T	ND	71.0		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Dinoseb	ND	42.6		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Dalapon	ND	284		µg/Kg-dry	1	10/5/2015 11:16:00 AM
2,4-DB	ND	35.5		µg/Kg-dry	1	10/5/2015 11:16:00 AM
MCPP	ND	6,250		µg/Kg-dry	1	10/5/2015 11:16:00 AM
MCPA	ND	3,980		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Picloram	ND	71.0		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Bentazon	ND	49.7		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Chloramben	ND	28.4		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Acifluorfen	ND	114		µg/Kg-dry	1	10/5/2015 11:16:00 AM
3,5-Dichlorobenzoic acid	ND	56.8		µg/Kg-dry	1	10/5/2015 11:16:00 AM
4-Nitrophenol	ND	42.6		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Dacthal (DCPA)	ND	42.6		µg/Kg-dry	1	10/5/2015 11:16:00 AM
Surr: 2,4-Dichlorophenylacetic acid	92.5	20.1-168		%REC	1	10/5/2015 11:16:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11935

Analyst: MD

Toxaphene	ND	0.133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Alpha BHC	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Beta BHC	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Gamma BHC (Lindane)	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Delta BHC	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Heptachlor	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Aldrin	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Heptachlor epoxide	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
gamma-Chlordane	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Endosulfan I	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
alpha-Chlordane	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Dieldrin	ND	0.0133		mg/Kg-dry	1	9/24/2015 4:16:00 AM
4,4'-DDE	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Endrin	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Endosulfan II	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM
4,4'-DDD	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Endrin aldehyde	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Endosulfan sulfate	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509300-005

Matrix: Soil

Client Sample ID: GP-14-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11935		Analyst: MD
4,4'-DDT	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Endrin ketone	ND	0.0266		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Methoxychlor	ND	0.0664		mg/Kg-dry	1	9/24/2015 4:16:00 AM
Surr: Decachlorobiphenyl	73.7	26.5-158		%REC	1	9/24/2015 4:16:00 AM
Surr: Tetrachloro-m-xylene	77.7	11-150		%REC	1	9/24/2015 4:16:00 AM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	26.6		mg/Kg-dry	1	9/23/2015 10:09:00 PM
Heavy Oil	ND	66.4		mg/Kg-dry	1	9/23/2015 10:09:00 PM
Surr: 2-Fluorobiphenyl	88.9	50-150		%REC	1	9/23/2015 10:09:00 PM
Surr: o-Terphenyl	90.6	50-150		%REC	1	9/23/2015 10:09:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11937		Analyst: NG
Phenol	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Bis(2-chloroethyl) ether	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2-Chlorophenol	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
1,3-Dichlorobenzene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
1,4-Dichlorobenzene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
1,2-Dichlorobenzene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Benzyl alcohol	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2-Methylphenol (o-cresol)	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Hexachloroethane	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
N-Nitrosodi-n-propylamine	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Nitrobenzene	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Isophorone	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4-Methylphenol (p-cresol)	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2-Nitrophenol	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2,4-Dimethylphenol	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Bis(2-chloroethoxy)methane	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2,4-Dichlorophenol	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
1,2,4-Trichlorobenzene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Naphthalene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4-Chloroaniline	ND	711		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Hexachlorobutadiene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4-Chloro-3-methylphenol	ND	711		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2-Methylnaphthalene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
1-Methylnaphthalene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509300-005

Matrix: Soil

Client Sample ID: GP-14-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Hexachlorocyclopentadiene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2,4,6-Trichlorophenol	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2,4,5-Trichlorophenol	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2-Chloronaphthalene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2-Nitroaniline	ND	711		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Acenaphthene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Dimethylphthalate	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2,6-Dinitrotoluene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Acenaphthylene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2,4-Dinitrophenol	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Dibenzofuran	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
2,4-Dinitrotoluene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4-Nitrophenol	ND	711		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Fluorene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4-Chlorophenyl phenyl ether	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Diethylphthalate	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4,6-Dinitro-2-methylphenol	ND	284		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4-Bromophenyl phenyl ether	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Hexachlorobenzene	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Pentachlorophenol	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Phenanthrene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Anthracene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Carbazole	ND	711		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Di-n-butylphthalate	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Fluoranthene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Pyrene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Butyl Benzylphthalate	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
bis(2-Ethylhexyl)adipate	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Benz (a) anthracene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Chrysene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
bis (2-Ethylhexyl) phthalate	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Di-n-octyl phthalate	ND	142		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Benzo (b) fluoranthene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Benzo (k) fluoranthene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Benzo (a) pyrene	535	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Indeno (1,2,3-cd) pyrene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Dibenz (a,h) anthracene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Benzo (g,h,i) perylene	ND	114		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Surr: 2,4,6-Tribromophenol	46.6	11.1-127		%REC	1	9/25/2015 4:10:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509300-005

Matrix: Soil

Client Sample ID: GP-14-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11937

Analyst: NG

Surr: 2-Fluorobiphenyl	25.7	16.1-150	%REC	1	9/25/2015 4:10:00 PM
Surr: Nitrobenzene-d5	18.0	10-133	%REC	1	9/25/2015 4:10:00 PM
Surr: Phenol-d6	35.4	11.6-133	%REC	1	9/25/2015 4:10:00 PM
Surr: p-Terphenyl	60.2	21.8-150	%REC	1	9/25/2015 4:10:00 PM

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	4.00	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Surr: Toluene-d8	101	65-135	%REC	1	9/24/2015 7:11:00 AM
Surr: 4-Bromofluorobenzene	99.7	65-135	%REC	1	9/24/2015 7:11:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0480	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Chloromethane	ND	0.0480	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Vinyl chloride	ND	0.00160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Bromomethane	ND	0.0720	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0400	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Chloroethane	ND	0.0480	mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,1-Dichloroethene	ND	0.0400	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Methylene chloride	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
trans-1,2-Dichloroethene	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0400	mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,1-Dichloroethane	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
2,2-Dichloropropane	ND	0.0400	mg/Kg-dry	1	9/24/2015 7:11:00 AM
cis-1,2-Dichloroethene	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Chloroform	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,1-Dichloropropene	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Carbon tetrachloride	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2-Dichloroethane (EDC)	ND	0.0240	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Benzene	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Trichloroethene (TCE)	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2-Dichloropropane	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Bromodichloromethane	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Dibromomethane	ND	0.0320	mg/Kg-dry	1	9/24/2015 7:11:00 AM
cis-1,3-Dichloropropene	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
Toluene	ND	0.0160	mg/Kg-dry	1	9/24/2015 7:11:00 AM
trans-1,3-Dichloropropylene	ND	0.0240	mg/Kg-dry	1	9/24/2015 7:11:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509300-005

Matrix: Soil

Client Sample ID: GP-14-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

1,1,2-Trichloroethane	ND	0.0240		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,3-Dichloropropane	ND	0.0400		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Tetrachloroethene (PCE)	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Dibromochloromethane	ND	0.0240		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2-Dibromoethane (EDB)	ND	0.00400		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Chlorobenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0240		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Ethylbenzene	ND	0.0240		mg/Kg-dry	1	9/24/2015 7:11:00 AM
m,p-Xylene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
o-Xylene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Styrene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Isopropylbenzene	ND	0.0640		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Bromoform	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
n-Propylbenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Bromobenzene	ND	0.0240		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,3,5-Trimethylbenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
2-Chlorotoluene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
4-Chlorotoluene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
tert-Butylbenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2,3-Trichloropropane	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2,4-Trichlorobenzene	ND	0.0400		mg/Kg-dry	1	9/24/2015 7:11:00 AM
sec-Butylbenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
4-Isopropyltoluene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,3-Dichlorobenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,4-Dichlorobenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
n-Butylbenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2-Dichlorobenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2-Dibromo-3-chloropropane	ND	0.400		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2,4-Trimethylbenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Hexachlorobutadiene	ND	0.0800		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Naphthalene	ND	0.0240		mg/Kg-dry	1	9/24/2015 7:11:00 AM
1,2,3-Trichlorobenzene	ND	0.0160		mg/Kg-dry	1	9/24/2015 7:11:00 AM
Surr: Dibromofluoromethane	96.4	56.5-129		%REC	1	9/24/2015 7:11:00 AM
Surr: Toluene-d8	96.5	64.3-131		%REC	1	9/24/2015 7:11:00 AM
Surr: 1-Bromo-4-fluorobenzene	96.1	63.1-141		%REC	1	9/24/2015 7:11:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:10:00 AM

Project: Pacific Park

Lab ID: 1509300-005

Matrix: Soil

Client Sample ID: GP-14-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.314		mg/Kg-dry	1	9/24/2015 4:44:25 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	4.61	0.117		mg/Kg-dry	1	9/22/2015 7:02:24 PM
Barium	103	0.587		mg/Kg-dry	1	9/22/2015 7:02:24 PM
Cadmium	ND	0.235		mg/Kg-dry	1	9/22/2015 7:02:24 PM
Chromium	32.4	0.117		mg/Kg-dry	1	9/22/2015 7:02:24 PM
Lead	6.18	0.235		mg/Kg-dry	1	9/22/2015 7:02:24 PM
Selenium	2.50	0.587		mg/Kg-dry	1	9/22/2015 7:02:24 PM
Silver	ND	0.117		mg/Kg-dry	1	9/22/2015 7:02:24 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	30.2			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:25:00 AM

Project: Pacific Park

Lab ID: 1509300-006

Matrix: Soil

Client Sample ID: GP-15-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11938		Analyst: MD	
Dicamba	ND	50.8		µg/Kg-dry	1	10/5/2015 11:33:00 AM
2,4-D	ND	43.5		µg/Kg-dry	1	10/5/2015 11:33:00 AM
2,4-DP	ND	36.3		µg/Kg-dry	1	10/5/2015 11:33:00 AM
2,4,5-TP (Silvex)	ND	29.0		µg/Kg-dry	1	10/5/2015 11:33:00 AM
2,4,5-T	ND	72.5		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Dinoseb	ND	43.5		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Dalapon	ND	290		µg/Kg-dry	1	10/5/2015 11:33:00 AM
2,4-DB	ND	36.3		µg/Kg-dry	1	10/5/2015 11:33:00 AM
MCPP	ND	6,380		µg/Kg-dry	1	10/5/2015 11:33:00 AM
MCPA	ND	4,060		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Picloram	ND	72.5		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Bentazon	ND	50.8		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Chloramben	ND	29.0		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Acifluorfen	ND	116		µg/Kg-dry	1	10/5/2015 11:33:00 AM
3,5-Dichlorobenzoic acid	ND	58.0		µg/Kg-dry	1	10/5/2015 11:33:00 AM
4-Nitrophenol	ND	43.5		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Dacthal (DCPA)	ND	43.5		µg/Kg-dry	1	10/5/2015 11:33:00 AM
Surr: 2,4-Dichlorophenylacetic acid	93.9	20.1-168		%REC	1	10/5/2015 11:33:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Alpha BHC	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Beta BHC	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Gamma BHC (Lindane)	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Delta BHC	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Heptachlor	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Aldrin	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Heptachlor epoxide	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
gamma-Chlordane	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Endosulfan I	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
alpha-Chlordane	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Dieldrin	ND	0.0137		mg/Kg-dry	1	9/25/2015 3:48:00 PM
4,4'-DDE	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Endrin	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Endosulfan II	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM
4,4'-DDD	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Endrin aldehyde	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Endosulfan sulfate	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:25:00 AM

Project: Pacific Park

Lab ID: 1509300-006

Matrix: Soil

Client Sample ID: GP-15-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Endrin ketone	ND	0.0274		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Methoxychlor	ND	0.0686		mg/Kg-dry	1	9/25/2015 3:48:00 PM
Surr: Decachlorobiphenyl	106	26.5-158		%REC	1	9/25/2015 3:48:00 PM
Surr: Tetrachloro-m-xylene	52.1	11-150		%REC	1	9/25/2015 3:48:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	25.4		mg/Kg-dry	1	9/24/2015 12:24:00 PM
Heavy Oil	ND	63.5		mg/Kg-dry	1	9/24/2015 12:24:00 PM
Surr: 2-Fluorobiphenyl	128	50-150		%REC	1	9/24/2015 12:24:00 PM
Surr: o-Terphenyl	128	50-150		%REC	1	9/24/2015 12:24:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Bis(2-chloroethyl) ether	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2-Chlorophenol	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
1,3-Dichlorobenzene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
1,4-Dichlorobenzene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
1,2-Dichlorobenzene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Benzyl alcohol	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2-Methylphenol (o-cresol)	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Hexachloroethane	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
N-Nitrosodi-n-propylamine	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Nitrobenzene	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Isophorone	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
4-Methylphenol (p-cresol)	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2-Nitrophenol	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2,4-Dimethylphenol	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Bis(2-chloroethoxy)methane	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2,4-Dichlorophenol	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
1,2,4-Trichlorobenzene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Naphthalene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
4-Chloroaniline	ND	732		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Hexachlorobutadiene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
4-Chloro-3-methylphenol	ND	732		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2-Methylnaphthalene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
1-Methylnaphthalene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:25:00 AM

Project: Pacific Park

Lab ID: 1509300-006

Matrix: Soil

Client Sample ID: GP-15-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	146	*	µg/Kg-dry	1	9/29/2015 9:01:00 PM
2,4,6-Trichlorophenol	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2,4,5-Trichlorophenol	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2-Chloronaphthalene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2-Nitroaniline	ND	732		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Acenaphthene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Dimethylphthalate	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2,6-Dinitrotoluene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Acenaphthylene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2,4-Dinitrophenol	ND	293	*	µg/Kg-dry	1	9/29/2015 9:01:00 PM
Dibenzofuran	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
2,4-Dinitrotoluene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
4-Nitrophenol	ND	732		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Fluorene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
4-Chlorophenyl phenyl ether	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Diethylphthalate	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
4,6-Dinitro-2-methylphenol	ND	293		µg/Kg-dry	1	9/29/2015 9:01:00 PM
4-Bromophenyl phenyl ether	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Hexachlorobenzene	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Pentachlorophenol	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Phenanthrene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Anthracene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Carbazole	ND	732		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Di-n-butylphthalate	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Fluoranthene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Pyrene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Butyl Benzylphthalate	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
bis(2-Ethylhexyl)adipate	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Benz (a) anthracene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Chrysene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
bis (2-Ethylhexyl) phthalate	147	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Di-n-octyl phthalate	ND	146		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Benzo (b) fluoranthene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Benzo (k) fluoranthene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Benzo (a) pyrene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Indeno (1,2,3-cd) pyrene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Dibenz (a,h) anthracene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Benzo (g,h,i) perylene	ND	117		µg/Kg-dry	1	9/29/2015 9:01:00 PM
Surr: 2,4,6-Tribromophenol	71.1	11.1-127		%REC	1	9/29/2015 9:01:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:25:00 AM

Project: Pacific Park

Lab ID: 1509300-006

Matrix: Soil

Client Sample ID: GP-15-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	73.5	16.1-150	%REC	1	9/29/2015 9:01:00 PM
Surr: Nitrobenzene-d5	51.5	13.1-124	%REC	1	9/29/2015 9:01:00 PM
Surr: Phenol-d6	46.4	11.6-133	%REC	1	9/29/2015 9:01:00 PM
Surr: p-Terphenyl	84.5	21.8-150	%REC	1	9/29/2015 9:01:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	4.43	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Surr: Toluene-d8	97.7	65-135	%REC	1	9/24/2015 7:40:00 AM
Surr: 4-Bromofluorobenzene	105	65-135	%REC	1	9/24/2015 7:40:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0531	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Chloromethane	ND	0.0531	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Vinyl chloride	ND	0.00177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Bromomethane	ND	0.0797	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0443	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Chloroethane	ND	0.0531	mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,1-Dichloroethene	ND	0.0443	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Methylene chloride	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
trans-1,2-Dichloroethene	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0443	mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,1-Dichloroethane	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
2,2-Dichloropropane	ND	0.0443	mg/Kg-dry	1	9/24/2015 7:40:00 AM
cis-1,2-Dichloroethene	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Chloroform	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,1-Dichloropropene	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Carbon tetrachloride	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2-Dichloroethane (EDC)	ND	0.0266	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Benzene	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Trichloroethene (TCE)	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2-Dichloropropane	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Bromodichloromethane	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM
Dibromomethane	ND	0.0354	mg/Kg-dry	1	9/24/2015 7:40:00 AM
cis-1,3-Dichloropropene	ND	0.0177	mg/Kg-dry	1	9/24/2015 7:40:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:25:00 AM

Project: Pacific Park

Lab ID: 1509300-006

Matrix: Soil

Client Sample ID: GP-15-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11930		Analyst: BC
Toluene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
trans-1,3-Dichloropropylene	ND	0.0266		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,1,2-Trichloroethane	ND	0.0266		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,3-Dichloropropane	ND	0.0443		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Tetrachloroethene (PCE)	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Dibromochloromethane	ND	0.0266		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2-Dibromoethane (EDB)	ND	0.00443		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Chlorobenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0266		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Ethylbenzene	ND	0.0266		mg/Kg-dry	1	9/24/2015 7:40:00 AM
m,p-Xylene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
o-Xylene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Styrene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Isopropylbenzene	ND	0.0708		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Bromoform	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
n-Propylbenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Bromobenzene	ND	0.0266		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,3,5-Trimethylbenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
2-Chlorotoluene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
4-Chlorotoluene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
tert-Butylbenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2,3-Trichloropropane	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2,4-Trichlorobenzene	ND	0.0443		mg/Kg-dry	1	9/24/2015 7:40:00 AM
sec-Butylbenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
4-Isopropyltoluene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,3-Dichlorobenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,4-Dichlorobenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
n-Butylbenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2-Dichlorobenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2-Dibromo-3-chloropropane	ND	0.443		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2,4-Trimethylbenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Hexachlorobutadiene	ND	0.0885		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Naphthalene	ND	0.0266		mg/Kg-dry	1	9/24/2015 7:40:00 AM
1,2,3-Trichlorobenzene	ND	0.0177		mg/Kg-dry	1	9/24/2015 7:40:00 AM
Surr: Dibromofluoromethane	93.1	56.5-129		%REC	1	9/24/2015 7:40:00 AM
Surr: Toluene-d8	96.7	64.3-131		%REC	1	9/24/2015 7:40:00 AM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/24/2015 7:40:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:25:00 AM

Project: Pacific Park

Lab ID: 1509300-006

Matrix: Soil

Client Sample ID: GP-15-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.329		mg/Kg-dry	1	9/24/2015 4:49:17 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	2.51	0.121		mg/Kg-dry	1	9/22/2015 7:05:55 PM
Barium	42.1	0.605		mg/Kg-dry	1	9/22/2015 7:05:55 PM
Cadmium	0.393	0.242		mg/Kg-dry	1	9/22/2015 7:05:55 PM
Chromium	18.4	0.121		mg/Kg-dry	1	9/22/2015 7:05:55 PM
Lead	14.6	0.242		mg/Kg-dry	1	9/22/2015 7:05:55 PM
Selenium	0.656	0.605		mg/Kg-dry	1	9/22/2015 7:05:55 PM
Silver	ND	0.121		mg/Kg-dry	1	9/22/2015 7:05:55 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	32.2			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:30:00 AM

Project: Pacific Park

Lab ID: 1509300-007

Matrix: Soil

Client Sample ID: GP-15-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11938		Analyst: MD	
Dicamba	ND	46.7		µg/Kg-dry	1	10/5/2015 11:50:00 AM
2,4-D	ND	40.0		µg/Kg-dry	1	10/5/2015 11:50:00 AM
2,4-DP	ND	33.3		µg/Kg-dry	1	10/5/2015 11:50:00 AM
2,4,5-TP (Silvex)	ND	26.7		µg/Kg-dry	1	10/5/2015 11:50:00 AM
2,4,5-T	ND	66.7		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Dinoseb	ND	40.0		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Dalapon	ND	267		µg/Kg-dry	1	10/5/2015 11:50:00 AM
2,4-DB	ND	33.3		µg/Kg-dry	1	10/5/2015 11:50:00 AM
MCPP	ND	5,870		µg/Kg-dry	1	10/5/2015 11:50:00 AM
MCPA	ND	3,730		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Picloram	ND	66.7		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Bentazon	ND	46.7		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Chloramben	ND	26.7		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Acifluorfen	ND	107		µg/Kg-dry	1	10/5/2015 11:50:00 AM
3,5-Dichlorobenzoic acid	ND	53.3		µg/Kg-dry	1	10/5/2015 11:50:00 AM
4-Nitrophenol	ND	40.0		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Dacthal (DCPA)	ND	40.0		µg/Kg-dry	1	10/5/2015 11:50:00 AM
Surr: 2,4-Dichlorophenylacetic acid	98.4	20.1-168		%REC	1	10/5/2015 11:50:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Alpha BHC	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Beta BHC	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Gamma BHC (Lindane)	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Delta BHC	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Heptachlor	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Aldrin	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Heptachlor epoxide	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
gamma-Chlordane	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Endosulfan I	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
alpha-Chlordane	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Dieldrin	ND	0.0124		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4,4'-DDE	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Endrin	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Endosulfan II	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM
4,4'-DDD	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Endrin aldehyde	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Endosulfan sulfate	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:30:00 AM

Project: Pacific Park

Lab ID: 1509300-007

Matrix: Soil

Client Sample ID: GP-15-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Endrin ketone	ND	0.0249		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Methoxychlor	ND	0.0622		µg/Kg-dry	1	9/25/2015 4:10:00 PM
Surr: Decachlorobiphenyl	132	26.5-158		%REC	1	9/25/2015 4:10:00 PM
Surr: Tetrachloro-m-xylene	65.2	11-150		%REC	1	9/25/2015 4:10:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	26.0		mg/Kg-dry	1	9/23/2015 11:14:00 PM
Heavy Oil	ND	65.0		mg/Kg-dry	1	9/23/2015 11:14:00 PM
Surr: 2-Fluorobiphenyl	109	50-150		%REC	1	9/23/2015 11:14:00 PM
Surr: o-Terphenyl	110	50-150		%REC	1	9/23/2015 11:14:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Bis(2-chloroethyl) ether	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2-Chlorophenol	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
1,3-Dichlorobenzene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
1,4-Dichlorobenzene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
1,2-Dichlorobenzene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Benzyl alcohol	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2-Methylphenol (o-cresol)	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Hexachloroethane	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
N-Nitrosodi-n-propylamine	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Nitrobenzene	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Isophorone	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4-Methylphenol (p-cresol)	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2-Nitrophenol	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-Dimethylphenol	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Bis(2-chloroethoxy)methane	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-Dichlorophenol	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
1,2,4-Trichlorobenzene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Naphthalene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4-Chloroaniline	ND	672		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Hexachlorobutadiene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4-Chloro-3-methylphenol	ND	672		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2-Methylnaphthalene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
1-Methylnaphthalene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:30:00 AM

Project: Pacific Park

Lab ID: 1509300-007

Matrix: Soil

Client Sample ID: GP-15-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	134	*	µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4,6-Trichlorophenol	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4,5-Trichlorophenol	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2-Chloronaphthalene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2-Nitroaniline	ND	672		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Acenaphthene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Dimethylphthalate	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,6-Dinitrotoluene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Acenaphthylene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-Dinitrophenol	ND	269	*	µg/Kg-dry	1	9/29/2015 9:45:00 PM
Dibenzofuran	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
2,4-Dinitrotoluene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4-Nitrophenol	ND	672		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Fluorene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4-Chlorophenyl phenyl ether	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Diethylphthalate	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4,6-Dinitro-2-methylphenol	ND	269		µg/Kg-dry	1	9/29/2015 9:45:00 PM
4-Bromophenyl phenyl ether	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Hexachlorobenzene	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Pentachlorophenol	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Phenanthrene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Anthracene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Carbazole	ND	672		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Di-n-butylphthalate	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Fluoranthene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Pyrene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Butyl Benzylphthalate	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
bis(2-Ethylhexyl)adipate	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Benz (a) anthracene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Chrysene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
bis (2-Ethylhexyl) phthalate	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Di-n-octyl phthalate	ND	134		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Benzo (b) fluoranthene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Benzo (k) fluoranthene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Benzo (a) pyrene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Indeno (1,2,3-cd) pyrene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Dibenz (a,h) anthracene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Benzo (g,h,i) perylene	ND	108		µg/Kg-dry	1	9/29/2015 9:45:00 PM
Surr: 2,4,6-Tribromophenol	69.1	11.1-127		%REC	1	9/29/2015 9:45:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:30:00 AM

Project: Pacific Park

Lab ID: 1509300-007

Matrix: Soil

Client Sample ID: GP-15-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	52.5	16.1-150	%REC	1	9/29/2015 9:45:00 PM
Surr: Nitrobenzene-d5	33.0	13.1-124	%REC	1	9/29/2015 9:45:00 PM
Surr: Phenol-d6	46.0	11.6-133	%REC	1	9/29/2015 9:45:00 PM
Surr: p-Terphenyl	87.6	21.8-150	%REC	1	9/29/2015 9:45:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	3.66	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Surr: Toluene-d8	98.0	65-135	%REC	1	9/24/2015 8:09:00 AM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/24/2015 8:09:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0439	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Chloromethane	ND	0.0439	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Vinyl chloride	ND	0.00146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Bromomethane	ND	0.0659	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0366	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Chloroethane	ND	0.0439	mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,1-Dichloroethene	ND	0.0366	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Methylene chloride	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
trans-1,2-Dichloroethene	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0366	mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,1-Dichloroethane	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
2,2-Dichloropropane	ND	0.0366	mg/Kg-dry	1	9/24/2015 8:09:00 AM
cis-1,2-Dichloroethene	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Chloroform	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,1-Dichloropropene	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Carbon tetrachloride	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2-Dichloroethane (EDC)	ND	0.0220	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Benzene	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Trichloroethene (TCE)	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2-Dichloropropane	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Bromodichloromethane	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM
Dibromomethane	ND	0.0293	mg/Kg-dry	1	9/24/2015 8:09:00 AM
cis-1,3-Dichloropropene	ND	0.0146	mg/Kg-dry	1	9/24/2015 8:09:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:30:00 AM

Project: Pacific Park

Lab ID: 1509300-007

Matrix: Soil

Client Sample ID: GP-15-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Toluene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
trans-1,3-Dichloropropylene	ND	0.0220		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,1,2-Trichloroethane	ND	0.0220		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,3-Dichloropropane	ND	0.0366		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Tetrachloroethene (PCE)	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Dibromochloromethane	ND	0.0220		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2-Dibromoethane (EDB)	ND	0.00366		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Chlorobenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0220		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Ethylbenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 8:09:00 AM
m,p-Xylene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
o-Xylene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Styrene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Isopropylbenzene	ND	0.0586		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Bromoform	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
n-Propylbenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Bromobenzene	ND	0.0220		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,3,5-Trimethylbenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
2-Chlorotoluene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
4-Chlorotoluene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
tert-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2,3-Trichloropropane	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2,4-Trichlorobenzene	ND	0.0366		mg/Kg-dry	1	9/24/2015 8:09:00 AM
sec-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
4-Isopropyltoluene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,3-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,4-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
n-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2-Dibromo-3-chloropropane	ND	0.366		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2,4-Trimethylbenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Hexachlorobutadiene	ND	0.0732		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Naphthalene	ND	0.0220		mg/Kg-dry	1	9/24/2015 8:09:00 AM
1,2,3-Trichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/24/2015 8:09:00 AM
Surr: Dibromofluoromethane	93.6	56.5-129		%REC	1	9/24/2015 8:09:00 AM
Surr: Toluene-d8	96.4	64.3-131		%REC	1	9/24/2015 8:09:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/24/2015 8:09:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 10:30:00 AM

Project: Pacific Park

Lab ID: 1509300-007

Matrix: Soil

Client Sample ID: GP-15-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.295		mg/Kg-dry	1	9/24/2015 4:50:54 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	1.74	0.105		mg/Kg-dry	1	9/22/2015 7:09:27 PM
Barium	32.2	0.526		mg/Kg-dry	1	9/22/2015 7:09:27 PM
Cadmium	ND	0.211		mg/Kg-dry	1	9/22/2015 7:09:27 PM
Chromium	11.8	0.105		mg/Kg-dry	1	9/22/2015 7:09:27 PM
Lead	1.57	0.211		mg/Kg-dry	1	9/22/2015 7:09:27 PM
Selenium	0.832	0.526		mg/Kg-dry	1	9/22/2015 7:09:27 PM
Silver	ND	0.105		mg/Kg-dry	1	9/22/2015 7:09:27 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	26.9			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1509300-008

Matrix: Soil

Client Sample ID: GP-16-15:8.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11938			Analyst: MD
Dicamba	ND	57.3		µg/Kg-dry	1	10/5/2015 12:07:00 PM
2,4-D	ND	49.1		µg/Kg-dry	1	10/5/2015 12:07:00 PM
2,4-DP	ND	40.9		µg/Kg-dry	1	10/5/2015 12:07:00 PM
2,4,5-TP (Silvex)	ND	32.8		µg/Kg-dry	1	10/5/2015 12:07:00 PM
2,4,5-T	ND	81.9		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Dinoseb	ND	49.1		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Dalapon	ND	328		µg/Kg-dry	1	10/5/2015 12:07:00 PM
2,4-DB	ND	40.9		µg/Kg-dry	1	10/5/2015 12:07:00 PM
MCPP	ND	7,210		µg/Kg-dry	1	10/5/2015 12:07:00 PM
MCPA	ND	4,590		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Picloram	ND	81.9		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Bentazon	ND	57.3		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Chloramben	ND	32.8		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Acifluorfen	ND	131		µg/Kg-dry	1	10/5/2015 12:07:00 PM
3,5-Dichlorobenzoic acid	ND	65.5		µg/Kg-dry	1	10/5/2015 12:07:00 PM
4-Nitrophenol	ND	49.1		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Dacthal (DCPA)	ND	49.1		µg/Kg-dry	1	10/5/2015 12:07:00 PM
Surr: 2,4-Dichlorophenylacetic acid	96.8	20.1-168		%REC	1	10/5/2015 12:07:00 PM

Polychlorinated Biphenyls (PCB) by EPA 8082

Batch ID: 12180

Analyst: CM

Aroclor 1016	0.400	0.167		mg/Kg-dry	1	10/22/2015 6:17:00 PM
Aroclor 1221	ND	0.167		mg/Kg-dry	1	10/22/2015 6:17:00 PM
Aroclor 1232	ND	0.167		mg/Kg-dry	1	10/22/2015 6:17:00 PM
Aroclor 1242	ND	0.167		mg/Kg-dry	1	10/22/2015 6:17:00 PM
Aroclor 1248	ND	0.167		mg/Kg-dry	1	10/22/2015 6:17:00 PM
Aroclor 1254	ND	0.167		mg/Kg-dry	1	10/22/2015 6:17:00 PM
Aroclor 1260	ND	0.167		mg/Kg-dry	1	10/22/2015 6:17:00 PM
Aroclor 1262	ND	0.167		mg/Kg-dry	1	10/22/2015 6:17:00 PM
Aroclor 1268	ND	0.167		mg/Kg-dry	1	10/22/2015 6:17:00 PM
Total PCBs	0.415	0.167		mg/Kg-dry	1	10/22/2015 6:17:00 PM
Surr: Decachlorobiphenyl	49.8	41.2-143		%REC	1	10/22/2015 6:17:00 PM
Surr: Tetrachloro-m-xylene	53.7	26-140		%REC	1	10/22/2015 6:17:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Alpha BHC	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Beta BHC	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1509300-008

Matrix: Soil

Client Sample ID: GP-16-15:8.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
Gamma BHC (Lindane)	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Delta BHC	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Heptachlor	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Aldrin	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Heptachlor epoxide	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
gamma-Chlordane	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Endosulfan I	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
alpha-Chlordane	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Dieldrin	ND	0.0146		mg/Kg-dry	1	9/25/2015 4:32:00 PM
4,4'-DDE	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Endrin	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Endosulfan II	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM
4,4'-DDD	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Endrin aldehyde	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Endosulfan sulfate	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM
4,4'-DDT	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Endrin ketone	ND	0.0292		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Methoxychlor	ND	0.0729		mg/Kg-dry	1	9/25/2015 4:32:00 PM
Surr: Decachlorobiphenyl	63.4	26.5-158		%REC	1	9/25/2015 4:32:00 PM
Surr: Tetrachloro-m-xylene	56.8	11-150		%REC	1	9/25/2015 4:32:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	71.7	33.1		mg/Kg-dry	1	9/24/2015 12:19:00 AM
Heavy Oil	427	82.8		mg/Kg-dry	1	9/24/2015 12:19:00 AM
Surr: 2-Fluorobiphenyl	114	50-150		%REC	1	9/24/2015 12:19:00 AM
Surr: o-Terphenyl	114	50-150		%REC	1	9/24/2015 12:19:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Bis(2-chloroethyl) ether	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2-Chlorophenol	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
1,3-Dichlorobenzene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
1,4-Dichlorobenzene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
1,2-Dichlorobenzene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Benzyl alcohol	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2-Methylphenol (o-cresol)	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Hexachloroethane	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1509300-008

Matrix: Soil

Client Sample ID: GP-16-15:8.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
N-Nitrosodi-n-propylamine	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Nitrobenzene	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Isophorone	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
4-Methylphenol (p-cresol)	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2-Nitrophenol	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2,4-Dimethylphenol	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Bis(2-chloroethoxy)methane	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2,4-Dichlorophenol	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
1,2,4-Trichlorobenzene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Naphthalene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
4-Chloroaniline	ND	831		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Hexachlorobutadiene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
4-Chloro-3-methylphenol	ND	831		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2-Methylnaphthalene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
1-Methylnaphthalene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Hexachlorocyclopentadiene	ND	166	*	µg/Kg-dry	1	9/29/2015 10:30:00 PM
2,4,6-Trichlorophenol	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2,4,5-Trichlorophenol	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2-Chloronaphthalene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2-Nitroaniline	ND	831		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Acenaphthene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Dimethylphthalate	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2,6-Dinitrotoluene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Acenaphthylene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2,4-Dinitrophenol	ND	333	*	µg/Kg-dry	1	9/29/2015 10:30:00 PM
Dibenzofuran	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
2,4-Dinitrotoluene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
4-Nitrophenol	ND	831		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Fluorene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
4-Chlorophenyl phenyl ether	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Diethylphthalate	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
4,6-Dinitro-2-methylphenol	ND	333		µg/Kg-dry	1	9/29/2015 10:30:00 PM
4-Bromophenyl phenyl ether	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Hexachlorobenzene	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Pentachlorophenol	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Phenanthrene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Anthracene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Carbazole	ND	831		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Di-n-butylphthalate	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1509300-008

Matrix: Soil

Client Sample ID: GP-16-15:8.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Fluoranthene	148	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Pyrene	192	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Butyl Benzylphthalate	171	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
bis(2-Ethylhexyl)adipate	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Benz (a) anthracene	206	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Chrysene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
bis (2-Ethylhexyl) phthalate	2,460	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Di-n-octyl phthalate	ND	166		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Benzo (b) fluoranthene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Benzo (k) fluoranthene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Benzo (a) pyrene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Indeno (1,2,3-cd) pyrene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Dibenz (a,h) anthracene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Benzo (g,h,i) perylene	ND	133		µg/Kg-dry	1	9/29/2015 10:30:00 PM
Surr: 2,4,6-Tribromophenol	77.4	11.1-127		%REC	1	9/29/2015 10:30:00 PM
Surr: 2-Fluorobiphenyl	25.4	16.1-150		%REC	1	9/29/2015 10:30:00 PM
Surr: Nitrobenzene-d5	23.4	13.1-124		%REC	1	9/29/2015 10:30:00 PM
Surr: Phenol-d6	26.8	11.6-133		%REC	1	9/29/2015 10:30:00 PM
Surr: p-Terphenyl	78.7	21.8-150		%REC	1	9/29/2015 10:30:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11930

Analyst: BC

Gasoline	ND	4.83	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Surr: Toluene-d8	99.1	65-135	%REC	1	9/24/2015 8:37:00 AM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/24/2015 8:37:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0580	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Chloromethane	ND	0.0580	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Vinyl chloride	ND	0.00193	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Bromomethane	ND	0.0870	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0483	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Chloroethane	ND	0.0580	mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,1-Dichloroethene	ND	0.0483	mg/Kg-dry	1	9/24/2015 8:37:00 AM
Methylene chloride	ND	0.0193	mg/Kg-dry	1	9/24/2015 8:37:00 AM
trans-1,2-Dichloroethene	ND	0.0193	mg/Kg-dry	1	9/24/2015 8:37:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1509300-008

Matrix: Soil

Client Sample ID: GP-16-15:8.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11930		Analyst: BC
Methyl tert-butyl ether (MTBE)	ND	0.0483		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,1-Dichloroethane	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
2,2-Dichloropropane	ND	0.0483		mg/Kg-dry	1	9/24/2015 8:37:00 AM
cis-1,2-Dichloroethene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Chloroform	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,1-Dichloropropene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Carbon tetrachloride	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2-Dichloroethane (EDC)	ND	0.0290		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Benzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Trichloroethene (TCE)	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2-Dichloropropane	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Bromodichloromethane	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Dibromomethane	ND	0.0387		mg/Kg-dry	1	9/24/2015 8:37:00 AM
cis-1,3-Dichloropropene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Toluene	0.0215	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
trans-1,3-Dichloropropylene	ND	0.0290		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,1,2-Trichloroethane	ND	0.0290		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,3-Dichloropropane	ND	0.0483		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Tetrachloroethene (PCE)	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Dibromochloromethane	ND	0.0290		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2-Dibromoethane (EDB)	ND	0.00483		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Chlorobenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0290		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Ethylbenzene	ND	0.0290		mg/Kg-dry	1	9/24/2015 8:37:00 AM
m,p-Xylene	0.0286	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
o-Xylene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Styrene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Isopropylbenzene	ND	0.0773		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Bromoform	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
n-Propylbenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Bromobenzene	ND	0.0290		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,3,5-Trimethylbenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
2-Chlorotoluene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
4-Chlorotoluene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
tert-Butylbenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2,3-Trichloropropane	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2,4-Trichlorobenzene	ND	0.0483		mg/Kg-dry	1	9/24/2015 8:37:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1509300-008

Matrix: Soil

Client Sample ID: GP-16-15:8.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11930

Analyst: BC

sec-Butylbenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
4-Isopropyltoluene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,3-Dichlorobenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,4-Dichlorobenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
n-Butylbenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2-Dichlorobenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2-Dibromo-3-chloropropane	ND	0.483		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2,4-Trimethylbenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Hexachlorobutadiene	ND	0.0967		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Naphthalene	ND	0.0290		mg/Kg-dry	1	9/24/2015 8:37:00 AM
1,2,3-Trichlorobenzene	ND	0.0193		mg/Kg-dry	1	9/24/2015 8:37:00 AM
Surr: Dibromofluoromethane	94.6	56.5-129		%REC	1	9/24/2015 8:37:00 AM
Surr: Toluene-d8	96.4	64.3-131		%REC	1	9/24/2015 8:37:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.3	63.1-141		%REC	1	9/24/2015 8:37:00 AM

Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.418		mg/Kg-dry	1	9/24/2015 4:52:32 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	18.5	0.127		mg/Kg-dry	1	9/22/2015 7:12:58 PM
Barium	77.5	0.633		mg/Kg-dry	1	9/22/2015 7:12:58 PM
Cadmium	1.94	0.253		mg/Kg-dry	1	9/22/2015 7:12:58 PM
Chromium	56.5	0.127		mg/Kg-dry	1	9/22/2015 7:12:58 PM
Lead	552	0.253		mg/Kg-dry	1	9/22/2015 7:12:58 PM
Selenium	ND	0.633		mg/Kg-dry	1	9/22/2015 7:12:58 PM
Silver	0.184	0.127		mg/Kg-dry	1	9/22/2015 7:12:58 PM

Metals (SW6020) with TCLP Extraction (EPA 1311)

Batch ID: 12222

Analyst: TN

Lead	13.0	0.200		mg/L	1	10/26/2015 7:13:25 PM
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Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	40.2			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509300-009

Matrix: Soil

Client Sample ID: GP-16-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	43.8		µg/Kg-dry	1	10/5/2015 12:24:00 PM
2,4-D	ND	37.5		µg/Kg-dry	1	10/5/2015 12:24:00 PM
2,4-DP	ND	31.3		µg/Kg-dry	1	10/5/2015 12:24:00 PM
2,4,5-TP (Silvex)	ND	25.0		µg/Kg-dry	1	10/5/2015 12:24:00 PM
2,4,5-T	ND	62.5		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Dinoseb	ND	37.5		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Dalapon	ND	250		µg/Kg-dry	1	10/5/2015 12:24:00 PM
2,4-DB	ND	31.3		µg/Kg-dry	1	10/5/2015 12:24:00 PM
MCPP	ND	5,500		µg/Kg-dry	1	10/5/2015 12:24:00 PM
MCPA	ND	3,500		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Picloram	ND	62.5		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Bentazon	ND	43.8		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Chloramben	ND	25.0		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Acifluorfen	ND	100		µg/Kg-dry	1	10/5/2015 12:24:00 PM
3,5-Dichlorobenzoic acid	ND	50.0		µg/Kg-dry	1	10/5/2015 12:24:00 PM
4-Nitrophenol	ND	37.5		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Dacthal (DCPA)	ND	37.5		µg/Kg-dry	1	10/5/2015 12:24:00 PM
Surr: 2,4-Dichlorophenylacetic acid	110	20.1-168		%REC	1	10/5/2015 12:24:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Alpha BHC	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Beta BHC	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Gamma BHC (Lindane)	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Delta BHC	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Heptachlor	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Aldrin	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Heptachlor epoxide	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
gamma-Chlordane	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Endosulfan I	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
alpha-Chlordane	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Dieldrin	ND	0.0124		mg/Kg-dry	1	9/25/2015 4:42:00 PM
4,4'-DDE	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Endrin	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Endosulfan II	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM
4,4'-DDD	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Endrin aldehyde	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Endosulfan sulfate	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509300-009

Matrix: Soil

Client Sample ID: GP-16-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Endrin ketone	ND	0.0247		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Methoxychlor	ND	0.0618		mg/Kg-dry	1	9/25/2015 4:42:00 PM
Surr: Decachlorobiphenyl	72.5	26.5-158		%REC	1	9/25/2015 4:42:00 PM
Surr: Tetrachloro-m-xylene	72.1	11-150		%REC	1	9/25/2015 4:42:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	25.1		mg/Kg-dry	1	9/24/2015 12:52:00 AM
Heavy Oil	ND	62.8		mg/Kg-dry	1	9/24/2015 12:52:00 AM
Surr: 2-Fluorobiphenyl	115	50-150		%REC	1	9/24/2015 12:52:00 AM
Surr: o-Terphenyl	116	50-150		%REC	1	9/24/2015 12:52:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Bis(2-chloroethyl) ether	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2-Chlorophenol	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
1,3-Dichlorobenzene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
1,4-Dichlorobenzene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
1,2-Dichlorobenzene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Benzyl alcohol	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2-Methylphenol (o-cresol)	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Hexachloroethane	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
N-Nitrosodi-n-propylamine	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Nitrobenzene	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Isophorone	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4-Methylphenol (p-cresol)	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2-Nitrophenol	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-Dimethylphenol	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Bis(2-chloroethoxy)methane	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-Dichlorophenol	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
1,2,4-Trichlorobenzene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Naphthalene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4-Chloroaniline	ND	605		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Hexachlorobutadiene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4-Chloro-3-methylphenol	ND	605		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2-Methylnaphthalene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
1-Methylnaphthalene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509300-009

Matrix: Soil

Client Sample ID: GP-16-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	121	*	µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4,6-Trichlorophenol	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4,5-Trichlorophenol	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2-Chloronaphthalene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2-Nitroaniline	ND	605		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Acenaphthene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Dimethylphthalate	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,6-Dinitrotoluene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Acenaphthylene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-Dinitrophenol	ND	242	*	µg/Kg-dry	1	9/29/2015 10:52:00 PM
Dibenzofuran	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
2,4-Dinitrotoluene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4-Nitrophenol	ND	605		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Fluorene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4-Chlorophenyl phenyl ether	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Diethylphthalate	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4,6-Dinitro-2-methylphenol	ND	242		µg/Kg-dry	1	9/29/2015 10:52:00 PM
4-Bromophenyl phenyl ether	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Hexachlorobenzene	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Pentachlorophenol	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Phenanthrene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Anthracene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Carbazole	ND	605		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Di-n-butylphthalate	191	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Fluoranthene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Pyrene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Butyl Benzylphthalate	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
bis(2-Ethylhexyl)adipate	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Benz (a) anthracene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Chrysene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
bis (2-Ethylhexyl) phthalate	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Di-n-octyl phthalate	ND	121		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Benzo (b) fluoranthene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Benzo (k) fluoranthene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Benzo (a) pyrene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Indeno (1,2,3-cd) pyrene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Dibenz (a,h) anthracene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Benzo (g,h,i) perylene	ND	96.7		µg/Kg-dry	1	9/29/2015 10:52:00 PM
Surr: 2,4,6-Tribromophenol	75.1	11.1-127		%REC	1	9/29/2015 10:52:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509300-009

Matrix: Soil

Client Sample ID: GP-16-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Surr: 2-Fluorobiphenyl	29.9	16.1-150		%REC	1	9/29/2015 10:52:00 PM
Surr: Nitrobenzene-d5	15.4	13.1-124		%REC	1	9/29/2015 10:52:00 PM
Surr: Phenol-d6	54.7	11.6-133		%REC	1	9/29/2015 10:52:00 PM
Surr: p-Terphenyl	90.3	21.8-150		%REC	1	9/29/2015 10:52:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	3.95	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Surr: Toluene-d8	99.9	65-135	%REC	1	9/24/2015 8:26:00 PM
Surr: 4-Bromofluorobenzene	103	65-135	%REC	1	9/24/2015 8:26:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0474	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Chloromethane	ND	0.0474	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Vinyl chloride	ND	0.00158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Bromomethane	ND	0.0711	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0395	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Chloroethane	ND	0.0474	mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,1-Dichloroethene	ND	0.0395	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Methylene chloride	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
trans-1,2-Dichloroethene	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0395	mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,1-Dichloroethane	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
2,2-Dichloropropane	ND	0.0395	mg/Kg-dry	1	9/24/2015 8:26:00 PM
cis-1,2-Dichloroethene	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Chloroform	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,1-Dichloropropene	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Carbon tetrachloride	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2-Dichloroethane (EDC)	ND	0.0237	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Benzene	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Trichloroethene (TCE)	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2-Dichloropropane	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Bromodichloromethane	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM
Dibromomethane	ND	0.0316	mg/Kg-dry	1	9/24/2015 8:26:00 PM
cis-1,3-Dichloropropene	ND	0.0158	mg/Kg-dry	1	9/24/2015 8:26:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509300-009

Matrix: Soil

Client Sample ID: GP-16-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Toluene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
trans-1,3-Dichloropropylene	ND	0.0237		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,1,2-Trichloroethane	ND	0.0237		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,3-Dichloropropane	ND	0.0395		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Tetrachloroethene (PCE)	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Dibromochloromethane	ND	0.0237		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2-Dibromoethane (EDB)	ND	0.00395		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Chlorobenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0237		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Ethylbenzene	ND	0.0237		mg/Kg-dry	1	9/24/2015 8:26:00 PM
m,p-Xylene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
o-Xylene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Styrene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Isopropylbenzene	ND	0.0632		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Bromoform	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
n-Propylbenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Bromobenzene	ND	0.0237		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,3,5-Trimethylbenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
2-Chlorotoluene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
4-Chlorotoluene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
tert-Butylbenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2,3-Trichloropropane	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2,4-Trichlorobenzene	ND	0.0395		mg/Kg-dry	1	9/24/2015 8:26:00 PM
sec-Butylbenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
4-Isopropyltoluene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,3-Dichlorobenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,4-Dichlorobenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
n-Butylbenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2-Dichlorobenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2-Dibromo-3-chloropropane	ND	0.395		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2,4-Trimethylbenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Hexachlorobutadiene	ND	0.0790		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Naphthalene	ND	0.0237		mg/Kg-dry	1	9/24/2015 8:26:00 PM
1,2,3-Trichlorobenzene	ND	0.0158		mg/Kg-dry	1	9/24/2015 8:26:00 PM
Surr: Dibromofluoromethane	94.0	56.5-129		%REC	1	9/24/2015 8:26:00 PM
Surr: Toluene-d8	97.8	64.3-131		%REC	1	9/24/2015 8:26:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.8	63.1-141		%REC	1	9/24/2015 8:26:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:00:00 AM

Project: Pacific Park

Lab ID: 1509300-009

Matrix: Soil

Client Sample ID: GP-16-15:13.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.293		mg/Kg-dry	1	9/24/2015 4:54:10 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	1.75	0.0989		mg/Kg-dry	1	9/22/2015 7:16:30 PM
Barium	26.1	0.494		mg/Kg-dry	1	9/22/2015 7:16:30 PM
Cadmium	ND	0.198		mg/Kg-dry	1	9/22/2015 7:16:30 PM
Chromium	12.8	0.0989		mg/Kg-dry	1	9/22/2015 7:16:30 PM
Lead	2.21	0.198		mg/Kg-dry	1	9/22/2015 7:16:30 PM
Selenium	0.886	0.494		mg/Kg-dry	1	9/22/2015 7:16:30 PM
Silver	ND	0.0989		mg/Kg-dry	1	9/22/2015 7:16:30 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	21.0			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509300-010

Matrix: Soil

Client Sample ID: GP-17-15:7.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	49.4		µg/Kg-dry	1	10/5/2015 12:58:00 PM
2,4-D	ND	42.3		µg/Kg-dry	1	10/5/2015 12:58:00 PM
2,4-DP	ND	35.3		µg/Kg-dry	1	10/5/2015 12:58:00 PM
2,4,5-TP (Silvex)	ND	28.2		µg/Kg-dry	1	10/5/2015 12:58:00 PM
2,4,5-T	ND	70.5		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Dinoseb	ND	42.3		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Dalapon	ND	282		µg/Kg-dry	1	10/5/2015 12:58:00 PM
2,4-DB	ND	35.3		µg/Kg-dry	1	10/5/2015 12:58:00 PM
MCPP	ND	6,210		µg/Kg-dry	1	10/5/2015 12:58:00 PM
MCPA	ND	3,950		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Picloram	ND	70.5		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Bentazon	ND	49.4		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Chloramben	ND	28.2		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Acifluorfen	ND	113		µg/Kg-dry	1	10/5/2015 12:58:00 PM
3,5-Dichlorobenzoic acid	ND	56.4		µg/Kg-dry	1	10/5/2015 12:58:00 PM
4-Nitrophenol	ND	42.3		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Dacthal (DCPA)	ND	42.3		µg/Kg-dry	1	10/5/2015 12:58:00 PM
Surr: 2,4-Dichlorophenylacetic acid	104	20.1-168		%REC	1	10/5/2015 12:58:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Alpha BHC	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Beta BHC	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Gamma BHC (Lindane)	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Delta BHC	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Heptachlor	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Aldrin	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Heptachlor epoxide	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
gamma-Chlordane	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Endosulfan I	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
alpha-Chlordane	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Dieldrin	ND	0.0134		mg/Kg-dry	1	9/25/2015 4:53:00 PM
4,4'-DDE	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Endrin	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Endosulfan II	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM
4,4'-DDD	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Endrin aldehyde	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Endosulfan sulfate	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509300-010

Matrix: Soil

Client Sample ID: GP-17-15:7.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Endrin ketone	ND	0.0267		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Methoxychlor	ND	0.0668		mg/Kg-dry	1	9/25/2015 4:53:00 PM
Surr: Decachlorobiphenyl	52.9	26.5-158		%REC	1	9/25/2015 4:53:00 PM
Surr: Tetrachloro-m-xylene	55.9	11-150		%REC	1	9/25/2015 4:53:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	27.2		mg/Kg-dry	1	9/24/2015 7:47:00 PM
Heavy Oil	69.7	68.0		mg/Kg-dry	1	9/24/2015 7:47:00 PM
Surr: 2-Fluorobiphenyl	83.3	50-150		%REC	1	9/24/2015 7:47:00 PM
Surr: o-Terphenyl	81.7	50-150		%REC	1	9/24/2015 7:47:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Bis(2-chloroethyl) ether	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2-Chlorophenol	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
1,3-Dichlorobenzene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
1,4-Dichlorobenzene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
1,2-Dichlorobenzene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Benzyl alcohol	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2-Methylphenol (o-cresol)	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Hexachloroethane	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
N-Nitrosodi-n-propylamine	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Nitrobenzene	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Isophorone	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
4-Methylphenol (p-cresol)	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2-Nitrophenol	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2,4-Dimethylphenol	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Bis(2-chloroethoxy)methane	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2,4-Dichlorophenol	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
1,2,4-Trichlorobenzene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Naphthalene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
4-Chloroaniline	ND	694		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Hexachlorobutadiene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
4-Chloro-3-methylphenol	ND	694		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2-Methylnaphthalene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
1-Methylnaphthalene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509300-010

Matrix: Soil

Client Sample ID: GP-17-15:7.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	139	*	µg/Kg-dry	1	9/29/2015 11:14:00 PM
2,4,6-Trichlorophenol	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2,4,5-Trichlorophenol	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2-Chloronaphthalene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2-Nitroaniline	ND	694		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Acenaphthene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Dimethylphthalate	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2,6-Dinitrotoluene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Acenaphthylene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2,4-Dinitrophenol	ND	278	*	µg/Kg-dry	1	9/29/2015 11:14:00 PM
Dibenzofuran	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
2,4-Dinitrotoluene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
4-Nitrophenol	ND	694		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Fluorene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
4-Chlorophenyl phenyl ether	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Diethylphthalate	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
4,6-Dinitro-2-methylphenol	ND	278		µg/Kg-dry	1	9/29/2015 11:14:00 PM
4-Bromophenyl phenyl ether	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Hexachlorobenzene	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Pentachlorophenol	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Phenanthrene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Anthracene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Carbazole	ND	694		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Di-n-butylphthalate	190	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Fluoranthene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Pyrene	129	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Butyl Benzylphthalate	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
bis(2-Ethylhexyl)adipate	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Benz (a) anthracene	194	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Chrysene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
bis (2-Ethylhexyl) phthalate	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Di-n-octyl phthalate	ND	139		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Benzo (b) fluoranthene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Benzo (k) fluoranthene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Benzo (a) pyrene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Indeno (1,2,3-cd) pyrene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Dibenz (a,h) anthracene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Benzo (g,h,i) perylene	ND	111		µg/Kg-dry	1	9/29/2015 11:14:00 PM
Surr: 2,4,6-Tribromophenol	84.3	11.1-127		%REC	1	9/29/2015 11:14:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509300-010

Matrix: Soil

Client Sample ID: GP-17-15:7.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Surr: 2-Fluorobiphenyl	44.6	16.1-150		%REC	1	9/29/2015 11:14:00 PM
Surr: Nitrobenzene-d5	34.4	13.1-124		%REC	1	9/29/2015 11:14:00 PM
Surr: Phenol-d6	50.3	11.6-133		%REC	1	9/29/2015 11:14:00 PM
Surr: p-Terphenyl	96.8	21.8-150		%REC	1	9/29/2015 11:14:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	4.20		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Surr: Toluene-d8	101	65-135		%REC	1	9/24/2015 9:24:00 PM
Surr: 4-Bromofluorobenzene	102	65-135		%REC	1	9/24/2015 9:24:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0504		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Chloromethane	ND	0.0504		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Vinyl chloride	ND	0.00168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Bromomethane	ND	0.0756		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0420		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Chloroethane	ND	0.0504		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,1-Dichloroethene	ND	0.0420		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Methylene chloride	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
trans-1,2-Dichloroethene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0420		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,1-Dichloroethane	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
2,2-Dichloropropane	ND	0.0420		mg/Kg-dry	1	9/24/2015 9:24:00 PM
cis-1,2-Dichloroethene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Chloroform	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,1-Dichloropropene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Carbon tetrachloride	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2-Dichloroethane (EDC)	ND	0.0252		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Benzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Trichloroethene (TCE)	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2-Dichloropropane	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Bromodichloromethane	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Dibromomethane	ND	0.0336		mg/Kg-dry	1	9/24/2015 9:24:00 PM
cis-1,3-Dichloropropene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509300-010

Matrix: Soil

Client Sample ID: GP-17-15:7.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Toluene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
trans-1,3-Dichloropropylene	ND	0.0252		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,1,2-Trichloroethane	ND	0.0252		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,3-Dichloropropane	ND	0.0420		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Tetrachloroethene (PCE)	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Dibromochloromethane	ND	0.0252		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2-Dibromoethane (EDB)	ND	0.00420		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Chlorobenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0252		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Ethylbenzene	ND	0.0252		mg/Kg-dry	1	9/24/2015 9:24:00 PM
m,p-Xylene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
o-Xylene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Styrene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Isopropylbenzene	ND	0.0672		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Bromoform	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
n-Propylbenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Bromobenzene	ND	0.0252		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,3,5-Trimethylbenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
2-Chlorotoluene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
4-Chlorotoluene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
tert-Butylbenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2,3-Trichloropropane	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2,4-Trichlorobenzene	ND	0.0420		mg/Kg-dry	1	9/24/2015 9:24:00 PM
sec-Butylbenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
4-Isopropyltoluene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,3-Dichlorobenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,4-Dichlorobenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
n-Butylbenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2-Dichlorobenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2-Dibromo-3-chloropropane	ND	0.420		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2,4-Trimethylbenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Hexachlorobutadiene	ND	0.0840		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Naphthalene	ND	0.0252		mg/Kg-dry	1	9/24/2015 9:24:00 PM
1,2,3-Trichlorobenzene	ND	0.0168		mg/Kg-dry	1	9/24/2015 9:24:00 PM
Surr: Dibromofluoromethane	94.7	56.5-129		%REC	1	9/24/2015 9:24:00 PM
Surr: Toluene-d8	97.4	64.3-131		%REC	1	9/24/2015 9:24:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	63.1-141		%REC	1	9/24/2015 9:24:00 PM



Client: Shannon & Wilson

Collection Date: 9/21/2015 11:40:00 AM

Project: Pacific Park

Lab ID: 1509300-010

Matrix: Soil

Client Sample ID: GP-17-15:7.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11920		Analyst: TN
Mercury	ND	0.311		mg/Kg-dry	1	9/24/2015 4:55:46 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11909		Analyst: TN
Arsenic	8.66	0.117		mg/Kg-dry	1	9/22/2015 7:58:51 PM
Barium	51.7	0.585		mg/Kg-dry	1	9/22/2015 7:58:51 PM
Cadmium	0.356	0.234		mg/Kg-dry	1	9/22/2015 7:58:51 PM
Chromium	15.7	0.117		mg/Kg-dry	1	9/22/2015 7:58:51 PM
Lead	49.1	0.234		mg/Kg-dry	1	9/22/2015 7:58:51 PM
Selenium	1.54	0.585		mg/Kg-dry	1	9/22/2015 7:58:51 PM
Silver	ND	0.117		mg/Kg-dry	1	9/22/2015 7:58:51 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25116		Analyst: CG
Percent Moisture	29.4			wt%	1	9/25/2015 11:01:12 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509300-011

Matrix: Soil

Client Sample ID: GP-17-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	40.0		µg/Kg-dry	1	10/5/2015 1:32:00 PM
2,4-D	ND	34.3		µg/Kg-dry	1	10/5/2015 1:32:00 PM
2,4-DP	ND	28.5		µg/Kg-dry	1	10/5/2015 1:32:00 PM
2,4,5-TP (Silvex)	ND	22.8		µg/Kg-dry	1	10/5/2015 1:32:00 PM
2,4,5-T	ND	57.1		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Dinoseb	ND	34.3		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Dalapon	ND	228		µg/Kg-dry	1	10/5/2015 1:32:00 PM
2,4-DB	ND	28.5		µg/Kg-dry	1	10/5/2015 1:32:00 PM
MCPP	ND	5,020		µg/Kg-dry	1	10/5/2015 1:32:00 PM
MCPA	ND	3,200		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Picloram	ND	57.1		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Bentazon	ND	40.0		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Chloramben	ND	22.8		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Acifluorfen	ND	91.3		µg/Kg-dry	1	10/5/2015 1:32:00 PM
3,5-Dichlorobenzoic acid	ND	45.7		µg/Kg-dry	1	10/5/2015 1:32:00 PM
4-Nitrophenol	ND	34.3		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Dacthal (DCPA)	ND	34.3		µg/Kg-dry	1	10/5/2015 1:32:00 PM
Surr: 2,4-Dichlorophenylacetic acid	105	20.1-168		%REC	1	10/5/2015 1:32:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Alpha BHC	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Beta BHC	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Gamma BHC (Lindane)	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Delta BHC	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Heptachlor	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Aldrin	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Heptachlor epoxide	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
gamma-Chlordane	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Endosulfan I	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
alpha-Chlordane	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Dieldrin	ND	0.0105		mg/Kg-dry	1	9/25/2015 5:04:00 PM
4,4'-DDE	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Endrin	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Endosulfan II	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM
4,4'-DDD	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Endrin aldehyde	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Endosulfan sulfate	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509300-011

Matrix: Soil

Client Sample ID: GP-17-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Endrin ketone	ND	0.0210		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Methoxychlor	ND	0.0524		mg/Kg-dry	1	9/25/2015 5:04:00 PM
Surr: Decachlorobiphenyl	69.1	26.5-158		%REC	1	9/25/2015 5:04:00 PM
Surr: Tetrachloro-m-xylene	66.9	11-150		%REC	1	9/25/2015 5:04:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	20.2		mg/Kg-dry	1	9/24/2015 8:18:00 PM
Heavy Oil	ND	50.6		mg/Kg-dry	1	9/24/2015 8:18:00 PM
Surr: 2-Fluorobiphenyl	94.9	50-150		%REC	1	9/24/2015 8:18:00 PM
Surr: o-Terphenyl	93.4	50-150		%REC	1	9/24/2015 8:18:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Bis(2-chloroethyl) ether	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2-Chlorophenol	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
1,3-Dichlorobenzene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
1,4-Dichlorobenzene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
1,2-Dichlorobenzene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Benzyl alcohol	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2-Methylphenol (o-cresol)	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Hexachloroethane	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
N-Nitrosodi-n-propylamine	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Nitrobenzene	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Isophorone	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
4-Methylphenol (p-cresol)	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2-Nitrophenol	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2,4-Dimethylphenol	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Bis(2-chloroethoxy)methane	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2,4-Dichlorophenol	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
1,2,4-Trichlorobenzene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Naphthalene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
4-Chloroaniline	ND	566		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Hexachlorobutadiene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
4-Chloro-3-methylphenol	ND	566		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2-Methylnaphthalene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
1-Methylnaphthalene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509300-011

Matrix: Soil

Client Sample ID: GP-17-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	113	*	µg/Kg-dry	1	9/29/2015 11:36:00 PM
2,4,6-Trichlorophenol	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2,4,5-Trichlorophenol	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2-Chloronaphthalene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2-Nitroaniline	ND	566		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Acenaphthene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Dimethylphthalate	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2,6-Dinitrotoluene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Acenaphthylene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2,4-Dinitrophenol	ND	226	*	µg/Kg-dry	1	9/29/2015 11:36:00 PM
Dibenzofuran	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
2,4-Dinitrotoluene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
4-Nitrophenol	ND	566		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Fluorene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
4-Chlorophenyl phenyl ether	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Diethylphthalate	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
4,6-Dinitro-2-methylphenol	ND	226		µg/Kg-dry	1	9/29/2015 11:36:00 PM
4-Bromophenyl phenyl ether	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Hexachlorobenzene	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Pentachlorophenol	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Phenanthrene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Anthracene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Carbazole	ND	566		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Di-n-butylphthalate	140	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Fluoranthene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Pyrene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Butyl Benzylphthalate	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
bis(2-Ethylhexyl)adipate	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Benz (a) anthracene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Chrysene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
bis (2-Ethylhexyl) phthalate	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Di-n-octyl phthalate	ND	113		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Benzo (b) fluoranthene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Benzo (k) fluoranthene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Benzo (a) pyrene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Indeno (1,2,3-cd) pyrene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Dibenz (a,h) anthracene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Benzo (g,h,i) perylene	ND	90.6		µg/Kg-dry	1	9/29/2015 11:36:00 PM
Surr: 2,4,6-Tribromophenol	66.4	11.1-127		%REC	1	9/29/2015 11:36:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509300-011

Matrix: Soil

Client Sample ID: GP-17-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Surr: 2-Fluorobiphenyl	70.0	16.1-150		%REC	1	9/29/2015 11:36:00 PM
Surr: Nitrobenzene-d5	59.9	13.1-124		%REC	1	9/29/2015 11:36:00 PM
Surr: Phenol-d6	39.5	11.6-133		%REC	1	9/29/2015 11:36:00 PM
Surr: p-Terphenyl	76.7	21.8-150		%REC	1	9/29/2015 11:36:00 PM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	3.88		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Surr: Toluene-d8	98.5	65-135		%REC	1	9/24/2015 9:52:00 PM
Surr: 4-Bromofluorobenzene	102	65-135		%REC	1	9/24/2015 9:52:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0466		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Chloromethane	ND	0.0466		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Vinyl chloride	ND	0.00155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Bromomethane	ND	0.0699		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0388		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Chloroethane	ND	0.0466		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,1-Dichloroethene	ND	0.0388		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Methylene chloride	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
trans-1,2-Dichloroethene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0388		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,1-Dichloroethane	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
2,2-Dichloropropane	ND	0.0388		mg/Kg-dry	1	9/24/2015 9:52:00 PM
cis-1,2-Dichloroethene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Chloroform	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,1-Dichloropropene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Carbon tetrachloride	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2-Dichloroethane (EDC)	ND	0.0233		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Benzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Trichloroethene (TCE)	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2-Dichloropropane	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Bromodichloromethane	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Dibromomethane	ND	0.0311		mg/Kg-dry	1	9/24/2015 9:52:00 PM
cis-1,3-Dichloropropene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509300-011

Matrix: Soil

Client Sample ID: GP-17-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Toluene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
trans-1,3-Dichloropropylene	ND	0.0233		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,1,2-Trichloroethane	ND	0.0233		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,3-Dichloropropane	ND	0.0388		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Tetrachloroethene (PCE)	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Dibromochloromethane	ND	0.0233		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2-Dibromoethane (EDB)	ND	0.00388		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Chlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0233		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Ethylbenzene	ND	0.0233		mg/Kg-dry	1	9/24/2015 9:52:00 PM
m,p-Xylene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
o-Xylene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Styrene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Isopropylbenzene	ND	0.0622		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Bromoform	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
n-Propylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Bromobenzene	ND	0.0233		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,3,5-Trimethylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
2-Chlorotoluene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
4-Chlorotoluene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
tert-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2,3-Trichloropropane	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2,4-Trichlorobenzene	ND	0.0388		mg/Kg-dry	1	9/24/2015 9:52:00 PM
sec-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
4-Isopropyltoluene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,3-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,4-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
n-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2-Dibromo-3-chloropropane	ND	0.388		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2,4-Trimethylbenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Hexachlorobutadiene	ND	0.0777		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Naphthalene	ND	0.0233		mg/Kg-dry	1	9/24/2015 9:52:00 PM
1,2,3-Trichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/24/2015 9:52:00 PM
Surr: Dibromofluoromethane	93.1	56.5-129		%REC	1	9/24/2015 9:52:00 PM
Surr: Toluene-d8	97.4	64.3-131		%REC	1	9/24/2015 9:52:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.8	63.1-141		%REC	1	9/24/2015 9:52:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:55:00 AM

Project: Pacific Park

Lab ID: 1509300-011

Matrix: Soil

Client Sample ID: GP-17-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11908

Analyst: MW

Mercury	ND	0.256		mg/Kg-dry	1	9/22/2015 5:43:09 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	2.01	0.0950		mg/Kg-dry	1	9/22/2015 7:20:02 PM
Barium	21.5	0.475		mg/Kg-dry	1	9/22/2015 7:20:02 PM
Cadmium	ND	0.190		mg/Kg-dry	1	9/22/2015 7:20:02 PM
Chromium	12.3	0.0950		mg/Kg-dry	1	9/22/2015 7:20:02 PM
Lead	2.59	0.190		mg/Kg-dry	1	9/22/2015 7:20:02 PM
Selenium	0.992	0.475		mg/Kg-dry	1	9/22/2015 7:20:02 PM
Silver	ND	0.0950		mg/Kg-dry	1	9/22/2015 7:20:02 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	15.8			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509300-012

Matrix: Soil

Client Sample ID: GP-18-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	38.4		µg/Kg-dry	1	10/5/2015 1:49:00 PM
2,4-D	ND	32.9		µg/Kg-dry	1	10/5/2015 1:49:00 PM
2,4-DP	ND	27.4		µg/Kg-dry	1	10/5/2015 1:49:00 PM
2,4,5-TP (Silvex)	ND	21.9		µg/Kg-dry	1	10/5/2015 1:49:00 PM
2,4,5-T	ND	54.8		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Dinoseb	ND	32.9		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Dalapon	ND	219		µg/Kg-dry	1	10/5/2015 1:49:00 PM
2,4-DB	ND	27.4		µg/Kg-dry	1	10/5/2015 1:49:00 PM
MCPP	ND	4,830		µg/Kg-dry	1	10/5/2015 1:49:00 PM
MCPA	ND	3,070		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Picloram	ND	54.8		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Bentazon	ND	38.4		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Chloramben	ND	21.9		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Acifluorfen	ND	87.7		µg/Kg-dry	1	10/5/2015 1:49:00 PM
3,5-Dichlorobenzoic acid	ND	43.9		µg/Kg-dry	1	10/5/2015 1:49:00 PM
4-Nitrophenol	ND	32.9		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Dacthal (DCPA)	ND	32.9		µg/Kg-dry	1	10/5/2015 1:49:00 PM
Surr: 2,4-Dichlorophenylacetic acid	95.0	20.1-168		%REC	1	10/5/2015 1:49:00 PM

Polychlorinated Biphenyls (PCB) by EPA 8082

Batch ID: 12180

Analyst: CM

Aroclor 1016	ND	0.106		mg/Kg-dry	1	10/22/2015 6:28:00 PM
Aroclor 1221	ND	0.106		mg/Kg-dry	1	10/22/2015 6:28:00 PM
Aroclor 1232	ND	0.106		mg/Kg-dry	1	10/22/2015 6:28:00 PM
Aroclor 1242	ND	0.106		mg/Kg-dry	1	10/22/2015 6:28:00 PM
Aroclor 1248	ND	0.106		mg/Kg-dry	1	10/22/2015 6:28:00 PM
Aroclor 1254	ND	0.106		mg/Kg-dry	1	10/22/2015 6:28:00 PM
Aroclor 1260	ND	0.106		mg/Kg-dry	1	10/22/2015 6:28:00 PM
Aroclor 1262	ND	0.106		mg/Kg-dry	1	10/22/2015 6:28:00 PM
Aroclor 1268	ND	0.106		mg/Kg-dry	1	10/22/2015 6:28:00 PM
Total PCBs	ND	0.106		mg/Kg-dry	1	10/22/2015 6:28:00 PM
Surr: Decachlorobiphenyl	79.0	41.2-143		%REC	1	10/22/2015 6:28:00 PM
Surr: Tetrachloro-m-xylene	67.8	26-140		%REC	1	10/22/2015 6:28:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Alpha BHC	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Beta BHC	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509300-012

Matrix: Soil

Client Sample ID: GP-18-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
Gamma BHC (Lindane)	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Delta BHC	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Heptachlor	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Aldrin	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Heptachlor epoxide	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
gamma-Chlordane	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Endosulfan I	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
alpha-Chlordane	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Dieldrin	ND	0.0103		mg/Kg-dry	1	9/25/2015 5:15:00 PM
4,4'-DDE	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Endrin	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Endosulfan II	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM
4,4'-DDD	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Endrin aldehyde	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Endosulfan sulfate	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM
4,4'-DDT	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Endrin ketone	ND	0.0206		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Methoxychlor	ND	0.0516		mg/Kg-dry	1	9/25/2015 5:15:00 PM
Surr: Decachlorobiphenyl	87.2	26.5-158		%REC	1	9/25/2015 5:15:00 PM
Surr: Tetrachloro-m-xylene	86.0	11-150		%REC	1	9/25/2015 5:15:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	20.3		mg/Kg-dry	1	9/24/2015 2:30:00 AM
Heavy Oil	302	50.7		mg/Kg-dry	1	9/24/2015 2:30:00 AM
Surr: 2-Fluorobiphenyl	120	50-150		%REC	1	9/24/2015 2:30:00 AM
Surr: o-Terphenyl	121	50-150		%REC	1	9/24/2015 2:30:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Bis(2-chloroethyl) ether	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2-Chlorophenol	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
1,3-Dichlorobenzene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
1,4-Dichlorobenzene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
1,2-Dichlorobenzene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Benzyl alcohol	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2-Methylphenol (o-cresol)	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Hexachloroethane	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509300-012

Matrix: Soil

Client Sample ID: GP-18-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
N-Nitrosodi-n-propylamine	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Nitrobenzene	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Isophorone	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
4-Methylphenol (p-cresol)	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2-Nitrophenol	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2,4-Dimethylphenol	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Bis(2-chloroethoxy)methane	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2,4-Dichlorophenol	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
1,2,4-Trichlorobenzene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Naphthalene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
4-Chloroaniline	ND	533		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Hexachlorobutadiene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
4-Chloro-3-methylphenol	ND	533		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2-Methylnaphthalene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
1-Methylnaphthalene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Hexachlorocyclopentadiene	ND	107	*	µg/Kg-dry	1	9/29/2015 11:58:00 PM
2,4,6-Trichlorophenol	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2,4,5-Trichlorophenol	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2-Chloronaphthalene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2-Nitroaniline	ND	533		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Acenaphthene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Dimethylphthalate	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2,6-Dinitrotoluene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Acenaphthylene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2,4-Dinitrophenol	ND	213	*	µg/Kg-dry	1	9/29/2015 11:58:00 PM
Dibenzofuran	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
2,4-Dinitrotoluene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
4-Nitrophenol	ND	533		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Fluorene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
4-Chlorophenyl phenyl ether	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Diethylphthalate	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
4,6-Dinitro-2-methylphenol	ND	213		µg/Kg-dry	1	9/29/2015 11:58:00 PM
4-Bromophenyl phenyl ether	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Hexachlorobenzene	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Pentachlorophenol	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Phenanthrene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Anthracene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Carbazole	ND	533		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Di-n-butylphthalate	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509300-012

Matrix: Soil

Client Sample ID: GP-18-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Fluoranthene	111	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Pyrene	123	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Butyl Benzylphthalate	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
bis(2-Ethylhexyl)adipate	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Benz (a) anthracene	157	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Chrysene	95.4	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
bis (2-Ethylhexyl) phthalate	ND	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Di-n-octyl phthalate	165	107		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Benzo (b) fluoranthene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Benzo (k) fluoranthene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Benzo (a) pyrene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Indeno (1,2,3-cd) pyrene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Dibenz (a,h) anthracene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Benzo (g,h,i) perylene	ND	85.3		µg/Kg-dry	1	9/29/2015 11:58:00 PM
Surr: 2,4,6-Tribromophenol	71.6	11.1-127		%REC	1	9/29/2015 11:58:00 PM
Surr: 2-Fluorobiphenyl	80.9	16.1-150		%REC	1	9/29/2015 11:58:00 PM
Surr: Nitrobenzene-d5	80.9	13.1-124		%REC	1	9/29/2015 11:58:00 PM
Surr: Phenol-d6	53.7	11.6-133		%REC	1	9/29/2015 11:58:00 PM
Surr: p-Terphenyl	89.8	21.8-150		%REC	1	9/29/2015 11:58:00 PM
Gasoline by NWTPH-Gx				Batch ID: 11943		Analyst: BC
Gasoline	ND	3.49		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Surr: Toluene-d8	97.8	65-135		%REC	1	9/24/2015 10:21:00 PM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/24/2015 10:21:00 PM
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11943		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	0.0418		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Chloromethane	ND	0.0418		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Vinyl chloride	ND	0.00139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Bromomethane	ND	0.0627		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Chloroethane	ND	0.0418		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,1-Dichloroethene	ND	0.0349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Methylene chloride	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
trans-1,2-Dichloroethene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,1-Dichloroethane	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509300-012

Matrix: Soil

Client Sample ID: GP-18-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

2,2-Dichloropropane	ND	0.0349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
cis-1,2-Dichloroethene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Chloroform	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,1-Dichloropropene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Carbon tetrachloride	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2-Dichloroethane (EDC)	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Benzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Trichloroethene (TCE)	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2-Dichloropropane	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Bromodichloromethane	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Dibromomethane	ND	0.0279		mg/Kg-dry	1	9/24/2015 10:21:00 PM
cis-1,3-Dichloropropene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Toluene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
trans-1,3-Dichloropropylene	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,1,2-Trichloroethane	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,3-Dichloropropane	ND	0.0349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Tetrachloroethene (PCE)	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Dibromochloromethane	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2-Dibromoethane (EDB)	ND	0.00349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Chlorobenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Ethylbenzene	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM
m,p-Xylene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
o-Xylene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Styrene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Isopropylbenzene	ND	0.0558		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Bromoform	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
n-Propylbenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Bromobenzene	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,3,5-Trimethylbenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
2-Chlorotoluene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
4-Chlorotoluene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
tert-Butylbenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2,3-Trichloropropane	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2,4-Trichlorobenzene	ND	0.0349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
sec-Butylbenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
4-Isopropyltoluene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:15:00 PM

Project: Pacific Park

Lab ID: 1509300-012

Matrix: Soil

Client Sample ID: GP-18-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11943		Analyst: BC
1,3-Dichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,4-Dichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
n-Butylbenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2-Dichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2-Dibromo-3-chloropropane	ND	0.349		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2,4-Trimethylbenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Hexachlorobutadiene	ND	0.0697		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Naphthalene	ND	0.0209		mg/Kg-dry	1	9/24/2015 10:21:00 PM
1,2,3-Trichlorobenzene	ND	0.0139		mg/Kg-dry	1	9/24/2015 10:21:00 PM
Surr: Dibromofluoromethane	93.1	56.5-129		%REC	1	9/24/2015 10:21:00 PM
Surr: Toluene-d8	98.2	64.3-131		%REC	1	9/24/2015 10:21:00 PM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/24/2015 10:21:00 PM

Mercury by EPA Method 7471

Batch ID: 11908 Analyst: MW

Mercury	ND	0.235		mg/Kg-dry	1	9/22/2015 5:44:46 PM
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Total Metals by EPA Method 6020

Batch ID: 11909 Analyst: TN

Arsenic	5.18	0.0910		mg/Kg-dry	1	9/22/2015 7:23:33 PM
Barium	47.4	0.455		mg/Kg-dry	1	9/22/2015 7:23:33 PM
Cadmium	0.318	0.182		mg/Kg-dry	1	9/22/2015 7:23:33 PM
Chromium	18.4	0.0910		mg/Kg-dry	1	9/22/2015 7:23:33 PM
Lead	59.6	0.182		mg/Kg-dry	1	9/22/2015 7:23:33 PM
Selenium	1.08	0.455		mg/Kg-dry	1	9/22/2015 7:23:33 PM
Silver	ND	0.0910		mg/Kg-dry	1	9/22/2015 7:23:33 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116 Analyst: CG

Percent Moisture	9.90			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509300-013

Matrix: Soil

Client Sample ID: GP-18-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	41.4		µg/Kg-dry	1	10/5/2015 2:06:00 PM
2,4-D	ND	35.4		µg/Kg-dry	1	10/5/2015 2:06:00 PM
2,4-DP	ND	29.5		µg/Kg-dry	1	10/5/2015 2:06:00 PM
2,4,5-TP (Silvex)	ND	23.6		µg/Kg-dry	1	10/5/2015 2:06:00 PM
2,4,5-T	ND	59.1		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Dinoseb	ND	35.4		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Dalapon	ND	236		µg/Kg-dry	1	10/5/2015 2:06:00 PM
2,4-DB	ND	29.5		µg/Kg-dry	1	10/5/2015 2:06:00 PM
MCPP	ND	5,200		µg/Kg-dry	1	10/5/2015 2:06:00 PM
MCPA	ND	3,310		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Picloram	ND	59.1		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Bentazon	ND	41.4		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Chloramben	ND	23.6		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Acifluorfen	ND	94.5		µg/Kg-dry	1	10/5/2015 2:06:00 PM
3,5-Dichlorobenzoic acid	ND	47.3		µg/Kg-dry	1	10/5/2015 2:06:00 PM
4-Nitrophenol	ND	35.4		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Dacthal (DCPA)	ND	35.4		µg/Kg-dry	1	10/5/2015 2:06:00 PM
Surr: 2,4-Dichlorophenylacetic acid	103	20.1-168		%REC	1	10/5/2015 2:06:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Alpha BHC	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Beta BHC	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Gamma BHC (Lindane)	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Delta BHC	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Heptachlor	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Aldrin	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Heptachlor epoxide	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
gamma-Chlordane	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Endosulfan I	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
alpha-Chlordane	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Dieldrin	ND	0.0108		mg/Kg-dry	1	9/25/2015 5:26:00 PM
4,4'-DDE	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Endrin	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Endosulfan II	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM
4,4'-DDD	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Endrin aldehyde	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Endosulfan sulfate	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509300-013

Matrix: Soil

Client Sample ID: GP-18-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Endrin ketone	ND	0.0215		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Methoxychlor	ND	0.0538		mg/Kg-dry	1	9/25/2015 5:26:00 PM
Surr: Decachlorobiphenyl	86.4	26.5-158		%REC	1	9/25/2015 5:26:00 PM
Surr: Tetrachloro-m-xylene	75.8	11-150		%REC	1	9/25/2015 5:26:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	23.6		mg/Kg-dry	1	9/24/2015 8:50:00 PM
Heavy Oil	ND	59.0		mg/Kg-dry	1	9/24/2015 8:50:00 PM
Surr: 2-Fluorobiphenyl	93.8	50-150		%REC	1	9/24/2015 8:50:00 PM
Surr: o-Terphenyl	94.4	50-150		%REC	1	9/24/2015 8:50:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Bis(2-chloroethyl) ether	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2-Chlorophenol	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
1,3-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
1,4-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
1,2-Dichlorobenzene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Benzyl alcohol	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2-Methylphenol (o-cresol)	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Hexachloroethane	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
N-Nitrosodi-n-propylamine	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Nitrobenzene	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Isophorone	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
4-Methylphenol (p-cresol)	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2-Nitrophenol	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2,4-Dimethylphenol	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Bis(2-chloroethoxy)methane	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2,4-Dichlorophenol	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
1,2,4-Trichlorobenzene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Naphthalene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
4-Chloroaniline	ND	596		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Hexachlorobutadiene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
4-Chloro-3-methylphenol	ND	596		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2-Methylnaphthalene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
1-Methylnaphthalene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509300-013

Matrix: Soil

Client Sample ID: GP-18-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	119	*	µg/Kg-dry	1	9/30/2015 12:20:00 AM
2,4,6-Trichlorophenol	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2,4,5-Trichlorophenol	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2-Chloronaphthalene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2-Nitroaniline	ND	596		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Acenaphthene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Dimethylphthalate	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2,6-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Acenaphthylene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2,4-Dinitrophenol	ND	238	*	µg/Kg-dry	1	9/30/2015 12:20:00 AM
Dibenzofuran	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
2,4-Dinitrotoluene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
4-Nitrophenol	ND	596		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Fluorene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
4-Chlorophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Diethylphthalate	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
4,6-Dinitro-2-methylphenol	ND	238		µg/Kg-dry	1	9/30/2015 12:20:00 AM
4-Bromophenyl phenyl ether	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Hexachlorobenzene	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Pentachlorophenol	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Phenanthrene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Anthracene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Carbazole	ND	596		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Di-n-butylphthalate	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Fluoranthene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Pyrene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Butyl Benzylphthalate	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
bis(2-Ethylhexyl)adipate	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Benz (a) anthracene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Chrysene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
bis (2-Ethylhexyl) phthalate	376	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Di-n-octyl phthalate	ND	119		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Benzo (b) fluoranthene	188	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Benzo (k) fluoranthene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Benzo (a) pyrene	174	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Indeno (1,2,3-cd) pyrene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Dibenz (a,h) anthracene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Benzo (g,h,i) perylene	ND	95.4		µg/Kg-dry	1	9/30/2015 12:20:00 AM
Surr: 2,4,6-Tribromophenol	80.1	11.1-127		%REC	1	9/30/2015 12:20:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509300-013

Matrix: Soil

Client Sample ID: GP-18-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Surr: 2-Fluorobiphenyl	61.0	16.1-150		%REC	1	9/30/2015 12:20:00 AM
Surr: Nitrobenzene-d5	43.8	13.1-124		%REC	1	9/30/2015 12:20:00 AM
Surr: Phenol-d6	53.7	11.6-133		%REC	1	9/30/2015 12:20:00 AM
Surr: p-Terphenyl	94.3	21.8-150		%REC	1	9/30/2015 12:20:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	3.70		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Surr: Toluene-d8	98.7	65-135		%REC	1	9/24/2015 10:50:00 PM
Surr: 4-Bromofluorobenzene	105	65-135		%REC	1	9/24/2015 10:50:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0444		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Chloromethane	ND	0.0444		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Vinyl chloride	ND	0.00148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Bromomethane	ND	0.0666		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0370		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Chloroethane	ND	0.0444		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,1-Dichloroethene	ND	0.0370		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Methylene chloride	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
trans-1,2-Dichloroethene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0370		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,1-Dichloroethane	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
2,2-Dichloropropane	ND	0.0370		mg/Kg-dry	1	9/24/2015 10:50:00 PM
cis-1,2-Dichloroethene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Chloroform	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,1-Dichloropropene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Carbon tetrachloride	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2-Dichloroethane (EDC)	ND	0.0222		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Benzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Trichloroethene (TCE)	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2-Dichloropropane	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Bromodichloromethane	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Dibromomethane	ND	0.0296		mg/Kg-dry	1	9/24/2015 10:50:00 PM
cis-1,3-Dichloropropene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509300-013

Matrix: Soil

Client Sample ID: GP-18-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11943		Analyst: BC
Toluene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
trans-1,3-Dichloropropylene	ND	0.0222		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,1,2-Trichloroethane	ND	0.0222		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,3-Dichloropropane	ND	0.0370		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Tetrachloroethene (PCE)	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Dibromochloromethane	ND	0.0222		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2-Dibromoethane (EDB)	ND	0.00370		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Chlorobenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0222		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Ethylbenzene	ND	0.0222		mg/Kg-dry	1	9/24/2015 10:50:00 PM
m,p-Xylene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
o-Xylene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Styrene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Isopropylbenzene	ND	0.0592		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Bromoform	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
n-Propylbenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Bromobenzene	ND	0.0222		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,3,5-Trimethylbenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
2-Chlorotoluene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
4-Chlorotoluene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
tert-Butylbenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2,3-Trichloropropane	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2,4-Trichlorobenzene	ND	0.0370		mg/Kg-dry	1	9/24/2015 10:50:00 PM
sec-Butylbenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
4-Isopropyltoluene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,3-Dichlorobenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,4-Dichlorobenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
n-Butylbenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2-Dichlorobenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2-Dibromo-3-chloropropane	ND	0.370		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2,4-Trimethylbenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Hexachlorobutadiene	ND	0.0740		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Naphthalene	ND	0.0222		mg/Kg-dry	1	9/24/2015 10:50:00 PM
1,2,3-Trichlorobenzene	ND	0.0148		mg/Kg-dry	1	9/24/2015 10:50:00 PM
Surr: Dibromofluoromethane	92.2	56.5-129		%REC	1	9/24/2015 10:50:00 PM
Surr: Toluene-d8	98.4	64.3-131		%REC	1	9/24/2015 10:50:00 PM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/24/2015 10:50:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:20:00 PM

Project: Pacific Park

Lab ID: 1509300-013

Matrix: Soil

Client Sample ID: GP-18-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.259		mg/Kg-dry	1	9/24/2015 4:57:22 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	5.56	0.0898		mg/Kg-dry	1	9/22/2015 7:27:04 PM
Barium	24.5	0.449		mg/Kg-dry	1	9/22/2015 7:27:04 PM
Cadmium	ND	0.180		mg/Kg-dry	1	9/22/2015 7:27:04 PM
Chromium	56.4	0.0898		mg/Kg-dry	1	9/22/2015 7:27:04 PM
Lead	5.71	0.180		mg/Kg-dry	1	9/22/2015 7:27:04 PM
Selenium	0.898	0.449		mg/Kg-dry	1	9/22/2015 7:27:04 PM
Silver	ND	0.0898		mg/Kg-dry	1	9/22/2015 7:27:04 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	18.1			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509300-014

Matrix: Soil

Client Sample ID: GP-19-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	38.3		µg/Kg-dry	1	10/5/2015 2:24:00 PM
2,4-D	ND	32.8		µg/Kg-dry	1	10/5/2015 2:24:00 PM
2,4-DP	ND	27.4		µg/Kg-dry	1	10/5/2015 2:24:00 PM
2,4,5-TP (Silvex)	ND	21.9		µg/Kg-dry	1	10/5/2015 2:24:00 PM
2,4,5-T	ND	54.7		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Dinoseb	ND	32.8		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Dalapon	ND	219		µg/Kg-dry	1	10/5/2015 2:24:00 PM
2,4-DB	ND	27.4		µg/Kg-dry	1	10/5/2015 2:24:00 PM
MCPP	ND	4,820		µg/Kg-dry	1	10/5/2015 2:24:00 PM
MCPA	ND	3,070		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Picloram	ND	54.7		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Bentazon	ND	38.3		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Chloramben	ND	21.9		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Acifluorfen	ND	87.6		µg/Kg-dry	1	10/5/2015 2:24:00 PM
3,5-Dichlorobenzoic acid	ND	43.8		µg/Kg-dry	1	10/5/2015 2:24:00 PM
4-Nitrophenol	ND	32.8		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Dacthal (DCPA)	ND	32.8		µg/Kg-dry	1	10/5/2015 2:24:00 PM
Surr: 2,4-Dichlorophenylacetic acid	92.5	20.1-168		%REC	1	10/5/2015 2:24:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Alpha BHC	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Beta BHC	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Gamma BHC (Lindane)	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Delta BHC	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Heptachlor	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Aldrin	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Heptachlor epoxide	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
gamma-Chlordane	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Endosulfan I	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
alpha-Chlordane	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Dieldrin	ND	0.0102		mg/Kg-dry	1	9/25/2015 5:36:00 PM
4,4'-DDE	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Endrin	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Endosulfan II	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM
4,4'-DDD	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Endrin aldehyde	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Endosulfan sulfate	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509300-014

Matrix: Soil

Client Sample ID: GP-19-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Endrin ketone	ND	0.0203		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Methoxychlor	ND	0.0509		mg/Kg-dry	1	9/25/2015 5:36:00 PM
Surr: Decachlorobiphenyl	52.1	26.5-158		%REC	1	9/25/2015 5:36:00 PM
Surr: Tetrachloro-m-xylene	46.5	11-150		%REC	1	9/25/2015 5:36:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	20.7		mg/Kg-dry	1	9/24/2015 3:35:00 AM
Heavy Oil	ND	51.9		mg/Kg-dry	1	9/24/2015 3:35:00 AM
Surr: 2-Fluorobiphenyl	136	50-150		%REC	1	9/24/2015 3:35:00 AM
Surr: o-Terphenyl	136	50-150		%REC	1	9/24/2015 3:35:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Bis(2-chloroethyl) ether	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2-Chlorophenol	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
1,3-Dichlorobenzene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
1,4-Dichlorobenzene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
1,2-Dichlorobenzene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Benzyl alcohol	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2-Methylphenol (o-cresol)	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Hexachloroethane	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
N-Nitrosodi-n-propylamine	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Nitrobenzene	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Isophorone	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
4-Methylphenol (p-cresol)	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2-Nitrophenol	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2,4-Dimethylphenol	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Bis(2-chloroethoxy)methane	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2,4-Dichlorophenol	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
1,2,4-Trichlorobenzene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Naphthalene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
4-Chloroaniline	ND	539		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Hexachlorobutadiene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
4-Chloro-3-methylphenol	ND	539		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2-Methylnaphthalene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
1-Methylnaphthalene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509300-014

Matrix: Soil

Client Sample ID: GP-19-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	108	*	µg/Kg-dry	1	9/30/2015 12:42:00 AM
2,4,6-Trichlorophenol	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2,4,5-Trichlorophenol	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2-Chloronaphthalene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2-Nitroaniline	ND	539		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Acenaphthene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Dimethylphthalate	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2,6-Dinitrotoluene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Acenaphthylene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2,4-Dinitrophenol	ND	216	*	µg/Kg-dry	1	9/30/2015 12:42:00 AM
Dibenzofuran	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
2,4-Dinitrotoluene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
4-Nitrophenol	ND	539		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Fluorene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
4-Chlorophenyl phenyl ether	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Diethylphthalate	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
4,6-Dinitro-2-methylphenol	ND	216		µg/Kg-dry	1	9/30/2015 12:42:00 AM
4-Bromophenyl phenyl ether	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Hexachlorobenzene	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Pentachlorophenol	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Phenanthrene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Anthracene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Carbazole	ND	539		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Di-n-butylphthalate	134	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Fluoranthene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Pyrene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Butyl Benzylphthalate	269	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
bis(2-Ethylhexyl)adipate	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Benz (a) anthracene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Chrysene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
bis (2-Ethylhexyl) phthalate	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Di-n-octyl phthalate	ND	108		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Benzo (b) fluoranthene	168	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Benzo (k) fluoranthene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Benzo (a) pyrene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Indeno (1,2,3-cd) pyrene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Dibenz (a,h) anthracene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Benzo (g,h,i) perylene	ND	86.3		µg/Kg-dry	1	9/30/2015 12:42:00 AM
Surr: 2,4,6-Tribromophenol	77.3	11.1-127		%REC	1	9/30/2015 12:42:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509300-014

Matrix: Soil

Client Sample ID: GP-19-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Surr: 2-Fluorobiphenyl	69.8	16.1-150		%REC	1	9/30/2015 12:42:00 AM
Surr: Nitrobenzene-d5	49.8	13.1-124		%REC	1	9/30/2015 12:42:00 AM
Surr: Phenol-d6	50.4	11.6-133		%REC	1	9/30/2015 12:42:00 AM
Surr: p-Terphenyl	95.1	21.8-150		%REC	1	9/30/2015 12:42:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	3.09		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Gasoline Range Organics (C6-C12)	21.3	3.09		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Surr: Toluene-d8	99.8	65-135		%REC	1	9/24/2015 11:18:00 PM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/24/2015 11:18:00 PM

NOTES:

GRO - Indicates the presence of unresolved compounds eluting from toluene to dodecane (~C7->C12).

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0371		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Chloromethane	ND	0.0371		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Vinyl chloride	ND	0.00124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Bromomethane	ND	0.0557		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0309		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Chloroethane	ND	0.0371		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,1-Dichloroethene	ND	0.0309		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Methylene chloride	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
trans-1,2-Dichloroethene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0309		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,1-Dichloroethane	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
2,2-Dichloropropane	ND	0.0309		mg/Kg-dry	1	9/24/2015 11:18:00 PM
cis-1,2-Dichloroethene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Chloroform	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,1-Dichloropropene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Carbon tetrachloride	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2-Dichloroethane (EDC)	ND	0.0186		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Benzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Trichloroethene (TCE)	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2-Dichloropropane	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509300-014

Matrix: Soil

Client Sample ID: GP-19-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11943		Analyst: BC
Bromodichloromethane	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Dibromomethane	ND	0.0248		mg/Kg-dry	1	9/24/2015 11:18:00 PM
cis-1,3-Dichloropropene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Toluene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
trans-1,3-Dichloropropylene	ND	0.0186		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,1,2-Trichloroethane	ND	0.0186		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,3-Dichloropropane	ND	0.0309		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Tetrachloroethene (PCE)	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Dibromochloromethane	ND	0.0186		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2-Dibromoethane (EDB)	ND	0.00309		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Chlorobenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0186		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Ethylbenzene	ND	0.0186		mg/Kg-dry	1	9/24/2015 11:18:00 PM
m,p-Xylene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
o-Xylene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Styrene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Isopropylbenzene	ND	0.0495		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Bromoform	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
n-Propylbenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Bromobenzene	ND	0.0186		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,3,5-Trimethylbenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
2-Chlorotoluene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
4-Chlorotoluene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
tert-Butylbenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2,3-Trichloropropane	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2,4-Trichlorobenzene	ND	0.0309		mg/Kg-dry	1	9/24/2015 11:18:00 PM
sec-Butylbenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
4-Isopropyltoluene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,3-Dichlorobenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,4-Dichlorobenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
n-Butylbenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2-Dichlorobenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2-Dibromo-3-chloropropane	ND	0.309		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2,4-Trimethylbenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Hexachlorobutadiene	ND	0.0619		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Naphthalene	ND	0.0186		mg/Kg-dry	1	9/24/2015 11:18:00 PM
1,2,3-Trichlorobenzene	ND	0.0124		mg/Kg-dry	1	9/24/2015 11:18:00 PM
Surr: Dibromofluoromethane	92.9	56.5-129		%REC	1	9/24/2015 11:18:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:50:00 PM

Project: Pacific Park

Lab ID: 1509300-014

Matrix: Soil

Client Sample ID: GP-19-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11943		Analyst: BC
Surr: Toluene-d8	98.1	64.3-131		%REC	1	9/24/2015 11:18:00 PM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/24/2015 11:18:00 PM
<u>Mercury by EPA Method 7471</u>				Batch ID: 11920		Analyst: TN
Mercury	ND	0.236		mg/Kg-dry	1	9/24/2015 4:58:58 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11909		Analyst: TN
Arsenic	3.46	0.0877		mg/Kg-dry	1	9/22/2015 7:37:42 PM
Barium	43.9	0.439		mg/Kg-dry	1	9/22/2015 7:37:42 PM
Cadmium	ND	0.175		mg/Kg-dry	1	9/22/2015 7:37:42 PM
Chromium	21.6	0.0877		mg/Kg-dry	1	9/22/2015 7:37:42 PM
Lead	5.41	0.175		mg/Kg-dry	1	9/22/2015 7:37:42 PM
Selenium	1.12	0.439		mg/Kg-dry	1	9/22/2015 7:37:42 PM
Silver	ND	0.0877		mg/Kg-dry	1	9/22/2015 7:37:42 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25116		Analyst: CG
Percent Moisture	10.2			wt%	1	9/25/2015 11:01:12 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:55:00 PM

Project: Pacific Park

Lab ID: 1509300-015

Matrix: Soil

Client Sample ID: GP-19-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	44.8		µg/Kg-dry	1	10/5/2015 2:41:00 PM
2,4-D	ND	38.4		µg/Kg-dry	1	10/5/2015 2:41:00 PM
2,4-DP	ND	32.0		µg/Kg-dry	1	10/5/2015 2:41:00 PM
2,4,5-TP (Silvex)	ND	25.6		µg/Kg-dry	1	10/5/2015 2:41:00 PM
2,4,5-T	ND	64.0		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Dinoseb	ND	38.4		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Dalapon	ND	256		µg/Kg-dry	1	10/5/2015 2:41:00 PM
2,4-DB	ND	32.0		µg/Kg-dry	1	10/5/2015 2:41:00 PM
MCPP	ND	5,630		µg/Kg-dry	1	10/5/2015 2:41:00 PM
MCPA	ND	3,580		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Picloram	ND	64.0		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Bentazon	ND	44.8		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Chloramben	ND	25.6		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Acifluorfen	ND	102		µg/Kg-dry	1	10/5/2015 2:41:00 PM
3,5-Dichlorobenzoic acid	ND	51.2		µg/Kg-dry	1	10/5/2015 2:41:00 PM
4-Nitrophenol	ND	38.4		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Dacthal (DCPA)	ND	38.4		µg/Kg-dry	1	10/5/2015 2:41:00 PM
Surr: 2,4-Dichlorophenylacetic acid	95.1	20.1-168		%REC	1	10/5/2015 2:41:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Alpha BHC	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Beta BHC	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Gamma BHC (Lindane)	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Delta BHC	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Heptachlor	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Aldrin	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Heptachlor epoxide	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
gamma-Chlordane	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Endosulfan I	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
alpha-Chlordane	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Dieldrin	ND	0.0113		mg/Kg-dry	1	9/25/2015 5:47:00 PM
4,4'-DDE	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Endrin	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Endosulfan II	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM
4,4'-DDD	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Endrin aldehyde	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Endosulfan sulfate	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:55:00 PM

Project: Pacific Park

Lab ID: 1509300-015

Matrix: Soil

Client Sample ID: GP-19-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Endrin ketone	ND	0.0226		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Methoxychlor	ND	0.0564		mg/Kg-dry	1	9/25/2015 5:47:00 PM
Surr: Decachlorobiphenyl	41.0	26.5-158		%REC	1	9/25/2015 5:47:00 PM
Surr: Tetrachloro-m-xylene	42.6	11-150		%REC	1	9/25/2015 5:47:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11919		Analyst: AK
Diesel (Fuel Oil)	ND	24.8		mg/Kg-dry	1	9/24/2015 4:07:00 AM
Heavy Oil	ND	62.1		mg/Kg-dry	1	9/24/2015 4:07:00 AM
Surr: 2-Fluorobiphenyl	96.4	50-150		%REC	1	9/24/2015 4:07:00 AM
Surr: o-Terphenyl	98.3	50-150		%REC	1	9/24/2015 4:07:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Bis(2-chloroethyl) ether	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2-Chlorophenol	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
1,3-Dichlorobenzene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
1,4-Dichlorobenzene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
1,2-Dichlorobenzene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Benzyl alcohol	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2-Methylphenol (o-cresol)	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Hexachloroethane	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
N-Nitrosodi-n-propylamine	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Nitrobenzene	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Isophorone	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
4-Methylphenol (p-cresol)	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2-Nitrophenol	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2,4-Dimethylphenol	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Bis(2-chloroethoxy)methane	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2,4-Dichlorophenol	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
1,2,4-Trichlorobenzene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Naphthalene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
4-Chloroaniline	ND	638		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Hexachlorobutadiene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
4-Chloro-3-methylphenol	ND	638		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2-Methylnaphthalene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
1-Methylnaphthalene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:55:00 PM

Project: Pacific Park

Lab ID: 1509300-015

Matrix: Soil

Client Sample ID: GP-19-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	128	*	µg/Kg-dry	1	9/30/2015 1:04:00 AM
2,4,6-Trichlorophenol	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2,4,5-Trichlorophenol	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2-Chloronaphthalene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2-Nitroaniline	ND	638		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Acenaphthene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Dimethylphthalate	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2,6-Dinitrotoluene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Acenaphthylene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2,4-Dinitrophenol	ND	255	*	µg/Kg-dry	1	9/30/2015 1:04:00 AM
Dibenzofuran	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
2,4-Dinitrotoluene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
4-Nitrophenol	ND	638		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Fluorene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
4-Chlorophenyl phenyl ether	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Diethylphthalate	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
4,6-Dinitro-2-methylphenol	ND	255		µg/Kg-dry	1	9/30/2015 1:04:00 AM
4-Bromophenyl phenyl ether	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Hexachlorobenzene	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Pentachlorophenol	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Phenanthrene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Anthracene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Carbazole	ND	638		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Di-n-butylphthalate	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Fluoranthene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Pyrene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Butyl Benzylphthalate	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
bis(2-Ethylhexyl)adipate	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Benz (a) anthracene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Chrysene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
bis (2-Ethylhexyl) phthalate	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Di-n-octyl phthalate	ND	128		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Benzo (b) fluoranthene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Benzo (k) fluoranthene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Benzo (a) pyrene	276	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Indeno (1,2,3-cd) pyrene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Dibenz (a,h) anthracene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Benzo (g,h,i) perylene	ND	102		µg/Kg-dry	1	9/30/2015 1:04:00 AM
Surr: 2,4,6-Tribromophenol	71.5	11.1-127		%REC	1	9/30/2015 1:04:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:55:00 PM

Project: Pacific Park

Lab ID: 1509300-015

Matrix: Soil

Client Sample ID: GP-19-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	58.6	16.1-150	%REC	1	9/30/2015 1:04:00 AM
Surr: Nitrobenzene-d5	43.0	13.1-124	%REC	1	9/30/2015 1:04:00 AM
Surr: Phenol-d6	51.9	11.6-133	%REC	1	9/30/2015 1:04:00 AM
Surr: p-Terphenyl	81.8	21.8-150	%REC	1	9/30/2015 1:04:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	4.71	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Surr: Toluene-d8	98.9	65-135	%REC	1	9/24/2015 11:47:00 PM
Surr: 4-Bromofluorobenzene	105	65-135	%REC	1	9/24/2015 11:47:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0565	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Chloromethane	ND	0.0565	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Vinyl chloride	ND	0.00188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Bromomethane	ND	0.0847	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0471	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Chloroethane	ND	0.0565	mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,1-Dichloroethene	ND	0.0471	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Methylene chloride	0.0198	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
trans-1,2-Dichloroethene	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0471	mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,1-Dichloroethane	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
2,2-Dichloropropane	ND	0.0471	mg/Kg-dry	1	9/24/2015 11:47:00 PM
cis-1,2-Dichloroethene	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Chloroform	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,1-Dichloropropene	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Carbon tetrachloride	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2-Dichloroethane (EDC)	ND	0.0282	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Benzene	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Trichloroethene (TCE)	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2-Dichloropropane	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Bromodichloromethane	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM
Dibromomethane	ND	0.0377	mg/Kg-dry	1	9/24/2015 11:47:00 PM
cis-1,3-Dichloropropene	ND	0.0188	mg/Kg-dry	1	9/24/2015 11:47:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:55:00 PM

Project: Pacific Park

Lab ID: 1509300-015

Matrix: Soil

Client Sample ID: GP-19-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11943	Analyst: BC	
Toluene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
trans-1,3-Dichloropropylene	ND	0.0282		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,1,2-Trichloroethane	ND	0.0282		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,3-Dichloropropane	ND	0.0471		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Tetrachloroethene (PCE)	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Dibromochloromethane	ND	0.0282		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2-Dibromoethane (EDB)	ND	0.00471		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Chlorobenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0282		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Ethylbenzene	ND	0.0282		mg/Kg-dry	1	9/24/2015 11:47:00 PM
m,p-Xylene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
o-Xylene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Styrene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Isopropylbenzene	ND	0.0753		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Bromoform	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
n-Propylbenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Bromobenzene	ND	0.0282		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,3,5-Trimethylbenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
2-Chlorotoluene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
4-Chlorotoluene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
tert-Butylbenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2,3-Trichloropropane	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2,4-Trichlorobenzene	ND	0.0471		mg/Kg-dry	1	9/24/2015 11:47:00 PM
sec-Butylbenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
4-Isopropyltoluene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,3-Dichlorobenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,4-Dichlorobenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
n-Butylbenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2-Dichlorobenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2-Dibromo-3-chloropropane	ND	0.471		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2,4-Trimethylbenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Hexachlorobutadiene	ND	0.0942		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Naphthalene	ND	0.0282		mg/Kg-dry	1	9/24/2015 11:47:00 PM
1,2,3-Trichlorobenzene	ND	0.0188		mg/Kg-dry	1	9/24/2015 11:47:00 PM
Surr: Dibromofluoromethane	91.8	56.5-129		%REC	1	9/24/2015 11:47:00 PM
Surr: Toluene-d8	97.3	64.3-131		%REC	1	9/24/2015 11:47:00 PM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/24/2015 11:47:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 12:55:00 PM

Project: Pacific Park

Lab ID: 1509300-015

Matrix: Soil

Client Sample ID: GP-19-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.278		mg/Kg-dry	1	9/24/2015 5:00:40 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	2.72	0.0994		mg/Kg-dry	1	9/22/2015 7:41:14 PM
Barium	37.6	0.497		mg/Kg-dry	1	9/22/2015 7:41:14 PM
Cadmium	ND	0.199		mg/Kg-dry	1	9/22/2015 7:41:14 PM
Chromium	17.1	0.0994		mg/Kg-dry	1	9/22/2015 7:41:14 PM
Lead	2.16	0.199		mg/Kg-dry	1	9/22/2015 7:41:14 PM
Selenium	0.864	0.497		mg/Kg-dry	1	9/22/2015 7:41:14 PM
Silver	ND	0.0994		mg/Kg-dry	1	9/22/2015 7:41:14 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	22.6			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:20:00 PM

Project: Pacific Park

Lab ID: 1509300-016

Matrix: Soil

Client Sample ID: GP-20-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	37.8		µg/Kg-dry	1	10/5/2015 2:58:00 PM
2,4-D	ND	32.4		µg/Kg-dry	1	10/5/2015 2:58:00 PM
2,4-DP	ND	27.0		µg/Kg-dry	1	10/5/2015 2:58:00 PM
2,4,5-TP (Silvex)	ND	21.6		µg/Kg-dry	1	10/5/2015 2:58:00 PM
2,4,5-T	ND	54.1		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Dinoseb	ND	32.4		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Dalapon	ND	216		µg/Kg-dry	1	10/5/2015 2:58:00 PM
2,4-DB	ND	27.0		µg/Kg-dry	1	10/5/2015 2:58:00 PM
MCPP	ND	4,760		µg/Kg-dry	1	10/5/2015 2:58:00 PM
MCPA	ND	3,030		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Picloram	ND	54.1		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Bentazon	ND	37.8		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Chloramben	ND	21.6		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Acifluorfen	ND	86.5		µg/Kg-dry	1	10/5/2015 2:58:00 PM
3,5-Dichlorobenzoic acid	ND	43.2		µg/Kg-dry	1	10/5/2015 2:58:00 PM
4-Nitrophenol	ND	32.4		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Dacthal (DCPA)	ND	32.4		µg/Kg-dry	1	10/5/2015 2:58:00 PM
Surr: 2,4-Dichlorophenylacetic acid	95.5	20.1-168		%REC	1	10/5/2015 2:58:00 PM

Polychlorinated Biphenyls (PCB) by EPA 8082

Batch ID: 12180

Analyst: CM

Aroclor 1016	ND	0.102		mg/Kg-dry	1	10/22/2015 6:39:00 PM
Aroclor 1221	ND	0.102		mg/Kg-dry	1	10/22/2015 6:39:00 PM
Aroclor 1232	ND	0.102		mg/Kg-dry	1	10/22/2015 6:39:00 PM
Aroclor 1242	ND	0.102		mg/Kg-dry	1	10/22/2015 6:39:00 PM
Aroclor 1248	ND	0.102		mg/Kg-dry	1	10/22/2015 6:39:00 PM
Aroclor 1254	ND	0.102		mg/Kg-dry	1	10/22/2015 6:39:00 PM
Aroclor 1260	ND	0.102		mg/Kg-dry	1	10/22/2015 6:39:00 PM
Aroclor 1262	ND	0.102		mg/Kg-dry	1	10/22/2015 6:39:00 PM
Aroclor 1268	ND	0.102		mg/Kg-dry	1	10/22/2015 6:39:00 PM
Total PCBs	ND	0.102		mg/Kg-dry	1	10/22/2015 6:39:00 PM
Surr: Decachlorobiphenyl	93.4	41.2-143		%REC	1	10/22/2015 6:39:00 PM
Surr: Tetrachloro-m-xylene	90.9	26-140		%REC	1	10/22/2015 6:39:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.0948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Alpha BHC	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Beta BHC	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:20:00 PM

Project: Pacific Park

Lab ID: 1509300-016

Matrix: Soil

Client Sample ID: GP-20-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Gamma BHC (Lindane)	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Delta BHC	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Heptachlor	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Aldrin	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Heptachlor epoxide	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
gamma-Chlordane	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Endosulfan I	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
alpha-Chlordane	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Dieldrin	ND	0.00948		mg/Kg-dry	1	9/25/2015 5:58:00 PM
4,4'-DDE	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Endrin	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Endosulfan II	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM
4,4'-DDD	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Endrin aldehyde	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Endosulfan sulfate	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM
4,4'-DDT	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Endrin ketone	ND	0.0190		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Methoxychlor	ND	0.0474		mg/Kg-dry	1	9/25/2015 5:58:00 PM
Surr: Decachlorobiphenyl	80.1	26.5-158		%REC	1	9/25/2015 5:58:00 PM
Surr: Tetrachloro-m-xylene	80.8	11-150		%REC	1	9/25/2015 5:58:00 PM

Diesel and Heavy Oil by NWT PH-Dx/Dx Ext.

Batch ID: 11919

Analyst: AK

Diesel (Fuel Oil)	ND	19.7		mg/Kg-dry	1	9/24/2015 4:40:00 AM
Heavy Oil	285	49.2		mg/Kg-dry	1	9/24/2015 4:40:00 AM
Surr: 2-Fluorobiphenyl	107	50-150		%REC	1	9/24/2015 4:40:00 AM
Surr: o-Terphenyl	106	50-150		%REC	1	9/24/2015 4:40:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Bis(2-chloroethyl) ether	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2-Chlorophenol	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
1,3-Dichlorobenzene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
1,4-Dichlorobenzene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
1,2-Dichlorobenzene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Benzyl alcohol	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2-Methylphenol (o-cresol)	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Hexachloroethane	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:20:00 PM

Project: Pacific Park

Lab ID: 1509300-016

Matrix: Soil

Client Sample ID: GP-20-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
N-Nitrosodi-n-propylamine	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Nitrobenzene	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Isophorone	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
4-Methylphenol (p-cresol)	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2-Nitrophenol	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2,4-Dimethylphenol	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Bis(2-chloroethoxy)methane	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2,4-Dichlorophenol	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
1,2,4-Trichlorobenzene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Naphthalene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
4-Chloroaniline	ND	530		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Hexachlorobutadiene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
4-Chloro-3-methylphenol	ND	530		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2-Methylnaphthalene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
1-Methylnaphthalene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Hexachlorocyclopentadiene	ND	106	*	µg/Kg-dry	1	9/30/2015 1:26:00 AM
2,4,6-Trichlorophenol	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2,4,5-Trichlorophenol	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2-Chloronaphthalene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2-Nitroaniline	ND	530		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Acenaphthene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Dimethylphthalate	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2,6-Dinitrotoluene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Acenaphthylene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2,4-Dinitrophenol	ND	212	*	µg/Kg-dry	1	9/30/2015 1:26:00 AM
Dibenzofuran	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
2,4-Dinitrotoluene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
4-Nitrophenol	ND	530		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Fluorene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
4-Chlorophenyl phenyl ether	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Diethylphthalate	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
4,6-Dinitro-2-methylphenol	ND	212		µg/Kg-dry	1	9/30/2015 1:26:00 AM
4-Bromophenyl phenyl ether	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Hexachlorobenzene	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Pentachlorophenol	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Phenanthrene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Anthracene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Carbazole	ND	530		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Di-n-butylphthalate	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:20:00 PM

Project: Pacific Park

Lab ID: 1509300-016

Matrix: Soil

Client Sample ID: GP-20-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Fluoranthene	95.5	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Pyrene	90.3	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Butyl Benzylphthalate	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
bis(2-Ethylhexyl)adipate	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Benz (a) anthracene	134	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Chrysene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
bis (2-Ethylhexyl) phthalate	212	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Di-n-octyl phthalate	ND	106		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Benzo (b) fluoranthene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Benzo (k) fluoranthene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Benzo (a) pyrene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Indeno (1,2,3-cd) pyrene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Dibenz (a,h) anthracene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Benzo (g,h,i) perylene	ND	84.7		µg/Kg-dry	1	9/30/2015 1:26:00 AM
Surr: 2,4,6-Tribromophenol	74.8	11.1-127		%REC	1	9/30/2015 1:26:00 AM
Surr: 2-Fluorobiphenyl	56.7	16.1-150		%REC	1	9/30/2015 1:26:00 AM
Surr: Nitrobenzene-d5	35.7	13.1-124		%REC	1	9/30/2015 1:26:00 AM
Surr: Phenol-d6	53.0	11.6-133		%REC	1	9/30/2015 1:26:00 AM
Surr: p-Terphenyl	91.9	21.8-150		%REC	1	9/30/2015 1:26:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	3.32		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Surr: Toluene-d8	98.5	65-135		%REC	1	9/25/2015 12:15:00 AM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/25/2015 12:15:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0399		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Chloromethane	ND	0.0399		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Vinyl chloride	ND	0.00133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Bromomethane	ND	0.0598		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0332		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Chloroethane	ND	0.0399		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,1-Dichloroethene	ND	0.0332		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Methylene chloride	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
trans-1,2-Dichloroethene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:20:00 PM

Project: Pacific Park

Lab ID: 1509300-016

Matrix: Soil

Client Sample ID: GP-20-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Methyl tert-butyl ether (MTBE)	ND	0.0332		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,1-Dichloroethane	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
2,2-Dichloropropane	ND	0.0332		mg/Kg-dry	1	9/25/2015 12:15:00 AM
cis-1,2-Dichloroethene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Chloroform	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,1-Dichloropropene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Carbon tetrachloride	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2-Dichloroethane (EDC)	ND	0.0199		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Benzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Trichloroethene (TCE)	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2-Dichloropropane	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Bromodichloromethane	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Dibromomethane	ND	0.0266		mg/Kg-dry	1	9/25/2015 12:15:00 AM
cis-1,3-Dichloropropene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Toluene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
trans-1,3-Dichloropropylene	ND	0.0199		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,1,2-Trichloroethane	ND	0.0199		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,3-Dichloropropane	ND	0.0332		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Tetrachloroethene (PCE)	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Dibromochloromethane	ND	0.0199		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2-Dibromoethane (EDB)	ND	0.00332		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Chlorobenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0199		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Ethylbenzene	ND	0.0199		mg/Kg-dry	1	9/25/2015 12:15:00 AM
m,p-Xylene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
o-Xylene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Styrene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Isopropylbenzene	ND	0.0531		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Bromoform	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
n-Propylbenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Bromobenzene	ND	0.0199		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,3,5-Trimethylbenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
2-Chlorotoluene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
4-Chlorotoluene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
tert-Butylbenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2,3-Trichloropropane	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2,4-Trichlorobenzene	ND	0.0332		mg/Kg-dry	1	9/25/2015 12:15:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:20:00 PM

Project: Pacific Park

Lab ID: 1509300-016

Matrix: Soil

Client Sample ID: GP-20-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11943		Analyst: BC
sec-Butylbenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
4-Isopropyltoluene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,3-Dichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,4-Dichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
n-Butylbenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2-Dichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2-Dibromo-3-chloropropane	ND	0.332		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2,4-Trimethylbenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Hexachlorobutadiene	ND	0.0664		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Naphthalene	ND	0.0199		mg/Kg-dry	1	9/25/2015 12:15:00 AM
1,2,3-Trichlorobenzene	ND	0.0133		mg/Kg-dry	1	9/25/2015 12:15:00 AM
Surr: Dibromofluoromethane	92.9	56.5-129		%REC	1	9/25/2015 12:15:00 AM
Surr: Toluene-d8	98.9	64.3-131		%REC	1	9/25/2015 12:15:00 AM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/25/2015 12:15:00 AM

Mercury by EPA Method 7471

Batch ID: 11920 Analyst: TN

Mercury	ND	0.266		mg/Kg-dry	1	9/24/2015 5:02:18 PM
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Total Metals by EPA Method 6020

Batch ID: 11909 Analyst: TN

Arsenic	3.97	0.0846		mg/Kg-dry	1	9/22/2015 7:44:45 PM
Barium	31.5	0.423		mg/Kg-dry	1	9/22/2015 7:44:45 PM
Cadmium	ND	0.169		mg/Kg-dry	1	9/22/2015 7:44:45 PM
Chromium	19.1	0.0846		mg/Kg-dry	1	9/22/2015 7:44:45 PM
Lead	19.6	0.169		mg/Kg-dry	1	9/22/2015 7:44:45 PM
Selenium	1.16	0.423		mg/Kg-dry	1	9/22/2015 7:44:45 PM
Silver	ND	0.0846		mg/Kg-dry	1	9/22/2015 7:44:45 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116 Analyst: CG

Percent Moisture	7.70			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:45:00 PM

Project: Pacific Park

Lab ID: 1509300-017

Matrix: Soil

Client Sample ID: GP-20-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11955		Analyst: MD	
Dicamba	ND	40.3		µg/Kg-dry	1	10/5/2015 3:15:00 PM
2,4-D	ND	34.5		µg/Kg-dry	1	10/5/2015 3:15:00 PM
2,4-DP	ND	28.8		µg/Kg-dry	1	10/5/2015 3:15:00 PM
2,4,5-TP (Silvex)	ND	23.0		µg/Kg-dry	1	10/5/2015 3:15:00 PM
2,4,5-T	ND	57.5		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Dinoseb	ND	34.5		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Dalapon	ND	230		µg/Kg-dry	1	10/5/2015 3:15:00 PM
2,4-DB	ND	28.8		µg/Kg-dry	1	10/5/2015 3:15:00 PM
MCPP	ND	5,060		µg/Kg-dry	1	10/5/2015 3:15:00 PM
MCPA	ND	3,220		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Picloram	ND	57.5		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Bentazon	ND	40.3		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Chloramben	ND	23.0		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Acifluorfen	ND	92.0		µg/Kg-dry	1	10/5/2015 3:15:00 PM
3,5-Dichlorobenzoic acid	ND	46.0		µg/Kg-dry	1	10/5/2015 3:15:00 PM
4-Nitrophenol	ND	34.5		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Dacthal (DCPA)	ND	34.5		µg/Kg-dry	1	10/5/2015 3:15:00 PM
Surr: 2,4-Dichlorophenylacetic acid	101	20.1-168		%REC	1	10/5/2015 3:15:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Alpha BHC	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Beta BHC	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Gamma BHC (Lindane)	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Delta BHC	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Heptachlor	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Aldrin	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Heptachlor epoxide	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
gamma-Chlordane	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Endosulfan I	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
alpha-Chlordane	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Dieldrin	ND	0.0113		mg/Kg-dry	1	9/25/2015 6:09:00 PM
4,4'-DDE	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Endrin	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Endosulfan II	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM
4,4'-DDD	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Endrin aldehyde	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Endosulfan sulfate	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:45:00 PM

Project: Pacific Park

Lab ID: 1509300-017

Matrix: Soil

Client Sample ID: GP-20-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

4,4'-DDT	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Endrin ketone	ND	0.0226		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Methoxychlor	ND	0.0565		mg/Kg-dry	1	9/25/2015 6:09:00 PM
Surr: Decachlorobiphenyl	78.9	26.5-158		%REC	1	9/25/2015 6:09:00 PM
Surr: Tetrachloro-m-xylene	82.1	11-150		%REC	1	9/25/2015 6:09:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11919

Analyst: AK

Diesel (Fuel Oil)	ND	20.8		mg/Kg-dry	1	9/24/2015 5:12:00 AM
Heavy Oil	ND	51.9		mg/Kg-dry	1	9/24/2015 5:12:00 AM
Surr: 2-Fluorobiphenyl	103	50-150		%REC	1	9/24/2015 5:12:00 AM
Surr: o-Terphenyl	104	50-150		%REC	1	9/24/2015 5:12:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Bis(2-chloroethyl) ether	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2-Chlorophenol	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
1,3-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
1,4-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
1,2-Dichlorobenzene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Benzyl alcohol	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2-Methylphenol (o-cresol)	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Hexachloroethane	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
N-Nitrosodi-n-propylamine	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Nitrobenzene	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Isophorone	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
4-Methylphenol (p-cresol)	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2-Nitrophenol	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2,4-Dimethylphenol	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Bis(2-chloroethoxy)methane	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2,4-Dichlorophenol	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
1,2,4-Trichlorobenzene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Naphthalene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
4-Chloroaniline	ND	575		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Hexachlorobutadiene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
4-Chloro-3-methylphenol	ND	575		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2-Methylnaphthalene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
1-Methylnaphthalene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:45:00 PM

Project: Pacific Park

Lab ID: 1509300-017

Matrix: Soil

Client Sample ID: GP-20-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	115	*	µg/Kg-dry	1	9/30/2015 1:48:00 AM
2,4,6-Trichlorophenol	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2,4,5-Trichlorophenol	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2-Chloronaphthalene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2-Nitroaniline	ND	575		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Acenaphthene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Dimethylphthalate	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2,6-Dinitrotoluene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Acenaphthylene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2,4-Dinitrophenol	ND	230	*	µg/Kg-dry	1	9/30/2015 1:48:00 AM
Dibenzofuran	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
2,4-Dinitrotoluene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
4-Nitrophenol	ND	575		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Fluorene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
4-Chlorophenyl phenyl ether	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Diethylphthalate	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
4,6-Dinitro-2-methylphenol	ND	230		µg/Kg-dry	1	9/30/2015 1:48:00 AM
4-Bromophenyl phenyl ether	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Hexachlorobenzene	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Pentachlorophenol	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Phenanthrene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Anthracene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Carbazole	ND	575		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Di-n-butylphthalate	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Fluoranthene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Pyrene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Butyl Benzylphthalate	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
bis(2-Ethylhexyl)adipate	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Benz (a) anthracene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Chrysene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
bis (2-Ethylhexyl) phthalate	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Di-n-octyl phthalate	ND	115		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Benzo (b) fluoranthene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Benzo (k) fluoranthene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Benzo (a) pyrene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Indeno (1,2,3-cd) pyrene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Dibenz (a,h) anthracene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Benzo (g,h,i) perylene	ND	92.1		µg/Kg-dry	1	9/30/2015 1:48:00 AM
Surr: 2,4,6-Tribromophenol	74.4	11.1-127		%REC	1	9/30/2015 1:48:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:45:00 PM

Project: Pacific Park

Lab ID: 1509300-017

Matrix: Soil

Client Sample ID: GP-20-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	45.8	16.1-150	%REC	1	9/30/2015 1:48:00 AM
Surr: Nitrobenzene-d5	27.7	13.1-124	%REC	1	9/30/2015 1:48:00 AM
Surr: Phenol-d6	52.9	11.6-133	%REC	1	9/30/2015 1:48:00 AM
Surr: p-Terphenyl	88.5	21.8-150	%REC	1	9/30/2015 1:48:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	3.60	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Surr: Toluene-d8	99.7	65-135	%REC	1	9/25/2015 2:38:00 AM
Surr: 4-Bromofluorobenzene	102	65-135	%REC	1	9/25/2015 2:38:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0432	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Chloromethane	ND	0.0432	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Vinyl chloride	ND	0.00144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Bromomethane	ND	0.0649	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0360	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Chloroethane	ND	0.0432	mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,1-Dichloroethene	ND	0.0360	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Methylene chloride	0.0151	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
trans-1,2-Dichloroethene	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0360	mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,1-Dichloroethane	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
2,2-Dichloropropane	ND	0.0360	mg/Kg-dry	1	9/25/2015 2:38:00 AM
cis-1,2-Dichloroethene	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Chloroform	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,1-Dichloropropene	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Carbon tetrachloride	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2-Dichloroethane (EDC)	ND	0.0216	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Benzene	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Trichloroethene (TCE)	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2-Dichloropropane	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Bromodichloromethane	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM
Dibromomethane	ND	0.0288	mg/Kg-dry	1	9/25/2015 2:38:00 AM
cis-1,3-Dichloropropene	ND	0.0144	mg/Kg-dry	1	9/25/2015 2:38:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:45:00 PM

Project: Pacific Park

Lab ID: 1509300-017

Matrix: Soil

Client Sample ID: GP-20-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Toluene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
trans-1,3-Dichloropropylene	ND	0.0216		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,1,2-Trichloroethane	ND	0.0216		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,3-Dichloropropane	ND	0.0360		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Tetrachloroethene (PCE)	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Dibromochloromethane	ND	0.0216		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2-Dibromoethane (EDB)	ND	0.00360		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Chlorobenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0216		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Ethylbenzene	ND	0.0216		mg/Kg-dry	1	9/25/2015 2:38:00 AM
m,p-Xylene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
o-Xylene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Styrene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Isopropylbenzene	ND	0.0577		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Bromoform	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
n-Propylbenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Bromobenzene	ND	0.0216		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,3,5-Trimethylbenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
2-Chlorotoluene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
4-Chlorotoluene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
tert-Butylbenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2,3-Trichloropropane	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2,4-Trichlorobenzene	ND	0.0360		mg/Kg-dry	1	9/25/2015 2:38:00 AM
sec-Butylbenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
4-Isopropyltoluene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,3-Dichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,4-Dichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
n-Butylbenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2-Dichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2-Dibromo-3-chloropropane	ND	0.360		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2,4-Trimethylbenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Hexachlorobutadiene	ND	0.0721		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Naphthalene	ND	0.0216		mg/Kg-dry	1	9/25/2015 2:38:00 AM
1,2,3-Trichlorobenzene	ND	0.0144		mg/Kg-dry	1	9/25/2015 2:38:00 AM
Surr: Dibromofluoromethane	94.3	56.5-129		%REC	1	9/25/2015 2:38:00 AM
Surr: Toluene-d8	96.2	64.3-131		%REC	1	9/25/2015 2:38:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.1	63.1-141		%REC	1	9/25/2015 2:38:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 1:45:00 PM

Project: Pacific Park

Lab ID: 1509300-017

Matrix: Soil

Client Sample ID: GP-20-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.268		mg/Kg-dry	1	9/24/2015 5:03:55 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	1.87	0.0916		mg/Kg-dry	1	9/22/2015 7:48:17 PM
Barium	20.6	0.458		mg/Kg-dry	1	9/22/2015 7:48:17 PM
Cadmium	ND	0.183		mg/Kg-dry	1	9/22/2015 7:48:17 PM
Chromium	11.3	0.0916		mg/Kg-dry	1	9/22/2015 7:48:17 PM
Lead	2.31	0.183		mg/Kg-dry	1	9/22/2015 7:48:17 PM
Selenium	0.923	0.458		mg/Kg-dry	1	9/22/2015 7:48:17 PM
Silver	ND	0.0916		mg/Kg-dry	1	9/22/2015 7:48:17 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	16.7			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:20:00 PM

Project: Pacific Park

Lab ID: 1509300-018

Matrix: Soil

Client Sample ID: GP-21-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11955			Analyst: MD
Dicamba	ND	41.0		µg/Kg-dry	1	10/5/2015 3:32:00 PM
2,4-D	ND	35.1		µg/Kg-dry	1	10/5/2015 3:32:00 PM
2,4-DP	ND	29.3		µg/Kg-dry	1	10/5/2015 3:32:00 PM
2,4,5-TP (Silvex)	ND	23.4		µg/Kg-dry	1	10/5/2015 3:32:00 PM
2,4,5-T	ND	58.5		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Dinoseb	ND	35.1		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Dalapon	ND	234		µg/Kg-dry	1	10/5/2015 3:32:00 PM
2,4-DB	ND	29.3		µg/Kg-dry	1	10/5/2015 3:32:00 PM
MCPP	ND	5,150		µg/Kg-dry	1	10/5/2015 3:32:00 PM
MCPA	ND	3,280		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Picloram	ND	58.5		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Bentazon	ND	41.0		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Chloramben	ND	23.4		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Acifluorfen	ND	93.6		µg/Kg-dry	1	10/5/2015 3:32:00 PM
3,5-Dichlorobenzoic acid	ND	46.8		µg/Kg-dry	1	10/5/2015 3:32:00 PM
4-Nitrophenol	ND	35.1		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Dacthal (DCPA)	ND	35.1		µg/Kg-dry	1	10/5/2015 3:32:00 PM
Surr: 2,4-Dichlorophenylacetic acid	95.3	20.1-168		%REC	1	10/5/2015 3:32:00 PM
<u>Polychlorinated Biphenyls (PCB) by EPA 8082</u>			Batch ID: 12180			Analyst: CM
Aroclor 1016	ND	0.112		mg/Kg-dry	1	10/22/2015 6:50:00 PM
Aroclor 1221	ND	0.112		mg/Kg-dry	1	10/22/2015 6:50:00 PM
Aroclor 1232	ND	0.112		mg/Kg-dry	1	10/22/2015 6:50:00 PM
Aroclor 1242	ND	0.112		mg/Kg-dry	1	10/22/2015 6:50:00 PM
Aroclor 1248	ND	0.112		mg/Kg-dry	1	10/22/2015 6:50:00 PM
Aroclor 1254	ND	0.112		mg/Kg-dry	1	10/22/2015 6:50:00 PM
Aroclor 1260	ND	0.112		mg/Kg-dry	1	10/22/2015 6:50:00 PM
Aroclor 1262	ND	0.112		mg/Kg-dry	1	10/22/2015 6:50:00 PM
Aroclor 1268	ND	0.112		mg/Kg-dry	1	10/22/2015 6:50:00 PM
Total PCBs	ND	0.112		mg/Kg-dry	1	10/22/2015 6:50:00 PM
Surr: Decachlorobiphenyl	90.2	41.2-143		%REC	1	10/22/2015 6:50:00 PM
Surr: Tetrachloro-m-xylene	79.1	26-140		%REC	1	10/22/2015 6:50:00 PM
<u>Organochlorine Pesticides by EPA Method 8081</u>			Batch ID: 11947			Analyst: MD
Toxaphene	ND	0.112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Alpha BHC	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Beta BHC	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:20:00 PM

Project: Pacific Park

Lab ID: 1509300-018

Matrix: Soil

Client Sample ID: GP-21-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
Gamma BHC (Lindane)	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Delta BHC	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Heptachlor	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Aldrin	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Heptachlor epoxide	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
gamma-Chlordane	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Endosulfan I	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
alpha-Chlordane	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Dieldrin	ND	0.0112		mg/Kg-dry	1	9/25/2015 6:20:00 PM
4,4'-DDE	ND	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Endrin	ND	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Endosulfan II	ND	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM
4,4'-DDD	ND	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Endrin aldehyde	ND	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Endosulfan sulfate	ND	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM
4,4'-DDT	ND	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Endrin ketone	0.0226	0.0223		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Methoxychlor	0.144	0.0558		mg/Kg-dry	1	9/25/2015 6:20:00 PM
Surr: Decachlorobiphenyl	92.5	26.5-158		%REC	1	9/25/2015 6:20:00 PM
Surr: Tetrachloro-m-xylene	58.7	11-150		%REC	1	9/25/2015 6:20:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11945		Analyst: AK
Diesel (Fuel Oil)	ND	23.3		mg/Kg-dry	1	9/25/2015 3:06:00 AM
Heavy Oil	728	58.2		mg/Kg-dry	1	9/25/2015 3:06:00 AM
Surr: 2-Fluorobiphenyl	90.0	50-150		%REC	1	9/25/2015 3:06:00 AM
Surr: o-Terphenyl	89.3	50-150		%REC	1	9/25/2015 3:06:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	569	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Bis(2-chloroethyl) ether	ND	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2-Chlorophenol	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
1,3-Dichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
1,4-Dichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
1,2-Dichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Benzyl alcohol	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2-Methylphenol (o-cresol)	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Hexachloroethane	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:20:00 PM

Project: Pacific Park

Lab ID: 1509300-018

Matrix: Soil

Client Sample ID: GP-21-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
N-Nitrosodi-n-propylamine	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Nitrobenzene	ND	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Isophorone	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
4-Methylphenol (p-cresol)	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2-Nitrophenol	ND	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2,4-Dimethylphenol	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Bis(2-chloroethoxy)methane	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2,4-Dichlorophenol	ND	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
1,2,4-Trichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Naphthalene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
4-Chloroaniline	ND	571		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Hexachlorobutadiene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
4-Chloro-3-methylphenol	ND	571		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2-Methylnaphthalene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
1-Methylnaphthalene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Hexachlorocyclopentadiene	ND	114	*	µg/Kg-dry	1	10/2/2015 8:31:00 AM
2,4,6-Trichlorophenol	ND	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2,4,5-Trichlorophenol	ND	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2-Chloronaphthalene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2-Nitroaniline	ND	571		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Acenaphthene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Dimethylphthalate	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2,6-Dinitrotoluene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Acenaphthylene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2,4-Dinitrophenol	ND	228	*	µg/Kg-dry	1	10/2/2015 8:31:00 AM
Dibenzofuran	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
2,4-Dinitrotoluene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
4-Nitrophenol	ND	571		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Fluorene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
4-Chlorophenyl phenyl ether	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Diethylphthalate	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
4,6-Dinitro-2-methylphenol	ND	228		µg/Kg-dry	1	10/2/2015 8:31:00 AM
4-Bromophenyl phenyl ether	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Hexachlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Pentachlorophenol	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Phenanthrene	112	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Anthracene	130	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Carbazole	ND	571		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Di-n-butylphthalate	134	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:20:00 PM

Project: Pacific Park

Lab ID: 1509300-018

Matrix: Soil

Client Sample ID: GP-21-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Fluoranthene	254	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Pyrene	234	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Butyl Benzylphthalate	179	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
bis(2-Ethylhexyl)adipate	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Benz (a) anthracene	157	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Chrysene	225	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
bis (2-Ethylhexyl) phthalate	2,760	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Di-n-octyl phthalate	ND	114		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Benzo (b) fluoranthene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Benzo (k) fluoranthene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Benzo (a) pyrene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Indeno (1,2,3-cd) pyrene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Dibenz (a,h) anthracene	ND	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Benzo (g,h,i) perylene	181	91.3		µg/Kg-dry	1	10/2/2015 8:31:00 AM
Surr: 2,4,6-Tribromophenol	70.4	11.1-127		%REC	1	10/2/2015 8:31:00 AM
Surr: 2-Fluorobiphenyl	62.9	16.1-150		%REC	1	10/2/2015 8:31:00 AM
Surr: Nitrobenzene-d5	35.7	10-133		%REC	1	10/2/2015 8:31:00 AM
Surr: Phenol-d6	31.5	11.6-133		%REC	1	10/2/2015 8:31:00 AM
Surr: p-Terphenyl	89.8	21.8-150		%REC	1	10/2/2015 8:31:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	3.73	3.34		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Surr: Toluene-d8	99.5	65-135		%REC	1	9/25/2015 3:35:00 AM
Surr: 4-Bromofluorobenzene	101	65-135		%REC	1	9/25/2015 3:35:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0401		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Chloromethane	ND	0.0401		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Vinyl chloride	ND	0.00134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Bromomethane	ND	0.0602		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0334		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Chloroethane	ND	0.0401		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,1-Dichloroethene	ND	0.0334		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Methylene chloride	0.0143	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
trans-1,2-Dichloroethene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:20:00 PM

Project: Pacific Park

Lab ID: 1509300-018

Matrix: Soil

Client Sample ID: GP-21-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11943		Analyst: BC
Methyl tert-butyl ether (MTBE)	ND	0.0334		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,1-Dichloroethane	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
2,2-Dichloropropane	ND	0.0334		mg/Kg-dry	1	9/25/2015 3:35:00 AM
cis-1,2-Dichloroethene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Chloroform	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,1-Dichloropropene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Carbon tetrachloride	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2-Dichloroethane (EDC)	ND	0.0201		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Benzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Trichloroethene (TCE)	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2-Dichloropropane	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Bromodichloromethane	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Dibromomethane	ND	0.0268		mg/Kg-dry	1	9/25/2015 3:35:00 AM
cis-1,3-Dichloropropene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Toluene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
trans-1,3-Dichloropropylene	ND	0.0201		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,1,2-Trichloroethane	ND	0.0201		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,3-Dichloropropane	ND	0.0334		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Tetrachloroethene (PCE)	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Dibromochloromethane	ND	0.0201		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2-Dibromoethane (EDB)	ND	0.00334		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Chlorobenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0201		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Ethylbenzene	ND	0.0201		mg/Kg-dry	1	9/25/2015 3:35:00 AM
m,p-Xylene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
o-Xylene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Styrene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Isopropylbenzene	ND	0.0535		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Bromoform	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
n-Propylbenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Bromobenzene	ND	0.0201		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,3,5-Trimethylbenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
2-Chlorotoluene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
4-Chlorotoluene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
tert-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2,3-Trichloropropane	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2,4-Trichlorobenzene	ND	0.0334		mg/Kg-dry	1	9/25/2015 3:35:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:20:00 PM

Project: Pacific Park

Lab ID: 1509300-018

Matrix: Soil

Client Sample ID: GP-21-15:4.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

sec-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
4-Isopropyltoluene	0.131	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,3-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,4-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
n-Butylbenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2-Dibromo-3-chloropropane	ND	0.334		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2,4-Trimethylbenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Hexachlorobutadiene	ND	0.0669		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Naphthalene	ND	0.0201		mg/Kg-dry	1	9/25/2015 3:35:00 AM
1,2,3-Trichlorobenzene	ND	0.0134		mg/Kg-dry	1	9/25/2015 3:35:00 AM
Surr: Dibromofluoromethane	95.4	56.5-129		%REC	1	9/25/2015 3:35:00 AM
Surr: Toluene-d8	99.6	64.3-131		%REC	1	9/25/2015 3:35:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.1	63.1-141		%REC	1	9/25/2015 3:35:00 AM

Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.253		mg/Kg-dry	1	9/24/2015 5:08:49 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	2.61	0.0946		mg/Kg-dry	1	9/22/2015 7:51:48 PM
Barium	39.7	0.473		mg/Kg-dry	1	9/22/2015 7:51:48 PM
Cadmium	0.228	0.189		mg/Kg-dry	1	9/22/2015 7:51:48 PM
Chromium	22.0	0.0946		mg/Kg-dry	1	9/22/2015 7:51:48 PM
Lead	18.2	0.189		mg/Kg-dry	1	9/22/2015 7:51:48 PM
Selenium	0.846	0.473		mg/Kg-dry	1	9/22/2015 7:51:48 PM
Silver	ND	0.0946		mg/Kg-dry	1	9/22/2015 7:51:48 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	14.7			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509300-019

Matrix: Soil

Client Sample ID: GP-21-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11955		Analyst: MD	
Dicamba	ND	41.1		µg/Kg-dry	1	10/1/2015 2:53:00 PM
2,4-D	ND	35.2		µg/Kg-dry	1	10/1/2015 2:53:00 PM
2,4-DP	ND	29.3		µg/Kg-dry	1	10/1/2015 2:53:00 PM
2,4,5-TP (Silvex)	ND	23.5		µg/Kg-dry	1	10/1/2015 2:53:00 PM
2,4,5-T	ND	58.7		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Dinoseb	ND	35.2		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Dalapon	ND	235		µg/Kg-dry	1	10/1/2015 2:53:00 PM
2,4-DB	ND	29.3		µg/Kg-dry	1	10/1/2015 2:53:00 PM
MCPP	ND	5,170		µg/Kg-dry	1	10/1/2015 2:53:00 PM
MCPA	ND	3,290		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Picloram	ND	58.7		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Bentazon	ND	41.1		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Chloramben	ND	23.5		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Acifluorfen	ND	93.9		µg/Kg-dry	1	10/1/2015 2:53:00 PM
3,5-Dichlorobenzoic acid	ND	47.0		µg/Kg-dry	1	10/1/2015 2:53:00 PM
4-Nitrophenol	ND	35.2		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Dacthal (DCPA)	ND	35.2		µg/Kg-dry	1	10/1/2015 2:53:00 PM
Surr: 2,4-Dichlorophenylacetic acid	84.7	20.1-168		%REC	1	10/1/2015 2:53:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Alpha BHC	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Beta BHC	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Gamma BHC (Lindane)	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Delta BHC	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Heptachlor	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Aldrin	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Heptachlor epoxide	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
gamma-Chlordane	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Endosulfan I	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
alpha-Chlordane	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Dieldrin	ND	0.0103		mg/Kg-dry	1	9/25/2015 6:30:00 PM
4,4'-DDE	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Endrin	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Endosulfan II	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM
4,4'-DDD	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Endrin aldehyde	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Endosulfan sulfate	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509300-019

Matrix: Soil

Client Sample ID: GP-21-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Endrin ketone	ND	0.0207		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Methoxychlor	ND	0.0517		mg/Kg-dry	1	9/25/2015 6:30:00 PM
Surr: Decachlorobiphenyl	95.1	26.5-158		%REC	1	9/25/2015 6:30:00 PM
Surr: Tetrachloro-m-xylene	66.3	11-150		%REC	1	9/25/2015 6:30:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11945		Analyst: AK
Diesel (Fuel Oil)	ND	21.8		mg/Kg-dry	1	9/25/2015 4:39:00 AM
Heavy Oil	ND	54.6		mg/Kg-dry	1	9/25/2015 4:39:00 AM
Surr: 2-Fluorobiphenyl	93.4	50-150		%REC	1	9/25/2015 4:39:00 AM
Surr: o-Terphenyl	96.5	50-150		%REC	1	9/25/2015 4:39:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Bis(2-chloroethyl) ether	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2-Chlorophenol	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
1,3-Dichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
1,4-Dichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
1,2-Dichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Benzyl alcohol	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2-Methylphenol (o-cresol)	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Hexachloroethane	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
N-Nitrosodi-n-propylamine	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Nitrobenzene	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Isophorone	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
4-Methylphenol (p-cresol)	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2-Nitrophenol	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2,4-Dimethylphenol	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Bis(2-chloroethoxy)methane	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2,4-Dichlorophenol	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
1,2,4-Trichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Naphthalene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
4-Chloroaniline	ND	575		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Hexachlorobutadiene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
4-Chloro-3-methylphenol	ND	575		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2-Methylnaphthalene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
1-Methylnaphthalene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509300-019

Matrix: Soil

Client Sample ID: GP-21-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	115	*	µg/Kg-dry	1	10/2/2015 8:53:00 AM
2,4,6-Trichlorophenol	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2,4,5-Trichlorophenol	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2-Chloronaphthalene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2-Nitroaniline	ND	575		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Acenaphthene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Dimethylphthalate	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2,6-Dinitrotoluene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Acenaphthylene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2,4-Dinitrophenol	ND	230	*	µg/Kg-dry	1	10/2/2015 8:53:00 AM
Dibenzofuran	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
2,4-Dinitrotoluene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
4-Nitrophenol	ND	575		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Fluorene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
4-Chlorophenyl phenyl ether	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Diethylphthalate	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
4,6-Dinitro-2-methylphenol	ND	230		µg/Kg-dry	1	10/2/2015 8:53:00 AM
4-Bromophenyl phenyl ether	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Hexachlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Pentachlorophenol	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Phenanthrene	127	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Anthracene	147	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Carbazole	ND	575		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Di-n-butylphthalate	137	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Fluoranthene	133	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Pyrene	111	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Butyl Benzylphthalate	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
bis(2-Ethylhexyl)adipate	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Benz (a) anthracene	121	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Chrysene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
bis (2-Ethylhexyl) phthalate	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Di-n-octyl phthalate	ND	115		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Benzo (b) fluoranthene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Benzo (k) fluoranthene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Benzo (a) pyrene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Indeno (1,2,3-cd) pyrene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Dibenz (a,h) anthracene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Benzo (g,h,i) perylene	ND	92.0		µg/Kg-dry	1	10/2/2015 8:53:00 AM
Surr: 2,4,6-Tribromophenol	62.5	11.1-127		%REC	1	10/2/2015 8:53:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:50:00 PM

Project: Pacific Park

Lab ID: 1509300-019

Matrix: Soil

Client Sample ID: GP-21-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	46.9	16.1-150	%REC	1	10/2/2015 8:53:00 AM
Surr: Nitrobenzene-d5	23.6	10-133	%REC	1	10/2/2015 8:53:00 AM
Surr: Phenol-d6	35.9	11.6-133	%REC	1	10/2/2015 8:53:00 AM
Surr: p-Terphenyl	98.9	21.8-150	%REC	1	10/2/2015 8:53:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	4.01	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Surr: Toluene-d8	99.3	65-135	%REC	1	9/25/2015 4:04:00 AM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/25/2015 4:04:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0482	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Chloromethane	ND	0.0482	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Vinyl chloride	ND	0.00161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Bromomethane	ND	0.0723	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0401	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Chloroethane	ND	0.0482	mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,1-Dichloroethene	ND	0.0401	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Methylene chloride	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
trans-1,2-Dichloroethene	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0401	mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,1-Dichloroethane	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
2,2-Dichloropropane	ND	0.0401	mg/Kg-dry	1	9/25/2015 4:04:00 AM
cis-1,2-Dichloroethene	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Chloroform	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,1-Dichloropropene	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Carbon tetrachloride	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2-Dichloroethane (EDC)	ND	0.0241	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Benzene	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Trichloroethene (TCE)	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2-Dichloropropane	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Bromodichloromethane	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM
Dibromomethane	ND	0.0321	mg/Kg-dry	1	9/25/2015 4:04:00 AM
cis-1,3-Dichloropropene	ND	0.0161	mg/Kg-dry	1	9/25/2015 4:04:00 AM



Analytical Report

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Project: Pacific Park

Lab ID: 1509300-019

Matrix: Soil

Client Sample ID: GP-21-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Toluene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
trans-1,3-Dichloropropylene	ND	0.0241		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,1,2-Trichloroethane	ND	0.0241		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,3-Dichloropropane	ND	0.0401		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Tetrachloroethene (PCE)	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Dibromochloromethane	ND	0.0241		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2-Dibromoethane (EDB)	ND	0.00401		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Chlorobenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0241		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Ethylbenzene	ND	0.0241		mg/Kg-dry	1	9/25/2015 4:04:00 AM
m,p-Xylene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
o-Xylene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Styrene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Isopropylbenzene	ND	0.0642		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Bromoform	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
n-Propylbenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Bromobenzene	ND	0.0241		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,3,5-Trimethylbenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
2-Chlorotoluene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
4-Chlorotoluene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
tert-Butylbenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2,3-Trichloropropane	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2,4-Trichlorobenzene	ND	0.0401		mg/Kg-dry	1	9/25/2015 4:04:00 AM
sec-Butylbenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
4-Isopropyltoluene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,3-Dichlorobenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,4-Dichlorobenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
n-Butylbenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2-Dichlorobenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2-Dibromo-3-chloropropane	ND	0.401		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2,4-Trimethylbenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Hexachlorobutadiene	ND	0.0803		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Naphthalene	ND	0.0241		mg/Kg-dry	1	9/25/2015 4:04:00 AM
1,2,3-Trichlorobenzene	ND	0.0161		mg/Kg-dry	1	9/25/2015 4:04:00 AM
Surr: Dibromofluoromethane	93.4	56.5-129		%REC	1	9/25/2015 4:04:00 AM
Surr: Toluene-d8	98.3	64.3-131		%REC	1	9/25/2015 4:04:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/25/2015 4:04:00 AM



Analytical Report

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Project: Pacific Park

Lab ID: 1509300-019

Matrix: Soil

Client Sample ID: GP-21-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.280		mg/Kg-dry	1	9/24/2015 5:10:24 PM
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Total Metals by EPA Method 6020

Batch ID: 11909

Analyst: TN

Arsenic	2.81	0.0990		mg/Kg-dry	1	9/22/2015 7:55:19 PM
Barium	26.8	0.495		mg/Kg-dry	1	9/22/2015 7:55:19 PM
Cadmium	ND	0.198		mg/Kg-dry	1	9/22/2015 7:55:19 PM
Chromium	13.7	0.0990		mg/Kg-dry	1	9/22/2015 7:55:19 PM
Lead	3.42	0.198		mg/Kg-dry	1	9/22/2015 7:55:19 PM
Selenium	0.776	0.495		mg/Kg-dry	1	9/22/2015 7:55:19 PM
Silver	ND	0.0990		mg/Kg-dry	1	9/22/2015 7:55:19 PM

Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	15.8			wt%	1	9/25/2015 11:01:12 AM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:25:00 PM

Project: Pacific Park

Lab ID: 1509300-020

Matrix: Groundwater

Client Sample ID: GP-21-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11941

Analyst: AK

Diesel (Fuel Oil)	ND	50.0		µg/L	1	9/25/2015 3:48:00 PM
Heavy Oil	171	100		µg/L	1	9/25/2015 3:48:00 PM
Surr: 2-Fluorobiphenyl	74.1	50-150		%REC	1	9/25/2015 3:48:00 PM
Surr: o-Terphenyl	72.1	50-150		%REC	1	9/25/2015 3:48:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 11916

Analyst: NG

Naphthalene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
2-Methylnaphthalene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
1-Methylnaphthalene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Acenaphthylene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Acenaphthene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Fluorene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Phenanthrene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Anthracene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Fluoranthene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Pyrene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Benz(a)anthracene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Chrysene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Benzo(b)fluoranthene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Benzo(k)fluoranthene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Benzo(a)pyrene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Dibenz(a,h)anthracene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Benzo(g,h,i)perylene	ND	0.100		µg/L	1	9/23/2015 9:46:00 PM
Surr: 2-Fluorobiphenyl	51.5	23.9-122		%REC	1	9/23/2015 9:46:00 PM
Surr: Terphenyl-d14	46.5	33.4-135		%REC	1	9/23/2015 9:46:00 PM

Gasoline by NWTPH-Gx

Batch ID: R25091

Analyst: BC

Gasoline	ND	50.0		µg/L	1	9/23/2015 9:18:00 PM
Surr: Toluene-d8	86.2	65-135		%REC	1	9/23/2015 9:18:00 PM
Surr: 4-Bromofluorobenzene	95.5	65-135		%REC	1	9/23/2015 9:18:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Chloromethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Vinyl chloride	ND	0.200		µg/L	1	9/23/2015 9:18:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:25:00 PM

Project: Pacific Park

Lab ID: 1509300-020

Matrix: Groundwater

Client Sample ID: GP-21-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Bromomethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Chloroethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Methylene chloride	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/23/2015 9:18:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Chloroform	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Benzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/23/2015 9:18:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Dibromomethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Toluene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/23/2015 9:18:00 PM
Chlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Styrene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Bromoform	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Bromobenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM



Analytical Report

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Project: Pacific Park

Lab ID: 1509300-020

Matrix: Groundwater

Client Sample ID: GP-21-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/23/2015 9:18:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 9:18:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/23/2015 9:18:00 PM
Naphthalene	ND	1.00	Q	µg/L	1	9/23/2015 9:18:00 PM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/23/2015 9:18:00 PM
Surr: Dibromofluoromethane	99.6	45.4-152		%REC	1	9/23/2015 9:18:00 PM
Surr: Toluene-d8	101	40.1-139		%REC	1	9/23/2015 9:18:00 PM
Surr: 1-Bromo-4-fluorobenzene	100	64.2-128		%REC	1	9/23/2015 9:18:00 PM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:27:27 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:17:45 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Antimony	ND	0.200		µg/L	1	9/23/2015 4:43:43 PM
Arsenic	3.98	1.00		µg/L	1	9/23/2015 4:43:43 PM
Beryllium	ND	0.200		µg/L	1	9/23/2015 4:43:43 PM
Cadmium	ND	0.200		µg/L	1	9/23/2015 4:43:43 PM
Chromium	1.25	0.500		µg/L	1	9/23/2015 4:43:43 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 2:25:00 PM

Project: Pacific Park

Lab ID: 1509300-020

Matrix: Groundwater

Client Sample ID: GP-21-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Copper	1.23	0.500		µg/L	1	9/23/2015 4:43:43 PM
Lead	ND	1.00		µg/L	1	9/23/2015 4:43:43 PM
Nickel	2.03	0.500		µg/L	1	9/23/2015 4:43:43 PM
Selenium	ND	1.00		µg/L	1	9/23/2015 4:43:43 PM
Silver	ND	0.200		µg/L	1	9/23/2015 4:43:43 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 4:43:43 PM
Zinc	7.47	1.50		µg/L	1	9/23/2015 4:43:43 PM

Total Metals by EPA Method 200.8

Batch ID: 11925

Analyst: TN

Antimony	0.201	0.200		µg/L	1	9/23/2015 3:22:34 PM
Arsenic	13.8	1.00		µg/L	1	9/23/2015 3:22:34 PM
Beryllium	0.347	0.200		µg/L	1	9/23/2015 3:22:34 PM
Cadmium	0.258	0.200		µg/L	1	9/23/2015 3:22:34 PM
Chromium	11.2	0.500		µg/L	1	9/23/2015 3:22:34 PM
Copper	15.2	0.500		µg/L	1	9/23/2015 3:22:34 PM
Lead	8.32	1.00		µg/L	1	9/23/2015 3:22:34 PM
Nickel	8.85	0.500		µg/L	1	9/23/2015 3:22:34 PM
Selenium	1.51	1.00		µg/L	1	9/23/2015 3:22:34 PM
Silver	ND	0.200		µg/L	1	9/23/2015 3:22:34 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 3:22:34 PM
Zinc	32.4	1.50		µg/L	1	9/23/2015 3:22:34 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509300-021

Matrix: Groundwater

Client Sample ID: GP-13-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11941		Analyst: AK
Diesel (Fuel Oil)	ND	50.0		µg/L	1	9/25/2015 5:22:00 PM
Heavy Oil	ND	99.9		µg/L	1	9/25/2015 5:22:00 PM
Surr: 2-Fluorobiphenyl	71.7	50-150		%REC	1	9/25/2015 5:22:00 PM
Surr: o-Terphenyl	77.1	50-150		%REC	1	9/25/2015 5:22:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 11916

Analyst: NG

Naphthalene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
2-Methylnaphthalene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
1-Methylnaphthalene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Acenaphthylene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Acenaphthene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Fluorene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Phenanthrene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Anthracene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Fluoranthene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Pyrene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Benz(a)anthracene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Chrysene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Benzo(b)fluoranthene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Benzo(k)fluoranthene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Benzo(a)pyrene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Dibenz(a,h)anthracene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Benzo(g,h,i)perylene	ND	0.0995		µg/L	1	9/23/2015 10:12:00 PM
Surr: 2-Fluorobiphenyl	65.8	23.9-122		%REC	1	9/23/2015 10:12:00 PM
Surr: Terphenyl-d14	69.4	33.4-135		%REC	1	9/23/2015 10:12:00 PM

NOTES:

Internal standard areas were outside of the QC limits indicating a high bias. Sample results are ND.

Gasoline by NWTPH-Gx

Batch ID: R25091

Analyst: BC

Gasoline	ND	50.0		µg/L	1	9/23/2015 9:47:00 PM
Surr: Toluene-d8	86.6	65-135		%REC	1	9/23/2015 9:47:00 PM
Surr: 4-Bromofluorobenzene	96.8	65-135		%REC	1	9/23/2015 9:47:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
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Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509300-021

Matrix: Groundwater

Client Sample ID: GP-13-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Chloromethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Vinyl chloride	ND	0.200		µg/L	1	9/23/2015 9:47:00 PM
Bromomethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Chloroethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Methylene chloride	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/23/2015 9:47:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Chloroform	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Benzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/23/2015 9:47:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Dibromomethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Toluene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/23/2015 9:47:00 PM
Chlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Styrene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Bromoform	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509300-021

Matrix: Groundwater

Client Sample ID: GP-13-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

n-Propylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Bromobenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/23/2015 9:47:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 9:47:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/23/2015 9:47:00 PM
Naphthalene	ND	1.00	Q	µg/L	1	9/23/2015 9:47:00 PM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/23/2015 9:47:00 PM
Surr: Dibromofluoromethane	99.2	45.4-152		%REC	1	9/23/2015 9:47:00 PM
Surr: Toluene-d8	97.7	40.1-139		%REC	1	9/23/2015 9:47:00 PM
Surr: 1-Bromo-4-fluorobenzene	102	64.2-128		%REC	1	9/23/2015 9:47:00 PM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:29:09 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:19:26 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Antimony	ND	0.200		µg/L	1	9/23/2015 4:47:14 PM
Arsenic	ND	1.00		µg/L	1	9/23/2015 4:47:14 PM
Beryllium	ND	0.200		µg/L	1	9/23/2015 4:47:14 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 9:15:00 AM

Project: Pacific Park

Lab ID: 1509300-021

Matrix: Groundwater

Client Sample ID: GP-13-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Cadmium	ND	0.200		µg/L	1	9/23/2015 4:47:14 PM
Chromium	ND	0.500		µg/L	1	9/23/2015 4:47:14 PM
Copper	0.658	0.500		µg/L	1	9/23/2015 4:47:14 PM
Lead	ND	1.00		µg/L	1	9/23/2015 4:47:14 PM
Nickel	1.12	0.500		µg/L	1	9/23/2015 4:47:14 PM
Selenium	1.10	1.00		µg/L	1	9/23/2015 4:47:14 PM
Silver	ND	0.200		µg/L	1	9/23/2015 4:47:14 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 4:47:14 PM
Zinc	ND	1.50		µg/L	1	9/23/2015 4:47:14 PM

Total Metals by EPA Method 200.8

Batch ID: 11925

Analyst: TN

Antimony	ND	0.200		µg/L	1	9/23/2015 3:26:06 PM
Arsenic	3.52	1.00		µg/L	1	9/23/2015 3:26:06 PM
Beryllium	ND	0.200		µg/L	1	9/23/2015 3:26:06 PM
Cadmium	ND	0.200		µg/L	1	9/23/2015 3:26:06 PM
Chromium	19.3	0.500		µg/L	1	9/23/2015 3:26:06 PM
Copper	20.0	0.500		µg/L	1	9/23/2015 3:26:06 PM
Lead	10.9	1.00		µg/L	1	9/23/2015 3:26:06 PM
Nickel	8.89	0.500		µg/L	1	9/23/2015 3:26:06 PM
Selenium	1.63	1.00		µg/L	1	9/23/2015 3:26:06 PM
Silver	ND	0.200		µg/L	1	9/23/2015 3:26:06 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 3:26:06 PM
Zinc	16.9	1.50		µg/L	1	9/23/2015 3:26:06 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:45:00 AM

Project: Pacific Park

Lab ID: 1509300-022

Matrix: Soil

Client Sample ID: GP-17-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	43.9		µg/Kg-dry	1	10/1/2015 2:19:00 PM
2,4-D	ND	37.6		µg/Kg-dry	1	10/1/2015 2:19:00 PM
2,4-DP	ND	31.4		µg/Kg-dry	1	10/1/2015 2:19:00 PM
2,4,5-TP (Silvex)	ND	25.1		µg/Kg-dry	1	10/1/2015 2:19:00 PM
2,4,5-T	ND	62.7		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Dinoseb	ND	37.6		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Dalapon	ND	251		µg/Kg-dry	1	10/1/2015 2:19:00 PM
2,4-DB	ND	31.4		µg/Kg-dry	1	10/1/2015 2:19:00 PM
MCPP	ND	5,520		µg/Kg-dry	1	10/1/2015 2:19:00 PM
MCPA	ND	3,510		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Picloram	ND	62.7		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Bentazon	ND	43.9		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Chloramben	ND	25.1		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Acifluorfen	ND	100		µg/Kg-dry	1	10/1/2015 2:19:00 PM
3,5-Dichlorobenzoic acid	ND	50.2		µg/Kg-dry	1	10/1/2015 2:19:00 PM
4-Nitrophenol	ND	37.6		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Dacthal (DCPA)	ND	37.6		µg/Kg-dry	1	10/1/2015 2:19:00 PM
Surr: 2,4-Dichlorophenylacetic acid	86.6	20.1-168		%REC	1	10/1/2015 2:19:00 PM

Polychlorinated Biphenyls (PCB) by EPA 8082

Batch ID: 12180

Analyst: CM

Aroclor 1016	ND	0.122		mg/Kg-dry	1	10/22/2015 7:00:00 PM
Aroclor 1221	ND	0.122		mg/Kg-dry	1	10/22/2015 7:00:00 PM
Aroclor 1232	ND	0.122		mg/Kg-dry	1	10/22/2015 7:00:00 PM
Aroclor 1242	ND	0.122		mg/Kg-dry	1	10/22/2015 7:00:00 PM
Aroclor 1248	ND	0.122		mg/Kg-dry	1	10/22/2015 7:00:00 PM
Aroclor 1254	ND	0.122		mg/Kg-dry	1	10/22/2015 7:00:00 PM
Aroclor 1260	ND	0.122		mg/Kg-dry	1	10/22/2015 7:00:00 PM
Aroclor 1262	ND	0.122		mg/Kg-dry	1	10/22/2015 7:00:00 PM
Aroclor 1268	ND	0.122		mg/Kg-dry	1	10/22/2015 7:00:00 PM
Total PCBs	ND	0.122		mg/Kg-dry	1	10/22/2015 7:00:00 PM
Surr: Decachlorobiphenyl	81.8	41.2-143		%REC	1	10/22/2015 7:00:00 PM
Surr: Tetrachloro-m-xylene	64.8	26-140		%REC	1	10/22/2015 7:00:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Alpha BHC	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Beta BHC	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:45:00 AM

Project: Pacific Park

Lab ID: 1509300-022

Matrix: Soil

Client Sample ID: GP-17-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11947		Analyst: MD
Gamma BHC (Lindane)	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Delta BHC	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Heptachlor	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Aldrin	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Heptachlor epoxide	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
gamma-Chlordane	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Endosulfan I	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
alpha-Chlordane	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Dieldrin	ND	0.0127		mg/Kg-dry	1	9/25/2015 6:41:00 PM
4,4'-DDE	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Endrin	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Endosulfan II	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM
4,4'-DDD	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Endrin aldehyde	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Endosulfan sulfate	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM
4,4'-DDT	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Endrin ketone	ND	0.0254		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Methoxychlor	ND	0.0635		mg/Kg-dry	1	9/25/2015 6:41:00 PM
Surr: Decachlorobiphenyl	77.8	26.5-158		%REC	1	9/25/2015 6:41:00 PM
Surr: Tetrachloro-m-xylene	72.6	11-150		%REC	1	9/25/2015 6:41:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11945		Analyst: AK
Diesel (Fuel Oil)	ND	23.9		mg/Kg-dry	1	9/25/2015 5:11:00 AM
Heavy Oil	401	59.7		mg/Kg-dry	1	9/25/2015 5:11:00 AM
Surr: 2-Fluorobiphenyl	94.2	50-150		%REC	1	9/25/2015 5:11:00 AM
Surr: o-Terphenyl	97.9	50-150		%REC	1	9/25/2015 5:11:00 AM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Bis(2-chloroethyl) ether	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2-Chlorophenol	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
1,3-Dichlorobenzene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
1,4-Dichlorobenzene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
1,2-Dichlorobenzene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Benzyl alcohol	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2-Methylphenol (o-cresol)	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Hexachloroethane	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:45:00 AM

Project: Pacific Park

Lab ID: 1509300-022

Matrix: Soil

Client Sample ID: GP-17-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
N-Nitrosodi-n-propylamine	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Nitrobenzene	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Isophorone	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
4-Methylphenol (p-cresol)	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2-Nitrophenol	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2,4-Dimethylphenol	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Bis(2-chloroethoxy)methane	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2,4-Dichlorophenol	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
1,2,4-Trichlorobenzene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Naphthalene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
4-Chloroaniline	ND	622		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Hexachlorobutadiene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
4-Chloro-3-methylphenol	ND	622		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2-Methylnaphthalene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
1-Methylnaphthalene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Hexachlorocyclopentadiene	ND	124	*	µg/Kg-dry	1	10/2/2015 9:15:00 AM
2,4,6-Trichlorophenol	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2,4,5-Trichlorophenol	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2-Chloronaphthalene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2-Nitroaniline	ND	622		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Acenaphthene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Dimethylphthalate	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2,6-Dinitrotoluene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Acenaphthylene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2,4-Dinitrophenol	ND	249	*	µg/Kg-dry	1	10/2/2015 9:15:00 AM
Dibenzofuran	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
2,4-Dinitrotoluene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
4-Nitrophenol	ND	622		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Fluorene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
4-Chlorophenyl phenyl ether	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Diethylphthalate	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
4,6-Dinitro-2-methylphenol	ND	249		µg/Kg-dry	1	10/2/2015 9:15:00 AM
4-Bromophenyl phenyl ether	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Hexachlorobenzene	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Pentachlorophenol	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Phenanthrene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Anthracene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Carbazole	ND	622		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Di-n-butylphthalate	662	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:45:00 AM

Project: Pacific Park

Lab ID: 1509300-022

Matrix: Soil

Client Sample ID: GP-17-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Fluoranthene	133	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Pyrene	140	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Butyl Benzylphthalate	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
bis(2-Ethylhexyl)adipate	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Benz (a) anthracene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Chrysene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
bis (2-Ethylhexyl) phthalate	1,090	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Di-n-octyl phthalate	ND	124		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Benzo (b) fluoranthene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Benzo (k) fluoranthene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Benzo (a) pyrene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Indeno (1,2,3-cd) pyrene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Dibenz (a,h) anthracene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Benzo (g,h,i) perylene	ND	99.6		µg/Kg-dry	1	10/2/2015 9:15:00 AM
Surr: 2,4,6-Tribromophenol	92.6	11.1-127		%REC	1	10/2/2015 9:15:00 AM
Surr: 2-Fluorobiphenyl	54.6	16.1-150		%REC	1	10/2/2015 9:15:00 AM
Surr: Nitrobenzene-d5	30.8	10-133		%REC	1	10/2/2015 9:15:00 AM
Surr: Phenol-d6	44.8	11.6-133		%REC	1	10/2/2015 9:15:00 AM
Surr: p-Terphenyl	109	21.8-150		%REC	1	10/2/2015 9:15:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11943

Analyst: BC

Gasoline	ND	3.80		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Surr: Toluene-d8	101	65-135		%REC	1	9/25/2015 4:33:00 AM
Surr: 4-Bromofluorobenzene	103	65-135		%REC	1	9/25/2015 4:33:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0456		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Chloromethane	ND	0.0456		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Vinyl chloride	ND	0.00152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Bromomethane	ND	0.0684		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0380		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Chloroethane	ND	0.0456		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,1-Dichloroethene	ND	0.0380		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Methylene chloride	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
trans-1,2-Dichloroethene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:45:00 AM

Project: Pacific Park

Lab ID: 1509300-022

Matrix: Soil

Client Sample ID: GP-17-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

Methyl tert-butyl ether (MTBE)	ND	0.0380		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,1-Dichloroethane	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
2,2-Dichloropropane	ND	0.0380		mg/Kg-dry	1	9/25/2015 4:33:00 AM
cis-1,2-Dichloroethene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Chloroform	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,1-Dichloropropene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Carbon tetrachloride	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2-Dichloroethane (EDC)	ND	0.0228		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Benzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Trichloroethene (TCE)	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2-Dichloropropane	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Bromodichloromethane	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Dibromomethane	ND	0.0304		mg/Kg-dry	1	9/25/2015 4:33:00 AM
cis-1,3-Dichloropropene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Toluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
trans-1,3-Dichloropropylene	ND	0.0228		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,1,2-Trichloroethane	ND	0.0228		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,3-Dichloropropane	ND	0.0380		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Tetrachloroethene (PCE)	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Dibromochloromethane	ND	0.0228		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2-Dibromoethane (EDB)	ND	0.00380		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Chlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0228		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Ethylbenzene	ND	0.0228		mg/Kg-dry	1	9/25/2015 4:33:00 AM
m,p-Xylene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
o-Xylene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Styrene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Isopropylbenzene	ND	0.0608		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Bromoform	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
n-Propylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Bromobenzene	ND	0.0228		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,3,5-Trimethylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
2-Chlorotoluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
4-Chlorotoluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
tert-Butylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2,3-Trichloropropane	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2,4-Trichlorobenzene	ND	0.0380		mg/Kg-dry	1	9/25/2015 4:33:00 AM



Analytical Report

WO#: 1509300

Date Reported: 10/28/2015

Client: Shannon & Wilson

Collection Date: 9/21/2015 11:45:00 AM

Project: Pacific Park

Lab ID: 1509300-022

Matrix: Soil

Client Sample ID: GP-17-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11943

Analyst: BC

sec-Butylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
4-Isopropyltoluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,3-Dichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,4-Dichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
n-Butylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2-Dichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2-Dibromo-3-chloropropane	ND	0.380		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2,4-Trimethylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Hexachlorobutadiene	ND	0.0760		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Naphthalene	ND	0.0228		mg/Kg-dry	1	9/25/2015 4:33:00 AM
1,2,3-Trichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 4:33:00 AM
Surr: Dibromofluoromethane	94.1	56.5-129		%REC	1	9/25/2015 4:33:00 AM
Surr: Toluene-d8	97.2	64.3-131		%REC	1	9/25/2015 4:33:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.1	63.1-141		%REC	1	9/25/2015 4:33:00 AM

Mercury by EPA Method 7471

Batch ID: 11920

Analyst: TN

Mercury	ND	0.285		mg/Kg-dry	1	9/24/2015 5:12:00 PM
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Total Metals by EPA Method 6020

Batch ID: 11921

Analyst: TN

Arsenic	5.67	0.102		mg/Kg-dry	1	9/23/2015 5:01:21 PM
Barium	38.2	0.511		mg/Kg-dry	1	9/23/2015 5:01:21 PM
Cadmium	3.16	0.204		mg/Kg-dry	1	9/23/2015 5:01:21 PM
Chromium	18.8	0.102		mg/Kg-dry	1	9/23/2015 5:01:21 PM
Lead	39.3	0.204		mg/Kg-dry	1	9/23/2015 5:01:21 PM
Selenium	1.47	0.511		mg/Kg-dry	1	9/23/2015 5:01:21 PM
Silver	ND	0.102		mg/Kg-dry	1	9/23/2015 5:01:21 PM

Metals (SW6020) with TCLP Extraction (EPA 1311)

Batch ID: 12222

Analyst: TN

Cadmium	ND	0.200		mg/L	1	10/26/2015 7:16:56 PM
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Sample Moisture (Percent Moisture)

Batch ID: R25116

Analyst: CG

Percent Moisture	21.7			wt%	1	9/25/2015 11:01:12 AM
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Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID: MB-11927FB		SampType: MBLK			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25059		
Client ID: MBLKW		Batch ID: 11926						Analysis Date: 9/23/2015			SeqNo: 472286	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Antimony	ND	0.200
Arsenic	ND	1.00
Beryllium	ND	0.200
Cadmium	ND	0.200
Chromium	ND	0.500
Copper	ND	0.500
Lead	ND	1.00
Nickel	ND	0.500
Selenium	ND	1.00
Silver	ND	0.200
Thallium	ND	0.200
Zinc	ND	1.50

NOTES:
Filter Blank

Sample ID: MB-11926		SampType: MBLK			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25059		
Client ID: MBLKW		Batch ID: 11926						Analysis Date: 9/23/2015			SeqNo: 472287	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Antimony	ND	0.200
Arsenic	ND	1.00
Beryllium	ND	0.200
Cadmium	ND	0.200
Chromium	ND	0.500
Copper	ND	0.500
Lead	ND	1.00
Nickel	ND	0.500
Selenium	ND	1.00
Silver	ND	0.200
Thallium	ND	0.200
Zinc	ND	1.50



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID: LCS-11926		SampType: LCS		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25059		
Client ID: LCSW		Batch ID: 11926					Analysis Date: 9/23/2015			SeqNo: 472288	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	4.63	0.200	5.000	0	92.7	85	115				
Arsenic	99.7	1.00	100.0	0	99.7	85	115				
Beryllium	5.06	0.200	5.000	0	101	85	115				
Cadmium	4.95	0.200	5.000	0	99.0	85	115				
Chromium	103	0.500	100.0	0	103	85	115				
Copper	103	0.500	100.0	0	103	85	115				
Lead	49.1	1.00	50.00	0	98.2	85	115				
Nickel	102	0.500	100.0	0	102	85	115				
Selenium	11.0	1.00	10.00	0	110	85	115				
Silver	5.09	0.200	5.000	0	102	85	115				
Thallium	2.44	0.200	2.500	0	97.8	85	115				
Zinc	102	1.50	100.0	0	102	85	115				

Sample ID: 1509311-005EDUP		SampType: DUP			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25059		
Client ID: BATCH		Batch ID: 11926			Analysis Date: 9/23/2015			SeqNo: 472290				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Antimony	0.331	0.200						0.4670	34.1	30		
Arsenic	ND	1.00						0		30		
Beryllium	ND	0.200						0		30		
Cadmium	ND	0.200						0		30		
Chromium	ND	0.500						0		30		
Copper	1.15	0.500						1.061	7.92	30		
Lead	ND	1.00						0		30		
Nickel	2.49	0.500						2.525	1.54	30		
Selenium	ND	1.00						0		30		
Silver	ND	0.200						0		30		
Thallium	ND	0.200						0		30		
Zinc	5.54	1.50						5.833	5.16	30		



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID: 1509311-005EMS	SampType: MS	Units: µg/L			Prep Date: 9/23/2015			RunNo: 25059			
Client ID: BATCH	Batch ID: 11926				Analysis Date: 9/23/2015			SeqNo: 472291			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	23.3	0.200	25.00	0.4670	91.4	70	130				
Arsenic	521	1.00	500.0	0.6690	104	70	130				
Beryllium	26.6	0.200	25.00	0	106	70	130				
Cadmium	26.2	0.200	25.00	0.05850	105	70	130				
Chromium	524	0.500	500.0	0.2315	105	70	130				
Copper	519	0.500	500.0	1.061	104	70	130				
Lead	238	1.00	250.0	0.6610	95.1	70	130				
Nickel	517	0.500	500.0	2.525	103	70	130				
Selenium	53.4	1.00	50.00	0.8505	105	70	130				
Silver	22.5	0.200	25.00	0.05450	89.6	70	130				
Thallium	12.2	0.200	12.50	0.007000	97.4	70	130				
Zinc	553	1.50	500.0	5.833	109	70	130				

Sample ID: 1509311-005EMSD		SampType: MSD		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25059		
Client ID: BATCH		Batch ID: 11926					Analysis Date: 9/23/2015			SeqNo: 472294	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	23.2	0.200	25.00	0.4670	91.1	70	130	23.31	0.312	30	
Arsenic	512	1.00	500.0	0.6690	102	70	130	520.8	1.71	30	
Beryllium	26.6	0.200	25.00	0	107	70	130	26.62	0.0601	30	
Cadmium	25.0	0.200	25.00	0.05850	99.6	70	130	26.19	4.77	30	
Chromium	504	0.500	500.0	0.2315	101	70	130	524.4	3.99	30	
Copper	499	0.500	500.0	1.061	99.6	70	130	518.9	3.92	30	
Lead	233	1.00	250.0	0.6610	93.1	70	130	238.3	2.09	30	
Nickel	506	0.500	500.0	2.525	101	70	130	517.2	2.13	30	
Selenium	54.8	1.00	50.00	0.8505	108	70	130	53.36	2.59	30	
Silver	22.1	0.200	25.00	0.05450	88.1	70	130	22.46	1.70	30	
Thallium	11.8	0.200	12.50	0.007000	94.5	70	130	12.18	3.07	30	
Zinc	520	1.50	500.0	5.833	103	70	130	553.3	6.15	30	



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID: MB-11925		SampType: MBLK		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25056		
Client ID: MBLKW		Batch ID: 11925					Analysis Date: 9/23/2015			SeqNo: 472197	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.200									
Arsenic	ND	1.00									
Beryllium	ND	0.200									
Cadmium	ND	0.200									
Chromium	ND	0.500									
Copper	ND	0.500									
Lead	ND	1.00									
Nickel	ND	0.500									
Selenium	ND	1.00									
Silver	0.202	0.200									
Thallium	ND	0.200									
Zinc	ND	1.50									

Sample ID: LCS-11925		SampType: LCS		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25056		
Client ID: LCSW		Batch ID: 11925					Analysis Date: 9/23/2015			SeqNo: 472198	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	4.91	0.200	5.000	0	98.2	85	115				
Arsenic	104	1.00	100.0	0	104	85	115				
Beryllium	5.23	0.200	5.000	0	105	85	115				
Cadmium	4.97	0.200	5.000	0	99.5	85	115				
Chromium	105	0.500	100.0	0	105	85	115				
Copper	102	0.500	100.0	0	102	85	115				
Lead	49.2	1.00	50.00	0	98.3	85	115				
Nickel	102	0.500	100.0	0	102	85	115				
Selenium	10.8	1.00	10.00	0	108	85	115				
Silver	5.25	0.200	5.000	0	105	85	115				B
Thallium	2.52	0.200	2.500	0	101	85	115				
Zinc	109	1.50	100.0	0	109	85	115				



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID: 1509275-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25056		
Client ID: BATCH		Batch ID: 11925					Analysis Date: 9/23/2015			SeqNo: 472200	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.200						0.2655	90.6	30	
Arsenic	1.45	1.00						1.630	11.8	30	
Beryllium	ND	0.200						0		30	
Cadmium	ND	0.200						0		30	
Chromium	0.713	0.500						0.6925	2.85	30	
Copper	0.847	0.500						0.9350	9.88	30	
Lead	ND	1.00						0		30	
Nickel	1.80	0.500						2.008	10.9	30	
Selenium	ND	1.00						0		30	
Silver	ND	0.200						0		30	
Thallium	ND	0.200						0		30	
Zinc	1.96	1.50						1.940	1.05	30	

Sample ID: 1509275-001AMS		SampType: MS		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25056		
Client ID: BATCH		Batch ID: 11925					Analysis Date: 9/23/2015			SeqNo: 472201	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	24.6	0.200	25.00	0.2655	97.2	70	130				
Arsenic	509	1.00	500.0	1.630	101	70	130				
Beryllium	25.4	0.200	25.00	0.05100	102	70	130				
Cadmium	24.0	0.200	25.00	0	96.0	70	130				
Chromium	525	0.500	500.0	0.6925	105	70	130				
Copper	497	0.500	500.0	0.9350	99.2	70	130				
Lead	240	1.00	250.0	0.9360	95.7	70	130				
Nickel	509	0.500	500.0	2.008	101	70	130				
Selenium	50.5	1.00	50.00	0.5305	100	70	130				
Silver	26.1	0.200	25.00	0.06550	104	70	130				B
Thallium	12.0	0.200	12.50	0.003500	95.8	70	130				
Zinc	545	1.50	500.0	1.940	109	70	130				



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID: 1509275-001AMSD	SampType: MSD	Units: µg/L				Prep Date: 9/23/2015			RunNo: 25056		
Client ID: BATCH	Batch ID: 11925	Analysis Date: 9/23/2015							SeqNo: 472202		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	24.9	0.200	25.00	0.2655	98.5	70	130	24.56	1.35	30	B
Arsenic	527	1.00	500.0	1.630	105	70	130	509.0	3.44	30	
Beryllium	25.8	0.200	25.00	0.05100	103	70	130	25.43	1.28	30	
Cadmium	25.7	0.200	25.00	0	103	70	130	24.00	6.63	30	
Chromium	541	0.500	500.0	0.6925	108	70	130	525.4	2.90	30	
Copper	509	0.500	500.0	0.9350	102	70	130	497.0	2.37	30	
Lead	245	1.00	250.0	0.9360	97.6	70	130	240.2	1.97	30	
Nickel	524	0.500	500.0	2.008	104	70	130	508.8	2.97	30	
Selenium	51.4	1.00	50.00	0.5305	102	70	130	50.53	1.69	30	
Silver	25.6	0.200	25.00	0.06550	102	70	130	26.11	1.87	30	
Thallium	12.4	0.200	12.50	0.003500	99.0	70	130	11.97	3.36	30	
Zinc	544	1.50	500.0	1.940	108	70	130	544.9	0.197	30	



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 245.1

Sample ID: MB-11934	SampType: MBLK	Units: µg/L		Prep Date: 9/23/2015	RunNo: 25090
Client ID: MBLKW	Batch ID: 11934	Analysis Date: 9/24/2015		SeqNo: 472885	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	ND	0.100			

Sample ID: LCS-11934	SampType: LCS	Units: µg/L		Prep Date: 9/23/2015	RunNo: 25090
Client ID: LCSW	Batch ID: 11934	Analysis Date: 9/24/2015		SeqNo: 472886	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	2.50	0.100	2.500	0	100 85 115

Sample ID: 1509270-027CDUP	SampType: DUP	Units: µg/L		Prep Date: 9/23/2015	RunNo: 25090
Client ID: BATCH	Batch ID: 11934	Analysis Date: 9/24/2015		SeqNo: 472888	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	ND	0.100			0 20

Sample ID: 1509270-027CMS	SampType: MS	Units: µg/L		Prep Date: 9/23/2015	RunNo: 25090
Client ID: BATCH	Batch ID: 11934	Analysis Date: 9/24/2015		SeqNo: 472889	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	2.51	0.100	2.500	0.01400	99.8 80 120

Sample ID: 1509270-027CMSD	SampType: MSD	Units: µg/L		Prep Date: 9/23/2015	RunNo: 25090
Client ID: BATCH	Batch ID: 11934	Analysis Date: 9/24/2015		SeqNo: 472890	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	2.47	0.100	2.500	0.01400	98.2 80 120 2.510 1.61 20



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Dissolved Mercury by EPA Method 245.1

Sample ID: MB-11933		SampType: MBLK			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25075		
Client ID: MBLKW		Batch ID: 11933						Analysis Date: 9/24/2015			SeqNo: 472581	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury	ND	0.100									
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Sample ID: LCS-11933		SampType: LCS			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25075		
Client ID: LCSW		Batch ID: 11933			Analysis Date: 9/24/2015					SeqNo: 472582		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury	2.37	0.100	2.500	0	94.8	85	115				
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Sample ID: 1509270-027DDUP		SampType: DUP			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25075		
Client ID: BATCH		Batch ID: 11933			Analysis Date: 9/24/2015			SeqNo: 472584				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury	ND	0.100						0		20	
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Sample ID: 1509270-027DMS		SampType: MS			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25075		
Client ID: BATCH		Batch ID: 11933			Analysis Date: 9/24/2015			SeqNo: 472585				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury	2.38	0.100	2.500	0.01700	94.5	80	120				
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Sample ID: 1509270-027DMSD		SampType: MSD			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25075		
Client ID: BATCH		Batch ID: 11933			Analysis Date: 9/24/2015					SeqNo: 472586		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury	2.54	0.100	2.500	0.01700	101	80	120	2.380	6.50	20	
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Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 6020

Sample ID: MB-11909		SampType: MBLK			Units: mg/Kg		Prep Date: 9/22/2015			RunNo: 25025		
Client ID: MBLKS		Batch ID: 11909						Analysis Date: 9/22/2015			SeqNo: 471948	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	ND	0.100
Barium	ND	0.500
Cadmium	ND	0.200
Chromium	ND	0.100
Lead	ND	0.200
Selenium	ND	0.500
Silver	ND	0.100

Sample ID: LCS-11909		SampType: LCS			Units: mg/Kg		Prep Date: 9/22/2015			RunNo: 25025		
Client ID: LCSS		Batch ID: 11909			Analysis Date: 9/22/2015			SeqNo: 471949				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	50.0	0.100	50.00	0	100	80	120
Barium	47.5	0.500	50.00	0	95.1	80	120
Cadmium	2.58	0.200	2.500	0	103	80	120
Chromium	53.8	0.100	50.00	0	108	80	120
Lead	25.4	0.200	25.00	0	102	80	120
Selenium	4.58	0.500	5.000	0	91.6	80	120
Silver	2.47	0.100	2.500	0	98.7	80	120

Sample ID: 1509278-003ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/22/2015			RunNo: 25025		
Client ID: BATCH		Batch ID: 11909					Analysis Date: 9/22/2015			SeqNo: 471951	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	3.71	0.0818						3.459	6.91	20	
Barium	33.2	0.409						29.66	11.3	20	
Cadmium	ND	0.164						0		20	
Chromium	12.5	0.0818						12.80	2.12	20	
Lead	29.4	0.164						18.59	45.0	20	R
Selenium	1.05	0.409						1.090	3.70	20	



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 6020

Sample ID: 1509278-003ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/22/2015			RunNo: 25025		
Client ID: BATCH		Batch ID: 11909					Analysis Date: 9/22/2015			SeqNo: 471951	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	ND	0.0818						0		20	

NOTES:

R - High RPD observed. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID: 1509278-003AMS	SampType: MS			Units: mg/Kg-dry		Prep Date: 9/22/2015			RunNo: 25025		
Client ID: BATCH	Batch ID: 11909			Analysis Date: 9/22/2015					SeqNo: 471953		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	48.0	0.0884	44.20	3.459	101	75	125				
Barium	67.2	0.442	44.20	29.66	85.0	75	125				
Cadmium	2.37	0.177	2.210	0.06015	104	75	125				
Chromium	62.6	0.0884	44.20	12.80	113	75	125				
Lead	35.7	0.177	22.10	18.59	77.6	75	125				
Selenium	4.90	0.442	4.420	1.090	86.2	75	125				
Silver	2.03	0.0884	2.210	0.02882	90.5	75	125				

Sample ID: 1509278-003AMSD	SampType: MSD		Units: mg/Kg-dry		Prep Date: 9/22/2015		RunNo: 25025				
Client ID: BATCH	Batch ID: 11909				Analysis Date: 9/22/2015		SeqNo: 471954				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	49.5	0.0906	45.29	3.459	102	75	125	48.02	2.97	20	R
Barium	69.1	0.453	45.29	29.66	87.1	75	125	67.23	2.75	20	
Cadmium	2.46	0.181	2.265	0.06015	106	75	125	2.368	3.82	20	
Chromium	66.1	0.0906	45.29	12.80	118	75	125	62.61	5.44	20	
Lead	45.1	0.181	22.65	18.59	117	75	125	35.73	23.3	20	
Selenium	5.24	0.453	4.529	1.090	91.7	75	125	4.901	6.72	20	
Silver	2.12	0.0906	2.265	0.02882	92.1	75	125	2.030	4.13	20	

NOTES:

R - Outlying RPD observed, spike recovery is within range.



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 6020

Sample ID: MB-11921	SampType: MBLK	Units: mg/Kg				Prep Date: 9/23/2015			RunNo: 25083		
Client ID: MBLKS	Batch ID: 11921	Analysis Date: 9/23/2015						SeqNo: 472652			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.100									
Barium	ND	0.500									
Cadmium	ND	0.200									
Chromium	ND	0.100									
Lead	ND	0.200									
Selenium	ND	0.500									
Silver	ND	0.100									

Sample ID: LCS-11921	SampType: LCS	Units: mg/Kg				Prep Date: 9/23/2015			RunNo: 25083		
Client ID: LCSS	Batch ID: 11921	Analysis Date: 9/23/2015						SeqNo: 472653			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	50.6	0.100	50.00	0	101	80	120				
Barium	46.8	0.500	50.00	0	93.6	80	120				
Cadmium	2.30	0.200	2.500	0	92.2	80	120				
Chromium	54.0	0.100	50.00	0	108	80	120				
Lead	23.6	0.200	25.00	0	94.4	80	120				
Selenium	5.14	0.500	5.000	0	103	80	120				
Silver	2.46	0.100	2.500	0	98.3	80	120				

Sample ID: 1509300-022ADUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 9/23/2015			RunNo: 25083		
Client ID: GP-17-15:DUP	Batch ID: 11921					Analysis Date: 9/23/2015			SeqNo: 472655		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	6.75	0.102						5.671	17.4	20	
Barium	36.9	0.511						38.20	3.38	20	
Cadmium	17.1	0.204						3.160	138	20	R
Chromium	26.1	0.102						18.79	32.5	20	R
Lead	53.3	0.204						39.25	30.4	20	R
Selenium	1.29	0.511						1.467	12.7	20	



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 6020

Sample ID: 1509300-022ADUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 9/23/2015			RunNo: 25083		
Client ID: GP-17-15:DUP	Batch ID: 11921					Analysis Date: 9/23/2015			SeqNo: 472655		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	ND	0.102						0		20	

NOTES:

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID: 1509300-022AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25083		
Client ID: GP-17-15:DUP		Batch ID: 11921		Analysis Date: 9/23/2015					SeqNo: 472659		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	59.9	0.101	50.70	5.671	107	75	125				
Barium	77.2	0.507	50.70	38.20	76.8	75	125				
Cadmium	6.62	0.203	2.535	3.160	136	75	125				S
Chromium	80.8	0.101	50.70	18.79	122	75	125				
Lead	86.6	0.203	25.35	39.25	187	75	125				S
Selenium	6.24	0.507	5.070	1.467	94.1	75	125				
Silver	2.35	0.101	2.535	0.06659	90.2	75	125				

NOTES:

S - Outlying spike recoveries observed, a duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: 1509300-022AMSD	SampType: MSD		Units: mg/Kg-dry		Prep Date: 9/23/2015		RunNo: 25083				
Client ID: GP-17-15:DUP	Batch ID: 11921				Analysis Date: 9/23/2015		SeqNo: 472660				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	61.6	0.101	50.70	5.671	110	75	125	59.93	2.72	20	
Barium	79.9	0.507	50.70	38.20	82.3	75	125	77.16	3.55	20	
Cadmium	7.42	0.203	2.535	3.160	168	75	125	6.619	11.4	20	S
Chromium	87.1	0.101	50.70	18.79	135	75	125	80.81	7.54	20	S
Lead	81.7	0.203	25.35	39.25	168	75	125	86.60	5.80	20	S
Selenium	6.47	0.507	5.070	1.467	98.7	75	125	6.240	3.64	20	
Silver	2.54	0.101	2.535	0.06659	97.5	75	125	2.354	7.55	20	

NOTES:

S - Outlying spike recoveries observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

S - Outlying spike recovery observed for Cr. A duplicate analysis was performed and recovered within range.



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 6020

Sample ID: 1509300-022APDS		SampType: PDS			Units: mg/Kg-dry		Prep Date: 9/23/2015		RunNo: 25083		
Client ID: GP-17-15:DUP		Batch ID: 11921			Analysis Date: 9/23/2015				SeqNo: 472661		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	11.1	0.204	2.50	6.18	98.2	80	120				
Lead	119	0.204	25.0	76.8	85.0	80	120				



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 7471

Sample ID: MB-11908	SampType: MBLK	Units: mg/Kg		Prep Date: 9/22/2015	RunNo: 25040
Client ID: MBLKS	Batch ID: 11908	Analysis Date: 9/22/2015		SeqNo: 471857	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	ND	0.250			

Sample ID: LCS-11908	SampType: LCS	Units: mg/Kg		Prep Date: 9/22/2015	RunNo: 25040
Client ID: LCSS	Batch ID: 11908	Analysis Date: 9/22/2015		SeqNo: 471858	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.450	0.250	0.5000	0	89.9 80 120

Sample ID: 1509270-019ADUP	SampType: DUP	Units: mg/Kg-dry		Prep Date: 9/22/2015	RunNo: 25040
Client ID: BATCH	Batch ID: 11908	Analysis Date: 9/22/2015		SeqNo: 471860	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	ND	0.261			0 20

Sample ID: 1509270-019AMS	SampType: MS	Units: mg/Kg-dry		Prep Date: 9/22/2015	RunNo: 25040
Client ID: BATCH	Batch ID: 11908	Analysis Date: 9/22/2015		SeqNo: 471861	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.576	0.309	0.6171	0.005595	92.4 70 130

Sample ID: 1509270-019AMSD	SampType: MSD	Units: mg/Kg-dry		Prep Date: 9/22/2015	RunNo: 25040
Client ID: BATCH	Batch ID: 11908	Analysis Date: 9/22/2015		SeqNo: 471862	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.541	0.291	0.5822	0.005595	92.0 70 130 0.5758 6.16 20



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 7471

Sample ID: MB-11920	SampType: MBLK	Units: mg/Kg		Prep Date: 9/23/2015	RunNo: 25106
Client ID: MBLKS	Batch ID: 11920	Analysis Date: 9/24/2015		SeqNo: 473205	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury	ND	0.250			
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Sample ID: LCS-11920	SampType: LCS	Units: mg/Kg		Prep Date: 9/23/2015	RunNo: 25106
Client ID: LCSS	Batch ID: 11920	Analysis Date: 9/24/2015		SeqNo: 473206	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury	0.522	0.250	0.5000	0	104	80	120			
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Sample ID: 1509300-001ADUP	SampType: DUP	Units: mg/Kg-dry		Prep Date: 9/23/2015	RunNo: 25106
Client ID: GP-13-15:4.5	Batch ID: 11920	Analysis Date: 9/24/2015		SeqNo: 473208	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury	ND	0.280						0		20
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Sample ID: 1509300-001AMS	SampType: MS	Units: mg/Kg-dry		Prep Date: 9/23/2015	RunNo: 25106
Client ID: GP-13-15:4.5	Batch ID: 11920	Analysis Date: 9/24/2015		SeqNo: 473209	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury	0.558	0.265	0.5291	0.02003	102	70	130			
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Sample ID: 1509300-001AMSD	SampType: MSD	Units: mg/Kg-dry		Prep Date: 9/23/2015	RunNo: 25106
Client ID: GP-13-15:4.5	Batch ID: 11920	Analysis Date: 9/24/2015		SeqNo: 473210	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury	0.535	0.255	0.5098	0.02003	101	70	130	0.5576	4.11	20
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Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Metals (SW6020) with TCLP Extraction (EPA 1311)

Sample ID: MB-12198FB	SampType: MBLK	Units: mg/L		Prep Date: 10/26/2015	RunNo: 25734
Client ID: MBLKS	Batch ID: 12222	Analysis Date: 10/26/2015		SeqNo: 485915	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Cadmium	ND	0.200
Lead	ND	0.200

NOTES:
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Sample ID: MB-12222	SampType: MBLK	Units: mg/L		Prep Date: 10/26/2015	RunNo: 25734
Client ID: MBLKS	Batch ID: 12222	Analysis Date: 10/26/2015		SeqNo: 485916	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Cadmium	ND	0.200
Lead	ND	0.200

Sample ID: LCS-12222	SampType: LCS	Units: mg/L		Prep Date: 10/26/2015	RunNo: 25734
Client ID: LCSS	Batch ID: 12222	Analysis Date: 10/26/2015		SeqNo: 485917	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Cadmium	0.266	0.200	0.2500	0	106	65	135
Lead	2.45	0.200	2.500	0	98.0	65	135

Sample ID: 1509270-006ADUP	SampType: DUP	Units: mg/L		Prep Date: 10/26/2015	RunNo: 25734
Client ID: BATCH	Batch ID: 12222	Analysis Date: 10/26/2015		SeqNo: 485919	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Cadmium	ND	0.200					0		30
Lead	0.685	0.200					0.7188	4.76	30



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Metals (SW6020) with TCLP Extraction (EPA 1311)

Sample ID: 1509270-006AMS		SampType: MS			Units: mg/L		Prep Date: 10/26/2015			RunNo: 25734		
Client ID: BATCH		Batch ID: 12222			Analysis Date: 10/26/2015			SeqNo: 485920				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Cadmium	0.265	0.200	0.2500	0.01830	98.7	65	135				
Lead	3.08	0.200	2.500	0.7188	94.5	65	135				

Sample ID: 1509270-006AMSD		SampType: MSD			Units: mg/L		Prep Date: 10/26/2015			RunNo: 25734		
Client ID: BATCH		Batch ID: 12222			Analysis Date: 10/26/2015					SeqNo: 485921		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Cadmium	0.286	0.200	0.2500	0.01830	107	65	135	0.2651	7.46	30	
Lead	3.08	0.200	2.500	0.7188	94.3	65	135	3.081	0.145	30	



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: MB-11919	SampType: MBLK	Units: mg/Kg		Prep Date: 9/23/2015	RunNo: 25074
Client ID: MBLKS	Batch ID: 11919	Analysis Date: 9/23/2015		SeqNo: 472568	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	20.4		20.00		102	50	150				
Surr: o-Terphenyl	20.6		20.00		103	50	150				

Sample ID: LCS-11919	SampType: LCS	Units: mg/Kg		Prep Date: 9/23/2015	RunNo: 25074
Client ID: LCSS	Batch ID: 11919	Analysis Date: 9/23/2015		SeqNo: 472567	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel (Fuel Oil)	546	20.0	500.0	0	109	65	135				
Surr: 2-Fluorobiphenyl	23.8		20.00		119	50	150				
Surr: o-Terphenyl	20.3		20.00		102	50	150				

Sample ID: 1509278-001ADUP	SampType: DUP	Units: mg/Kg-dry		Prep Date: 9/23/2015	RunNo: 25074
Client ID: BATCH	Batch ID: 11919	Analysis Date: 9/23/2015		SeqNo: 472543	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel (Fuel Oil)	ND	21.5						0		30	
Heavy Oil	ND	53.7						0		30	
Surr: 2-Fluorobiphenyl	23.3		21.48		109	50	150		0		
Surr: o-Terphenyl	23.4		21.48		109	50	150		0		

Sample ID: 1509300-007ADUP	SampType: DUP	Units: mg/Kg-dry		Prep Date: 9/23/2015	RunNo: 25074
Client ID: GP-15-15:14.0	Batch ID: 11919	Analysis Date: 9/23/2015		SeqNo: 472553	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel (Fuel Oil)	ND	26.4						0		30	
Heavy Oil	ND	66.1						0		30	
Surr: 2-Fluorobiphenyl	19.6		26.42		74.1	50	150		0		
Surr: o-Terphenyl	19.8		26.42		74.8	50	150		0		



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: 1509300-007ADUP	SampType: DUP	Units: mg/Kg-dry		Prep Date: 9/23/2015	RunNo: 25074
Client ID: GP-15-15:14.0	Batch ID: 11919	Analysis Date: 9/23/2015		SeqNo: 472553	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Sample ID: MB-11945	SampType: MBLK	Units: mg/Kg		Prep Date: 9/24/2015	RunNo: 25122
Client ID: MBLKS	Batch ID: 11945	Analysis Date: 9/24/2015		SeqNo: 473714	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	19.1		20.00		95.7	50	150				
Surr: o-Terphenyl	19.1		20.00		95.6	50	150				

Sample ID: LCS-11945	SampType: LCS	Units: mg/Kg		Prep Date: 9/24/2015	RunNo: 25122
Client ID: LCSS	Batch ID: 11945	Analysis Date: 9/24/2015		SeqNo: 473713	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel (Fuel Oil)	429	20.0	500.0	0	85.9	65	135				
Surr: 2-Fluorobiphenyl	20.4		20.00		102	50	150				
Surr: o-Terphenyl	19.7		20.00		98.4	50	150				

Sample ID: 1509332-008ADUP	SampType: DUP	Units: mg/Kg-dry		Prep Date: 9/24/2015	RunNo: 25122
Client ID: BATCH	Batch ID: 11945	Analysis Date: 9/24/2015		SeqNo: 473703	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel (Fuel Oil)	ND	23.2						0			30
Heavy Oil	ND	57.9						0			30
Surr: 2-Fluorobiphenyl	26.5		23.15		114	50	150		0		
Surr: o-Terphenyl	26.7		23.15		115	50	150		0		



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: MB-11941		SampType: MBLK		Units: µg/L		Prep Date: 9/24/2015			RunNo: 25133		
Client ID: MBLKW		Batch ID: 11941					Analysis Date: 9/25/2015			SeqNo: 473905	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	50.0									
Heavy Oil	ND	100									
Surr: 2-Fluorobiphenyl	59.8		80.00		74.8	50	150				
Surr: o-Terphenyl	67.3		80.00		84.1	50	150				

Sample ID: LCS-11941		SampType: LCS			Units: µg/L		Prep Date: 9/24/2015			RunNo: 25133		
Client ID: LCSW		Batch ID: 11941						Analysis Date: 9/25/2015			SeqNo: 473904	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	675	50.0	1,000	0	67.5	65	135				
Surr: 2-Fluorobiphenyl	65.7		80.00		82.1	50	150				
Surr: o-Terphenyl	59.8		80.00		74.8	50	150				

Sample ID: 1509300-020BDUP		SampType: DUP			Units: µg/L		Prep Date: 9/24/2015			RunNo: 25133		
Client ID: GP-21-15:GW		Batch ID: 11941						Analysis Date: 9/25/2015			SeqNo: 473912	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	ND	50.0						0		30	
Heavy Oil	169	100						170.8	0.880	30	
Surr: 2-Fluorobiphenyl	45.4		79.97		56.8	50	150		0		
Surr: o-Terphenyl	48.5		79.97		60.6	50	150		0		



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Herbicides by EPA Method 8151A

Sample ID: MB-11938	SampType: MBLK	Units: µg/Kg				Prep Date: 9/24/2015			RunNo: 25230		
Client ID: MBLKS	Batch ID: 11938	Analysis Date: 9/30/2015						SeqNo: 475823			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MCPP	ND	280									
MCPA	ND	280									
Picloram	ND	50.0									
Bentazon	ND	35.0									
Chloramben	ND	20.0									
Acifluorfen	ND	80.0									
3,5-Dichlorobenzoic acid	ND	40.0									
4-Nitrophenol	ND	30.0									
Dacthal (DCPA)	ND	30.0									
Surr: 2,4-Dichlorophenylacetic acid	119		100.0		119	20.1	168				

Sample ID: LCS-11938	SampType: LCS	Units: µg/Kg				Prep Date: 9/24/2015			RunNo: 25230		
Client ID: LCSS	Batch ID: 11938	Analysis Date: 9/30/2015							SeqNo: 475822		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	64.3	35.0	100.0	0	64.3	32.1	135				
2,4-D	67.1	30.0	100.0	0	67.1	22.4	130				
2,4-DP	63.6	25.0	100.0	0	63.6	26.4	130				
2,4,5-TP (Silvex)	56.7	20.0	100.0	0	56.7	21.2	138				
2,4,5-T	61.3	50.0	100.0	0	61.3	39	117				
Dinoseb	68.6	30.0	100.0	0	68.6	5	165				
Dalapon	4,880	200	10,000	0	48.8	18.4	162				
2,4-DB	56.3	25.0	100.0	0	56.3	5	164				
MCPP	721	280	1,000	0	72.1	22.2	157				
MCPA	842	280	1,000	0	84.2	47.4	128				
Picloram	50.0	50.0	100.0	0	50.0	5	175				
Bentazon	58.3	35.0	100.0	0	58.3	7.59	162				
Chloramben	73.2	20.0	100.0	0	73.2	5	147				
Acifluorfen	53.3	80.0	100.0	0	53.3	5	163				
3,5-Dichlorobenzoic acid	61.8	40.0	100.0	0	61.8	18.7	139				
4-Nitrophenol	56.1	30.0	100.0	0	56.1	5	163				



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Herbicides by EPA Method 8151A

Sample ID: LCS-11938		SampType: LCS			Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25230		
Client ID: LCSS		Batch ID: 11938			Analysis Date: 9/30/2015			SeqNo: 475822				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dacthal (DCPA)	57.3	30.0	100.0	0	57.3	5	164				
Surr: 2,4-Dichlorophenylacetic acid	93.5		100.0		93.5	20.1	168				

Sample ID: 1509270-021ADUP		SampType: DUP			Units: µg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25230		
Client ID: BATCH		Batch ID: 11938			Analysis Date: 9/30/2015			SeqNo: 475818				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dicamba	ND	46.1						0		30	
2,4-D	ND	39.5						0		30	
2,4-DP	ND	32.9						0		30	
2,4,5-TP (Silvex)	ND	26.3						0		30	
2,4,5-T	ND	65.8						0		30	
Dinoseb	ND	39.5						0		30	
Dalapon	ND	263						0		30	
2,4-DB	ND	32.9						0		30	
MCP	ND	369						0		30	
MCPA	ND	369						0		30	
Picloram	ND	65.8						0		30	
Bentazon	ND	46.1						0		30	
Chloramben	ND	26.3						0		30	
Acifluorfen	ND	105						0		30	
3,5-Dichlorobenzoic acid	ND	52.7						0		30	
4-Nitrophenol	ND	39.5						0		30	
Dacthal (DCPA)	ND	39.5						0		30	
Surr: 2,4-Dichlorophenylacetic acid	0		131.6		0	20.1	168		0		S

NOTES:

S - Outlying surrogate recovery observed. The method is in control as indicated by the LCS.



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Herbicides by EPA Method 8151A

Sample ID: MB-11955	SampType: MBLK	Units: µg/Kg			Prep Date: 9/25/2015			RunNo: 25248			
Client ID: MBLKS	Batch ID: 11955				Analysis Date: 10/1/2015			SeqNo: 476118			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	ND	35.0									
2,4-D	ND	30.0									
2,4-DP	ND	25.0									
2,4,5-TP (Silvex)	ND	20.0									
2,4,5-T	ND	50.0									
Dinoseb	ND	30.0									
Dalapon	ND	200									
2,4-DB	ND	25.0									
MCPP	ND	4,400									
MCPA	ND	280									
Picloram	ND	50.0									
Bentazon	ND	35.0									
Chloramben	ND	20.0									
Acifluorfen	ND	80.0									
3,5-Dichlorobenzoic acid	ND	40.0									
4-Nitrophenol	ND	30.0									
Dacthal (DCPA)	ND	30.0									
Surr: 2,4-Dichlorophenylacetic acid	89.6		100.0		89.6	20.1	168				

Sample ID: LCS-11955	SampType: LCS	Units: µg/Kg				Prep Date: 9/25/2015			RunNo: 25248		
Client ID: LCSS	Batch ID: 11955	Analysis Date: 10/1/2015							SeqNo: 476117		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	82.3	35.0	100.0	0	82.3	32.1	135				
2,4-D	88.5	30.0	100.0	0	88.5	22.4	130				
2,4-DP	97.6	25.0	100.0	0	97.6	26.4	130				
2,4,5-TP (Silvex)	103	20.0	100.0	0	103	21.2	138				
2,4,5-T	84.9	50.0	100.0	0	84.9	39	117				
Dinoseb	56.7	30.0	100.0	0	56.7	5	165				
Dalapon	8,630	200	10,000	0	86.3	18.4	162				
2,4-DB	82.2	25.0	100.0	0	82.2	5	164				



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Herbicides by EPA Method 8151A

Sample ID: LCS-11955	SampType: LCS	Units: µg/Kg				Prep Date: 9/25/2015			RunNo: 25248		
Client ID: LCSS	Batch ID: 11955	Analysis Date: 10/1/2015							SeqNo: 476117		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MCPP	886	4,400	1,000	0	88.6	22.2	157				
MCPA	1,060	280	1,000	0	106	47.4	128				
Picloram	99.5	50.0	100.0	0	99.5	5	175				
Bentazon	68.6	35.0	100.0	0	68.6	7.59	162				
Chloramben	68.7	20.0	100.0	0	68.7	5	147				
Acifluorfen	80.7	80.0	100.0	0	80.7	5	163				
3,5-Dichlorobenzoic acid	103	40.0	100.0	0	103	18.7	139				
4-Nitrophenol	45.9	30.0	100.0	0	45.9	5	163				
Dacthal (DCPA)	91.1	30.0	100.0	0	91.1	5	164				
Surr: 2,4-Dichlorophenylacetic acid	108		100.0		108	20.1	168				

Sample ID: 1509300-009ADUP		SampType: DUP		Units: µg/Kg-dry		Prep Date: 9/25/2015			RunNo: 25303		
Client ID: GP-16-15:13.5		Batch ID: 11955		Analysis Date: 10/5/2015						SeqNo: 477205	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	ND	43.9						0		30	
2,4-D	ND	37.6						0		30	
2,4-DP	ND	31.4						0		30	
2,4,5-TP (Silvex)	ND	25.1						0		30	
2,4,5-T	ND	62.7						0		30	
Dinoseb	ND	37.6						0		30	
Dalapon	ND	251						0		30	
2,4-DB	ND	31.4						0		30	
MCPP	ND	5,520						0		30	
MCPA	ND	3,510						0		30	
Picloram	ND	62.7						0		30	
Bentazon	ND	43.9						0		30	
Chloramben	ND	25.1						0		30	
Acifluorfen	ND	100						0		30	
3,5-Dichlorobenzoic acid	ND	50.2						0		30	
4-Nitrophenol	ND	37.6						0		30	



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID: 1509300-009ADUP		SampType: DUP		Units: µg/Kg-dry		Prep Date: 9/25/2015		RunNo: 25303			
Client ID: GP-16-15:13.5		Batch ID: 11955				Analysis Date: 10/5/2015		SeqNo: 477205			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dacthal (DCPA)	ND	37.6						0		30	
Surr: 2,4-Dichlorophenylacetic acid	131		125.4		104	20.1	168		0		

Sample ID: 1509300-010AMS		SampType: MS		Units: µg/Kg-dry		Prep Date: 9/25/2015			RunNo: 25303		
Client ID: GP-17-15:7.0		Batch ID: 11955		Analysis Date: 10/5/2015					SeqNo: 477207		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	109	47.6	136.0	0	80.5	31.9	118				
2,4-D	116	40.8	136.0	0	85.2	12.4	134				
2,4-DP	125	34.0	136.0	0	92.3	27.2	129				
2,4,5-TP (Silvex)	133	27.2	136.0	0	97.7	28.6	134				
2,4,5-T	107	68.0	136.0	0	78.9	13.1	147				
Dinoseb	136	40.8	136.0	0	100	10	179				
Dalapon	5,650	272	13,600	0	41.6	24.9	139				
2,4-DB	117	34.0	136.0	0	86.3	50.2	152				
MCP	1340	5,980	3,399	0	39.4	37.8	140				
MCPA	2400	3,810	3,399	0	70.5	13.7	147				
Picloram	126	68.0	136.0	0	92.8	5	153				
Bentazon	106	47.6	136.0	0	78.3	15	140				
Chloramben	116	27.2	136.0	0	85.3	5	162				
Acifluorfen	167	109	136.0	0	123	15	140				
3,5-Dichlorobenzoic acid	146	54.4	136.0	0	107	10	164				
4-Nitrophenol	145	40.8	136.0	0	107	44.8	125				
Dacthal (DCPA)	ND	40.8	136.0	0	23.0	5	132				
Surr: 2,4-Dichlorophenylacetic acid	122		136.0		89.4	20.1	168				



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QC SUMMARY REPORT
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: MB-11916		SampType: MBLK		Units: µg/L		Prep Date: 9/22/2015			RunNo: 25071		
Client ID: MBLKW		Batch ID: 11916					Analysis Date: 9/23/2015			SeqNo: 472505	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0996									
2-Methylnaphthalene	ND	0.0996									
1-Methylnaphthalene	ND	0.0996									
Acenaphthylene	ND	0.0996									
Acenaphthene	ND	0.0996									
Fluorene	ND	0.0996									
Phenanthrene	ND	0.0996									
Anthracene	ND	0.0996									
Fluoranthene	ND	0.0996									
Pyrene	ND	0.0996									
Benz(a)anthracene	ND	0.0996									
Chrysene	ND	0.0996									
Benzo(b)fluoranthene	ND	0.0996									
Benzo(k)fluoranthene	ND	0.0996									
Benzo(a)pyrene	ND	0.0996									
Indeno(1,2,3-cd)pyrene	ND	0.0996									
Dibenz(a,h)anthracene	ND	0.0996									
Benzo(g,h,i)perylene	ND	0.0996									
Surr: 2-Fluorobiphenyl	1.29		1.992		64.7	23.9	122				
Surr: Terphenyl-d14	1.54		1.992		77.5	33.4	135				

Sample ID: LCS-11916	SampType: LCS	Units: µg/L				Prep Date: 9/22/2015			RunNo: 25071		
Client ID: LCSW	Batch ID: 11916					Analysis Date: 9/23/2015			SeqNo: 472504		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.27	0.0998	3.993	0	56.8	26.7	106				
2-Methylnaphthalene	2.33	0.0998	3.993	0	58.3	35.4	110				
1-Methylnaphthalene	2.31	0.0998	3.993	0	57.9	37.5	116				
Acenaphthylene	2.88	0.0998	3.993	0	72.2	39.2	114				
Acenaphthene	2.44	0.0998	3.993	0	61.1	37	113				
Fluorene	1.80	0.0998	3.993	0	45.0	40.3	117				



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QC SUMMARY REPORT
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: LCS-11916	SampType: LCS	Units: µg/L			Prep Date: 9/22/2015			RunNo: 25071			
Client ID: LCSW	Batch ID: 11916				Analysis Date: 9/23/2015			SeqNo: 472504			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	2.42	0.0998	3.993	0	60.6	35.1	118				
Anthracene	2.33	0.0998	3.993	0	58.4	45.4	115				
Fluoranthene	2.48	0.0998	3.993	0	62.2	47.1	123				
Pyrene	3.05	0.0998	3.993	0	76.3	47.6	123				
Benz(a)anthracene	2.40	0.0998	3.993	0	60.0	48.7	126				
Chrysene	2.42	0.0998	3.993	0	60.5	45.1	114				
Benzo(b)fluoranthene	2.36	0.0998	3.993	0	59.1	52.2	126				
Benzo(k)fluoranthene	2.67	0.0998	3.993	0	66.8	45.5	121				
Benzo(a)pyrene	2.37	0.0998	3.993	0	59.3	38.4	121				
Indeno(1,2,3-cd)pyrene	2.28	0.0998	3.993	0	57.1	23.9	143				
Dibenz(a,h)anthracene	2.56	0.0998	3.993	0	64.0	24.9	141				
Benzo(g,h,i)perylene	2.12	0.0998	3.993	0	53.1	35.9	139				
Surr: 2-Fluorobiphenyl	1.39		1.997		69.7	23.9	122				
Surr: Terphenyl-d14	1.50		1.997		74.9	33.4	135				

Sample ID: 1509270-027EDUP	SampType: DUP	Units: µg/L			Prep Date: 9/22/2015			RunNo: 25071			
Client ID: BATCH	Batch ID: 11916				Analysis Date: 9/23/2015			SeqNo: 472491			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0997						0		30	
2-Methylnaphthalene	ND	0.0997						0		30	
1-Methylnaphthalene	ND	0.0997						0		30	
Acenaphthylene	ND	0.0997						0		30	
Acenaphthene	ND	0.0997						0		30	
Fluorene	ND	0.0997						0		30	
Phenanthrene	ND	0.0997						0		30	
Anthracene	ND	0.0997						0		30	
Fluoranthene	ND	0.0997						0		30	
Pyrene	ND	0.0997						0		30	
Benz(a)anthracene	ND	0.0997						0		30	
Chrysene	ND	0.0997						0		30	



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QC SUMMARY REPORT
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 1509270-027EDUP	SampType: DUP	Units: µg/L			Prep Date: 9/22/2015			RunNo: 25071			
Client ID: BATCH	Batch ID: 11916	Analysis Date: 9/23/2015						SeqNo: 472491			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	ND	0.0997						0		30	
Benzo(k)fluoranthene	ND	0.0997						0		30	
Benzo(a)pyrene	ND	0.0997						0		30	
Indeno(1,2,3-cd)pyrene	ND	0.0997						0		30	
Dibenz(a,h)anthracene	ND	0.0997						0		30	
Benzo(g,h,i)perylene	ND	0.0997						0		30	
Surr: 2-Fluorobiphenyl	1.14		1.995		56.9	23.9	122		0		
Surr: Terphenyl-d14	0.798		1.995		40.0	33.4	135		0		

Sample ID: 1509270-032EMS		SampType: MS		Units: µg/L		Prep Date: 9/22/2015			RunNo: 25071		
Client ID: BATCH		Batch ID: 11916					Analysis Date: 9/23/2015			SeqNo: 472493	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.33	0.0999	3.997	0	58.3	31.2	104				
2-Methylnaphthalene	2.30	0.0999	3.997	0	57.7	33.9	109				
1-Methylnaphthalene	2.28	0.0999	3.997	0	57.1	33.2	110				
Acenaphthylene	2.81	0.0999	3.997	0	70.4	40.5	98.7				
Acenaphthene	2.38	0.0999	3.997	0	59.6	30.6	117				
Fluorene	2.35	0.0999	3.997	0	58.8	35.2	99.1				
Phenanthrene	2.21	0.0999	3.997	0	55.4	42.7	111				
Anthracene	2.02	0.0999	3.997	0	50.5	43.9	103				
Fluoranthene	2.10	0.0999	3.997	0	52.5	56.1	115				S
Pyrene	2.49	0.0999	3.997	0	62.2	44.2	134				
Benz(a)anthracene	1.65	0.0999	3.997	0	41.4	50.4	128				S
Chrysene	1.53	0.0999	3.997	0	38.4	41.4	118				S
Benzo(b)fluoranthene	1.25	0.0999	3.997	0	31.2	50.8	121				S
Benzo(k)fluoranthene	1.33	0.0999	3.997	0	33.2	43.4	113				S
Benzo(a)pyrene	1.21	0.0999	3.997	0	30.2	40.8	128				S
Indeno(1,2,3-cd)pyrene	1.08	0.0999	3.997	0	26.9	29.5	126				S
Dibenz(a,h)anthracene	1.27	0.0999	3.997	0	31.8	31.4	120				
Benzo(g,h,i)perylene	0.925	0.0999	3.997	0	23.2	30	116				S



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QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 1509270-032EMS		SampType: MS			Units: µg/L		Prep Date: 9/22/2015			RunNo: 25071		
Client ID: BATCH		Batch ID: 11916			Analysis Date: 9/23/2015					SeqNo: 472493		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Surr: 2-Fluorobiphenyl	1.14		1.999		57.0	23.9	122				
Surr: Terphenyl-d14	0.865		1.999		43.3	33.4	135				

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.



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QC SUMMARY REPORT
Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID: MB-12180	SampType: MBLK	Units: mg/Kg			Prep Date: 10/21/2015			RunNo: 25736			
Client ID: MBLKS	Batch ID: 12180				Analysis Date: 10/22/2015			SeqNo: 485995			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.100									
Aroclor 1221	ND	0.100									
Aroclor 1232	ND	0.100									
Aroclor 1242	ND	0.100									
Aroclor 1248	ND	0.100									
Aroclor 1254	ND	0.100									
Aroclor 1260	ND	0.100									
Aroclor 1262	ND	0.100									
Aroclor 1268	ND	0.100									
Total PCBs	ND	0.100									
Surr: Decachlorobiphenyl	26.0		50.00		52.0	41.2	143				
Surr: Tetrachloro-m-xylene	24.5		50.00		49.0	26	140				

Sample ID: LCS1-12180	SampType: LCS	Units: mg/Kg				Prep Date: 10/21/2015			RunNo: 25736		
Client ID: LCSS	Batch ID: 12180					Analysis Date: 10/22/2015			SeqNo: 486035		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.648	0.100	1.000	0	64.8	42.3	147				
Aroclor 1260	0.621	0.100	1.000	0	62.1	45.2	151				
Surr: Decachlorobiphenyl	25.0		50.00		49.9	41.2	143				
Surr: Tetrachloro-m-xylene	27.5		50.00		55.0	26	140				

Sample ID: 1509270-006AMS	SampType: MS	Units: mg/Kg-dry			Prep Date: 10/21/2015			RunNo: 25736			
Client ID: BATCH	Batch ID: 12180				Analysis Date: 10/22/2015			SeqNo: 485986			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.78	0.197	1.970	0	90.4	61.7	139				
Aroclor 1260	1.55	0.197	1.970	0.1414	71.4	63.1	138				
Surr: Decachlorobiphenyl	70.1		98.49		71.2	41.2	143				
Surr: Tetrachloro-m-xylene	86.4		98.49		87.7	26	140				



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QC SUMMARY REPORT
Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID: 1509270-006AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 10/21/2015			RunNo: 25736		
Client ID: BATCH		Batch ID: 12180			Analysis Date: 10/22/2015					SeqNo: 485986		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Sample ID: 1509270-006AMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 10/21/2015			RunNo: 25736		
Client ID: BATCH	Batch ID: 12180					Analysis Date: 10/22/2015			SeqNo: 485987		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.86	0.186	1.862	0	100	61.7	139	1.780	4.49	30	
Aroclor 1260	1.69	0.186	1.862	0.1414	83.3	63.1	138	1.547	8.92	30	
Surr: Decachlorobiphenyl	75.7		93.10		81.3	41.2	143		0		
Surr: Tetrachloro-m-xylene	86.9		93.10		93.4	26	140		0		



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QC SUMMARY REPORT
Organochlorine Pesticides by EPA Method 8081

Sample ID: TOXIPHENE	SampType: CCV	Units: mg/L		Prep Date: 9/23/2015	RunNo: 25086
Client ID: CCV	Batch ID: R25086	Analysis Date: 9/23/2015		SeqNo: 472772	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Toxaphene	1,200	0.100	1,000	0	120 50 150

Sample ID: MB-11935	SampType: MBLK	Units: mg/Kg		Prep Date: 9/23/2015	RunNo: 25086
Client ID: MBLKS	Batch ID: 11935	Analysis Date: 9/24/2015		SeqNo: 472762	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Toxaphene	ND	0.100			
Alpha BHC	ND	0.0100			
Beta BHC	ND	0.0100			
Gamma BHC (Lindane)	ND	0.0100			
Delta BHC	ND	0.0100			
Heptachlor	ND	0.0100			
Aldrin	ND	0.0100			
Heptachlor epoxide	ND	0.0100			
gamma-Chlordane	ND	0.0100			
Endosulfan I	ND	0.0100			
alpha-Chlordane	ND	0.0100			
Dieldrin	ND	0.0100			
4,4'-DDE	ND	0.0200			
Endrin	ND	0.0200			
Endosulfan II	ND	0.0200			
4,4'-DDD	ND	0.0200			
Endrin aldehyde	ND	0.0200			
Endosulfan sulfate	ND	0.0200			
4,4'-DDT	ND	0.0200			
Endrin ketone	ND	0.0200			
Methoxychlor	ND	0.0500			
Surr: Decachlorobiphenyl	0.0418		0.05000		83.6 26.5 158
Surr: Tetrachloro-m-xylene	0.0417		0.05000		83.5 11 150



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QC SUMMARY REPORT
Organochlorine Pesticides by EPA Method 8081

Sample ID: LCS-11935	SampType: LCS	Units: µg/Kg				Prep Date: 9/23/2015			RunNo: 25086		
Client ID: LCSS	Batch ID: 11935	Analysis Date: 9/24/2015							SeqNo: 472760		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.183	0.0100	0.2000	0	91.6	54.2	139				
Beta BHC	0.189	0.0100	0.2000	0	94.7	56.5	142				
Gamma BHC (Lindane)	0.189	0.0100	0.2000	0	94.4	55.5	142				
Delta BHC	0.184	0.0100	0.2000	0	92.1	47.4	157				
Heptachlor	0.196	0.0100	0.2000	0	97.9	54	141				
Aldrin	0.187	0.0100	0.2000	0	93.7	43.7	147				
Heptachlor epoxide	0.193	0.0100	0.2000	0	96.5	56.2	137				
gamma-Chlordane	0.200	0.0100	0.2000	0	100	58.5	136				
Endosulfan I	0.188	0.0100	0.2000	0	94.1	60	132				
alpha-Chlordane	0.217	0.0100	0.2000	0	108	46.1	140				
Dieldrin	0.190	0.0100	0.2000	0	94.9	61.2	133				
4,4'-DDE	0.189	0.0200	0.2000	0	94.6	55.4	142				
Endrin	0.197	0.0200	0.2000	0	98.4	56.5	143				
Endosulfan II	0.192	0.0200	0.2000	0	96.0	62	143				
4,4'-DDD	0.187	0.0200	0.2000	0	93.7	53.3	145				
Endrin aldehyde	0.183	0.0200	0.2000	0	91.4	39.5	153				
Endosulfan sulfate	0.188	0.0200	0.2000	0	93.9	53.8	148				
4,4'-DDT	0.193	0.0200	0.2000	0	96.7	48.2	152				
Endrin ketone	0.199	0.0200	0.2000	0	99.5	28.5	162				
Methoxychlor	0.194	0.0500	0.2000	0	96.8	34.6	159				
Surr: Decachlorobiphenyl	0.0490		0.05000		98.0	26.5	158				
Surr: Tetrachloro-m-xylene	0.0507		0.05000		101	11	150				

Sample ID: 1509270-018ADUP	SampType: DUP	Units: mg/Kg-dry			Prep Date: 9/23/2015			RunNo: 25086			
Client ID: BATCH	Batch ID: 11935				Analysis Date: 9/24/2015			SeqNo: 472731			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.123						0		30	
Alpha BHC	ND	0.0123						0		30	
Beta BHC	ND	0.0123						0		30	
Gamma BHC (Lindane)	ND	0.0123						0		30	



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Organochlorine Pesticides by EPA Method 8081

Sample ID: 1509270-018ADUP	SampType: DUP	Units: mg/Kg-dry			Prep Date: 9/23/2015			RunNo: 25086			
Client ID: BATCH	Batch ID: 11935	Analysis Date: 9/24/2015						SeqNo: 472731			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Delta BHC	ND	0.0123						0		30	
Heptachlor	ND	0.0123						0		30	
Aldrin	ND	0.0123						0		30	
Heptachlor epoxide	ND	0.0123						0		30	
gamma-Chlordane	ND	0.0123						0		30	
Endosulfan I	ND	0.0123						0		30	
alpha-Chlordane	ND	0.0123						0		30	
Dieldrin	ND	0.0123						0		30	
4,4´-DDE	ND	0.0246						0		30	
Endrin	ND	0.0246						0		30	
Endosulfan II	ND	0.0246						0		30	
4,4´-DDD	ND	0.0246						0		30	
Endrin aldehyde	ND	0.0246						0		30	
Endosulfan sulfate	ND	0.0246						0		30	
4,4´-DDT	ND	0.0246						0		30	
Endrin ketone	ND	0.0246						0		30	
Methoxychlor	ND	0.0614						0		30	
Surr: Decachlorobiphenyl	0.0509		0.06140		82.9	26.5	158		0		
Surr: Tetrachloro-m-xylene	0.0553		0.06140		90.1	11	150		0		

Sample ID: 1509270-019AMS	SampType: MS	Units: µg/Kg-dry				Prep Date: 9/23/2015			RunNo: 25086		
Client ID: BATCH	Batch ID: 11935	Analysis Date: 9/24/2015						SeqNo: 472733			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.192	0.0112	0.2248	0	85.5	49.1	158				
Beta BHC	0.196	0.0112	0.2248	0	87.4	50.9	160				
Gamma BHC (Lindane)	0.198	0.0112	0.2248	0	88.0	55.3	157				
Delta BHC	0.194	0.0112	0.2248	0	86.1	55.8	160				
Heptachlor	0.206	0.0112	0.2248	0	91.6	59.1	150				
Aldrin	0.202	0.0112	0.2248	0	90.0	46.4	145				
Heptachlor epoxide	0.205	0.0112	0.2248	0	91.2	48.5	151				



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Organochlorine Pesticides by EPA Method 8081

Sample ID: 1509270-019AMS	SampType: MS	Units: µg/Kg-dry				Prep Date: 9/23/2015			RunNo: 25086		
Client ID: BATCH	Batch ID: 11935	Analysis Date: 9/24/2015							SeqNo: 472733		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
gamma-Chlordane	0.253	0.0112	0.2248	0	113	50.9	143				
Endosulfan I	0.202	0.0112	0.2248	0	90.0	46.4	149				
alpha-Chlordane	0.128	0.0112	0.2248	0	56.8	46.3	153				
Dieldrin	0.203	0.0112	0.2248	0	90.5	51	147				
4,4'-DDE	0.207	0.0225	0.2248	0	92.2	39.9	162				
Endrin	0.210	0.0225	0.2248	0	93.5	51.3	151				
Endosulfan II	0.218	0.0225	0.2248	0	96.9	51	152				
4,4'-DDD	0.207	0.0225	0.2248	0	92.0	45.8	160				
Endrin aldehyde	0.215	0.0225	0.2248	0	95.8	38.3	156				
Endosulfan sulfate	0.217	0.0225	0.2248	0	96.6	53.2	154				
4,4'-DDT	0.215	0.0225	0.2248	0	95.6	45.7	168				
Endrin ketone	0.217	0.0225	0.2248	0	96.6	68.3	144				
Methoxychlor	0.220	0.0562	0.2248	0	97.7	43.4	178				
Surr: Decachlorobiphenyl	0.0537		0.05621		95.5	26.5	158				
Surr: Tetrachloro-m-xylene	0.0504		0.05621		89.7	11	150				

Sample ID: TOXIPHENE		SampType: CCV		Units: mg/L		Prep Date: 9/24/2015			RunNo: 25086		
Client ID: CCV		Batch ID: R25086					Analysis Date: 9/24/2015			SeqNo: 472770	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	1,150	0.100	1,000	0	115	50	150				

Sample ID: TOXIPHENE		SampType: CCV		Units: mg/L		Prep Date: 9/24/2015		RunNo: 25086			
Client ID: CCV		Batch ID: R25086				Analysis Date: 9/24/2015		SeqNo: 472771			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	1,170	0.100	1,000	0	117	50	150				



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Sample ID: MB-11947	SampType: MBLK	Units: mg/Kg				Prep Date: 9/24/2015			RunNo: 25271		
Client ID: MBLKS	Batch ID: 11947	Analysis Date: 9/25/2015							SeqNo: 476525		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.100									
Alpha BHC	ND	0.0100									
Beta BHC	ND	0.0100									
Gamma BHC (Lindane)	ND	0.0100									
Delta BHC	ND	0.0100									
Heptachlor	ND	0.0100									
Aldrin	ND	0.0100									
Heptachlor epoxide	ND	0.0100									
gamma-Chlordane	ND	0.0100									
Endosulfan I	ND	0.0100									
alpha-Chlordane	ND	0.0100									
Dieldrin	ND	0.0100									
4,4'-DDE	ND	0.0200									
Endrin	ND	0.0200									
Endosulfan II	ND	0.0200									
4,4'-DDD	ND	0.0200									
Endrin aldehyde	ND	0.0200									
Endosulfan sulfate	ND	0.0200									
4,4'-DDT	ND	0.0200									
Endrin ketone	ND	0.0200									
Methoxychlor	ND	0.0500									
Surr: Decachlorobiphenyl	0.0623		0.1000		62.3	26.5	158				
Surr: Tetrachloro-m-xylene	0.0293		0.05000		58.6	11	150				

Sample ID: LCS-11947	SampType: LCS	Units: µg/Kg				Prep Date: 9/24/2015			RunNo: 25271		
Client ID: LCSS	Batch ID: 11947					Analysis Date: 9/25/2015			SeqNo: 476524		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.173	0.0100	0.2000	0	86.3	54.2	139				
Beta BHC	0.178	0.0100	0.2000	0	89.0	56.5	142				
Gamma BHC (Lindane)	0.178	0.0100	0.2000	0	88.8	55.5	142				



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Sample ID: LCS-11947	SampType: LCS	Units: µg/Kg			Prep Date: 9/24/2015			RunNo: 25271			
Client ID: LCSS	Batch ID: 11947				Analysis Date: 9/25/2015			SeqNo: 476524			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Delta BHC	0.181	0.0100	0.2000	0	90.4	47.4	157				
Heptachlor	0.191	0.0100	0.2000	0	95.3	54	141				
Aldrin	0.204	0.0100	0.2000	0	102	43.7	147				
Heptachlor epoxide	0.162	0.0100	0.2000	0	81.0	56.2	137				
gamma-Chlordane	0.179	0.0100	0.2000	0	89.4	58.5	136				
Endosulfan I	0.160	0.0100	0.2000	0	80.1	60	132				
alpha-Chlordane	0.0861	0.0100	0.2000	0	43.0	46.1	140				S
Dieldrin	0.161	0.0100	0.2000	0	80.7	61.2	133				
4,4'-DDE	0.174	0.0200	0.2000	0	87.2	55.4	142				
Endrin	0.168	0.0200	0.2000	0	84.2	56.5	143				
Endosulfan II	0.184	0.0200	0.2000	0	91.9	62	143				
4,4'-DDD	0.174	0.0200	0.2000	0	86.8	53.3	145				
Endrin aldehyde	0.178	0.0200	0.2000	0	88.9	39.5	153				
Endosulfan sulfate	0.188	0.0200	0.2000	0	94.0	53.8	148				
4,4'-DDT	0.187	0.0200	0.2000	0	93.7	48.2	152				
Endrin ketone	0.189	0.0200	0.2000	0	94.7	28.5	162				
Methoxychlor	0.221	0.0500	0.2000	0	110	34.6	159				
Surr: Decachlorobiphenyl	0.0658		0.1000		65.8	26.5	158				
Surr: Tetrachloro-m-xylene	0.0321		0.05000		64.3	11	150				

NOTES:

S - Outlying spike recovery observed for Alpha Chlordane. The MS recovered within specifications.

Sample ID: 1509300-006ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25271		
Client ID: GP-15-15:6.0		Batch ID: 11947		Analysis Date: 9/25/2015						SeqNo: 476500	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.143						0		30	
Alpha BHC	ND	0.0143						0		30	
Beta BHC	ND	0.0143						0		30	
Gamma BHC (Lindane)	ND	0.0143						0		30	
Delta BHC	ND	0.0143						0		30	
Heptachlor	ND	0.0143						0		30	



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Sample ID: 1509300-006ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25271		
Client ID: GP-15-15:6.0		Batch ID: 11947					Analysis Date: 9/25/2015			SeqNo: 476500	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aldrin	ND	0.0143						0		30	
Heptachlor epoxide	ND	0.0143						0		30	
gamma-Chlordane	ND	0.0143						0		30	
Endosulfan I	ND	0.0143						0		30	
alpha-Chlordane	ND	0.0143						0		30	
Dieldrin	ND	0.0143						0		30	
4,4'-DDE	ND	0.0286						0		30	
Endrin	ND	0.0286						0		30	
Endosulfan II	ND	0.0286						0		30	
4,4'-DDD	ND	0.0286						0		30	
Endrin aldehyde	ND	0.0286						0		30	
Endosulfan sulfate	ND	0.0286						0		30	
4,4'-DDT	ND	0.0286						0		30	
Endrin ketone	ND	0.0286						0		30	
Methoxychlor	ND	0.0716						0		30	
Surr: Decachlorobiphenyl	0.0826		0.07161		115	26.5	158		0		
Surr: Tetrachloro-m-xylene	0.0406		0.07161		56.8	11	150		0		

Sample ID: 1509300-007AMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 9/24/2015			RunNo: 25271		
Client ID: GP-15-15:14.0	Batch ID: 11947	Analysis Date: 9/25/2015							SeqNo: 476502		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.248	0.0118	0.2360	0	105	49.1	158				
Beta BHC	0.260	0.0118	0.2360	0	110	50.9	160				
Gamma BHC (Lindane)	0.255	0.0118	0.2360	0	108	55.3	157				
Delta BHC	0.266	0.0118	0.2360	0	113	55.8	160				
Heptachlor	0.271	0.0118	0.2360	0	115	59.1	150				
Aldrin	0.284	0.0118	0.2360	0	120	46.4	145				
Heptachlor epoxide	0.235	0.0118	0.2360	0	99.5	48.5	151				
gamma-Chlordane	0.263	0.0118	0.2360	0	112	50.9	143				
Endosulfan I	0.238	0.0118	0.2360	0	101	46.4	149				



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Sample ID: 1509300-007AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25271		
Client ID: GP-15-15:14.0		Batch ID: 11947		Analysis Date: 9/25/2015						SeqNo: 476502	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
alpha-Chlordane	0.121	0.0118	0.2360	0	51.4	46.3	153				
Dieldrin	0.236	0.0118	0.2360	0	100	51	147				
4,4'-DDE	0.250	0.0236	0.2360	0	106	39.9	162				
Endrin	0.248	0.0236	0.2360	0	105	51.3	151				
Endosulfan II	0.267	0.0236	0.2360	0	113	51	152				
4,4'-DDD	0.258	0.0236	0.2360	0	109	45.8	160				
Endrin aldehyde	0.258	0.0236	0.2360	0	109	38.3	156				
Endosulfan sulfate	0.267	0.0236	0.2360	0	113	53.2	154				
4,4'-DDT	0.277	0.0236	0.2360	0	117	45.7	168				
Endrin ketone	0.280	0.0236	0.2360	0	119	68.3	144				
Methoxychlor	0.307	0.0590	0.2360	0	130	43.4	178				
Surr: Decachlorobiphenyl	0.0809		0.1180		68.5	26.5	158				
Surr: Tetrachloro-m-xylene	0.0385		0.05899		65.2	11	150				



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QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID: MB-11937		SampType: MBLK		Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25119		
Client ID: MBLKS		Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473647	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	ND	200
Bis(2-chloroethyl) ether	ND	200
2-Chlorophenol	ND	100
1,3-Dichlorobenzene	ND	100
1,4-Dichlorobenzene	ND	100
1,2-Dichlorobenzene	ND	100
Benzyl alcohol	ND	100
2-Methylphenol (o-cresol)	ND	100
Hexachloroethane	ND	100
N-Nitrosodi-n-propylamine	ND	100
Nitrobenzene	ND	200
Isophorone	ND	100
4-Methylphenol (p-cresol)	ND	100
2-Nitrophenol	ND	200
2,4-Dimethylphenol	ND	100
Bis(2-chloroethoxy)methane	ND	100
2,4-Dichlorophenol	ND	200
1,2,4-Trichlorobenzene	ND	100
Naphthalene	ND	80.0
4-Chloroaniline	ND	500
Hexachlorobutadiene	ND	100
4-Chloro-3-methylphenol	ND	500
2-Methylnaphthalene	ND	80.0
1-Methylnaphthalene	ND	80.0
Hexachlorocyclopentadiene	ND	100
2,4,6-Trichlorophenol	ND	200
2,4,5-Trichlorophenol	ND	200
2-Chloronaphthalene	ND	100
2-Nitroaniline	ND	500
Acenaphthene	ND	80.0
Dimethylphthalate	ND	100



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Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID: MB-11937	SampType: MBLK	Units: µg/Kg			Prep Date: 9/24/2015			RunNo: 25119			
Client ID: MBLKS	Batch ID: 11937				Analysis Date: 9/24/2015			SeqNo: 473647			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	199		1,000		19.9	11.1	127				
Surr: 2-Fluorobiphenyl	315		500.0		62.9	16.1	150				
Surr: Nitrobenzene-d5	160		500.0		32.0	10	133				
Surr: Phenol-d6	629		1,000		62.9	11.6	133				
Surr: p-Terphenyl	363		500.0		72.5	21.8	150				

Sample ID: LCS-11937	SampType: LCS			Units: µg/Kg	Prep Date: 9/24/2015			RunNo: 25119			
Client ID: LCSS	Batch ID: 11937			Analysis Date: 9/24/2015					SeqNo: 473648		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	901	200	1,000	0	90.1	41.8	138				
Bis(2-chloroethyl) ether	775	200	1,000	0	77.5	65	116				
2-Chlorophenol	823	100	1,000	0	82.3	49.3	132				
1,3-Dichlorobenzene	857	100	1,000	0	85.7	50.9	133				
1,4-Dichlorobenzene	779	100	1,000	0	77.9	51.3	133				
1,2-Dichlorobenzene	851	100	1,000	0	85.1	54.2	129				
Benzyl alcohol	1,300	100	1,000	0	130	42.4	131				
2-Methylphenol (o-cresol)	924	100	1,000	0	92.4	47.2	134				
Hexachloroethane	829	100	1,000	0	82.9	48.9	133				
N-Nitrosodi-n-propylamine	932	100	1,000	0	93.2	39.8	135				
Nitrobenzene	883	200	1,000	0	88.3	62.3	126				
Isophorone	944	100	1,000	0	94.4	62.7	131				
4-Methylphenol (p-cresol)	865	100	1,000	0	86.5	57.4	131				
2-Nitrophenol	640	200	1,000	0	64.0	44.2	129				
2,4-Dimethylphenol	883	100	1,000	0	88.3	57.8	121				
Bis(2-chloroethoxy)methane	914	100	1,000	0	91.4	67.5	124				
2,4-Dichlorophenol	801	200	1,000	0	80.1	57.1	128				
1,2,4-Trichlorobenzene	877	100	1,000	0	87.7	36.2	140				
Naphthalene	888	80.0	1,000	0	88.8	56.8	130				
4-Chloroaniline	891	500	1,000	0	89.1	10.4	130				
Hexachlorobutadiene	859	100	1,000	0	85.9	55.9	131				



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Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID: LCS-11937	SampType: LCS	Units: µg/Kg				Prep Date: 9/24/2015			RunNo: 25119		
Client ID: LCSS	Batch ID: 11937	Analysis Date: 9/24/2015							SeqNo: 473648		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chloro-3-methylphenol	869	500	1,000	0	86.9	49.4	138				
2-Methylnaphthalene	877	80.0	1,000	0	87.7	68.3	121				
1-Methylnaphthalene	888	80.0	1,000	0	88.8	64.1	126				
Hexachlorocyclopentadiene	667	100	1,000	0	66.7	36.7	128				
2,4,6-Trichlorophenol	641	200	1,000	0	64.1	36.4	132				
2,4,5-Trichlorophenol	819	200	1,000	0	81.9	52.3	128				
2-Chloronaphthalene	872	100	1,000	0	87.2	67.1	123				
2-Nitroaniline	768	500	1,000	0	76.8	43.9	135				
Acenaphthene	907	80.0	1,000	0	90.7	49.2	127				
Dimethylphthalate	840	100	1,000	0	84.0	62.4	130				
2,6-Dinitrotoluene	825	100	1,000	0	82.5	54.6	127				
Acenaphthylene	882	80.0	1,000	0	88.2	64.8	127				
2,4-Dinitrophenol	331	200	1,000	0	33.1	7.9	119				
Dibenzofuran	865	100	1,000	0	86.5	67.5	123				
2,4-Dinitrotoluene	745	100	1,000	0	74.5	21.9	136				
4-Nitrophenol	2,620	500	1,000	0	262	25.4	138				S
Fluorene	863	80.0	1,000	0	86.3	64.8	126				
4-Chlorophenyl phenyl ether	888	100	1,000	0	88.8	66.6	124				
Diethylphthalate	803	100	1,000	0	80.3	42.9	132				
4,6-Dinitro-2-methylphenol	472	200	1,000	0	47.2	12.9	110				
4-Bromophenyl phenyl ether	846	100	1,000	0	84.6	61.8	128				
Hexachlorobenzene	829	100	1,000	0	82.9	66.8	124				
Pentachlorophenol	366	100	1,000	0	36.6	10	123				
Phenanthrene	854	80.0	1,000	0	85.4	61.2	130				
Anthracene	863	80.0	1,000	0	86.3	68.9	122				
Carbazole	804	500	1,000	0	80.4	64.5	135				
Di-n-butylphthalate	727	100	1,000	0	72.7	50.6	130				
Fluoranthene	841	80.0	1,000	0	84.1	66	129				
Pyrene	842	80.0	1,000	0	84.2	45.4	140				
Butyl Benzylphthalate	629	100	1,000	0	62.9	31.1	157				
bis(2-Ethylhexyl)adipate	661	100	1,000	0	66.1	28.7	160				



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Sample ID: LCS-11937	SampType: LCS	Units: µg/Kg				Prep Date: 9/24/2015			RunNo: 25119		
Client ID: LCSS	Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473648		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz (a) anthracene	742	80.0	1,000	0	74.2	44	150				
Chrysene	908	80.0	1,000	0	90.8	65.8	128				
bis (2-Ethylhexyl) phthalate	682	100	1,000	0	68.2	36.3	149				
Di-n-octyl phthalate	699	100	1,000	0	69.9	37.2	135				
Benzo (b) fluoranthene	658	80.0	1,000	0	65.8	45.6	146				
Benzo (k) fluoranthene	705	80.0	1,000	0	70.5	45.5	138				
Benzo (a) pyrene	599	80.0	1,000	0	59.9	49.2	137				
Indeno (1,2,3-cd) pyrene	731	80.0	1,000	0	73.1	44.2	146				
Dibenz (a,h) anthracene	519	80.0	1,000	0	51.9	37.5	152				
Benzo (g,h,l) perylene	860	80.0	1,000	0	86.0	24.1	156				
Surr: 2,4,6-Tribromophenol	457		1,000		45.7	11.1	127				
Surr: 2-Fluorobiphenyl	424		500.0		84.8	16.1	150				
Surr: Nitrobenzene-d5	243		500.0		48.5	10	133				
Surr: Phenol-d6	758		1,000		75.8	11.6	133				
Surr: p-Terphenyl	431		500.0		86.2	21.8	150				

NOTES:

S - Outlying spike recovery observed for 4-Nitrophenol (high bias). Detections of this analyte will be qualified with an *. No further action required for samples without detections.

Sample ID: 1509270-021ADUP	SampType: DUP	Units: µg/Kg-dry				Prep Date: 9/24/2015			RunNo: 25119		
Client ID: BATCH	Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473650		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	275						0		50	
Bis(2-chloroethyl) ether	ND	275						0		50	
2-Chlorophenol	ND	138						0		50	
1,3-Dichlorobenzene	ND	138						0		50	
1,4-Dichlorobenzene	ND	138						0		50	
1,2-Dichlorobenzene	ND	138						0		50	
Benzyl alcohol	ND	138						0		50	
2-Methylphenol (o-cresol)	ND	138						0		50	
Hexachloroethane	ND	138						0		50	
N-Nitrosodi-n-propylamine	ND	138						0		50	



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Sample ID: 1509270-021ADUP		SampType: DUP		Units: µg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25119		
Client ID: BATCH		Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473650	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrobenzene	ND	275						0		50	
Isophorone	ND	138						0		50	
4-Methylphenol (p-cresol)	279	138						202.0	31.9	50	
2-Nitrophenol	ND	275						0		50	
2,4-Dimethylphenol	155	138						133.2	15.3	50	
Bis(2-chloroethoxy)methane	ND	138						0		50	
2,4-Dichlorophenol	ND	275						0		50	
1,2,4-Trichlorobenzene	ND	138						0		50	
Naphthalene	4,470	110						4,420	1.05	50	
4-Chloroaniline	ND	689						0		50	
Hexachlorobutadiene	ND	138						0		50	
4-Chloro-3-methylphenol	ND	689						0		50	
2-Methylnaphthalene	3,210	110						3,098	3.70	50	
Hexachlorocyclopentadiene	ND	138						0		50	
2,4,6-Trichlorophenol	ND	275						0		50	
2,4,5-Trichlorophenol	ND	275						0		50	
2-Chloronaphthalene	ND	138						0		50	
2-Nitroaniline	ND	689						0		50	
Dimethylphthalate	ND	138						0		50	
2,6-Dinitrotoluene	ND	138						0		50	
Acenaphthylene	137	110						127.0	7.85	50	
2,4-Dinitrophenol	ND	275						0		50	
Dibenzofuran	ND	138						0		50	
2,4-Dinitrotoluene	ND	138						0		50	
4-Nitrophenol	1,500	689						1,430	4.63	50	*
4-Chlorophenyl phenyl ether	ND	138						0		50	
Diethylphthalate	ND	138						0		50	
4,6-Dinitro-2-methylphenol	ND	275						0		50	
4-Bromophenyl phenyl ether	ND	138						0		50	
Hexachlorobenzene	ND	138						0		50	
Pentachlorophenol	ND	138						0		50	



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID: 1509270-021ADUP		SampType: DUP		Units: µg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25119		
Client ID: BATCH		Batch ID: 11937		Analysis Date: 9/24/2015						SeqNo: 473650	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Di-n-butylphthalate	ND	138						0		50	
Butyl Benzylphthalate	ND	138						0		50	
bis(2-Ethylhexyl)adipate	ND	138						0		50	
Chrysene	179,000	110						131,100	30.9	50	
bis (2-Ethylhexyl) phthalate	2,090	138						1,623	25.0	50	
Di-n-octyl phthalate	ND	138						0		50	
Benzo (k) fluoranthene	33,000	110						28,970	13.1	50	
Benzo (a) pyrene	49,800	110						43,060	14.5	50	
Indeno (1,2,3-cd) pyrene	51,300	110						61,540	18.2	50	
Dibenz (a,h) anthracene	50,000	110						52,540	5.00	50	
Benzo (g,h,i) perylene	51,100	110						56,570	10.1	50	
Surr: 2,4,6-Tribromophenol	801		1,377		58.1	11.1	127		0		
Surr: 2-Fluorobiphenyl	279		688.7		40.5	16.1	150		0		
Surr: Nitrobenzene-d5	266		688.7		38.6	10	133		0		
Surr: Phenol-d6	613		1,377		44.5	11.6	133		0		
Surr: p-Terphenyl	775		688.7		113	21.8	150		0		

NOTES:

* - Flagged value is not within established control limits.

R - High RPD observed, the method is in control as indicated by the LCS.

Sample ID: 1509270-022AMS	SampType: MS	Units: µg/Kg-dry				Prep Date: 9/24/2015			RunNo: 25119		
Client ID: BATCH	Batch ID: 11937	Analysis Date: 9/24/2015							SeqNo: 473652		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	870	242	1,209	0	72.0	29.2	146				
Bis(2-chloroethyl) ether	671	242	1,209	0	55.5	34.4	135				
2-Chlorophenol	799	121	1,209	0	66.1	44	134				
1,3-Dichlorobenzene	415	121	1,209	0	34.4	21.3	133				
1,4-Dichlorobenzene	465	121	1,209	0	38.4	20.9	131				
1,2-Dichlorobenzene	505	121	1,209	0	41.8	35	131				
Benzyl alcohol	1,200	121	1,209	0	99.4	30.8	159				
2-Methylphenol (o-cresol)	897	121	1,209	0	74.2	57.7	125				



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID: 1509270-022AMS		SampType: MS		Units: µg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25119		
Client ID: BATCH		Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473652	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Hexachloroethane	465	121	1,209	0	38.4	15.4	139				
N-Nitrosodi-n-propylamine	1,010	121	1,209	0	83.2	26.4	151				
Nitrobenzene	832	242	1,209	0	68.8	61.4	130				
Isophorone	1,060	121	1,209	0	87.5	61.8	132				
4-Methylphenol (p-cresol)	940	121	1,209	0	77.7	65.5	127				
2-Nitrophenol	830	242	1,209	0	68.7	46.3	118				
2,4-Dimethylphenol	941	121	1,209	0	77.8	46	158				
Bis(2-chloroethoxy)methane	908	121	1,209	0	75.2	66.8	124				
2,4-Dichlorophenol	887	242	1,209	0	73.4	56.2	128				
1,2,4-Trichlorobenzene	730	121	1,209	0	60.4	29.2	140				
Naphthalene	756	96.7	1,209	0	62.5	44.4	136				
4-Chloroaniline	838	604	1,209	0	69.3	27	126				
Hexachlorobutadiene	722	121	1,209	0	59.8	38.2	138				
4-Chloro-3-methylphenol	1,060	604	1,209	0	87.3	36.8	159				
2-Methylnaphthalene	831	96.7	1,209	0	68.8	51.7	138				
1-Methylnaphthalene	846	96.7	1,209	0	70.0	51.8	131				
Hexachlorocyclopentadiene	276	121	1,209	0	22.8	10	133				
2,4,6-Trichlorophenol	912	242	1,209	0	75.4	62.7	122				
2,4,5-Trichlorophenol	990	242	1,209	0	81.9	54.7	127				
2-Chloronaphthalene	856	121	1,209	0	70.8	69.8	126				
2-Nitroaniline	1,010	604	1,209	0	83.5	39.3	145				
Acenaphthene	912	96.7	1,209	0	75.4	49.6	129				
Dimethylphthalate	956	121	1,209	0	79.1	61.5	131				
2,6-Dinitrotoluene	894	121	1,209	0	74.0	56.8	137				
Acenaphthylene	904	96.7	1,209	0	74.8	64	128				
2,4-Dinitrophenol	733	242	1,209	0	60.7	35.3	144				
Dibenzofuran	861	121	1,209	0	71.2	64.7	131				
2,4-Dinitrotoluene	868	121	1,209	0	71.8	30.9	139				
4-Nitrophenol	2,770	604	1,209	0	230	15.6	160				S
Fluorene	900	96.7	1,209	0	74.5	64.2	127				
4-Chlorophenyl phenyl ether	865	121	1,209	0	71.6	70.9	128				



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID: 1509270-022AMS		SampType: MS		Units: µg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25119		
Client ID: BATCH		Batch ID: 11937					Analysis Date: 9/24/2015			SeqNo: 473652	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diethylphthalate	978	121	1,209	0	80.9	61.7	129				
4,6-Dinitro-2-methylphenol	694	242	1,209	0	57.4	21.9	143				
4-Bromophenyl phenyl ether	855	121	1,209	0	70.7	69.6	136				
Hexachlorobenzene	879	121	1,209	0	72.7	66.5	123				
Pentachlorophenol	935	121	1,209	0	77.4	28.2	156				
Phenanthrene	890	96.7	1,209	0	73.7	57	134				
Anthracene	932	96.7	1,209	0	77.1	68.2	123				
Carbazole	907	604	1,209	0	75.0	64.1	152				
Di-n-butylphthalate	943	121	1,209	0	78.0	52.4	130				
Fluoranthene	916	96.7	1,209	106.1	67.0	46.5	165				
Pyrene	899	96.7	1,209	0	74.4	31.4	151				
Butyl Benzylphthalate	1,030	121	1,209	0	85.2	30.4	138				
bis(2-Ethylhexyl)adipate	1,120	121	1,209	0	92.3	32	136				
Benz (a) anthracene	921	96.7	1,209	0	76.2	43.9	151				
Chrysene	870	96.7	1,209	0	72.0	71.1	126				
bis (2-Ethylhexyl) phthalate	1,030	121	1,209	0	85.1	40.8	170				
Di-n-octyl phthalate	1,270	121	1,209	0	105	34.6	142				
Benzo (b) fluoranthene	948	96.7	1,209	0	78.4	52.1	136				
Benzo (k) fluoranthene	809	96.7	1,209	0	67.0	64.5	135				
Benzo (a) pyrene	867	96.7	1,209	213.4	54.1	50.5	137				
Indeno (1,2,3-cd) pyrene	1,140	96.7	1,209	0	94.5	49.7	143				
Dibenz (a,h) anthracene	944	96.7	1,209	0	78.1	40.7	152				
Benzo (g,h,i) perylene	900	96.7	1,209	0	74.5	34	157				
Surr: 2,4,6-Tribromophenol	837		1,209		69.2	11.1	127				
Surr: 2-Fluorobiphenyl	247		604.4		40.9	16.1	150				
Surr: Nitrobenzene-d5	121		604.4		20.0	10	133				
Surr: Phenol-d6	693		1,209		57.3	11.6	133				
Surr: p-Terphenyl	499		604.4		82.6	21.8	150				

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-11930		SampType: LCS			Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25069		
Client ID: LCSS		Batch ID: 11930			Analysis Date: 9/23/2015			SeqNo: 472470				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	27.1	5.00	25.00	0	108	65	135				
Surr: Toluene-d8	1.24		1.250		99.1	65	135				
Surr: 4-Bromofluorobenzene	1.24		1.250		99.5	65	135				

Sample ID: MB-11930		SampType: MBLK			Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25069		
Client ID: MBLKS		Batch ID: 11930			Analysis Date: 9/23/2015			SeqNo: 472471				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	5.00									
Surr: Toluene-d8	1.23		1.250		98.8	65	135				
Surr: 4-Bromofluorobenzene	1.28		1.250		102	65	135				

Sample ID: 1509270-024BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25069		
Client ID: BATCH		Batch ID: 11930			Analysis Date: 9/23/2015					SeqNo: 472446		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	6.73						0		30	
Surr: Toluene-d8	1.69		1.683		100	65	135		0		
Surr: 4-Bromofluorobenzene	1.70		1.683		101	65	135		0		

Sample ID: 1509270-033BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25069		
Client ID: BATCH		Batch ID: 11930			Analysis Date: 9/24/2015					SeqNo: 472454		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	3.88						0		30	
Surr: Toluene-d8	0.973		0.9689		100	65	135		0		
Surr: 4-Bromofluorobenzene	0.987		0.9689		102	65	135		0		



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-11943		SampType: LCS			Units: mg/Kg		Prep Date: 9/24/2015			RunNo: 25121		
Client ID: LCSS		Batch ID: 11943			Analysis Date: 9/24/2015					SeqNo: 473693		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	25.7	5.00	25.00	0	103	65	135				
Surr: Toluene-d8	1.22		1.250		97.6	65	135				
Surr: 4-Bromofluorobenzene	1.26		1.250		101	65	135				

Sample ID: MB-11943		SampType: MBLK			Units: mg/Kg		Prep Date: 9/24/2015			RunNo: 25121		
Client ID: MBLKS		Batch ID: 11943			Analysis Date: 9/24/2015			SeqNo: 473694				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	5.00									
Surr: Toluene-d8	1.24		1.250		99.4	65	135				
Surr: 4-Bromofluorobenzene	1.30		1.250		104	65	135				

Sample ID: 1509300-009BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25121		
Client ID: GP-16-15:13.5		Batch ID: 11943			Analysis Date: 9/24/2015			SeqNo: 473669				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	3.95						0		30	
Surr: Toluene-d8	0.958		0.9873		97.0	65	135		0		
Surr: 4-Bromofluorobenzene	1.02		0.9873		104	65	135		0		

Sample ID: 1509300-017BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25121		
Client ID: GP-20-15:14.0		Batch ID: 11943			Analysis Date: 9/25/2015			SeqNo: 473678				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	3.60						0		30	
Surr: Toluene-d8	0.898		0.9009		99.6	65	135		0		
Surr: 4-Bromofluorobenzene	0.920		0.9009		102	65	135		0		



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-R25091		SampType: LCS			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25091		
Client ID: LCSW		Batch ID: R25091			Analysis Date: 9/23/2015					SeqNo: 472835		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	435	50.0	500.0	0	86.9	65	135				
Surr: Toluene-d8	21.8		25.00		87.2	65	135				
Surr: 4-Bromofluorobenzene	23.5		25.00		93.8	65	135				

Sample ID: MB-R25091		SampType: MBLK			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25091		
Client ID: MBLKW		Batch ID: R25091			Analysis Date: 9/23/2015			SeqNo: 472925				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	50.0									
Surr: Toluene-d8	21.6		25.00		86.4	65	135				
Surr: 4-Bromofluorobenzene	24.0		25.00		96.1	65	135				

Sample ID: 1509311-005ADUP		SampType: DUP			Units: µg/L		Prep Date: 9/23/2015			RunNo: 25091		
Client ID: BATCH		Batch ID: R25091			Analysis Date: 9/23/2015					SeqNo: 472840		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	21.5		25.00		86.2	65	135		0	0	
Surr: 4-Bromofluorobenzene	23.4		25.00		93.6	65	135		0	0	

Sample ID: 1509315-003CDUP		SampType: DUP			Units: µg/L		Prep Date: 9/24/2015			RunNo: 25091		
Client ID: BATCH		Batch ID: R25091			Analysis Date: 9/24/2015					SeqNo: 472846		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	7,610	50.0						7,079	7.29	30	E
Surr: Toluene-d8	22.0		25.00		87.8	65	135		0	0	
Surr: 4-Bromofluorobenzene	24.5		25.00		97.9	65	135		0	0	



Date: 10/28/2015

Work Order: 1509300
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-11930		SampType: LCS		Units: mg/Kg		Prep Date: 9/23/2015		RunNo: 25067			
Client ID: LCSS		Batch ID: 11930		Analysis Date: 9/23/2015				SeqNo: 472414			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.49	0.0600	1.000	0	149	37.2	139				S
Chloromethane	1.06	0.0600	1.000	0	106	38.8	132				
Vinyl chloride	1.15	0.00200	1.000	0	115	56.1	130				
Bromomethane	1.14	0.0900	1.000	0	114	41.3	148				
Trichlorofluoromethane (CFC-11)	1.18	0.0500	1.000	0	118	42.9	147				
Chloroethane	1.22	0.0600	1.000	0	122	37.1	144				
1,1-Dichloroethene	1.13	0.0500	1.000	0	113	49.7	142				
Methylene chloride	0.938	0.0200	1.000	0	93.8	46.3	140				
trans-1,2-Dichloroethene	1.10	0.0200	1.000	0	110	68	130				
Methyl tert-butyl ether (MTBE)	0.922	0.0500	1.000	0	92.2	59.1	138				
1,1-Dichloroethane	1.07	0.0200	1.000	0	107	61.9	137				
2,2-Dichloropropane	1.49	0.0500	1.000	0	149	28.1	149				
cis-1,2-Dichloroethene	1.06	0.0200	1.000	0	106	71.3	135				
Chloroform	1.01	0.0200	1.000	0	101	67.5	129				
1,1,1-Trichloroethane (TCA)	1.17	0.0200	1.000	0	117	69	132				
1,1-Dichloropropene	1.04	0.0200	1.000	0	104	72.7	131				
Carbon tetrachloride	1.05	0.0200	1.000	0	105	63.4	137				
1,2-Dichloroethane (EDC)	0.981	0.0300	1.000	0	98.1	61.9	136				
Benzene	0.993	0.0200	1.000	0	99.3	64.3	133				
Trichloroethene (TCE)	1.06	0.0200	1.000	0	106	65.5	137				
1,2-Dichloropropane	1.05	0.0200	1.000	0	105	63.2	142				
Bromodichloromethane	0.925	0.0200	1.000	0	92.5	73.2	131				
Dibromomethane	1.13	0.0400	1.000	0	113	70	130				
cis-1,3-Dichloropropene	0.961	0.0200	1.000	0	96.1	59.1	143				
Toluene	0.960	0.0200	1.000	0	96.0	67.3	138				
trans-1,3-Dichloropropylene	1.00	0.0300	1.000	0	100	49.2	149				
1,1,2-Trichloroethane	1.07	0.0300	1.000	0	107	74.5	129				
1,3-Dichloropropane	1.03	0.0500	1.000	0	103	70	130				
Tetrachloroethene (PCE)	1.07	0.0200	1.000	0	107	52.7	150				
Dibromochloromethane	1.04	0.0300	1.000	0	104	70.6	144				
1,2-Dibromoethane (EDB)	1.15	0.00500	1.000	0	115	70	130				



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-11930		SampType: LCS		Units: mg/Kg		Prep Date: 9/23/2015		RunNo: 25067			
Client ID: LCSS		Batch ID: 11930		Analysis Date: 9/23/2015				SeqNo: 472414			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	1.05	0.0200	1.000	0	105	76.1	123				
1,1,1,2-Tetrachloroethane	1.04	0.0300	1.000	0	104	74.8	131				
Ethylbenzene	0.973	0.0300	1.000	0	97.3	74	129				
m,p-Xylene	1.94	0.0200	2.000	0	97.1	79.8	128				
o-Xylene	0.940	0.0200	1.000	0	94.0	72.7	124				
Styrene	1.12	0.0200	1.000	0	112	76.8	130				
Isopropylbenzene	1.09	0.0800	1.000	0	109	70	130				
Bromoform	1.06	0.0200	1.000	0	106	67	154				
1,1,2,2-Tetrachloroethane	1.14	0.0200	1.000	0	114	60	130				
n-Propylbenzene	1.09	0.0200	1.000	0	109	74.8	125				
Bromobenzene	1.08	0.0300	1.000	0	108	49.2	144				
1,3,5-Trimethylbenzene	1.05	0.0200	1.000	0	105	74.6	123				
2-Chlorotoluene	1.07	0.0200	1.000	0	107	76.7	129				
4-Chlorotoluene	1.09	0.0200	1.000	0	109	77.5	125				
tert-Butylbenzene	1.10	0.0200	1.000	0	110	66.2	130				
1,2,3-Trichloropropane	1.10	0.0200	1.000	0	110	67.9	136				
1,2,4-Trichlorobenzene	1.07	0.0500	1.000	0	107	65.6	137				
sec-Butylbenzene	1.11	0.0200	1.000	0	111	75.6	133				
4-Isopropyltoluene	1.11	0.0200	1.000	0	111	76.8	131				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	128				
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	72.6	126				
n-Butylbenzene	1.08	0.0200	1.000	0	108	65.3	136				
1,2-Dichlorobenzene	1.01	0.0200	1.000	0	101	72.8	126				
1,2-Dibromo-3-chloropropane	1.03	0.500	1.000	0	103	61.2	139				
1,2,4-Trimethylbenzene	0.957	0.0200	1.000	0	95.7	77.5	129				
Hexachlorobutadiene	1.11	0.100	1.000	0	111	42	151				
Naphthalene	0.915	0.0300	1.000	0	91.5	62.3	134				
1,2,3-Trichlorobenzene	1.01	0.0200	1.000	0	101	62.1	140				
Surr: Dibromofluoromethane	1.28		1.250		102	56.5	129				
Surr: Toluene-d8	1.24		1.250		99.4	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		100	63.1	141				



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-11930		SampType: LCS			Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: LCSS		Batch ID: 11930			Analysis Date: 9/23/2015			SeqNo: 472414				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

NOTES:

S - Outlying QC recoveries were observed (High bias). There were no detections of this analyte in the following samples. No further action is required.

Sample ID: MB-11930		SampType: MBLK			Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: MBLKS		Batch ID: 11930			Analysis Date: 9/23/2015			SeqNo: 472415				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	ND	0.0600
Chloromethane	ND	0.0600
Vinyl chloride	ND	0.00200
Bromomethane	ND	0.0900
Trichlorofluoromethane (CFC-11)	ND	0.0500
Chloroethane	ND	0.0600
1,1-Dichloroethene	ND	0.0500
Methylene chloride	ND	0.0200
trans-1,2-Dichloroethene	ND	0.0200
Methyl tert-butyl ether (MTBE)	ND	0.0500
1,1-Dichloroethane	ND	0.0200
2,2-Dichloropropane	ND	0.0500
cis-1,2-Dichloroethene	ND	0.0200
Chloroform	ND	0.0200
1,1,1-Trichloroethane (TCA)	ND	0.0200
1,1-Dichloropropene	ND	0.0200
Carbon tetrachloride	ND	0.0200
1,2-Dichloroethane (EDC)	ND	0.0300
Benzene	ND	0.0200
Trichloroethene (TCE)	ND	0.0200
1,2-Dichloropropane	ND	0.0200
Bromodichloromethane	ND	0.0200
Dibromomethane	ND	0.0400
cis-1,3-Dichloropropene	ND	0.0200
Toluene	ND	0.0200



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Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: MB-11930	SampType: MBLK	Units: mg/Kg			Prep Date: 9/23/2015			RunNo: 25067			
Client ID: MBLKS	Batch ID: 11930				Analysis Date: 9/23/2015			SeqNo: 472415			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

trans-1,3-Dichloropropylene	ND	0.0300
1,1,2-Trichloroethane	ND	0.0300
1,3-Dichloropropane	ND	0.0500
Tetrachloroethene (PCE)	ND	0.0200
Dibromochloromethane	ND	0.0300
1,2-Dibromoethane (EDB)	ND	0.00500
Chlorobenzene	ND	0.0200
1,1,1,2-Tetrachloroethane	ND	0.0300
Ethylbenzene	ND	0.0300
m,p-Xylene	ND	0.0200
o-Xylene	ND	0.0200
Styrene	ND	0.0200
Isopropylbenzene	ND	0.0800
Bromoform	ND	0.0200
1,1,2,2-Tetrachloroethane	ND	0.0200
n-Propylbenzene	ND	0.0200
Bromobenzene	ND	0.0300
1,3,5-Trimethylbenzene	ND	0.0200
2-Chlorotoluene	ND	0.0200
4-Chlorotoluene	ND	0.0200
tert-Butylbenzene	ND	0.0200
1,2,3-Trichloropropane	ND	0.0200
1,2,4-Trichlorobenzene	ND	0.0500
sec-Butylbenzene	ND	0.0200
4-Isopropyltoluene	ND	0.0200
1,3-Dichlorobenzene	ND	0.0200
1,4-Dichlorobenzene	ND	0.0200
n-Butylbenzene	ND	0.0200
1,2-Dichlorobenzene	ND	0.0200
1,2-Dibromo-3-chloropropane	ND	0.500
1,2,4-Trimethylbenzene	ND	0.0200



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: MB-11930		SampType: MBLK			Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: MBLKS		Batch ID: 11930			Analysis Date: 9/23/2015					SeqNo: 472415		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Hexachlorobutadiene	ND	0.100									
Naphthalene	ND	0.0300									
1,2,3-Trichlorobenzene	ND	0.0200									

Surr: Dibromofluoromethane	1.17		1.250		93.3	56.5	129				
Surr: Toluene-d8	1.24		1.250		98.9	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.4	63.1	141				

Sample ID: 1509270-024BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH		Batch ID: 11930						Analysis Date: 9/23/2015			SeqNo: 472416	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	ND	0.0808						0		30	
Chloromethane	ND	0.0808						0		30	
Vinyl chloride	ND	0.00269						0		30	
Bromomethane	ND	0.121						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0673						0		30	
Chloroethane	ND	0.0808						0		30	
1,1-Dichloroethene	ND	0.0673						0		30	
Methylene chloride	ND	0.0269						0		30	
trans-1,2-Dichloroethene	ND	0.0269						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0673						0		30	
1,1-Dichloroethane	ND	0.0269						0		30	
2,2-Dichloropropane	ND	0.0673						0		30	
cis-1,2-Dichloroethene	ND	0.0269						0		30	
Chloroform	ND	0.0269						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0269						0		30	
1,1-Dichloropropene	ND	0.0269						0		30	
Carbon tetrachloride	ND	0.0269						0		30	
1,2-Dichloroethane (EDC)	ND	0.0404						0		30	
Benzene	ND	0.0269						0		30	
Trichloroethene (TCE)	ND	0.0269						0		30	



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Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509270-024BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH		Batch ID: 11930					Analysis Date: 9/23/2015			SeqNo: 472416	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dichloropropane	ND	0.0269						0		30	
Bromodichloromethane	ND	0.0269						0		30	
Dibromomethane	ND	0.0539						0		30	
cis-1,3-Dichloropropene	ND	0.0269						0		30	
Toluene	ND	0.0269						0		30	
trans-1,3-Dichloropropylene	ND	0.0404						0		30	
1,1,2-Trichloroethane	ND	0.0404						0		30	
1,3-Dichloropropane	ND	0.0673						0		30	
Tetrachloroethene (PCE)	ND	0.0269						0		30	
Dibromochloromethane	ND	0.0404						0		30	
1,2-Dibromoethane (EDB)	ND	0.00673						0		30	
Chlorobenzene	ND	0.0269						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0404						0		30	
Ethylbenzene	ND	0.0404						0		30	
m,p-Xylene	ND	0.0269						0		30	
o-Xylene	ND	0.0269						0		30	
Styrene	ND	0.0269						0		30	
Isopropylbenzene	ND	0.108						0		30	
Bromoform	ND	0.0269						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0269						0		30	
n-Propylbenzene	ND	0.0269						0		30	
Bromobenzene	ND	0.0404						0		30	
1,3,5-Trimethylbenzene	ND	0.0269						0		30	
2-Chlorotoluene	ND	0.0269						0		30	
4-Chlorotoluene	ND	0.0269						0		30	
tert-Butylbenzene	ND	0.0269						0		30	
1,2,3-Trichloropropane	ND	0.0269						0		30	
1,2,4-Trichlorobenzene	ND	0.0673						0		30	
sec-Butylbenzene	ND	0.0269						0		30	
4-Isopropyltoluene	ND	0.0269						0		30	
1,3-Dichlorobenzene	ND	0.0269						0		30	



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509270-024BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH		Batch ID: 11930					Analysis Date: 9/23/2015			SeqNo: 472416	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.0269						0		30	
n-Butylbenzene	ND	0.0269						0		30	
1,2-Dichlorobenzene	ND	0.0269						0		30	
1,2-Dibromo-3-chloropropane	ND	0.673						0		30	
1,2,4-Trimethylbenzene	ND	0.0269						0		30	
Hexachlorobutadiene	ND	0.135						0		30	
Naphthalene	ND	0.0404						0		30	
1,2,3-Trichlorobenzene	ND	0.0269						0		30	
Surr: Dibromofluoromethane	1.62		1.683		96.1	56.5	129		0		
Surr: Toluene-d8	1.64		1.683		97.5	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	1.64		1.683		97.2	63.1	141		0		

Sample ID: 1509270-031BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH		Batch ID: 11930		Analysis Date: 9/24/2015					SeqNo: 472417		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.82	0.0661	1.101	0	165	43.5	121				S
Chloromethane	1.24	0.0661	1.101	0.006264	112	45	130				
Vinyl chloride	1.39	0.00220	1.101	0	126	51.2	146				
Bromomethane	1.31	0.0991	1.101	0	119	21.3	120				
Trichlorofluoromethane (CFC-11)	3.57	0.0550	1.101	0	324	35	131				S
Chloroethane	1.43	0.0661	1.101	0	130	43.8	117				S
1,1-Dichloroethene	1.39	0.0550	1.101	0	127	61.9	141				
Methylene chloride	1.05	0.0220	1.101	0	95.4	54.7	142				
trans-1,2-Dichloroethene	1.33	0.0220	1.101	0	121	52	136				
Methyl tert-butyl ether (MTBE)	1.08	0.0550	1.101	0.02699	95.8	54.4	132				
1,1-Dichloroethane	1.27	0.0220	1.101	0	115	51.8	141				
2,2-Dichloropropane	1.37	0.0550	1.101	0	125	36	123				S
cis-1,2-Dichloroethene	1.25	0.0220	1.101	0	114	58.6	136				
Chloroform	1.20	0.0220	1.101	0.003969	109	53.2	129				
1,1,1-Trichloroethane (TCA)	1.46	0.0220	1.101	0	132	58.3	145				



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509270-031BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH		Batch ID: 11930					Analysis Date: 9/24/2015			SeqNo: 472417	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloropropene	1.28	0.0220	1.101	0	116	55.1	138				
Carbon tetrachloride	1.28	0.0220	1.101	0	117	53.3	144				
1,2-Dichloroethane (EDC)	1.16	0.0330	1.101	0	105	51.3	139				
Benzene	1.19	0.0220	1.101	0	108	63.5	133				
Trichloroethene (TCE)	1.27	0.0220	1.101	0	116	68.6	132				
1,2-Dichloropropane	1.24	0.0220	1.101	0	113	59	136				
Bromodichloromethane	1.09	0.0220	1.101	0	99.1	50.7	141				
Dibromomethane	1.31	0.0440	1.101	0	119	50.6	137				
cis-1,3-Dichloropropene	1.09	0.0220	1.101	0	98.6	50.4	138				
Toluene	1.12	0.0220	1.101	0.006105	101	63.4	132				
trans-1,3-Dichloropropylene	1.18	0.0330	1.101	0	107	44.1	147				
1,1,2-Trichloroethane	1.25	0.0330	1.101	0	114	51.6	137				
1,3-Dichloropropane	1.21	0.0550	1.101	0	110	53.1	134				
Tetrachloroethene (PCE)	1.28	0.0220	1.101	0	116	35.6	158				
Dibromochloromethane	1.21	0.0330	1.101	0	109	55.3	140				
1,2-Dibromoethane (EDB)	1.34	0.00550	1.101	0	122	50.4	136				
Chlorobenzene	1.23	0.0220	1.101	0	112	60	133				
1,1,1,2-Tetrachloroethane	1.24	0.0330	1.101	0	112	53.1	142				
Ethylbenzene	1.16	0.0330	1.101	0.002730	105	54.5	134				
m,p-Xylene	2.26	0.0220	2.202	0.009974	102	53.1	132				
o-Xylene	1.10	0.0220	1.101	0.004349	99.4	53.3	139				
Styrene	1.27	0.0220	1.101	0	116	51.1	132				
Isopropylbenzene	1.28	0.0881	1.101	0	116	58.9	138				
Bromoform	1.19	0.0220	1.101	0	108	57.9	130				
1,1,1,2,2-Tetrachloroethane	1.35	0.0220	1.101	0	123	51.9	131				
n-Propylbenzene	1.27	0.0220	1.101	0	115	53.6	140				
Bromobenzene	1.25	0.0330	1.101	0	114	54.2	140				
1,3,5-Trimethylbenzene	1.22	0.0220	1.101	0	111	51.8	136				
2-Chlorotoluene	1.24	0.0220	1.101	0	113	51.6	136				
4-Chlorotoluene	1.26	0.0220	1.101	0	114	50.1	139				
tert-Butylbenzene	1.29	0.0220	1.101	0	117	50.5	135				



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509270-031BMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH		Batch ID: 11930			Analysis Date: 9/24/2015			SeqNo: 472417				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

1,2,3-Trichloropropane	1.26	0.0220	1.101	0	115	50.5	131				
1,2,4-Trichlorobenzene	1.16	0.0550	1.101	0	105	50.8	130				
sec-Butylbenzene	1.31	0.0220	1.101	0	119	52.6	141				
4-Isopropyltoluene	1.29	0.0220	1.101	0	117	52.9	134				
1,3-Dichlorobenzene	1.16	0.0220	1.101	0	105	52.6	131				
1,4-Dichlorobenzene	1.15	0.0220	1.101	0	105	52.9	129				
n-Butylbenzene	1.21	0.0220	1.101	0	110	52.6	130				
1,2-Dichlorobenzene	1.14	0.0220	1.101	0	104	55.8	129				
1,2-Dibromo-3-chloropropane	1.13	0.550	1.101	0	102	40.5	131				
1,2,4-Trimethylbenzene	1.10	0.0220	1.101	0.003110	99.7	50.6	137				
Hexachlorobutadiene	1.23	0.110	1.101	0	112	40.6	158				
Naphthalene	1.01	0.0330	1.101	0	91.5	52.3	124				
1,2,3-Trichlorobenzene	1.11	0.0220	1.101	0	101	54.4	124				
Surr: Dibromofluoromethane	1.43		1.376		104	56.5	129				
Surr: Toluene-d8	1.35		1.376		98.4	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.40		1.376		102	63.1	141				

NOTES:

S - Outlying QC recoveries were observed.

Sample ID: 1509270-033BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH		Batch ID: 11930					Analysis Date: 9/24/2015			SeqNo: 472418	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	0.0465						0		30	
Chloromethane	ND	0.0465						0		30	
Vinyl chloride	ND	0.00155						0		30	
Bromomethane	ND	0.0698						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0388						0		30	
Chloroethane	ND	0.0465						0		30	
1,1-Dichloroethene	ND	0.0388						0		30	
Methylene chloride	ND	0.0155						0		30	
trans-1,2-Dichloroethene	ND	0.0155						0		30	



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509270-033BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/23/2015			RunNo: 25067			
Client ID: BATCH		Batch ID: 11930		Analysis Date: 9/24/2015							SeqNo: 472418	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Methyl tert-butyl ether (MTBE)	ND	0.0388						0		30		
1,1-Dichloroethane	ND	0.0155						0		30		
2,2-Dichloropropane	ND	0.0388						0		30		
cis-1,2-Dichloroethene	ND	0.0155						0		30		
Chloroform	ND	0.0155						0		30		
1,1,1-Trichloroethane (TCA)	ND	0.0155						0		30		
1,1-Dichloropropene	ND	0.0155						0		30		
Carbon tetrachloride	ND	0.0155						0		30		
1,2-Dichloroethane (EDC)	ND	0.0233						0		30		
Benzene	ND	0.0155						0		30		
Trichloroethene (TCE)	ND	0.0155						0		30		
1,2-Dichloropropane	ND	0.0155						0		30		
Bromodichloromethane	ND	0.0155						0		30		
Dibromomethane	ND	0.0310						0		30		
cis-1,3-Dichloropropene	ND	0.0155						0		30		
Toluene	ND	0.0155						0		30		
trans-1,3-Dichloropropylene	ND	0.0233						0		30		
1,1,2-Trichloroethane	ND	0.0233						0		30		
1,3-Dichloropropane	ND	0.0388						0		30		
Tetrachloroethene (PCE)	ND	0.0155						0		30		
Dibromochloromethane	ND	0.0233						0		30		
1,2-Dibromoethane (EDB)	ND	0.00388						0		30		
Chlorobenzene	ND	0.0155						0		30		
1,1,1,2-Tetrachloroethane	ND	0.0233						0		30		
Ethylbenzene	ND	0.0233						0		30		
m,p-Xylene	ND	0.0155						0		30		
o-Xylene	ND	0.0155						0		30		
Styrene	ND	0.0155						0		30		
Isopropylbenzene	ND	0.0620						0		30		
Bromoform	ND	0.0155						0		30		
1,1,2,2-Tetrachloroethane	ND	0.0155						0		30		



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Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509270-033BDUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 9/23/2015			RunNo: 25067		
Client ID: BATCH	Batch ID: 11930	Analysis Date: 9/24/2015							SeqNo: 472418		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Propylbenzene	ND	0.0155						0		30	
Bromobenzene	ND	0.0233						0		30	
1,3,5-Trimethylbenzene	ND	0.0155						0		30	
2-Chlorotoluene	ND	0.0155						0		30	
4-Chlorotoluene	ND	0.0155						0		30	
tert-Butylbenzene	ND	0.0155						0		30	
1,2,3-Trichloropropane	ND	0.0155						0		30	
1,2,4-Trichlorobenzene	ND	0.0388						0		30	
sec-Butylbenzene	ND	0.0155						0		30	
4-Isopropyltoluene	ND	0.0155						0		30	
1,3-Dichlorobenzene	ND	0.0155						0		30	
1,4-Dichlorobenzene	ND	0.0155						0		30	
n-Butylbenzene	ND	0.0155						0		30	
1,2-Dichlorobenzene	ND	0.0155						0		30	
1,2-Dibromo-3-chloropropane	ND	0.388						0		30	
1,2,4-Trimethylbenzene	ND	0.0155						0		30	
Hexachlorobutadiene	ND	0.0775						0		30	
Naphthalene	ND	0.0233						0		30	
1,2,3-Trichlorobenzene	ND	0.0155						0		30	
Surr: Dibromofluoromethane	0.921		0.9689		95.0	56.5	129		0		
Surr: Toluene-d8	0.946		0.9689		97.6	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.950		0.9689		98.0	63.1	141		0		

Sample ID: LCS-11943	SampType: LCS	Units: mg/Kg				Prep Date: 9/24/2015			RunNo: 25120		
Client ID: LCSS	Batch ID: 11943					Analysis Date: 9/24/2015			SeqNo: 473642		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.911	0.0600	1.000	0	91.1	37.2	139				
Chloromethane	0.839	0.0600	1.000	0	83.9	38.8	132				
Vinyl chloride	0.980	0.00200	1.000	0	98.0	56.1	130				
Bromomethane	1.23	0.0900	1.000	0	123	41.3	148				



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-11943	SampType: LCS	Units: mg/Kg				Prep Date: 9/24/2015			RunNo: 25120		
Client ID: LCSS	Batch ID: 11943					Analysis Date: 9/24/2015			SeqNo: 473642		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichlorofluoromethane (CFC-11)	1.07	0.0500	1.000	0	107	42.9	147				
Chloroethane	1.09	0.0600	1.000	0	109	37.1	144				
1,1-Dichloroethene	1.10	0.0500	1.000	0	110	49.7	142				
Methylene chloride	0.921	0.0200	1.000	0	92.1	46.3	140				
trans-1,2-Dichloroethene	1.10	0.0200	1.000	0	110	68	130				
Methyl tert-butyl ether (MTBE)	0.882	0.0500	1.000	0	88.2	59.1	138				
1,1-Dichloroethane	1.03	0.0200	1.000	0	103	61.9	137				
2,2-Dichloropropane	1.38	0.0500	1.000	0	138	28.1	149				
cis-1,2-Dichloroethene	1.07	0.0200	1.000	0	107	71.3	135				
Chloroform	1.01	0.0200	1.000	0	101	67.5	129				
1,1,1-Trichloroethane (TCA)	1.19	0.0200	1.000	0	119	69	132				
1,1-Dichloropropene	1.04	0.0200	1.000	0	104	72.7	131				
Carbon tetrachloride	1.08	0.0200	1.000	0	108	63.4	137				
1,2-Dichloroethane (EDC)	0.962	0.0300	1.000	0	96.2	61.9	136				
Benzene	0.985	0.0200	1.000	0	98.5	64.3	133				
Trichloroethene (TCE)	1.06	0.0200	1.000	0	106	65.5	137				
1,2-Dichloropropane	1.04	0.0200	1.000	0	104	63.2	142				
Bromodichloromethane	0.946	0.0200	1.000	0	94.6	73.2	131				
Dibromomethane	1.13	0.0400	1.000	0	113	70	130				
cis-1,3-Dichloropropene	0.952	0.0200	1.000	0	95.2	59.1	143				
Toluene	0.962	0.0200	1.000	0	96.2	67.3	138				
trans-1,3-Dichloropropylene	1.06	0.0300	1.000	0	106	49.2	149				
1,1,2-Trichloroethane	1.07	0.0300	1.000	0	107	74.5	129				
1,3-Dichloropropane	1.03	0.0500	1.000	0	103	70	130				
Tetrachloroethene (PCE)	1.09	0.0200	1.000	0	109	52.7	150				
Dibromochloromethane	1.08	0.0300	1.000	0	108	70.6	144				
1,2-Dibromoethane (EDB)	1.17	0.00500	1.000	0	117	70	130				
Chlorobenzene	1.05	0.0200	1.000	0	105	76.1	123				
1,1,1,2-Tetrachloroethane	1.06	0.0300	1.000	0	106	74.8	131				
Ethylbenzene	0.983	0.0300	1.000	0	98.3	74	129				
m,p-Xylene	1.92	0.0200	2.000	0	96.2	79.8	128				



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Sample ID: LCS-11943	SampType: LCS	Units: mg/Kg			Prep Date: 9/24/2015			RunNo: 25120			
Client ID: LCSS	Batch ID: 11943	Analysis Date: 9/24/2015						SeqNo: 473642			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	0.949	0.0200	1.000	0	94.9	72.7	124				
Styrene	1.11	0.0200	1.000	0	111	76.8	130				
Isopropylbenzene	1.10	0.0800	1.000	0	110	70	130				
Bromoform	1.06	0.0200	1.000	0	106	67	154				
1,1,2,2-Tetrachloroethane	1.15	0.0200	1.000	0	115	60	130				
n-Propylbenzene	1.08	0.0200	1.000	0	108	74.8	125				
Bromobenzene	1.08	0.0300	1.000	0	108	49.2	144				
1,3,5-Trimethylbenzene	1.05	0.0200	1.000	0	105	74.6	123				
2-Chlorotoluene	1.06	0.0200	1.000	0	106	76.7	129				
4-Chlorotoluene	1.08	0.0200	1.000	0	108	77.5	125				
tert-Butylbenzene	1.10	0.0200	1.000	0	110	66.2	130				
1,2,3-Trichloropropane	1.10	0.0200	1.000	0	110	67.9	136				
1,2,4-Trichlorobenzene	1.07	0.0500	1.000	0	107	65.6	137				
sec-Butylbenzene	1.11	0.0200	1.000	0	111	75.6	133				
4-Isopropyltoluene	1.10	0.0200	1.000	0	110	76.8	131				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	128				
1,4-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.6	126				
n-Butylbenzene	1.06	0.0200	1.000	0	106	65.3	136				
1,2-Dichlorobenzene	1.01	0.0200	1.000	0	101	72.8	126				
1,2-Dibromo-3-chloropropane	1.01	0.500	1.000	0	101	61.2	139				
1,2,4-Trimethylbenzene	0.948	0.0200	1.000	0	94.8	77.5	129				
Hexachlorobutadiene	1.11	0.100	1.000	0	111	42	151				
Naphthalene	0.912	0.0300	1.000	0	91.2	62.3	134				
1,2,3-Trichlorobenzene	1.01	0.0200	1.000	0	101	62.1	140				
Surr: Dibromofluoromethane	1.29		1.250		103	56.5	129				
Surr: Toluene-d8	1.23		1.250		98.0	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.26		1.250		100	63.1	141				



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: MB-11943		SampType: MBLK		Units: mg/Kg		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: MBLKS		Batch ID: 11943					Analysis Date: 9/24/2015			SeqNo: 473644	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	0.0600
Chloromethane	ND	0.0600
Vinyl chloride	ND	0.00200
Bromomethane	ND	0.0900
Trichlorofluoromethane (CFC-11)	ND	0.0500
Chloroethane	ND	0.0600
1,1-Dichloroethene	ND	0.0500
Methylene chloride	ND	0.0200
trans-1,2-Dichloroethene	ND	0.0200
Methyl tert-butyl ether (MTBE)	ND	0.0500
1,1-Dichloroethane	ND	0.0200
2,2-Dichloropropane	ND	0.0500
cis-1,2-Dichloroethene	ND	0.0200
Chloroform	ND	0.0200
1,1,1-Trichloroethane (TCA)	ND	0.0200
1,1-Dichloropropene	ND	0.0200
Carbon tetrachloride	ND	0.0200
1,2-Dichloroethane (EDC)	ND	0.0300
Benzene	ND	0.0200
Trichloroethene (TCE)	ND	0.0200
1,2-Dichloropropane	ND	0.0200
Bromodichloromethane	ND	0.0200
Dibromomethane	ND	0.0400
cis-1,3-Dichloropropene	ND	0.0200
Toluene	ND	0.0200
trans-1,3-Dichloropropylene	ND	0.0300
1,1,2-Trichloroethane	ND	0.0300
1,3-Dichloropropane	ND	0.0500
Tetrachloroethene (PCE)	ND	0.0200
Dibromochloromethane	ND	0.0300
1,2-Dibromoethane (EDB)	ND	0.00500



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: MB-11943	SampType: MBLK	Units: mg/Kg				Prep Date: 9/24/2015			RunNo: 25120		
Client ID: MBLKS	Batch ID: 11943					Analysis Date: 9/24/2015			SeqNo: 473644		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	ND	0.0200									
1,1,1,2-Tetrachloroethane	ND	0.0300									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Styrene	ND	0.0200									
Isopropylbenzene	ND	0.0800									
Bromoform	ND	0.0200									
1,1,2,2-Tetrachloroethane	ND	0.0200									
n-Propylbenzene	ND	0.0200									
Bromobenzene	ND	0.0300									
1,3,5-Trimethylbenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0200									
4-Chlorotoluene	ND	0.0200									
tert-Butylbenzene	ND	0.0200									
1,2,3-Trichloropropane	ND	0.0200									
1,2,4-Trichlorobenzene	ND	0.0500									
sec-Butylbenzene	ND	0.0200									
4-Isopropyltoluene	ND	0.0200									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
n-Butylbenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
1,2,4-Trimethylbenzene	ND	0.0200									
Hexachlorobutadiene	ND	0.100									
Naphthalene	ND	0.0300									
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.17		1.250		93.6	56.5	129				
Surr: Toluene-d8	1.23		1.250		98.6	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		99.8	63.1	141				



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Volatile Organic Compounds by EPA Method 8260

Sample ID: MB-11943		SampType: MBLK			Units: mg/Kg		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: MBLKS		Batch ID: 11943			Analysis Date: 9/24/2015					SeqNo: 473644		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Sample ID: 1509300-009BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-16-15:13.5		Batch ID: 11943					Analysis Date: 9/24/2015			SeqNo: 473611	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	0.0474						0		30	
Chloromethane	ND	0.0474						0		30	
Vinyl chloride	ND	0.00158						0		30	
Bromomethane	ND	0.0711						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0395						0		30	
Chloroethane	ND	0.0474						0		30	
1,1-Dichloroethene	ND	0.0395						0		30	
Methylene chloride	ND	0.0158						0		30	
trans-1,2-Dichloroethene	ND	0.0158						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0395						0		30	
1,1-Dichloroethane	ND	0.0158						0		30	
2,2-Dichloropropane	ND	0.0395						0		30	
cis-1,2-Dichloroethene	ND	0.0158						0		30	
Chloroform	ND	0.0158						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0158						0		30	
1,1-Dichloropropene	ND	0.0158						0		30	
Carbon tetrachloride	ND	0.0158						0		30	
1,2-Dichloroethane (EDC)	ND	0.0237						0		30	
Benzene	ND	0.0158						0		30	
Trichloroethene (TCE)	ND	0.0158						0		30	
1,2-Dichloropropane	ND	0.0158						0		30	
Bromodichloromethane	ND	0.0158						0		30	
Dibromomethane	ND	0.0316						0		30	
cis-1,3-Dichloropropene	ND	0.0158						0		30	
Toluene	ND	0.0158						0		30	
trans-1,3-Dichloropropylene	ND	0.0237						0		30	



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Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509300-009BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-16-15:13.5		Batch ID: 11943					Analysis Date: 9/24/2015			SeqNo: 473611	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,2-Trichloroethane	ND	0.0237						0		30	
1,3-Dichloropropane	ND	0.0395						0		30	
Tetrachloroethene (PCE)	ND	0.0158						0		30	
Dibromochloromethane	ND	0.0237						0		30	
1,2-Dibromoethane (EDB)	ND	0.00395						0		30	
Chlorobenzene	ND	0.0158						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0237						0		30	
Ethylbenzene	ND	0.0237						0		30	
m,p-Xylene	ND	0.0158						0		30	
o-Xylene	ND	0.0158						0		30	
Styrene	ND	0.0158						0		30	
Isopropylbenzene	ND	0.0632						0		30	
Bromoform	ND	0.0158						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0158						0		30	
n-Propylbenzene	ND	0.0158						0		30	
Bromobenzene	ND	0.0237						0		30	
1,3,5-Trimethylbenzene	ND	0.0158						0		30	
2-Chlorotoluene	ND	0.0158						0		30	
4-Chlorotoluene	ND	0.0158						0		30	
tert-Butylbenzene	ND	0.0158						0		30	
1,2,3-Trichloropropane	ND	0.0158						0		30	
1,2,4-Trichlorobenzene	ND	0.0395						0		30	
sec-Butylbenzene	ND	0.0158						0		30	
4-Isopropyltoluene	ND	0.0158						0		30	
1,3-Dichlorobenzene	ND	0.0158						0		30	
1,4-Dichlorobenzene	ND	0.0158						0		30	
n-Butylbenzene	ND	0.0158						0		30	
1,2-Dichlorobenzene	ND	0.0158						0		30	
1,2-Dibromo-3-chloropropane	ND	0.395						0		30	
1,2,4-Trimethylbenzene	ND	0.0158						0		30	
Hexachlorobutadiene	ND	0.0790						0		30	



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Sample ID: 1509300-009BDUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-16-15:13.5	Batch ID: 11943					Analysis Date: 9/24/2015			SeqNo: 473611		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0237						0		30	
1,2,3-Trichlorobenzene	ND	0.0158						0		30	
Surr: Dibromofluoromethane	0.916		0.9873		92.8	56.5	129		0		
Surr: Toluene-d8	0.969		0.9873		98.1	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.988		0.9873		100	63.1	141		0		

Sample ID: 1509300-016BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-20-15:5.5		Batch ID: 11943		Analysis Date: 9/25/2015						SeqNo: 473619	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.717	0.0399	0.6643	0	108	43.5	121				
Chloromethane	0.649	0.0399	0.6643	0.004199	97.1	45	130				
Vinyl chloride	0.756	0.00133	0.6643	0	114	51.2	146				
Bromomethane	0.818	0.0598	0.6643	0	123	21.3	120				S
Trichlorofluoromethane (CFC-11)	0.758	0.0332	0.6643	0	114	35	131				
Chloroethane	0.824	0.0399	0.6643	0	124	43.8	117				S
1,1-Dichloroethene	0.808	0.0332	0.6643	0	122	61.9	141				
Methylene chloride	0.653	0.0133	0.6643	0.003773	97.7	54.7	142				
trans-1,2-Dichloroethene	0.794	0.0133	0.6643	0	120	52	136				
Methyl tert-butyl ether (MTBE)	0.605	0.0332	0.6643	0	91.1	54.4	132				
1,1-Dichloroethane	0.770	0.0133	0.6643	0	116	51.8	141				
2,2-Dichloropropane	0.822	0.0332	0.6643	0	124	36	123				S
cis-1,2-Dichloroethene	0.750	0.0133	0.6643	0	113	58.6	136				
Chloroform	0.717	0.0133	0.6643	0.002129	108	53.2	129				
1,1,1-Trichloroethane (TCA)	0.850	0.0133	0.6643	0	128	58.3	145				
1,1-Dichloropropene	0.753	0.0133	0.6643	0	113	55.1	138				
Carbon tetrachloride	0.748	0.0133	0.6643	0	113	53.3	144				
1,2-Dichloroethane (EDC)	0.665	0.0199	0.6643	0	100	51.3	139				
Benzene	0.708	0.0133	0.6643	0	107	63.5	133				
Trichloroethene (TCE)	0.760	0.0133	0.6643	0	114	68.6	132				
1,2-Dichloropropane	0.735	0.0133	0.6643	0	111	59	136				



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Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509300-016BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-20-15:5.5		Batch ID: 11943					Analysis Date: 9/25/2015			SeqNo: 473619	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	0.624	0.0133	0.6643	0	94.0	50.7	141				
Dibromomethane	0.774	0.0266	0.6643	0	117	50.6	137				
cis-1,3-Dichloropropene	0.637	0.0133	0.6643	0	95.9	50.4	138				
Toluene	0.698	0.0133	0.6643	0	105	63.4	132				
trans-1,3-Dichloropropylene	0.677	0.0199	0.6643	0	102	44.1	147				
1,1,2-Trichloroethane	0.733	0.0199	0.6643	0	110	51.6	137				
1,3-Dichloropropane	0.703	0.0332	0.6643	0	106	53.1	134				
Tetrachloroethene (PCE)	0.768	0.0133	0.6643	0	116	35.6	158				
Dibromochloromethane	0.669	0.0199	0.6643	0	101	55.3	140				
1,2-Dibromoethane (EDB)	0.796	0.00332	0.6643	0	120	50.4	136				
Chlorobenzene	0.738	0.0133	0.6643	0	111	60	133				
1,1,1,2-Tetrachloroethane	0.715	0.0199	0.6643	0	108	53.1	142				
Ethylbenzene	0.695	0.0199	0.6643	0	105	54.5	134				
m,p-Xylene	1.37	0.0133	1.329	0.001930	103	53.1	132				
o-Xylene	0.668	0.0133	0.6643	0	100	53.3	139				
Styrene	0.782	0.0133	0.6643	0	118	51.1	132				
Isopropylbenzene	0.776	0.0531	0.6643	0	117	58.9	138				
Bromoform	0.688	0.0133	0.6643	0	104	57.9	130				
1,1,1,2,2-Tetrachloroethane	0.783	0.0133	0.6643	0	118	51.9	131				
n-Propylbenzene	0.766	0.0133	0.6643	0	115	53.6	140				
Bromobenzene	0.754	0.0199	0.6643	0	114	54.2	140				
1,3,5-Trimethylbenzene	0.741	0.0133	0.6643	0	112	51.8	136				
2-Chlorotoluene	0.749	0.0133	0.6643	0	113	51.6	136				
4-Chlorotoluene	0.762	0.0133	0.6643	0	115	50.1	139				
tert-Butylbenzene	0.791	0.0133	0.6643	0	119	50.5	135				
1,2,3-Trichloropropane	0.736	0.0133	0.6643	0	111	50.5	131				
1,2,4-Trichlorobenzene	0.716	0.0332	0.6643	0	108	50.8	130				
sec-Butylbenzene	0.797	0.0133	0.6643	0	120	52.6	141				
4-Isopropyltoluene	0.791	0.0133	0.6643	0.002279	119	52.9	134				
1,3-Dichlorobenzene	0.707	0.0133	0.6643	0	106	52.6	131				
1,4-Dichlorobenzene	0.700	0.0133	0.6643	0	105	52.9	129				



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Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509300-016BMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-20-15:5.5	Batch ID: 11943	Analysis Date: 9/25/2015							SeqNo: 473619		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Butylbenzene	0.748	0.0133	0.6643	0	113	52.6	130				
1,2-Dichlorobenzene	0.691	0.0133	0.6643	0	104	55.8	129				
1,2-Dibromo-3-chloropropane	0.687	0.332	0.6643	0	103	40.5	131				
1,2,4-Trimethylbenzene	0.668	0.0133	0.6643	0.001365	100	50.6	137				
Hexachlorobutadiene	0.828	0.0664	0.6643	0	125	40.6	158				
Naphthalene	0.616	0.0199	0.6643	0.002020	92.5	52.3	124				
1,2,3-Trichlorobenzene	0.674	0.0133	0.6643	0	101	54.4	124				
Surr: Dibromofluoromethane	0.848		0.8304		102	56.5	129				
Surr: Toluene-d8	0.827		0.8304		99.6	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	0.847		0.8304		102	63.1	141				

NOTES:

S - Outlying QC recoveries were observed. The method is in control as indicated by the LCS.

Sample ID: 1509300-017BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-20-15:14.0		Batch ID: 11943					Analysis Date: 9/25/2015			SeqNo: 473621	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0432						0		30	
Chloromethane	ND	0.0432						0		30	
Vinyl chloride	ND	0.00144						0		30	
Bromomethane	ND	0.0649						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0360						0		30	
Chloroethane	ND	0.0432						0		30	
1,1-Dichloroethene	ND	0.0360						0		30	
Methylene chloride	ND	0.0144						0.01512	149	30	
trans-1,2-Dichloroethene	ND	0.0144						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0360						0		30	
1,1-Dichloroethane	ND	0.0144						0		30	
2,2-Dichloropropane	ND	0.0360						0		30	
cis-1,2-Dichloroethene	ND	0.0144						0		30	
Chloroform	ND	0.0144						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0144						0		30	



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509300-017BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-20-15:14.0		Batch ID: 11943					Analysis Date: 9/25/2015			SeqNo: 473621	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloropropene	ND	0.0144						0		30	
Carbon tetrachloride	ND	0.0144						0		30	
1,2-Dichloroethane (EDC)	ND	0.0216						0		30	
Benzene	ND	0.0144						0		30	
Trichloroethene (TCE)	ND	0.0144						0		30	
1,2-Dichloropropane	ND	0.0144						0		30	
Bromodichloromethane	ND	0.0144						0		30	
Dibromomethane	ND	0.0288						0		30	
cis-1,3-Dichloropropene	ND	0.0144						0		30	
Toluene	ND	0.0144						0		30	
trans-1,3-Dichloropropylene	ND	0.0216						0		30	
1,1,2-Trichloroethane	ND	0.0216						0		30	
1,3-Dichloropropane	ND	0.0360						0		30	
Tetrachloroethene (PCE)	ND	0.0144						0		30	
Dibromochloromethane	ND	0.0216						0		30	
1,2-Dibromoethane (EDB)	ND	0.00360						0		30	
Chlorobenzene	ND	0.0144						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0216						0		30	
Ethylbenzene	ND	0.0216						0		30	
m,p-Xylene	ND	0.0144						0		30	
o-Xylene	ND	0.0144						0		30	
Styrene	ND	0.0144						0		30	
Isopropylbenzene	ND	0.0577						0		30	
Bromoform	ND	0.0144						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0144						0		30	
n-Propylbenzene	ND	0.0144						0		30	
Bromobenzene	ND	0.0216						0		30	
1,3,5-Trimethylbenzene	ND	0.0144						0		30	
2-Chlorotoluene	ND	0.0144						0		30	
4-Chlorotoluene	ND	0.0144						0		30	
tert-Butylbenzene	ND	0.0144						0		30	



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509300-017BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25120		
Client ID: GP-20-15:14.0		Batch ID: 11943				Analysis Date: 9/25/2015			SeqNo: 473621		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichloropropane	ND	0.0144						0		30	
1,2,4-Trichlorobenzene	ND	0.0360						0		30	
sec-Butylbenzene	ND	0.0144						0		30	
4-Isopropyltoluene	ND	0.0144						0		30	
1,3-Dichlorobenzene	ND	0.0144						0		30	
1,4-Dichlorobenzene	ND	0.0144						0		30	
n-Butylbenzene	ND	0.0144						0		30	
1,2-Dichlorobenzene	ND	0.0144						0		30	
1,2-Dibromo-3-chloropropane	ND	0.360						0		30	
1,2,4-Trimethylbenzene	ND	0.0144						0		30	
Hexachlorobutadiene	ND	0.0721						0		30	
Naphthalene	ND	0.0216						0		30	
1,2,3-Trichlorobenzene	ND	0.0144						0		30	
Surr: Dibromofluoromethane	0.850		0.9009		94.4	56.5	129		0		
Surr: Toluene-d8	0.874		0.9009		97.1	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.886		0.9009		98.4	63.1	141		0		



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-R25077	SampType: LCS	Units: µg/L				Prep Date: 9/23/2015			RunNo: 25077		
Client ID: LCSW	Batch ID: R25077	Analysis Date: 9/23/2015							SeqNo: 472630		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	18.3	1.00	20.00	0	91.6	43	136				
Chloromethane	18.2	1.00	20.00	0	91.0	43.9	139				
Vinyl chloride	21.8	0.200	20.00	0	109	53.6	139				
Bromomethane	27.1	1.00	20.00	0	136	42.5	152				
Trichlorofluoromethane (CFC-11)	20.4	1.00	20.00	0	102	63.7	133				
Chloroethane	19.4	1.00	20.00	0	96.9	53	141				
1,1-Dichloroethene	17.3	1.00	20.00	0	86.4	65.6	136				
Methylene chloride	17.9	1.00	20.00	0	89.7	67.1	131				
trans-1,2-Dichloroethene	18.7	1.00	20.00	0	93.3	71.7	129				
Methyl tert-butyl ether (MTBE)	18.7	1.00	20.00	0	93.5	67.7	131				
1,1-Dichloroethane	18.4	1.00	20.00	0	92.2	67.9	134				
2,2-Dichloropropane	17.7	2.00	20.00	0	88.7	33.7	152				
cis-1,2-Dichloroethene	17.8	1.00	20.00	0	89.0	71.1	130				
Chloroform	18.9	1.00	20.00	0	94.4	66.3	131				
1,1,1-Trichloroethane (TCA)	19.9	1.00	20.00	0	99.6	71	131				
1,1-Dichloropropene	18.1	1.00	20.00	0	90.4	74.5	126				
Carbon tetrachloride	20.8	1.00	20.00	0	104	66.2	134				
1,2-Dichloroethane (EDC)	18.2	1.00	20.00	0	91.1	68.8	123				
Benzene	18.3	1.00	20.00	0	91.4	69.3	132				
Trichloroethene (TCE)	19.2	0.500	20.00	0	96.1	65.2	136				
1,2-Dichloropropane	18.2	1.00	20.00	0	91.2	70.5	130				
Bromodichloromethane	20.6	1.00	20.00	0	103	67.2	137				
Dibromomethane	20.0	1.00	20.00	0	99.8	75.5	126				
cis-1,3-Dichloropropene	22.0	1.00	20.00	0	110	62.6	137				
Toluene	17.5	1.00	20.00	0	87.4	61.3	145				
trans-1,3-Dichloropropene	21.3	1.00	20.00	0	106	58.5	142				
1,1,2-Trichloroethane	17.9	1.00	20.00	0	89.5	71.7	131				
1,3-Dichloropropane	19.0	1.00	20.00	0	95.2	73.5	127				
Tetrachloroethene (PCE)	20.9	1.00	20.00	0	104	47.5	147				
Dibromochloromethane	21.3	1.00	20.00	0	107	67.2	134				
1,2-Dibromoethane (EDB)	20.0	0.0600	20.00	0	100	73.6	125				



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-R25077		SampType: LCS		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25077		
Client ID: LCSW		Batch ID: R25077					Analysis Date: 9/23/2015			SeqNo: 472630	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	21.3	1.00	20.00	0	107	73.9	126				
1,1,1,2-Tetrachloroethane	19.0	1.00	20.00	0	94.8	76.8	124				
Ethylbenzene	19.2	1.00	20.00	0	96.2	72	130				
m,p-Xylene	38.3	1.00	40.00	0	95.7	70.3	134				
o-Xylene	18.3	1.00	20.00	0	91.4	72.1	131				
Styrene	21.1	1.00	20.00	0	106	64.3	140				
Isopropylbenzene	20.9	1.00	20.00	0	104	73.9	128				
Bromoform	23.8	1.00	20.00	0	119	63.8	135				
1,1,2,2-Tetrachloroethane	20.2	1.00	20.00	0	101	62.9	132				
n-Propylbenzene	19.2	1.00	20.00	0	96.1	74.5	127				
Bromobenzene	19.2	1.00	20.00	0	96.1	71	131				
1,3,5-Trimethylbenzene	20.1	1.00	20.00	0	101	73.1	128				
2-Chlorotoluene	19.5	1.00	20.00	0	97.6	70.8	130				
4-Chlorotoluene	20.2	1.00	20.00	0	101	70.1	131				
tert-Butylbenzene	19.8	1.00	20.00	0	99.0	68.2	131				
1,2,3-Trichloropropane	18.8	1.00	20.00	0	93.8	67.7	131				
1,2,4-Trichlorobenzene	19.7	2.00	20.00	0	98.6	51.8	152				Q
sec-Butylbenzene	20.8	1.00	20.00	0	104	72	129				
4-Isopropyltoluene	20.3	1.00	20.00	0	102	69.2	130				
1,3-Dichlorobenzene	20.3	1.00	20.00	0	102	72.4	129				
1,4-Dichlorobenzene	20.4	1.00	20.00	0	102	70.6	128				
n-Butylbenzene	21.0	1.00	20.00	0	105	73.8	127				
1,2-Dichlorobenzene	21.5	1.00	20.00	0	107	74.2	129				
1,2-Dibromo-3-chloropropane	15.9	1.00	20.00	0	79.5	63.1	136				
1,2,4-Trimethylbenzene	19.4	1.00	20.00	0	97.2	73.4	127				
Hexachlorobutadiene	19.8	4.00	20.00	0	99.0	58.6	138				
Naphthalene	15.7	1.00	20.00	0	78.6	41.8	165				Q
1,2,3-Trichlorobenzene	17.2	4.00	20.00	0	86.0	48.7	156				Q
Surr: Dibromofluoromethane	23.1		25.00		92.3	45.4	152				
Surr: Toluene-d8	23.8		25.00		95.0	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	64.2	128				

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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: MB-R25077		SampType: MBLK		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25077		
Client ID: MBLKW		Batch ID: R25077					Analysis Date: 9/23/2015			SeqNo: 472631	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

trans-1,3-Dichloropropene	ND	1.00
1,1,2-Trichloroethane	ND	1.00
1,3-Dichloropropane	ND	1.00
Tetrachloroethene (PCE)	ND	1.00
Dibromochloromethane	ND	1.00
1,2-Dibromoethane (EDB)	ND	0.0600
Chlorobenzene	ND	1.00
1,1,1,2-Tetrachloroethane	ND	1.00
Ethylbenzene	ND	1.00
m,p-Xylene	ND	1.00
o-Xylene	ND	1.00
Styrene	ND	1.00
Isopropylbenzene	ND	1.00
Bromoform	ND	1.00
1,1,2,2-Tetrachloroethane	ND	1.00
n-Propylbenzene	ND	1.00
Bromobenzene	ND	1.00
1,3,5-Trimethylbenzene	ND	1.00
2-Chlorotoluene	ND	1.00
4-Chlorotoluene	ND	1.00
tert-Butylbenzene	ND	1.00
1,2,3-Trichloropropane	ND	1.00
1,2,4-Trichlorobenzene	ND	2.00
sec-Butylbenzene	ND	1.00
4-Isopropyltoluene	ND	1.00
1,3-Dichlorobenzene	ND	1.00
1,4-Dichlorobenzene	ND	1.00
n-Butylbenzene	ND	1.00
1,2-Dichlorobenzene	ND	1.00
1,2-Dibromo-3-chloropropane	ND	1.00
1,2,4-Trimethylbenzene	ND	1.00

Q



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: MB-R25077	SampType: MBLK	Units: µg/L				Prep Date: 9/23/2015			RunNo: 25077		
Client ID: MBLKW	Batch ID: R25077					Analysis Date: 9/23/2015			SeqNo: 472631		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	4.00									
Naphthalene	ND	1.00									Q
1,2,3-Trichlorobenzene	ND	4.00									Q
Surr: Dibromofluoromethane	24.2		25.00		96.8	45.4	152				
Surr: Toluene-d8	24.0		25.00		96.1	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.2		25.00		101	64.2	128				

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID: 1509311-005ADUP	SampType: DUP	Units: µg/L			Prep Date: 9/23/2015			RunNo: 25077			
Client ID: BATCH	Batch ID: R25077				Analysis Date: 9/23/2015			SeqNo: 472607			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	1.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509311-005ADUP		SampType: DUP		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25077		
Client ID: BATCH		Batch ID: R25077					Analysis Date: 9/23/2015			SeqNo: 472607	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	1.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	Q
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509311-005ADUP	SampType: DUP	Units: µg/L			Prep Date: 9/23/2015			RunNo: 25077			
Client ID: BATCH	Batch ID: R25077				Analysis Date: 9/23/2015			SeqNo: 472607			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachlorobutadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	Q
1,2,3-Trichlorobenzene	ND	4.00						0		30	Q
Surr: Dibromofluoromethane	23.5		25.00		94.0	45.4	152		0		
Surr: Toluene-d8	24.6		25.00		98.5	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.2	64.2	128		0		

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID: 1509312-002AMS	SampType: MS	Units: µg/L			Prep Date: 9/24/2015			RunNo: 25077			
Client ID: BATCH	Batch ID: R25077				Analysis Date: 9/24/2015			SeqNo: 472612			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	22.0	1.00	20.00	0	110	33.3	122				
Chloromethane	16.8	1.00	20.00	0.8700	79.5	48.2	145				
Vinyl chloride	24.8	0.200	20.00	0.1800	123	58.1	158				
Bromomethane	24.1	1.00	20.00	10.39	68.6	31.5	135				
Trichlorofluoromethane (CFC-11)	26.1	1.00	20.00	0	131	54.7	138				
Chloroethane	23.3	1.00	20.00	0	117	49.9	143				
1,1-Dichloroethene	21.8	1.00	20.00	0	109	63	141				
Methylene chloride	21.0	1.00	20.00	0	105	61.6	135				
trans-1,2-Dichloroethene	21.5	1.00	20.00	0	108	63.5	138				
Methyl tert-butyl ether (MTBE)	19.7	1.00	20.00	0	98.6	60.9	132				
1,1-Dichloroethane	21.8	1.00	20.00	0	109	67.8	136				
2,2-Dichloropropane	18.2	2.00	20.00	0	91.2	31.5	121				
cis-1,2-Dichloroethene	23.4	1.00	20.00	1.540	109	67.1	123				



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509312-002AMS		SampType: MS		Units: µg/L		Prep Date: 9/24/2015		RunNo: 25077			
Client ID: BATCH		Batch ID: R25077				Analysis Date: 9/24/2015		SeqNo: 472612			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	22.3	1.00	20.00	0	112	66.7	136				
1,1,1-Trichloroethane (TCA)	23.6	1.00	20.00	0	118	64.2	146				
1,1-Dichloropropene	21.7	1.00	20.00	0	109	73.8	136				
Carbon tetrachloride	20.5	1.00	20.00	1.200	96.4	62.7	146				
1,2-Dichloroethane (EDC)	20.7	1.00	20.00	0	103	63.4	137				
Benzene	21.7	1.00	20.00	0	108	65.4	138				
Trichloroethene (TCE)	27.0	0.500	20.00	2.790	121	60.4	134				
1,2-Dichloropropane	21.3	1.00	20.00	0	106	62.6	138				
Bromodichloromethane	22.4	1.00	20.00	0	112	59.4	139				
Dibromomethane	22.6	1.00	20.00	0	113	63.6	139				
cis-1,3-Dichloropropene	22.6	1.00	20.00	0	113	63.8	132				
Toluene	20.2	1.00	20.00	0	101	64	139				
trans-1,3-Dichloropropene	22.1	1.00	20.00	0	110	57.7	125				
1,1,2-Trichloroethane	21.1	1.00	20.00	0	105	59.4	127				
1,3-Dichloropropane	20.8	1.00	20.00	0	104	64.3	135				
Tetrachloroethene (PCE)	24.4	1.00	20.00	0	122	50.3	133				
Dibromochloromethane	22.6	1.00	20.00	0	113	61.6	139				
1,2-Dibromoethane (EDB)	23.2	0.0600	20.00	0	116	63.2	134				
Chlorobenzene	22.2	1.00	20.00	0	111	65.8	134				
1,1,1,2-Tetrachloroethane	20.0	1.00	20.00	0.1400	99.2	65.4	135				
Ethylbenzene	21.6	1.00	20.00	0	108	64.5	136				
m,p-Xylene	43.3	1.00	40.00	0	108	63.3	135				
o-Xylene	21.2	1.00	20.00	0	106	65.4	134				
Styrene	23.2	1.00	20.00	0	116	59.1	134				
Isopropylbenzene	22.9	1.00	20.00	0	115	56	147				
Bromoform	24.3	1.00	20.00	0	122	57.7	139				
1,1,2,2-Tetrachloroethane	21.6	1.00	20.00	0	108	59.8	146				
n-Propylbenzene	21.5	1.00	20.00	0	107	57.6	142				
Bromobenzene	20.6	1.00	20.00	0	103	63.6	130				
1,3,5-Trimethylbenzene	21.5	1.00	20.00	0	108	59.9	136				
2-Chlorotoluene	21.6	1.00	20.00	0	108	61.7	134				



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509312-002AMS	SampType: MS	Units: µg/L			Prep Date: 9/24/2015			RunNo: 25077			
Client ID: BATCH	Batch ID: R25077				Analysis Date: 9/24/2015			SeqNo: 472612			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	21.6	1.00	20.00	0	108	58.4	134				
tert-Butylbenzene	21.8	1.00	20.00	0	109	66.8	141				
1,2,3-Trichloropropane	21.6	1.00	20.00	0	108	62.4	129				
1,2,4-Trichlorobenzene	21.1	2.00	20.00	0.5300	103	50.9	133				Q
sec-Butylbenzene	23.1	1.00	20.00	0	116	56	146				
4-Isopropyltoluene	21.8	1.00	20.00	0	109	56.4	136				
1,3-Dichlorobenzene	22.0	1.00	20.00	0	110	58.2	128				
1,4-Dichlorobenzene	21.6	1.00	20.00	0	108	60.1	123				
n-Butylbenzene	22.2	1.00	20.00	0	111	54.6	135				
1,2-Dichlorobenzene	23.5	1.00	20.00	0	118	65.4	133				
1,2-Dibromo-3-chloropropane	19.7	1.00	20.00	0	98.6	51.8	142				
1,2,4-Trimethylbenzene	20.2	1.00	20.00	0	101	63.7	132				
Hexachlorobutadiene	26.2	4.00	20.00	0	131	58.1	130				S
Naphthalene	15.0	1.00	20.00	0.6600	71.8	54.5	132				Q
1,2,3-Trichlorobenzene	16.0	4.00	20.00	0	80.2	57	131				Q
Surr: Dibromofluoromethane	24.0		25.00		96.2	45.4	152				
Surr: Toluene-d8	24.6		25.00		98.6	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.4	64.2	128				

NOTES:

S - Outlying QC recoveries were observed. The method is in control as indicated by the LCS.

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID: 1509315-003CDUP		SampType: DUP		Units: µg/L		Prep Date: 9/24/2015			RunNo: 25077		
Client ID: BATCH		Batch ID: R25077					Analysis Date: 9/24/2015			SeqNo: 472622	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	1.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509315-003CDUP		SampType: DUP		Units: µg/L		Prep Date: 9/24/2015			RunNo: 25077		
Client ID: BATCH		Batch ID: R25077					Analysis Date: 9/24/2015			SeqNo: 472622	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	3.37	1.00						3.470	2.92	30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	23.5	1.00						22.32	5.19	30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	157	1.00						153.6	2.15	30	E
m,p-Xylene	361	1.00						352.4	2.34	30	E
o-Xylene	30.3	1.00						29.08	4.11	30	
Styrene	ND	1.00						0		30	



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1509315-003CDUP		SampType: DUP		Units: µg/L		Prep Date: 9/24/2015			RunNo: 25077		
Client ID: BATCH		Batch ID: R25077					Analysis Date: 9/24/2015			SeqNo: 472622	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Isopropylbenzene	20.8	1.00						19.82	4.92	30	
Bromoform	ND	1.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	71.3	1.00						70.13	1.67	30	E
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	128	1.00						124.6	2.44	30	E
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	51.2	1.00						49.50	3.42	30	E
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	6.65	1.00						5.880	12.3	30	
4-Isopropyltoluene	2.92	1.00						9.380	105	30	R
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	28.8	1.00						26.63	7.86	30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	11.6	1.00						0	200	30	
1,2,4-Trimethylbenzene	334	1.00						325.0	2.70	30	E
Hexachlorobutadiene	ND	4.00						0		30	
Naphthalene	120	1.00						59.38	67.8	30	RE
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	23.4		25.00		93.7	45.4	152		0		
Surr: Toluene-d8	24.9		25.00		99.7	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	25.7		25.00		103	64.2	128		0		



Date: 10/28/2015

Work Order: 1509300
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID: 1509332-006BDUP	SampType: DUP	Units: wt%				Prep Date: 9/25/2015				RunNo: 25116		
Client ID: BATCH	Batch ID: R25116					Analysis Date: 9/25/2015				SeqNo: 473527		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Percent Moisture	19.1	0.500						19.59	2.27	20	
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Sample ID: 1509300-001ADUP		SampType: DUP			Units: wt%		Prep Date: 9/25/2015			RunNo: 25116		
Client ID: GP-13-15:4.5		Batch ID: R25116			Analysis Date: 9/25/2015					SeqNo: 473537		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Percent Moisture	14.2	0.500						10.84	26.9	20	R
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Sample Log-In Check List

Client Name: **SW**
Logged by: **Clare Griggs**

Work Order Number: **1509300**
Date Received: **9/21/2015 4:18:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of $>0^{\circ}\text{C}$ to 10.0°C * Yes ☐ No ☒ NA ☐
Please refer to item information.
8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☒ No ☐ NA ☐

Person Notified:	Ed Ptak	Date:	9/22/2015
By Whom:	Clare Griggs	Via:	☒ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	Received sample not on COC - " GP-17-15:DUP"		
Client Instructions:	See updated COC.		

19. Additional remarks:

GP-20-15:15.5 @13:20 should be GP-20-15:15.0

Item Information

Item #	Temp °C
Cooler 1	13.5
Cooler 2	6.9
Temp Blank 1	10.2
Temp Blank 2	3.8

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



Fremont

Analytical

Chain of Custody Record

Laboratory Project No (Internal):

1509300

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-353-3790
Fax: 206-352-7178

Date: 9/21/15

Page: 1 of 3

Client:

Shannon Wilson Inc.

Project Name:

Pacific Park

Address:

400 N 34th St, Suite 100

Project No:

01-2005-006

City, State, Zip:

Seattle WA 98103

Location:

Pacific Park, Pacific, WA

Telephone:

206-652-8020

Report To (PM):

Elvin Pak

Fax:

206-695-6777

PM Email:

enpeshm@comcast.net

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GV/REX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/heavy oil Range Organics (DO)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 606)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)**	EDs (8011)	Herbicides/Insecticides/PCPs	Comments
1 GP-13-15:4.5	7/1/15	0845	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 GP-13-15:13.5		0855		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3 GP-14-15:3.5		0940		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
4 GP-14-15:13.5		0950		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5 GP-14-15:DMF		1000		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
6 GP-15-15:6.0		1025		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
7 GP-15-15:4.0		1030		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
8 GP-16-15:8.0		105		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
9 GP-16-15:13.5		1100		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
10 GP-17-15:7.0		1145		X	X	X	X	X	X	X	X	X	X	X	X	X	X	

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Cyanide Phosphate Fluoride Nitrate+nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (a fee may be assessed if samples are retained after 30 days.)

Relinquished Date/Time 9/21/15 1515 Received Date/Time 9/21/15 1516

Signature: [Signature] Date/Time 9/21/15 @ 1618

TAT → SameDay NextDay 2 Day 3 Day STD

*Please coordinate with the lab in advance

Distributions: White - Lab, Yellow - File, Pink - Originator

www.fremontanalytical.com



Fremont

Analytical

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/21/15

Page: 2 of 3

Chain of Custody Record
Laboratory Project No (Internal): 1509300
1509274

Client: Shuman & Wilson, Inc.
Address: 400 N 34th St, Suite 100
City, State, Zip: Seattle, WA 98103
Telephone: 206-632-8030 Fax: 206-695-0771

Project Name: Pacific Park
Project No: 21-2055-06
Location: City of Pacific WA
Report To (PM): Edwin Park
PM Email: eveshanwil.com

Collected by: EJP

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 634)	GV/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HID)	Diesel/Heavy Oil Range Organics (DO)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)**	EDs (8011)	Herbicides / Pesticides	Comments
1 GP-17-15:14.5	9/21/15	15:55	S															
2 GP-18-15:3.0		12:15																
3 GP-18-15:14.0		13:20																
4 GP-19-15:5.0		13:50																
5 GP-19-15:14.5		12:55																
6 GP-20-15:5.5		13:20																
7 GP-20-15:14.0		13:45																
8 GP-21-15:4.0		14:20																
9 GP-21-15:14.0		14:50																
10 GP-21-15:GW		14:25	GW															

***Metals Analysis (Circle): MTCA-5, PCBs-8, Priority Pollutants, TAL, Individual: Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sr, Sn, Ti, Tl, U, V, Zn

***Anions (Circle): Nitrate, Nitrite, Chloride, Sulfate, Bromide, O-Phosphate, Fluoride, Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (a fee may be assessed if samples are returned after 30 days.)

Turn-around times for samples received after 4:00pm will begin on the following business day.

Special Remarks: GP-21-15:GW not field filtered for PPL metals.

TAT -> SameDay NextDay 2 Day 3 Day STD

Please coordinate with the lab in advance

Distribution: White - Lab, Yellow - File, Pink - Originator

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Chain of Custody Record

1000

Page: 3 of 3

Project No: 31-1-5585-006 Collected by: EYP
Location: City of Pacific, WA
Report To (PM): Edwin Pak
PM Email: evposthuil.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

[illegible]

Distribution: White - Lab, Yellow - File, Pink - Originator

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Chain of Custody Record

Laboratory Project No. (internal):

1509300

Date: 9/21/15

Page: 1 of 3

Shannon & Wilson Inc.

Project Name:

Profir Ark

Collected by

7

400 N. 34th St. Suite 100

Location:

Pacific Park

Specific, WA

City, State, Zip:

Seattle, WA

Report To (P/M):

Elvin P. J.

Telephone

206-657-8020

PM Email:

enpeshawil.com

Statewide Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, CW = Cooling Water, MW = Municipal Wastewater, SW = Sewage Wastewater

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOC (EPA 8260 / 824)	GW/PTX	PTX	Gasoline Range Organics (GRO)	Hydrocarbon Identification (HCDI)	Diesel/Heavy Oil Range Organics (DOR)	SYOC (EPA 8270 / 825)	PAHS (EPA 8270 - 96)	PCBs (EPA 8082 / 608)	Metals** (EPA 8210 / 608)	Total (T) Dissolved (D)	Arsenic (UC)**	EDB (8211)	Herbicides 8215-8218	Pesticides 8219-8222
GP-13-15:4.5	7/21/15	0845	S	X	X	X	X	X	X	X	X	X	X	X	X	X	TUP Pb	
GP-13-15:13.5		0855		X	X	X	X	X	X	X	X	X	X	X	X	X		
GP-14-15:3.5		0940		X	X	X	X	X	X	X	X	X	X	X	X	X		
GP-14-15:13.5		0950		X	X	X	X	X	X	X	X	X	X	X	X	X		
GP-14-15:DMP		1900		X	X	X	X	X	X	X	X	X	X	X	X	X		
GP-15-15:6.0		1025		X	X	X	X	X	X	X	X	X	X	X	X	X		
GP-15-15:4.0		1030		X	X	X	X	X	X	X	X	X	X	X	X	X		
GP-16-15:8.0		1105		X	X	X	X	X	X	X	X	X	X	X	X	X		
GP-16-15:13.5		1100		X	X	X	X	X	X	X	X	X	X	X	X	X		
GP-17-15:7.0		1146		X	X	X	X	X	X	X	X	X	X	X	X	X		

Turn-around times for samples received after 4:00pm will begin on the following business day.

Special Remarks:

TAT → Same Day Next Day 2 Day 3 Day STD

*Please coordinate with the lab in advance

Distribution: White - Lab, Yellow - File, Pink - Originator

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Page: 2 of 3

9/12/15
Chain of Custody Record
Laboratory Project No (Internal): 1509300

Project Name: PACIFIC TANK
Project No: 21-2255-06 Collected by: EVP
Location: City of Pacific WA
Report To (PM): Edwin Piek
PM Email: eup@shaww1.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, C = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)	SVOCs (EPA 8160 / 624)	GV/BTEX	BTX	Gasoline Range Organics (GRO)	Hydrocarbon Identification (HCD)	Distillate/Heavy Oil Range Organics (DHO)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 504)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.6)	Total (T) Dissolved (D)	Anions (IC)*	EDS (2011)	Comments
GP-17-15:14.5	9/21/15	1515	S														
GP-18-15:3.0		1215															
GP-18-15:14.0		1320															
GP-19-15:5.0		1350															
GP-19-15:14.5		1355															
GP-20-15:5.5		1320															
GP-20-15:14.0		1345															
GP-21-15:4.0		1420															
GP-21-15:14.0		1450															
GP-21-15:6W		1425	GW														

***Antions (Circle): Nitrate Nitrite Chloride Sulfate Bromide C Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (a fee may be assessed if samples are returned after 30 days.)

Reinquired: 9/21/15 1515 9/21/15 1516

Date/Time: 9/21/15 1618

Received: 9/21/15 1618

Special Remarks: GP-21-15:6W not field filtered for PPL metals.

Turn-around times for samples received after 4:00pm will begin on the following business day.

TAT → SameDay* NextDay* 2 Day 3 Day STD

*Please coordinate with the lab in advance

Distribution: White - Lab, Yellow - File, Pink - Originator

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1509300



3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Shannon & Wilson
Ed Ptak
400 N. 34th Street, Suite 100
Seattle, WA 98103

RE: Pacific Park
Lab ID: 1509311

October 06, 2015

Attention Ed Ptak:

Fremont Analytical, Inc. received 13 sample(s) on 9/22/2015 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Dissolved Mercury by EPA Method 245.1
Dissolved Metals by EPA Method 200.8
Gasoline by NWTPH-Gx
Herbicides by EPA Method 8151A
Mercury by EPA Method 245.1
Mercury by EPA Method 7471
Organochlorine Pesticides by EPA Method 8081
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)
Sample Moisture (Percent Moisture)
Semi-Volatile Organic Compounds by EPA Method 8270
Total Metals by EPA Method 200.8
Total Metals by EPA Method 6020
Volatile Organic Compounds by EPA Method 8260

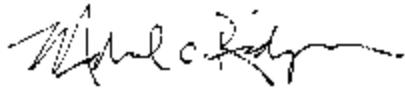
This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Ridgeway". The signature is fluid and cursive, with a prominent initial "M" and a long, sweeping underline.

Mike Ridgeway
President

CLIENT: Shannon & Wilson
Project: Pacific Park
Lab Order: 1509311

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1509311-001	MW-4-15:6.0	09/22/2015 8:55 AM	09/22/2015 3:55 PM
1509311-002	MW-4-15:14.5	09/22/2015 9:05 AM	09/22/2015 3:55 PM
1509311-003	MW-5-15:5.0	09/22/2015 10:35 AM	09/22/2015 3:55 PM
1509311-004	MW-5-15:12.5	09/22/2015 10:40 AM	09/22/2015 3:55 PM
1509311-005	MW-5-15:GW	09/22/2015 10:50 AM	09/22/2015 3:55 PM
1509311-006	GP-22-15:1.5	09/22/2015 2:30 PM	09/22/2015 3:55 PM
1509311-007	GP-22-15:3.0	09/22/2015 2:40 PM	09/22/2015 3:55 PM
1509311-008	GP-22-15:DUP	09/22/2015 3:00 PM	09/22/2015 3:55 PM
1509311-009	MW-6-15:5.5	09/22/2015 12:30 PM	09/22/2015 3:55 PM
1509311-010	MW-6-15:14.0	09/22/2015 2:00 PM	09/22/2015 3:55 PM
1509311-011	MW-6-15:GW	09/22/2015 12:40 PM	09/22/2015 3:55 PM
1509311-012	MW-6-15:GW:DUP	09/22/2015 8:15 AM	09/22/2015 3:55 PM
1509311-013	MW-6-15:DUP	09/22/2015 2:15 PM	09/22/2015 3:55 PM

CLIENT: Shannon & Wilson**Project:** Pacific Park

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below LOQ
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509311-001

Matrix: Soil

Client Sample ID: MW-4-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	39.1		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4-D	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4-DP	ND	27.9		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4,5-TP (Silvex)	ND	22.3		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4,5-T	ND	55.8		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Dinoseb	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Dalapon	ND	223		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4-DB	ND	27.9		µg/Kg-dry	1	10/1/2015 3:27:00 PM
MCPP	ND	4,910		µg/Kg-dry	1	10/1/2015 3:27:00 PM
MCPA	ND	3,120		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Picloram	ND	55.8		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Bentazon	ND	39.1		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Chloramben	ND	22.3		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Acifluorfen	ND	89.3		µg/Kg-dry	1	10/1/2015 3:27:00 PM
3,5-Dichlorobenzoic acid	ND	44.6		µg/Kg-dry	1	10/1/2015 3:27:00 PM
4-Nitrophenol	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Dacthal (DCPA)	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Surr: 2,4-Dichlorophenylacetic acid	98.4	20.1-168		%REC	1	10/1/2015 3:27:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Alpha BHC	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Beta BHC	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Gamma BHC (Lindane)	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Delta BHC	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Heptachlor	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Aldrin	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Heptachlor epoxide	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
gamma-Chlordane	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Endosulfan I	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
alpha-Chlordane	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Dieldrin	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
4,4'-DDE	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Endrin	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Endosulfan II	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM
4,4'-DDD	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Endrin aldehyde	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Endosulfan sulfate	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509311-001

Matrix: Soil

Client Sample ID: MW-4-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

4,4'-DDT	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Endrin ketone	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Methoxychlor	ND	0.0490		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Surr: Decachlorobiphenyl	124	26.5-158		%REC	1	9/25/2015 6:52:00 PM
Surr: Tetrachloro-m-xylene	55.4	11-150		%REC	1	9/25/2015 6:52:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11945

Analyst: AK

Diesel 1/ Kerosene	115	21.9		mg/Kg-dry	1	9/25/2015 10:59:00 AM
Diesel (Fuel Oil)	ND	21.9		mg/Kg-dry	1	9/25/2015 10:59:00 AM
Heavy Oil	1,250	54.7		mg/Kg-dry	1	9/25/2015 10:59:00 AM
Surr: 2-Fluorobiphenyl	107	50-150		%REC	1	9/25/2015 10:59:00 AM
Surr: o-Terphenyl	102	50-150		%REC	1	9/25/2015 10:59:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Bis(2-chloroethyl) ether	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2-Chlorophenol	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
1,3-Dichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
1,4-Dichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
1,2-Dichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Benzyl alcohol	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2-Methylphenol (o-cresol)	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Hexachloroethane	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
N-Nitrosodi-n-propylamine	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Nitrobenzene	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Isophorone	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
4-Methylphenol (p-cresol)	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2-Nitrophenol	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2,4-Dimethylphenol	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Bis(2-chloroethoxy)methane	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2,4-Dichlorophenol	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
1,2,4-Trichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Naphthalene	ND	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
4-Chloroaniline	ND	572		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Hexachlorobutadiene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
4-Chloro-3-methylphenol	ND	572		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2-Methylnaphthalene	164	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509311-001

Matrix: Soil

Client Sample ID: MW-4-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11985		Analyst: NG
1-Methylnaphthalene	182	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Hexachlorocyclopentadiene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2,4,6-Trichlorophenol	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2,4,5-Trichlorophenol	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2-Chloronaphthalene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2-Nitroaniline	ND	572		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Acenaphthene	92.9	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Dimethylphthalate	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2,6-Dinitrotoluene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Acenaphthylene	ND	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2,4-Dinitrophenol	ND	229	*	µg/Kg-dry	1	10/2/2015 6:17:00 AM
Dibenzofuran	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2,4-Dinitrotoluene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
4-Nitrophenol	801	572	*	µg/Kg-dry	1	10/2/2015 6:17:00 AM
Fluorene	175	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
4-Chlorophenyl phenyl ether	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Diethylphthalate	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
4,6-Dinitro-2-methylphenol	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
4-Bromophenyl phenyl ether	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Hexachlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Pentachlorophenol	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Phenanthrene	823	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Anthracene	839	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Carbazole	ND	572		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Di-n-butylphthalate	135	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Fluoranthene	473	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Pyrene	719	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Butyl Benzylphthalate	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
bis(2-Ethylhexyl)adipate	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Benz (a) anthracene	327	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Chrysene	295	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
bis (2-Ethylhexyl) phthalate	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Di-n-octyl phthalate	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Benzo (b) fluoranthene	349	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Benzo (k) fluoranthene	ND	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Benzo (a) pyrene	203	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Indeno (1,2,3-cd) pyrene	ND	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Dibenz (a,h) anthracene	ND	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Benzo (g,h,i) perylene	ND	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509311-001

Matrix: Soil

Client Sample ID: MW-4-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Surr: 2,4,6-Tribromophenol	86.1	11.1-127	%REC	1	10/2/2015 6:17:00 AM
Surr: 2-Fluorobiphenyl	84.9	16.1-150	%REC	1	10/2/2015 6:17:00 AM
Surr: Nitrobenzene-d5	79.0	13.1-124	%REC	1	10/2/2015 6:17:00 AM
Surr: Phenol-d6	69.1	11.6-133	%REC	1	10/2/2015 6:17:00 AM
Surr: p-Terphenyl	94.9	21.8-150	%REC	1	10/2/2015 6:17:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	2.66	mg/Kg-dry	1	9/25/2015 8:48:00 PM
Surr: Toluene-d8	97.9	65-135	%REC	1	9/25/2015 8:48:00 PM
Surr: 4-Bromofluorobenzene	105	65-135	%REC	1	9/25/2015 8:48:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0319	mg/Kg-dry	1	9/25/2015 8:48:00 PM
Chloromethane	ND	0.0319	mg/Kg-dry	1	9/25/2015 8:48:00 PM
Vinyl chloride	ND	0.00106	mg/Kg-dry	1	9/25/2015 8:48:00 PM
Bromomethane	ND	0.0479	mg/Kg-dry	1	9/25/2015 8:48:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0266	mg/Kg-dry	1	9/25/2015 8:48:00 PM
Chloroethane	ND	0.0319	mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,1-Dichloroethene	ND	0.0266	mg/Kg-dry	1	9/25/2015 8:48:00 PM
Methylene chloride	0.0106	0.0106	mg/Kg-dry	1	9/25/2015 8:48:00 PM
trans-1,2-Dichloroethene	ND	0.0106	mg/Kg-dry	1	9/25/2015 8:48:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0266	mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,1-Dichloroethane	ND	0.0106	mg/Kg-dry	1	9/25/2015 8:48:00 PM
2,2-Dichloropropane	ND	0.0266	mg/Kg-dry	1	9/25/2015 8:48:00 PM
cis-1,2-Dichloroethene	ND	0.0106	mg/Kg-dry	1	9/25/2015 8:48:00 PM
Chloroform	ND	0.0106	mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0106	mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,1-Dichloropropene	ND	0.0106	mg/Kg-dry	1	9/25/2015 8:48:00 PM
Carbon tetrachloride	ND	0.0106	mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2-Dichloroethane (EDC)	ND	0.0160	mg/Kg-dry	1	9/25/2015 8:48:00 PM
Benzene	ND	0.0106	mg/Kg-dry	1	9/25/2015 8:48:00 PM
Trichloroethene (TCE)	ND	0.0106	mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2-Dichloropropane	ND	0.0106	mg/Kg-dry	1	9/25/2015 8:48:00 PM
Bromodichloromethane	ND	0.0106	mg/Kg-dry	1	9/25/2015 8:48:00 PM
Dibromomethane	ND	0.0213	mg/Kg-dry	1	9/25/2015 8:48:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509311-001

Matrix: Soil

Client Sample ID: MW-4-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

cis-1,3-Dichloropropene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Toluene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
trans-1,3-Dichloropropylene	ND	0.0160		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,1,2-Trichloroethane	ND	0.0160		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,3-Dichloropropane	ND	0.0266		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Tetrachloroethene (PCE)	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Dibromochloromethane	ND	0.0160		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2-Dibromoethane (EDB)	ND	0.00266		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Chlorobenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0160		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Ethylbenzene	ND	0.0160		mg/Kg-dry	1	9/25/2015 8:48:00 PM
m,p-Xylene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
o-Xylene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Styrene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Isopropylbenzene	ND	0.0425		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Bromoform	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
n-Propylbenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Bromobenzene	ND	0.0160		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,3,5-Trimethylbenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
2-Chlorotoluene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
4-Chlorotoluene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
tert-Butylbenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2,3-Trichloropropane	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2,4-Trichlorobenzene	ND	0.0266		mg/Kg-dry	1	9/25/2015 8:48:00 PM
sec-Butylbenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
4-Isopropyltoluene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,3-Dichlorobenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,4-Dichlorobenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
n-Butylbenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2-Dichlorobenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2-Dibromo-3-chloropropane	ND	0.266		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2,4-Trimethylbenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Hexachlorobutadiene	ND	0.0532		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Naphthalene	ND	0.0160		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2,3-Trichlorobenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Surr: Dibromofluoromethane	95.9	56.5-129		%REC	1	9/25/2015 8:48:00 PM
Surr: Toluene-d8	97.6	64.3-131		%REC	1	9/25/2015 8:48:00 PM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/25/2015 8:48:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509311-001

Matrix: Soil

Client Sample ID: MW-4-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

NOTES:

Methylene Chloride is a common laboratory solvent.

Mercury by EPA Method 7471

Batch ID: 11948

Analyst: TN

Mercury	ND	0.283		mg/Kg-dry	1	9/24/2015 6:15:23 PM
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Total Metals by EPA Method 6020

Batch ID: 11921

Analyst: TN

Arsenic	4.00	0.0939		mg/Kg-dry	1	9/23/2015 5:40:08 PM
Barium	44.7	0.470		mg/Kg-dry	1	9/23/2015 5:40:08 PM
Cadmium	ND	0.188		mg/Kg-dry	1	9/23/2015 5:40:08 PM
Chromium	26.3	0.0939		mg/Kg-dry	1	9/23/2015 5:40:08 PM
Lead	19.0	0.188		mg/Kg-dry	1	9/23/2015 5:40:08 PM
Selenium	1.24	0.470		mg/Kg-dry	1	9/23/2015 5:40:08 PM
Silver	ND	0.0939		mg/Kg-dry	1	9/23/2015 5:40:08 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179

Analyst: SL

Percent Moisture	13.4			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 9:05:00 AM

Project: Pacific Park

Lab ID: 1509311-002

Matrix: Soil

Client Sample ID: MW-4-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	51.9		µg/Kg-dry	1	10/1/2015 4:28:00 AM
2,4-D	ND	44.5		µg/Kg-dry	1	10/1/2015 4:28:00 AM
2,4-DP	ND	37.1		µg/Kg-dry	1	10/1/2015 4:28:00 AM
2,4,5-TP (Silvex)	ND	29.7		µg/Kg-dry	1	10/1/2015 4:28:00 AM
2,4,5-T	ND	74.2		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Dinoseb	ND	44.5		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Dalapon	ND	297		µg/Kg-dry	1	10/1/2015 4:28:00 AM
2,4-DB	ND	37.1		µg/Kg-dry	1	10/1/2015 4:28:00 AM
MCPP	ND	6,530		µg/Kg-dry	1	10/1/2015 4:28:00 AM
MCPA	ND	415		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Picloram	ND	74.2		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Bentazon	ND	51.9		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Chloramben	ND	29.7		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Acifluorfen	ND	119		µg/Kg-dry	1	10/1/2015 4:28:00 AM
3,5-Dichlorobenzoic acid	ND	59.3		µg/Kg-dry	1	10/1/2015 4:28:00 AM
4-Nitrophenol	ND	44.5		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Dacthal (DCPA)	ND	44.5		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Surr: 2,4-Dichlorophenylacetic acid	43.3	20.1-168		%REC	1	10/1/2015 4:28:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Alpha BHC	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Beta BHC	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Gamma BHC (Lindane)	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Delta BHC	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Heptachlor	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Aldrin	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Heptachlor epoxide	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
gamma-Chlordane	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Endosulfan I	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
alpha-Chlordane	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Dieldrin	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
4,4'-DDE	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Endrin	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Endosulfan II	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM
4,4'-DDD	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Endrin aldehyde	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Endosulfan sulfate	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 9:05:00 AM

Project: Pacific Park

Lab ID: 1509311-002

Matrix: Soil

Client Sample ID: MW-4-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Endrin ketone	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Methoxychlor	0.284	0.0752		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Surr: Decachlorobiphenyl	63.6	26.5-158		%REC	1	9/25/2015 7:03:00 PM
Surr: Tetrachloro-m-xylene	37.7	11-150		%REC	1	9/25/2015 7:03:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11945

Analyst: AK

Diesel (Fuel Oil)	ND	29.4		mg/Kg-dry	1	9/25/2015 11:30:00 AM
Heavy Oil	ND	73.5		mg/Kg-dry	1	9/25/2015 11:30:00 AM
Surr: 2-Fluorobiphenyl	84.6	50-150		%REC	1	9/25/2015 11:30:00 AM
Surr: o-Terphenyl	85.3	50-150		%REC	1	9/25/2015 11:30:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Bis(2-chloroethyl) ether	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2-Chlorophenol	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
1,3-Dichlorobenzene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
1,4-Dichlorobenzene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
1,2-Dichlorobenzene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Benzyl alcohol	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2-Methylphenol (o-cresol)	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Hexachloroethane	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
N-Nitrosodi-n-propylamine	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Nitrobenzene	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Isophorone	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
4-Methylphenol (p-cresol)	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2-Nitrophenol	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2,4-Dimethylphenol	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Bis(2-chloroethoxy)methane	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2,4-Dichlorophenol	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
1,2,4-Trichlorobenzene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Naphthalene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
4-Chloroaniline	ND	771		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Hexachlorobutadiene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
4-Chloro-3-methylphenol	ND	771		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2-Methylnaphthalene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
1-Methylnaphthalene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 9:05:00 AM

Project: Pacific Park

Lab ID: 1509311-002

Matrix: Soil

Client Sample ID: MW-4-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Hexachlorocyclopentadiene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2,4,6-Trichlorophenol	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2,4,5-Trichlorophenol	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2-Chloronaphthalene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2-Nitroaniline	ND	771		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Acenaphthene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Dimethylphthalate	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2,6-Dinitrotoluene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Acenaphthylene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2,4-Dinitrophenol	ND	308	*	µg/Kg-dry	1	10/2/2015 6:39:00 AM
Dibenzofuran	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2,4-Dinitrotoluene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
4-Nitrophenol	ND	771	*	µg/Kg-dry	1	10/2/2015 6:39:00 AM
Fluorene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
4-Chlorophenyl phenyl ether	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Diethylphthalate	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
4,6-Dinitro-2-methylphenol	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
4-Bromophenyl phenyl ether	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Hexachlorobenzene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Pentachlorophenol	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Phenanthrene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Anthracene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Carbazole	ND	771		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Di-n-butylphthalate	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Fluoranthene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Pyrene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Butyl Benzylphthalate	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
bis(2-Ethylhexyl)adipate	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Benz (a) anthracene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Chrysene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
bis (2-Ethylhexyl) phthalate	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Di-n-octyl phthalate	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Benzo (b) fluoranthene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Benzo (k) fluoranthene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Benzo (a) pyrene	266	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Indeno (1,2,3-cd) pyrene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Dibenz (a,h) anthracene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Benzo (g,h,i) perylene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Surr: 2,4,6-Tribromophenol	89.2	11.1-127		%REC	1	10/2/2015 6:39:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 9:05:00 AM

Project: Pacific Park

Lab ID: 1509311-002

Matrix: Soil

Client Sample ID: MW-4-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Surr: 2-Fluorobiphenyl	78.9	16.1-150	%REC	1	10/2/2015 6:39:00 AM
Surr: Nitrobenzene-d5	60.7	13.1-124	%REC	1	10/2/2015 6:39:00 AM
Surr: Phenol-d6	74.0	11.6-133	%REC	1	10/2/2015 6:39:00 AM
Surr: p-Terphenyl	97.3	21.8-150	%REC	1	10/2/2015 6:39:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	4.89	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Surr: Toluene-d8	95.6	65-135	%REC	1	9/25/2015 9:45:00 PM
Surr: 4-Bromofluorobenzene	106	65-135	%REC	1	9/25/2015 9:45:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0587	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Chloromethane	ND	0.0587	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Vinyl chloride	ND	0.00196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Bromomethane	ND	0.0880	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0489	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Chloroethane	ND	0.0587	mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,1-Dichloroethene	ND	0.0489	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Methylene chloride	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
trans-1,2-Dichloroethene	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0489	mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,1-Dichloroethane	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
2,2-Dichloropropane	ND	0.0489	mg/Kg-dry	1	9/25/2015 9:45:00 PM
cis-1,2-Dichloroethene	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Chloroform	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,1-Dichloropropene	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Carbon tetrachloride	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2-Dichloroethane (EDC)	ND	0.0293	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Benzene	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Trichloroethene (TCE)	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2-Dichloropropane	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Bromodichloromethane	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Dibromomethane	ND	0.0391	mg/Kg-dry	1	9/25/2015 9:45:00 PM
cis-1,3-Dichloropropene	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 9:05:00 AM

Project: Pacific Park

Lab ID: 1509311-002

Matrix: Soil

Client Sample ID: MW-4-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Toluene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
trans-1,3-Dichloropropylene	ND	0.0293		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,1,2-Trichloroethane	ND	0.0293		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,3-Dichloropropane	ND	0.0489		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Tetrachloroethene (PCE)	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Dibromochloromethane	ND	0.0293		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2-Dibromoethane (EDB)	ND	0.00489		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Chlorobenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0293		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Ethylbenzene	ND	0.0293		mg/Kg-dry	1	9/25/2015 9:45:00 PM
m,p-Xylene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
o-Xylene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Styrene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Isopropylbenzene	ND	0.0782		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Bromoform	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
n-Propylbenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Bromobenzene	ND	0.0293		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,3,5-Trimethylbenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
2-Chlorotoluene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
4-Chlorotoluene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
tert-Butylbenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2,3-Trichloropropane	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2,4-Trichlorobenzene	ND	0.0489		mg/Kg-dry	1	9/25/2015 9:45:00 PM
sec-Butylbenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
4-Isopropyltoluene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,3-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,4-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
n-Butylbenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2-Dibromo-3-chloropropane	ND	0.489		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2,4-Trimethylbenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Hexachlorobutadiene	ND	0.0978		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Naphthalene	ND	0.0293		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2,3-Trichlorobenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Surr: Dibromofluoromethane	95.7	56.5-129		%REC	1	9/25/2015 9:45:00 PM
Surr: Toluene-d8	97.9	64.3-131		%REC	1	9/25/2015 9:45:00 PM
Surr: 1-Bromo-4-fluorobenzene	102	63.1-141		%REC	1	9/25/2015 9:45:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 9:05:00 AM

Project: Pacific Park

Lab ID: 1509311-002

Matrix: Soil

Client Sample ID: MW-4-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11948 Analyst: TN

Mercury	ND	0.338		mg/Kg-dry	1	9/24/2015 6:16:59 PM
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Total Metals by EPA Method 6020

Batch ID: 11921 Analyst: TN

Arsenic	4.47	0.125		mg/Kg-dry	1	9/23/2015 6:02:03 PM
Barium	80.4	0.627		mg/Kg-dry	1	9/23/2015 6:02:03 PM
Cadmium	ND	0.251		mg/Kg-dry	1	9/23/2015 6:02:03 PM
Chromium	21.4	0.125		mg/Kg-dry	1	9/23/2015 6:02:03 PM
Lead	3.79	0.251		mg/Kg-dry	1	9/23/2015 6:02:03 PM
Selenium	2.53	0.627		mg/Kg-dry	1	9/23/2015 6:02:03 PM
Silver	ND	0.125		mg/Kg-dry	1	9/23/2015 6:02:03 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179 Analyst: SL

Percent Moisture	35.2			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1509311-003

Matrix: Soil

Client Sample ID: MW-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	42.5		µg/Kg-dry	1	10/1/2015 4:45:00 AM
2,4-D	ND	36.4		µg/Kg-dry	1	10/1/2015 4:45:00 AM
2,4-DP	ND	30.4		µg/Kg-dry	1	10/1/2015 4:45:00 AM
2,4,5-TP (Silvex)	ND	24.3		µg/Kg-dry	1	10/1/2015 4:45:00 AM
2,4,5-T	ND	60.7		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Dinoseb	ND	36.4		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Dalapon	ND	243		µg/Kg-dry	1	10/1/2015 4:45:00 AM
2,4-DB	ND	30.4		µg/Kg-dry	1	10/1/2015 4:45:00 AM
MCPP	ND	5,350		µg/Kg-dry	1	10/1/2015 4:45:00 AM
MCPA	ND	340		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Picloram	ND	60.7		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Bentazon	ND	42.5		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Chloramben	ND	24.3		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Acifluorfen	ND	97.2		µg/Kg-dry	1	10/1/2015 4:45:00 AM
3,5-Dichlorobenzoic acid	ND	48.6		µg/Kg-dry	1	10/1/2015 4:45:00 AM
4-Nitrophenol	ND	36.4		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Dacthal (DCPA)	ND	36.4		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Surr: 2,4-Dichlorophenylacetic acid	97.4	20.1-168		%REC	1	10/1/2015 4:45:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Alpha BHC	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Beta BHC	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Gamma BHC (Lindane)	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Delta BHC	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Heptachlor	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Aldrin	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Heptachlor epoxide	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
gamma-Chlordane	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Endosulfan I	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
alpha-Chlordane	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Dieldrin	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
4,4'-DDE	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Endrin	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Endosulfan II	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM
4,4'-DDD	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Endrin aldehyde	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Endosulfan sulfate	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1509311-003

Matrix: Soil

Client Sample ID: MW-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

4,4'-DDT	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Endrin ketone	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Methoxychlor	ND	0.0578		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Surr: Decachlorobiphenyl	89.4	26.5-158		%REC	1	9/25/2015 7:14:00 PM
Surr: Tetrachloro-m-xylene	68.5	11-150		%REC	1	9/25/2015 7:14:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11945

Analyst: AK

Diesel (Fuel Oil)	ND	24.2		mg/Kg-dry	1	9/25/2015 12:01:00 PM
Heavy Oil	ND	60.6		mg/Kg-dry	1	9/25/2015 12:01:00 PM
Surr: 2-Fluorobiphenyl	97.0	50-150		%REC	1	9/25/2015 12:01:00 PM
Surr: o-Terphenyl	102	50-150		%REC	1	9/25/2015 12:01:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Bis(2-chloroethyl) ether	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2-Chlorophenol	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
1,3-Dichlorobenzene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
1,4-Dichlorobenzene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
1,2-Dichlorobenzene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Benzyl alcohol	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2-Methylphenol (o-cresol)	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Hexachloroethane	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
N-Nitrosodi-n-propylamine	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Nitrobenzene	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Isophorone	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
4-Methylphenol (p-cresol)	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2-Nitrophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2,4-Dimethylphenol	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Bis(2-chloroethoxy)methane	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2,4-Dichlorophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
1,2,4-Trichlorobenzene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Naphthalene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
4-Chloroaniline	ND	602		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Hexachlorobutadiene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
4-Chloro-3-methylphenol	ND	602		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2-Methylnaphthalene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
1-Methylnaphthalene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1509311-003

Matrix: Soil

Client Sample ID: MW-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Hexachlorocyclopentadiene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2,4,6-Trichlorophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2,4,5-Trichlorophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2-Chloronaphthalene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2-Nitroaniline	ND	602		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Acenaphthene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Dimethylphthalate	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2,6-Dinitrotoluene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Acenaphthylene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2,4-Dinitrophenol	ND	241	*	µg/Kg-dry	1	10/2/2015 7:01:00 AM
Dibenzofuran	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2,4-Dinitrotoluene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
4-Nitrophenol	ND	602	*	µg/Kg-dry	1	10/2/2015 7:01:00 AM
Fluorene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
4-Chlorophenyl phenyl ether	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Diethylphthalate	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
4,6-Dinitro-2-methylphenol	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
4-Bromophenyl phenyl ether	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Hexachlorobenzene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Pentachlorophenol	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Phenanthrene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Anthracene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Carbazole	ND	602		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Di-n-butylphthalate	142	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Fluoranthene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Pyrene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Butyl Benzylphthalate	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
bis(2-Ethylhexyl)adipate	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Benz (a) anthracene	125	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Chrysene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
bis (2-Ethylhexyl) phthalate	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Di-n-octyl phthalate	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Benzo (b) fluoranthene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Benzo (k) fluoranthene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Benzo (a) pyrene	169	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Indeno (1,2,3-cd) pyrene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Dibenz (a,h) anthracene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Benzo (g,h,i) perylene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Surr: 2,4,6-Tribromophenol	91.5	11.1-127		%REC	1	10/2/2015 7:01:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1509311-003

Matrix: Soil

Client Sample ID: MW-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Surr: 2-Fluorobiphenyl	85.9	16.1-150	%REC	1	10/2/2015 7:01:00 AM
Surr: Nitrobenzene-d5	74.7	13.1-124	%REC	1	10/2/2015 7:01:00 AM
Surr: Phenol-d6	76.5	11.6-133	%REC	1	10/2/2015 7:01:00 AM
Surr: p-Terphenyl	99.7	21.8-150	%REC	1	10/2/2015 7:01:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	3.79	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Surr: Toluene-d8	97.6	65-135	%REC	1	9/25/2015 10:14:00 PM
Surr: 4-Bromofluorobenzene	106	65-135	%REC	1	9/25/2015 10:14:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0455	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Chloromethane	ND	0.0455	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Vinyl chloride	ND	0.00152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Bromomethane	ND	0.0683	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0379	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Chloroethane	ND	0.0455	mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,1-Dichloroethene	ND	0.0379	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Methylene chloride	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
trans-1,2-Dichloroethene	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0379	mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,1-Dichloroethane	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
2,2-Dichloropropane	ND	0.0379	mg/Kg-dry	1	9/25/2015 10:14:00 PM
cis-1,2-Dichloroethene	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Chloroform	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,1-Dichloropropene	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Carbon tetrachloride	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2-Dichloroethane (EDC)	ND	0.0228	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Benzene	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Trichloroethene (TCE)	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2-Dichloropropane	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Bromodichloromethane	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Dibromomethane	ND	0.0304	mg/Kg-dry	1	9/25/2015 10:14:00 PM
cis-1,3-Dichloropropene	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1509311-003

Matrix: Soil

Client Sample ID: MW-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11959	Analyst: BC	
Toluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
trans-1,3-Dichloropropylene	ND	0.0228		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,1,2-Trichloroethane	ND	0.0228		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,3-Dichloropropane	ND	0.0379		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Tetrachloroethene (PCE)	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Dibromochloromethane	ND	0.0228		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2-Dibromoethane (EDB)	ND	0.00379		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Chlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0228		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Ethylbenzene	ND	0.0228		mg/Kg-dry	1	9/25/2015 10:14:00 PM
m,p-Xylene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
o-Xylene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Styrene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Isopropylbenzene	ND	0.0607		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Bromoform	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
n-Propylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Bromobenzene	ND	0.0228		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,3,5-Trimethylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
2-Chlorotoluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
4-Chlorotoluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
tert-Butylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2,3-Trichloropropane	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2,4-Trichlorobenzene	ND	0.0379		mg/Kg-dry	1	9/25/2015 10:14:00 PM
sec-Butylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
4-Isopropyltoluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,3-Dichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,4-Dichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
n-Butylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2-Dichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2-Dibromo-3-chloropropane	ND	0.379		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2,4-Trimethylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Hexachlorobutadiene	ND	0.0759		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Naphthalene	ND	0.0228		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2,3-Trichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Surr: Dibromofluoromethane	93.2	56.5-129		%REC	1	9/25/2015 10:14:00 PM
Surr: Toluene-d8	98.0	64.3-131		%REC	1	9/25/2015 10:14:00 PM
Surr: 1-Bromo-4-fluorobenzene	102	63.1-141		%REC	1	9/25/2015 10:14:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1509311-003

Matrix: Soil

Client Sample ID: MW-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11948 Analyst: TN

Mercury	ND	0.271		mg/Kg-dry	1	9/24/2015 6:21:57 PM
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Total Metals by EPA Method 6020

Batch ID: 11921 Analyst: TN

Arsenic	4.58	0.0916		mg/Kg-dry	1	9/23/2015 6:05:34 PM
Barium	97.6	0.458		mg/Kg-dry	1	9/23/2015 6:05:34 PM
Cadmium	5.41	0.183		mg/Kg-dry	1	9/23/2015 6:05:34 PM
Chromium	24.4	0.0916		mg/Kg-dry	1	9/23/2015 6:05:34 PM
Lead	56.3	0.183		mg/Kg-dry	1	9/23/2015 6:05:34 PM
Selenium	1.58	0.458		mg/Kg-dry	1	9/23/2015 6:05:34 PM
Silver	ND	0.0916		mg/Kg-dry	1	9/23/2015 6:05:34 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179 Analyst: SL

Percent Moisture	19.1			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:40:00 AM

Project: Pacific Park

Lab ID: 1509311-004

Matrix: Soil

Client Sample ID: MW-5-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Herbicides by EPA Method 8151A				Batch ID: 11955		Analyst: MD
Dicamba	ND	44.2		µg/Kg-dry	1	10/1/2015 5:02:00 AM
2,4-D	ND	37.9		µg/Kg-dry	1	10/1/2015 5:02:00 AM
2,4-DP	ND	31.6		µg/Kg-dry	1	10/1/2015 5:02:00 AM
2,4,5-TP (Silvex)	ND	25.3		µg/Kg-dry	1	10/1/2015 5:02:00 AM
2,4,5-T	ND	63.2		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Dinoseb	ND	37.9		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Dalapon	ND	253		µg/Kg-dry	1	10/1/2015 5:02:00 AM
2,4-DB	ND	31.6		µg/Kg-dry	1	10/1/2015 5:02:00 AM
MCP	ND	5,560		µg/Kg-dry	1	10/1/2015 5:02:00 AM
MCPA	ND	354		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Picloram	ND	63.2		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Bentazon	ND	44.2		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Chloramben	ND	25.3		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Acifluorfen	ND	101		µg/Kg-dry	1	10/1/2015 5:02:00 AM
3,5-Dichlorobenzoic acid	ND	50.5		µg/Kg-dry	1	10/1/2015 5:02:00 AM
4-Nitrophenol	ND	37.9		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Dacthal (DCPA)	ND	37.9		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Surr: 2,4-Dichlorophenylacetic acid	98.6	20.1-168		%REC	1	10/1/2015 5:02:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Alpha BHC	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Beta BHC	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Gamma BHC (Lindane)	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Delta BHC	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Heptachlor	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Aldrin	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Heptachlor epoxide	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
gamma-Chlordane	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Endosulfan I	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
alpha-Chlordane	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Dieldrin	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
4,4'-DDE	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Endrin	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Endosulfan II	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM
4,4'-DDD	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Endrin aldehyde	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Endosulfan sulfate	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:40:00 AM

Project: Pacific Park

Lab ID: 1509311-004

Matrix: Soil

Client Sample ID: MW-5-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

4,4'-DDT	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Endrin ketone	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Methoxychlor	ND	0.0595		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Surr: Decachlorobiphenyl	74.6	26.5-158		%REC	1	9/25/2015 7:25:00 PM
Surr: Tetrachloro-m-xylene	69.4	11-150		%REC	1	9/25/2015 7:25:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11945

Analyst: AK

Diesel (Fuel Oil)	ND	24.3		mg/Kg-dry	1	9/25/2015 12:32:00 PM
Heavy Oil	ND	60.8		mg/Kg-dry	1	9/25/2015 12:32:00 PM
Surr: 2-Fluorobiphenyl	91.1	50-150		%REC	1	9/25/2015 12:32:00 PM
Surr: o-Terphenyl	60.1	50-150		%REC	1	9/25/2015 12:32:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Bis(2-chloroethyl) ether	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2-Chlorophenol	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
1,3-Dichlorobenzene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
1,4-Dichlorobenzene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
1,2-Dichlorobenzene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Benzyl alcohol	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2-Methylphenol (o-cresol)	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Hexachloroethane	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
N-Nitrosodi-n-propylamine	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Nitrobenzene	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Isophorone	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
4-Methylphenol (p-cresol)	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2-Nitrophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2,4-Dimethylphenol	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Bis(2-chloroethoxy)methane	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2,4-Dichlorophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
1,2,4-Trichlorobenzene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Naphthalene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
4-Chloroaniline	ND	604		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Hexachlorobutadiene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
4-Chloro-3-methylphenol	ND	604		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2-Methylnaphthalene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
1-Methylnaphthalene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:40:00 AM

Project: Pacific Park

Lab ID: 1509311-004

Matrix: Soil

Client Sample ID: MW-5-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11985		Analyst: NG
Hexachlorocyclopentadiene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2,4,6-Trichlorophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2,4,5-Trichlorophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2-Chloronaphthalene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2-Nitroaniline	ND	604		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Acenaphthene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Dimethylphthalate	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2,6-Dinitrotoluene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Acenaphthylene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2,4-Dinitrophenol	ND	241	*	µg/Kg-dry	1	10/2/2015 7:24:00 AM
Dibenzofuran	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2,4-Dinitrotoluene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
4-Nitrophenol	ND	604	*	µg/Kg-dry	1	10/2/2015 7:24:00 AM
Fluorene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
4-Chlorophenyl phenyl ether	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Diethylphthalate	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
4,6-Dinitro-2-methylphenol	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
4-Bromophenyl phenyl ether	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Hexachlorobenzene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Pentachlorophenol	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Phenanthrene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Anthracene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Carbazole	ND	604		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Di-n-butylphthalate	153	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Fluoranthene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Pyrene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Butyl Benzylphthalate	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
bis(2-Ethylhexyl)adipate	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Benz (a) anthracene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Chrysene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
bis (2-Ethylhexyl) phthalate	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Di-n-octyl phthalate	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Benzo (b) fluoranthene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Benzo (k) fluoranthene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Benzo (a) pyrene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Indeno (1,2,3-cd) pyrene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Dibenz (a,h) anthracene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Benzo (g,h,i) perylene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Surr: 2,4,6-Tribromophenol	107	11.1-127		%REC	1	10/2/2015 7:24:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:40:00 AM

Project: Pacific Park

Lab ID: 1509311-004

Matrix: Soil

Client Sample ID: MW-5-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Surr: 2-Fluorobiphenyl	77.8	16.1-150	%REC	1	10/2/2015 7:24:00 AM
Surr: Nitrobenzene-d5	50.0	13.1-124	%REC	1	10/2/2015 7:24:00 AM
Surr: Phenol-d6	58.2	11.6-133	%REC	1	10/2/2015 7:24:00 AM
Surr: p-Terphenyl	98.5	21.8-150	%REC	1	10/2/2015 7:24:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	3.57	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Surr: Toluene-d8	98.3	65-135	%REC	1	9/25/2015 10:43:00 PM
Surr: 4-Bromofluorobenzene	105	65-135	%REC	1	9/25/2015 10:43:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0429	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Chloromethane	ND	0.0429	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Vinyl chloride	ND	0.00143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Bromomethane	ND	0.0643	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0357	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Chloroethane	ND	0.0429	mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,1-Dichloroethene	ND	0.0357	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Methylene chloride	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
trans-1,2-Dichloroethene	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0357	mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,1-Dichloroethane	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
2,2-Dichloropropane	ND	0.0357	mg/Kg-dry	1	9/25/2015 10:43:00 PM
cis-1,2-Dichloroethene	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Chloroform	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,1-Dichloropropene	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Carbon tetrachloride	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2-Dichloroethane (EDC)	ND	0.0214	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Benzene	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Trichloroethene (TCE)	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2-Dichloropropane	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Bromodichloromethane	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Dibromomethane	ND	0.0286	mg/Kg-dry	1	9/25/2015 10:43:00 PM
cis-1,3-Dichloropropene	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:40:00 AM

Project: Pacific Park

Lab ID: 1509311-004

Matrix: Soil

Client Sample ID: MW-5-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11959		Analyst: BC
Toluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
trans-1,3-Dichloropropylene	ND	0.0214		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,1,2-Trichloroethane	ND	0.0214		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,3-Dichloropropane	ND	0.0357		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Tetrachloroethene (PCE)	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Dibromochloromethane	ND	0.0214		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2-Dibromoethane (EDB)	ND	0.00357		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Chlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0214		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Ethylbenzene	ND	0.0214		mg/Kg-dry	1	9/25/2015 10:43:00 PM
m,p-Xylene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
o-Xylene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Styrene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Isopropylbenzene	ND	0.0572		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Bromoform	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
n-Propylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Bromobenzene	ND	0.0214		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,3,5-Trimethylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
2-Chlorotoluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
4-Chlorotoluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
tert-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2,3-Trichloropropane	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2,4-Trichlorobenzene	ND	0.0357		mg/Kg-dry	1	9/25/2015 10:43:00 PM
sec-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
4-Isopropyltoluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,3-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,4-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
n-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2-Dibromo-3-chloropropane	ND	0.357		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2,4-Trimethylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Hexachlorobutadiene	ND	0.0715		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Naphthalene	ND	0.0214		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2,3-Trichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Surr: Dibromofluoromethane	94.4	56.5-129		%REC	1	9/25/2015 10:43:00 PM
Surr: Toluene-d8	97.7	64.3-131		%REC	1	9/25/2015 10:43:00 PM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/25/2015 10:43:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:40:00 AM

Project: Pacific Park

Lab ID: 1509311-004

Matrix: Soil

Client Sample ID: MW-5-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11948 Analyst: TN

Mercury	ND	0.277		mg/Kg-dry	1	9/24/2015 6:23:34 PM
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Total Metals by EPA Method 6020

Batch ID: 11921 Analyst: TN

Arsenic	2.23	0.0940		mg/Kg-dry	1	9/23/2015 6:09:05 PM
Barium	29.6	0.470		mg/Kg-dry	1	9/23/2015 6:09:05 PM
Cadmium	ND	0.188		mg/Kg-dry	1	9/23/2015 6:09:05 PM
Chromium	15.1	0.0940		mg/Kg-dry	1	9/23/2015 6:09:05 PM
Lead	7.72	0.188		mg/Kg-dry	1	9/23/2015 6:09:05 PM
Selenium	1.31	0.470		mg/Kg-dry	1	9/23/2015 6:09:05 PM
Silver	ND	0.0940		mg/Kg-dry	1	9/23/2015 6:09:05 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179 Analyst: SL

Percent Moisture	22.3			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:50:00 AM

Project: Pacific Park

Lab ID: 1509311-005

Matrix: Water

Client Sample ID: MW-5-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11941

Analyst: AK

Diesel (Fuel Oil)	ND	50.0		µg/L	1	9/28/2015 12:07:00 PM
Heavy Oil	ND	100		µg/L	1	9/28/2015 12:07:00 PM
Surr: 2-Fluorobiphenyl	72.0	50-150		%REC	1	9/28/2015 12:07:00 PM
Surr: o-Terphenyl	66.8	50-150		%REC	1	9/28/2015 12:07:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 11916

Analyst: NG

Naphthalene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
2-Methylnaphthalene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
1-Methylnaphthalene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Acenaphthylene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Acenaphthene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Fluorene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Phenanthrene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Anthracene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Fluoranthene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Pyrene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Benz(a)anthracene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Chrysene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Benzo(b)fluoranthene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Benzo(k)fluoranthene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Benzo(a)pyrene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Dibenz(a,h)anthracene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Benzo(g,h,i)perylene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Surr: 2-Fluorobiphenyl	64.4	23.9-122		%REC	1	9/23/2015 10:38:00 PM
Surr: Terphenyl-d14	58.7	33.4-135		%REC	1	9/23/2015 10:38:00 PM

NOTES:

Internal standard areas were outside of the QC limits indicating a high bias. Sample results are ND.

Gasoline by NWTPH-Gx

Batch ID: R25091

Analyst: BC

Gasoline	ND	50.0		µg/L	1	9/23/2015 10:15:00 PM
Surr: Toluene-d8	88.4	65-135		%REC	1	9/23/2015 10:15:00 PM
Surr: 4-Bromofluorobenzene	97.5	65-135		%REC	1	9/23/2015 10:15:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:50:00 AM

Project: Pacific Park

Lab ID: 1509311-005

Matrix: Water

Client Sample ID: MW-5-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Chloromethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Vinyl chloride	ND	0.200		µg/L	1	9/23/2015 10:15:00 PM
Bromomethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Chloroethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Methylene chloride	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/23/2015 10:15:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Chloroform	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Benzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/23/2015 10:15:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Dibromomethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Toluene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/23/2015 10:15:00 PM
Chlorobenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Styrene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Bromoform	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:50:00 AM

Project: Pacific Park

Lab ID: 1509311-005

Matrix: Water

Client Sample ID: MW-5-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

n-Propylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Bromobenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/23/2015 10:15:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/23/2015 10:15:00 PM
Naphthalene	ND	1.00	Q	µg/L	1	9/23/2015 10:15:00 PM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/23/2015 10:15:00 PM
Surr: Dibromofluoromethane	96.5	45.4-152		%REC	1	9/23/2015 10:15:00 PM
Surr: Toluene-d8	101	40.1-139		%REC	1	9/23/2015 10:15:00 PM
Surr: 1-Bromo-4-fluorobenzene	102	64.2-128		%REC	1	9/23/2015 10:15:00 PM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:30:52 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:24:33 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Antimony	0.467	0.200		µg/L	1	9/23/2015 4:15:29 PM
Arsenic	ND	1.00		µg/L	1	9/23/2015 4:15:29 PM
Beryllium	ND	0.200		µg/L	1	9/23/2015 4:15:29 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:50:00 AM

Project: Pacific Park

Lab ID: 1509311-005

Matrix: Water

Client Sample ID: MW-5-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Cadmium	ND	0.200		µg/L	1	9/23/2015 4:15:29 PM
Chromium	ND	0.500		µg/L	1	9/23/2015 4:15:29 PM
Copper	1.06	0.500		µg/L	1	9/23/2015 4:15:29 PM
Lead	ND	1.00		µg/L	1	9/23/2015 4:15:29 PM
Nickel	2.52	0.500		µg/L	1	9/23/2015 4:15:29 PM
Selenium	ND	1.00		µg/L	1	9/23/2015 4:15:29 PM
Silver	ND	0.200		µg/L	1	9/23/2015 4:15:29 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 4:15:29 PM
Zinc	5.83	1.50		µg/L	1	9/23/2015 4:15:29 PM

Total Metals by EPA Method 200.8

Batch ID: 11925

Analyst: TN

Antimony	0.302	0.200		µg/L	1	9/23/2015 3:50:49 PM
Arsenic	5.87	1.00		µg/L	1	9/23/2015 3:50:49 PM
Beryllium	0.338	0.200		µg/L	1	9/23/2015 3:50:49 PM
Cadmium	5.28	0.200		µg/L	1	9/23/2015 3:50:49 PM
Chromium	7.70	0.500		µg/L	1	9/23/2015 3:50:49 PM
Copper	6.26	0.500		µg/L	1	9/23/2015 3:50:49 PM
Lead	64.9	1.00		µg/L	1	9/23/2015 3:50:49 PM
Nickel	18.9	0.500		µg/L	1	9/23/2015 3:50:49 PM
Selenium	ND	1.00		µg/L	1	9/23/2015 3:50:49 PM
Silver	ND	0.200		µg/L	1	9/23/2015 3:50:49 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 3:50:49 PM
Zinc	1,200	1.50		µg/L	1	9/23/2015 3:50:49 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:30:00 PM

Project: Pacific Park

Lab ID: 1509311-006

Matrix: Soil

Client Sample ID: GP-22-15:1.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	38.3		µg/Kg-dry	1	10/1/2015 5:19:00 AM
2,4-D	ND	32.8		µg/Kg-dry	1	10/1/2015 5:19:00 AM
2,4-DP	ND	27.3		µg/Kg-dry	1	10/1/2015 5:19:00 AM
2,4,5-TP (Silvex)	ND	21.9		µg/Kg-dry	1	10/1/2015 5:19:00 AM
2,4,5-T	ND	54.7		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Dinoseb	ND	32.8		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Dalapon	ND	219		µg/Kg-dry	1	10/1/2015 5:19:00 AM
2,4-DB	ND	27.3		µg/Kg-dry	1	10/1/2015 5:19:00 AM
MCPP	ND	4,810		µg/Kg-dry	1	10/1/2015 5:19:00 AM
MCPA	ND	306		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Picloram	ND	54.7		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Bentazon	ND	38.3		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Chloramben	ND	21.9		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Acifluorfen	ND	87.5		µg/Kg-dry	1	10/1/2015 5:19:00 AM
3,5-Dichlorobenzoic acid	ND	43.8		µg/Kg-dry	1	10/1/2015 5:19:00 AM
4-Nitrophenol	ND	32.8		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Dacthal (DCPA)	ND	32.8		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Surr: 2,4-Dichlorophenylacetic acid	111	20.1-168		%REC	1	10/1/2015 5:19:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Alpha BHC	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Beta BHC	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Gamma BHC (Lindane)	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Delta BHC	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Heptachlor	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Aldrin	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Heptachlor epoxide	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
gamma-Chlordane	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Endosulfan I	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
alpha-Chlordane	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Dieldrin	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
4,4'-DDE	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Endrin	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Endosulfan II	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM
4,4'-DDD	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Endrin aldehyde	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Endosulfan sulfate	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:30:00 PM

Project: Pacific Park

Lab ID: 1509311-006

Matrix: Soil

Client Sample ID: GP-22-15:1.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

4,4'-DDT	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Endrin ketone	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Methoxychlor	ND	0.0531		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Surr: Decachlorobiphenyl	85.7	26.5-158		%REC	1	9/25/2015 7:35:00 PM
Surr: Tetrachloro-m-xylene	81.0	11-150		%REC	1	9/25/2015 7:35:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957

Analyst: AK

Diesel (Fuel Oil)	ND	21.4		mg/Kg-dry	1	9/29/2015 6:53:00 PM
Heavy Oil	ND	53.4		mg/Kg-dry	1	9/29/2015 6:53:00 PM
Surr: 2-Fluorobiphenyl	119	50-150		%REC	1	9/29/2015 6:53:00 PM
Surr: o-Terphenyl	121	50-150		%REC	1	9/29/2015 6:53:00 PM

NOTES:

Rerun due to resolve discrepancy between earlier sample and duplicate.

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Bis(2-chloroethyl) ether	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2-Chlorophenol	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
1,3-Dichlorobenzene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
1,4-Dichlorobenzene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
1,2-Dichlorobenzene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Benzyl alcohol	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2-Methylphenol (o-cresol)	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Hexachloroethane	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
N-Nitrosodi-n-propylamine	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Nitrobenzene	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Isophorone	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
4-Methylphenol (p-cresol)	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2-Nitrophenol	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2,4-Dimethylphenol	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Bis(2-chloroethoxy)methane	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2,4-Dichlorophenol	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
1,2,4-Trichlorobenzene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Naphthalene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
4-Chloroaniline	ND	540		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Hexachlorobutadiene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
4-Chloro-3-methylphenol	ND	540		µg/Kg-dry	1	10/2/2015 7:46:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:30:00 PM

Project: Pacific Park

Lab ID: 1509311-006

Matrix: Soil

Client Sample ID: GP-22-15:1.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

2-Methylnaphthalene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
1-Methylnaphthalene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Hexachlorocyclopentadiene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2,4,6-Trichlorophenol	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2,4,5-Trichlorophenol	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2-Chloronaphthalene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2-Nitroaniline	ND	540		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Acenaphthene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Dimethylphthalate	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2,6-Dinitrotoluene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Acenaphthylene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2,4-Dinitrophenol	ND	216	*	µg/Kg-dry	1	10/2/2015 7:46:00 AM
Dibenzofuran	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2,4-Dinitrotoluene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
4-Nitrophenol	ND	540	*	µg/Kg-dry	1	10/2/2015 7:46:00 AM
Fluorene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
4-Chlorophenyl phenyl ether	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Diethylphthalate	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
4,6-Dinitro-2-methylphenol	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
4-Bromophenyl phenyl ether	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Hexachlorobenzene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Pentachlorophenol	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Phenanthrene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Anthracene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Carbazole	ND	540		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Di-n-butylphthalate	115	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Fluoranthene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Pyrene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Butyl Benzylphthalate	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
bis(2-Ethylhexyl)adipate	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Benz (a) anthracene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Chrysene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
bis (2-Ethylhexyl) phthalate	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Di-n-octyl phthalate	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Benzo (b) fluoranthene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Benzo (k) fluoranthene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Benzo (a) pyrene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Indeno (1,2,3-cd) pyrene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Dibenz (a,h) anthracene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:30:00 PM

Project: Pacific Park

Lab ID: 1509311-006

Matrix: Soil

Client Sample ID: GP-22-15:1.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Benzo (g,h,i) perylene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Surr: 2,4,6-Tribromophenol	90.1	11.1-127		%REC	1	10/2/2015 7:46:00 AM
Surr: 2-Fluorobiphenyl	90.7	16.1-150		%REC	1	10/2/2015 7:46:00 AM
Surr: Nitrobenzene-d5	64.1	13.1-124		%REC	1	10/2/2015 7:46:00 AM
Surr: Phenol-d6	68.9	11.6-133		%REC	1	10/2/2015 7:46:00 AM
Surr: p-Terphenyl	99.6	21.8-150		%REC	1	10/2/2015 7:46:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	3.50		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Surr: Toluene-d8	97.6	65-135		%REC	1	9/25/2015 11:11:00 PM
Surr: 4-Bromofluorobenzene	103	65-135		%REC	1	9/25/2015 11:11:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0420		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Chloromethane	ND	0.0420		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Vinyl chloride	ND	0.00140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Bromomethane	ND	0.0630		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Chloroethane	ND	0.0420		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,1-Dichloroethene	ND	0.0350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Methylene chloride	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
trans-1,2-Dichloroethene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,1-Dichloroethane	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
2,2-Dichloropropane	ND	0.0350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
cis-1,2-Dichloroethene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Chloroform	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,1-Dichloropropene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Carbon tetrachloride	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2-Dichloroethane (EDC)	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Benzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Trichloroethene (TCE)	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2-Dichloropropane	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Bromodichloromethane	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:30:00 PM

Project: Pacific Park

Lab ID: 1509311-006

Matrix: Soil

Client Sample ID: GP-22-15:1.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dibromomethane	ND	0.0280		mg/Kg-dry	1	9/25/2015 11:11:00 PM
cis-1,3-Dichloropropene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Toluene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
trans-1,3-Dichloropropylene	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,1,2-Trichloroethane	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,3-Dichloropropane	ND	0.0350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Tetrachloroethene (PCE)	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Dibromochloromethane	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2-Dibromoethane (EDB)	ND	0.00350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Chlorobenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Ethylbenzene	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
m,p-Xylene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
o-Xylene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Styrene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Isopropylbenzene	ND	0.0560		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Bromoform	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
n-Propylbenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Bromobenzene	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,3,5-Trimethylbenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
2-Chlorotoluene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
4-Chlorotoluene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
tert-Butylbenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2,3-Trichloropropane	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2,4-Trichlorobenzene	ND	0.0350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
sec-Butylbenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
4-Isopropyltoluene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,3-Dichlorobenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,4-Dichlorobenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
n-Butylbenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2-Dichlorobenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2-Dibromo-3-chloropropane	ND	0.350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2,4-Trimethylbenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Hexachlorobutadiene	ND	0.0700		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Naphthalene	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2,3-Trichlorobenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Surr: Dibromofluoromethane	93.7	56.5-129		%REC	1	9/25/2015 11:11:00 PM
Surr: Toluene-d8	98.9	64.3-131		%REC	1	9/25/2015 11:11:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:30:00 PM

Project: Pacific Park

Lab ID: 1509311-006

Matrix: Soil

Client Sample ID: GP-22-15:1.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11959		Analyst: BC
Surr: 1-Bromo-4-fluorobenzene	99.6	63.1-141		%REC	1	9/25/2015 11:11:00 PM
<u>Mercury by EPA Method 7471</u>				Batch ID: 11948		Analyst: TN
Mercury	0.381	0.237		mg/Kg-dry	1	9/24/2015 6:25:12 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11921		Analyst: TN
Arsenic	3.78	0.0841		mg/Kg-dry	1	9/23/2015 6:12:36 PM
Barium	45.8	0.420		mg/Kg-dry	1	9/23/2015 6:12:36 PM
Cadmium	ND	0.168		mg/Kg-dry	1	9/23/2015 6:12:36 PM
Chromium	17.6	0.0841		mg/Kg-dry	1	9/23/2015 6:12:36 PM
Lead	5.11	0.168		mg/Kg-dry	1	9/23/2015 6:12:36 PM
Selenium	1.69	0.420		mg/Kg-dry	1	9/23/2015 6:12:36 PM
Silver	ND	0.0841		mg/Kg-dry	1	9/23/2015 6:12:36 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25179		Analyst: SL
Percent Moisture	10.6			wt%	1	9/29/2015 2:15:36 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:40:00 PM

Project: Pacific Park

Lab ID: 1509311-007

Matrix: Soil

Client Sample ID: GP-22-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	40.6		µg/Kg-dry	1	10/1/2015 5:36:00 AM
2,4-D	ND	34.8		µg/Kg-dry	1	10/1/2015 5:36:00 AM
2,4-DP	ND	29.0		µg/Kg-dry	1	10/1/2015 5:36:00 AM
2,4,5-TP (Silvex)	ND	23.2		µg/Kg-dry	1	10/1/2015 5:36:00 AM
2,4,5-T	ND	58.0		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Dinoseb	ND	34.8		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Dalapon	ND	232		µg/Kg-dry	1	10/1/2015 5:36:00 AM
2,4-DB	ND	29.0		µg/Kg-dry	1	10/1/2015 5:36:00 AM
MCP	ND	5,100		µg/Kg-dry	1	10/1/2015 5:36:00 AM
MCPA	ND	325		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Picloram	ND	58.0		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Bentazon	ND	40.6		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Chloramben	ND	23.2		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Acifluorfen	ND	92.8		µg/Kg-dry	1	10/1/2015 5:36:00 AM
3,5-Dichlorobenzoic acid	ND	46.4		µg/Kg-dry	1	10/1/2015 5:36:00 AM
4-Nitrophenol	ND	34.8		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Dacthal (DCPA)	ND	34.8		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Surr: 2,4-Dichlorophenylacetic acid	103	20.1-168		%REC	1	10/1/2015 5:36:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Toxaphene	ND	0.100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Alpha BHC	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Beta BHC	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Gamma BHC (Lindane)	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Delta BHC	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Heptachlor	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Aldrin	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Heptachlor epoxide	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
gamma-Chlordane	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Endosulfan I	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
alpha-Chlordane	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Dieldrin	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
4,4'-DDE	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Endrin	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Endosulfan II	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM
4,4'-DDD	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Endrin aldehyde	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Endosulfan sulfate	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:40:00 PM

Project: Pacific Park

Lab ID: 1509311-007

Matrix: Soil

Client Sample ID: GP-22-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

4,4'-DDT	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Endrin ketone	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Methoxychlor	ND	0.0500		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Surr: Decachlorobiphenyl	78.5	26.5-158		%REC	1	9/25/2015 8:51:00 PM
Surr: Tetrachloro-m-xylene	84.2	11-150		%REC	1	9/25/2015 8:51:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957

Analyst: AK

Diesel (Fuel Oil)	ND	20.4		mg/Kg-dry	1	9/28/2015 7:17:00 PM
Heavy Oil	ND	51.0		mg/Kg-dry	1	9/28/2015 7:17:00 PM
Surr: 2-Fluorobiphenyl	94.1	50-150		%REC	1	9/28/2015 7:17:00 PM
Surr: o-Terphenyl	91.2	50-150		%REC	1	9/28/2015 7:17:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Bis(2-chloroethyl) ether	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2-Chlorophenol	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
1,3-Dichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
1,4-Dichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
1,2-Dichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Benzyl alcohol	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2-Methylphenol (o-cresol)	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Hexachloroethane	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
N-Nitrosodi-n-propylamine	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Nitrobenzene	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Isophorone	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
4-Methylphenol (p-cresol)	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2-Nitrophenol	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2,4-Dimethylphenol	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Bis(2-chloroethoxy)methane	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2,4-Dichlorophenol	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
1,2,4-Trichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Naphthalene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
4-Chloroaniline	ND	575		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Hexachlorobutadiene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
4-Chloro-3-methylphenol	ND	575		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2-Methylnaphthalene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
1-Methylnaphthalene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:40:00 PM

Project: Pacific Park

Lab ID: 1509311-007

Matrix: Soil

Client Sample ID: GP-22-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Hexachlorocyclopentadiene	ND	115	*	µg/Kg-dry	1	10/2/2015 9:38:00 AM
2,4,6-Trichlorophenol	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2,4,5-Trichlorophenol	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2-Chloronaphthalene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2-Nitroaniline	ND	575		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Acenaphthene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Dimethylphthalate	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2,6-Dinitrotoluene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Acenaphthylene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2,4-Dinitrophenol	ND	230	*	µg/Kg-dry	1	10/2/2015 9:38:00 AM
Dibenzofuran	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2,4-Dinitrotoluene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
4-Nitrophenol	ND	575		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Fluorene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
4-Chlorophenyl phenyl ether	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Diethylphthalate	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
4,6-Dinitro-2-methylphenol	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
4-Bromophenyl phenyl ether	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Hexachlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Pentachlorophenol	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Phenanthrene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Anthracene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Carbazole	ND	575		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Di-n-butylphthalate	137	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Fluoranthene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Pyrene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Butyl Benzylphthalate	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
bis(2-Ethylhexyl)adipate	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Benz (a) anthracene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Chrysene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
bis (2-Ethylhexyl) phthalate	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Di-n-octyl phthalate	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Benzo (b) fluoranthene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Benzo (k) fluoranthene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Benzo (a) pyrene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Indeno (1,2,3-cd) pyrene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Dibenz (a,h) anthracene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Benzo (g,h,i) perylene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Surr: 2,4,6-Tribromophenol	73.5	11.1-127		%REC	1	10/2/2015 9:38:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:40:00 PM

Project: Pacific Park

Lab ID: 1509311-007

Matrix: Soil

Client Sample ID: GP-22-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	44.6	16.1-150	%REC	1	10/2/2015 9:38:00 AM
Surr: Nitrobenzene-d5	23.1	10-133	%REC	1	10/2/2015 9:38:00 AM
Surr: Phenol-d6	43.5	11.6-133	%REC	1	10/2/2015 9:38:00 AM
Surr: p-Terphenyl	94.6	21.8-150	%REC	1	10/2/2015 9:38:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	3.58	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Surr: Toluene-d8	97.1	65-135	%REC	1	9/25/2015 11:40:00 PM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/25/2015 11:40:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0430	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Chloromethane	ND	0.0430	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Vinyl chloride	ND	0.00143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Bromomethane	ND	0.0645	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0358	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Chloroethane	ND	0.0430	mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,1-Dichloroethene	ND	0.0358	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Methylene chloride	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
trans-1,2-Dichloroethene	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0358	mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,1-Dichloroethane	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
2,2-Dichloropropane	ND	0.0358	mg/Kg-dry	1	9/25/2015 11:40:00 PM
cis-1,2-Dichloroethene	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Chloroform	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,1-Dichloropropene	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Carbon tetrachloride	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2-Dichloroethane (EDC)	ND	0.0215	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Benzene	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Trichloroethene (TCE)	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2-Dichloropropane	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Bromodichloromethane	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Dibromomethane	ND	0.0286	mg/Kg-dry	1	9/25/2015 11:40:00 PM
cis-1,3-Dichloropropene	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:40:00 PM

Project: Pacific Park

Lab ID: 1509311-007

Matrix: Soil

Client Sample ID: GP-22-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Toluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
trans-1,3-Dichloropropylene	ND	0.0215		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,1,2-Trichloroethane	ND	0.0215		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,3-Dichloropropane	ND	0.0358		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Tetrachloroethene (PCE)	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Dibromochloromethane	ND	0.0215		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2-Dibromoethane (EDB)	ND	0.00358		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Chlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0215		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Ethylbenzene	ND	0.0215		mg/Kg-dry	1	9/25/2015 11:40:00 PM
m,p-Xylene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
o-Xylene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Styrene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Isopropylbenzene	ND	0.0573		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Bromoform	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
n-Propylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Bromobenzene	ND	0.0215		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,3,5-Trimethylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
2-Chlorotoluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
4-Chlorotoluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
tert-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2,3-Trichloropropane	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2,4-Trichlorobenzene	ND	0.0358		mg/Kg-dry	1	9/25/2015 11:40:00 PM
sec-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
4-Isopropyltoluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,3-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,4-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
n-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2-Dibromo-3-chloropropane	ND	0.358		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2,4-Trimethylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Hexachlorobutadiene	ND	0.0716		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Naphthalene	ND	0.0215		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2,3-Trichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Surr: Dibromofluoromethane	93.5	56.5-129		%REC	1	9/25/2015 11:40:00 PM
Surr: Toluene-d8	97.8	64.3-131		%REC	1	9/25/2015 11:40:00 PM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/25/2015 11:40:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:40:00 PM

Project: Pacific Park

Lab ID: 1509311-007

Matrix: Soil

Client Sample ID: GP-22-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11948 Analyst: TN

Mercury	ND	0.248		mg/Kg-dry	1	9/24/2015 6:26:50 PM
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Total Metals by EPA Method 6020

Batch ID: 11921 Analyst: TN

Arsenic	3.78	0.0966		mg/Kg-dry	1	9/23/2015 6:16:08 PM
Barium	43.8	0.483		mg/Kg-dry	1	9/23/2015 6:16:08 PM
Cadmium	ND	0.193		mg/Kg-dry	1	9/23/2015 6:16:08 PM
Chromium	18.7	0.0966		mg/Kg-dry	1	9/23/2015 6:16:08 PM
Lead	4.14	0.193		mg/Kg-dry	1	9/23/2015 6:16:08 PM
Selenium	1.63	0.483		mg/Kg-dry	1	9/23/2015 6:16:08 PM
Silver	ND	0.0966		mg/Kg-dry	1	9/23/2015 6:16:08 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179 Analyst: SL

Percent Moisture	14.5			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 3:00:00 PM

Project: Pacific Park

Lab ID: 1509311-008

Matrix: Soil

Client Sample ID: GP-22-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	38.8		µg/Kg-dry	1	10/1/2015 5:52:00 AM
2,4-D	ND	33.3		µg/Kg-dry	1	10/1/2015 5:52:00 AM
2,4-DP	ND	27.7		µg/Kg-dry	1	10/1/2015 5:52:00 AM
2,4,5-TP (Silvex)	ND	22.2		µg/Kg-dry	1	10/1/2015 5:52:00 AM
2,4,5-T	ND	55.5		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Dinoseb	ND	33.3		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Dalapon	ND	222		µg/Kg-dry	1	10/1/2015 5:52:00 AM
2,4-DB	ND	27.7		µg/Kg-dry	1	10/1/2015 5:52:00 AM
MCPP	ND	4,880		µg/Kg-dry	1	10/1/2015 5:52:00 AM
MCPA	ND	311		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Picloram	ND	55.5		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Bentazon	ND	38.8		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Chloramben	ND	22.2		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Acifluorfen	ND	88.8		µg/Kg-dry	1	10/1/2015 5:52:00 AM
3,5-Dichlorobenzoic acid	ND	44.4		µg/Kg-dry	1	10/1/2015 5:52:00 AM
4-Nitrophenol	ND	33.3		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Dacthal (DCPA)	ND	33.3		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Surr: 2,4-Dichlorophenylacetic acid	107	20.1-168		%REC	1	10/1/2015 5:52:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Toxaphene	ND	0.108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Alpha BHC	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Beta BHC	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Gamma BHC (Lindane)	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Delta BHC	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Heptachlor	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Aldrin	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Heptachlor epoxide	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
gamma-Chlordane	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Endosulfan I	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
alpha-Chlordane	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Dieldrin	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
4,4'-DDE	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Endrin	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Endosulfan II	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM
4,4'-DDD	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Endrin aldehyde	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Endosulfan sulfate	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 3:00:00 PM

Project: Pacific Park

Lab ID: 1509311-008

Matrix: Soil

Client Sample ID: GP-22-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11962		Analyst: MD
4,4'-DDT	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Endrin ketone	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Methoxychlor	ND	0.0541		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Surr: Decachlorobiphenyl	48.3	26.5-158		%REC	1	9/25/2015 9:13:00 PM
Surr: Tetrachloro-m-xylene	49.6	11-150		%REC	1	9/25/2015 9:13:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957 Analyst: AK

Diesel (Fuel Oil)	ND	19.3		mg/Kg-dry	1	9/28/2015 7:48:00 PM
Heavy Oil	ND	48.2		mg/Kg-dry	1	9/28/2015 7:48:00 PM
Surr: 2-Fluorobiphenyl	83.9	50-150		%REC	1	9/28/2015 7:48:00 PM
Surr: o-Terphenyl	79.6	50-150		%REC	1	9/28/2015 7:48:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984 Analyst: NG

Phenol	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Bis(2-chloroethyl) ether	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2-Chlorophenol	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
1,3-Dichlorobenzene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
1,4-Dichlorobenzene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
1,2-Dichlorobenzene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Benzyl alcohol	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2-Methylphenol (o-cresol)	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Hexachloroethane	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
N-Nitrosodi-n-propylamine	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Nitrobenzene	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Isophorone	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
4-Methylphenol (p-cresol)	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2-Nitrophenol	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2,4-Dimethylphenol	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Bis(2-chloroethoxy)methane	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2,4-Dichlorophenol	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
1,2,4-Trichlorobenzene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Naphthalene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
4-Chloroaniline	ND	565		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Hexachlorobutadiene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
4-Chloro-3-methylphenol	ND	565		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2-Methylnaphthalene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
1-Methylnaphthalene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 3:00:00 PM

Project: Pacific Park

Lab ID: 1509311-008

Matrix: Soil

Client Sample ID: GP-22-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984	Analyst: NG	
Hexachlorocyclopentadiene	ND	113	*	µg/Kg-dry	1	10/2/2015 10:00:00 AM
2,4,6-Trichlorophenol	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2,4,5-Trichlorophenol	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2-Chloronaphthalene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2-Nitroaniline	ND	565		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Acenaphthene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Dimethylphthalate	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2,6-Dinitrotoluene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Acenaphthylene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2,4-Dinitrophenol	ND	226	*	µg/Kg-dry	1	10/2/2015 10:00:00 AM
Dibenzofuran	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2,4-Dinitrotoluene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
4-Nitrophenol	ND	565		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Fluorene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
4-Chlorophenyl phenyl ether	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Diethylphthalate	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
4,6-Dinitro-2-methylphenol	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
4-Bromophenyl phenyl ether	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Hexachlorobenzene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Pentachlorophenol	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Phenanthrene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Anthracene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Carbazole	ND	565		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Di-n-butylphthalate	136	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Fluoranthene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Pyrene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Butyl Benzylphthalate	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
bis(2-Ethylhexyl)adipate	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Benz (a) anthracene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Chrysene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
bis (2-Ethylhexyl) phthalate	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Di-n-octyl phthalate	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Benzo (b) fluoranthene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Benzo (k) fluoranthene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Benzo (a) pyrene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Indeno (1,2,3-cd) pyrene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Dibenz (a,h) anthracene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Benzo (g,h,i) perylene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Surr: 2,4,6-Tribromophenol	78.3	11.1-127		%REC	1	10/2/2015 10:00:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 3:00:00 PM

Project: Pacific Park

Lab ID: 1509311-008

Matrix: Soil

Client Sample ID: GP-22-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	70.0	16.1-150	%REC	1	10/2/2015 10:00:00 AM
Surr: Nitrobenzene-d5	34.0	10-133	%REC	1	10/2/2015 10:00:00 AM
Surr: Phenol-d6	39.7	11.6-133	%REC	1	10/2/2015 10:00:00 AM
Surr: p-Terphenyl	99.8	21.8-150	%REC	1	10/2/2015 10:00:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	2.72	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Surr: Toluene-d8	98.5	65-135	%REC	1	9/26/2015 12:09:00 AM
Surr: 4-Bromofluorobenzene	105	65-135	%REC	1	9/26/2015 12:09:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0326	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Chloromethane	ND	0.0326	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Vinyl chloride	ND	0.00109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Bromomethane	ND	0.0490	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0272	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Chloroethane	ND	0.0326	mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,1-Dichloroethene	ND	0.0272	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Methylene chloride	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
trans-1,2-Dichloroethene	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0272	mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,1-Dichloroethane	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
2,2-Dichloropropane	ND	0.0272	mg/Kg-dry	1	9/26/2015 12:09:00 AM
cis-1,2-Dichloroethene	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Chloroform	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,1-Dichloropropene	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Carbon tetrachloride	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2-Dichloroethane (EDC)	ND	0.0163	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Benzene	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Trichloroethene (TCE)	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2-Dichloropropane	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Bromodichloromethane	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Dibromomethane	ND	0.0218	mg/Kg-dry	1	9/26/2015 12:09:00 AM
cis-1,3-Dichloropropene	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 3:00:00 PM

Project: Pacific Park

Lab ID: 1509311-008

Matrix: Soil

Client Sample ID: GP-22-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Toluene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
trans-1,3-Dichloropropylene	ND	0.0163		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,1,2-Trichloroethane	ND	0.0163		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,3-Dichloropropane	ND	0.0272		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Tetrachloroethene (PCE)	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Dibromochloromethane	ND	0.0163		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2-Dibromoethane (EDB)	ND	0.00272		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Chlorobenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0163		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Ethylbenzene	ND	0.0163		mg/Kg-dry	1	9/26/2015 12:09:00 AM
m,p-Xylene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
o-Xylene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Styrene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Isopropylbenzene	ND	0.0435		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Bromoform	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
n-Propylbenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Bromobenzene	ND	0.0163		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,3,5-Trimethylbenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
2-Chlorotoluene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
4-Chlorotoluene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
tert-Butylbenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2,3-Trichloropropane	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2,4-Trichlorobenzene	ND	0.0272		mg/Kg-dry	1	9/26/2015 12:09:00 AM
sec-Butylbenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
4-Isopropyltoluene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,3-Dichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,4-Dichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
n-Butylbenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2-Dichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2-Dibromo-3-chloropropane	ND	0.272		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2,4-Trimethylbenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Hexachlorobutadiene	ND	0.0544		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Naphthalene	ND	0.0163		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2,3-Trichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Surr: Dibromofluoromethane	92.3	56.5-129		%REC	1	9/26/2015 12:09:00 AM
Surr: Toluene-d8	98.2	64.3-131		%REC	1	9/26/2015 12:09:00 AM
Surr: 1-Bromo-4-fluorobenzene	102	63.1-141		%REC	1	9/26/2015 12:09:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 3:00:00 PM

Project: Pacific Park

Lab ID: 1509311-008

Matrix: Soil

Client Sample ID: GP-22-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11948 Analyst: TN

Mercury	ND	0.247		mg/Kg-dry	1	9/24/2015 6:28:26 PM
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Total Metals by EPA Method 6020

Batch ID: 11921 Analyst: TN

Arsenic	3.97	0.0908		mg/Kg-dry	1	9/23/2015 6:19:39 PM
Barium	44.1	0.454		mg/Kg-dry	1	9/23/2015 6:19:39 PM
Cadmium	ND	0.182		mg/Kg-dry	1	9/23/2015 6:19:39 PM
Chromium	18.7	0.0908		mg/Kg-dry	1	9/23/2015 6:19:39 PM
Lead	5.51	0.182		mg/Kg-dry	1	9/23/2015 6:19:39 PM
Selenium	1.76	0.454		mg/Kg-dry	1	9/23/2015 6:19:39 PM
Silver	ND	0.0908		mg/Kg-dry	1	9/23/2015 6:19:39 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179 Analyst: SL

Percent Moisture	12.6			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:30:00 PM

Project: Pacific Park

Lab ID: 1509311-009

Matrix: Soil

Client Sample ID: MW-6-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	38.1		µg/Kg-dry	1	10/1/2015 6:09:00 AM
2,4-D	ND	32.7		µg/Kg-dry	1	10/1/2015 6:09:00 AM
2,4-DP	ND	27.2		µg/Kg-dry	1	10/1/2015 6:09:00 AM
2,4,5-TP (Silvex)	ND	21.8		µg/Kg-dry	1	10/1/2015 6:09:00 AM
2,4,5-T	ND	54.4		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Dinoseb	ND	32.7		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Dalapon	ND	218		µg/Kg-dry	1	10/1/2015 6:09:00 AM
2,4-DB	ND	27.2		µg/Kg-dry	1	10/1/2015 6:09:00 AM
MCPP	ND	4,790		µg/Kg-dry	1	10/1/2015 6:09:00 AM
MCPA	ND	305		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Picloram	ND	54.4		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Bentazon	ND	38.1		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Chloramben	ND	21.8		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Acifluorfen	ND	87.1		µg/Kg-dry	1	10/1/2015 6:09:00 AM
3,5-Dichlorobenzoic acid	ND	43.5		µg/Kg-dry	1	10/1/2015 6:09:00 AM
4-Nitrophenol	ND	32.7		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Dacthal (DCPA)	ND	32.7		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Surr: 2,4-Dichlorophenylacetic acid	107	20.1-168		%REC	1	10/1/2015 6:09:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Toxaphene	ND	0.111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Alpha BHC	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Beta BHC	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Gamma BHC (Lindane)	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Delta BHC	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Heptachlor	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Aldrin	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Heptachlor epoxide	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
gamma-Chlordane	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Endosulfan I	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
alpha-Chlordane	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Dieldrin	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
4,4'-DDE	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Endrin	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Endosulfan II	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM
4,4'-DDD	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Endrin aldehyde	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Endosulfan sulfate	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:30:00 PM

Project: Pacific Park

Lab ID: 1509311-009

Matrix: Soil

Client Sample ID: MW-6-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

4,4'-DDT	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Endrin ketone	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Methoxychlor	ND	0.0556		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Surr: Decachlorobiphenyl	53.9	26.5-158		%REC	1	9/25/2015 9:34:00 PM
Surr: Tetrachloro-m-xylene	50.5	11-150		%REC	1	9/25/2015 9:34:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957

Analyst: AK

Diesel (Fuel Oil)	ND	19.8		mg/Kg-dry	1	9/28/2015 8:20:00 PM
Heavy Oil	ND	49.5		mg/Kg-dry	1	9/28/2015 8:20:00 PM
Surr: 2-Fluorobiphenyl	113	50-150		%REC	1	9/28/2015 8:20:00 PM
Surr: o-Terphenyl	107	50-150		%REC	1	9/28/2015 8:20:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Bis(2-chloroethyl) ether	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2-Chlorophenol	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
1,3-Dichlorobenzene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
1,4-Dichlorobenzene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
1,2-Dichlorobenzene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Benzyl alcohol	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2-Methylphenol (o-cresol)	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Hexachloroethane	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
N-Nitrosodi-n-propylamine	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Nitrobenzene	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Isophorone	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
4-Methylphenol (p-cresol)	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2-Nitrophenol	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2,4-Dimethylphenol	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Bis(2-chloroethoxy)methane	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2,4-Dichlorophenol	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
1,2,4-Trichlorobenzene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Naphthalene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
4-Chloroaniline	ND	553		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Hexachlorobutadiene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
4-Chloro-3-methylphenol	ND	553		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2-Methylnaphthalene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
1-Methylnaphthalene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:30:00 PM

Project: Pacific Park

Lab ID: 1509311-009

Matrix: Soil

Client Sample ID: MW-6-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	111	*	µg/Kg-dry	1	10/2/2015 10:23:00 AM
2,4,6-Trichlorophenol	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2,4,5-Trichlorophenol	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2-Chloronaphthalene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2-Nitroaniline	ND	553		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Acenaphthene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Dimethylphthalate	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2,6-Dinitrotoluene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Acenaphthylene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2,4-Dinitrophenol	ND	221	*	µg/Kg-dry	1	10/2/2015 10:23:00 AM
Dibenzofuran	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2,4-Dinitrotoluene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
4-Nitrophenol	ND	553		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Fluorene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
4-Chlorophenyl phenyl ether	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Diethylphthalate	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
4,6-Dinitro-2-methylphenol	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
4-Bromophenyl phenyl ether	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Hexachlorobenzene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Pentachlorophenol	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Phenanthrene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Anthracene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Carbazole	ND	553		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Di-n-butylphthalate	127	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Fluoranthene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Pyrene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Butyl Benzylphthalate	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
bis(2-Ethylhexyl)adipate	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Benz (a) anthracene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Chrysene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
bis (2-Ethylhexyl) phthalate	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Di-n-octyl phthalate	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Benzo (b) fluoranthene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Benzo (k) fluoranthene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Benzo (a) pyrene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Indeno (1,2,3-cd) pyrene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Dibenz (a,h) anthracene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Benzo (g,h,i) perylene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Surr: 2,4,6-Tribromophenol	67.9	11.1-127		%REC	1	10/2/2015 10:23:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:30:00 PM

Project: Pacific Park

Lab ID: 1509311-009

Matrix: Soil

Client Sample ID: MW-6-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Surr: 2-Fluorobiphenyl	52.9	16.1-150		%REC	1	10/2/2015 10:23:00 AM
Surr: Nitrobenzene-d5	26.4	10-133		%REC	1	10/2/2015 10:23:00 AM
Surr: Phenol-d6	32.2	11.6-133		%REC	1	10/2/2015 10:23:00 AM
Surr: p-Terphenyl	95.2	21.8-150		%REC	1	10/2/2015 10:23:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	3.59		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Surr: Toluene-d8	98.4	65-135		%REC	1	9/26/2015 12:37:00 AM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/26/2015 12:37:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0430		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Chloromethane	ND	0.0430		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Vinyl chloride	ND	0.00143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Bromomethane	ND	0.0646		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0359		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Chloroethane	ND	0.0430		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,1-Dichloroethene	ND	0.0359		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Methylene chloride	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
trans-1,2-Dichloroethene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0359		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,1-Dichloroethane	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
2,2-Dichloropropane	ND	0.0359		mg/Kg-dry	1	9/26/2015 12:37:00 AM
cis-1,2-Dichloroethene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Chloroform	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,1-Dichloropropene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Carbon tetrachloride	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2-Dichloroethane (EDC)	ND	0.0215		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Benzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Trichloroethene (TCE)	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2-Dichloropropane	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Bromodichloromethane	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Dibromomethane	ND	0.0287		mg/Kg-dry	1	9/26/2015 12:37:00 AM
cis-1,3-Dichloropropene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:30:00 PM

Project: Pacific Park

Lab ID: 1509311-009

Matrix: Soil

Client Sample ID: MW-6-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260			Batch ID: 11959		Analyst: BC	
Toluene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
trans-1,3-Dichloropropylene	ND	0.0215		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,1,2-Trichloroethane	ND	0.0215		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,3-Dichloropropane	ND	0.0359		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Tetrachloroethene (PCE)	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Dibromochloromethane	ND	0.0215		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2-Dibromoethane (EDB)	ND	0.00359		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Chlorobenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0215		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Ethylbenzene	ND	0.0215		mg/Kg-dry	1	9/26/2015 12:37:00 AM
m,p-Xylene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
o-Xylene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Styrene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Isopropylbenzene	ND	0.0574		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Bromoform	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
n-Propylbenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Bromobenzene	ND	0.0215		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,3,5-Trimethylbenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
2-Chlorotoluene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
4-Chlorotoluene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
tert-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2,3-Trichloropropane	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2,4-Trichlorobenzene	ND	0.0359		mg/Kg-dry	1	9/26/2015 12:37:00 AM
sec-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
4-Isopropyltoluene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,3-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,4-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
n-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2-Dibromo-3-chloropropane	ND	0.359		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2,4-Trimethylbenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Hexachlorobutadiene	ND	0.0717		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Naphthalene	ND	0.0215		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2,3-Trichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Surr: Dibromofluoromethane	93.4	56.5-129		%REC	1	9/26/2015 12:37:00 AM
Surr: Toluene-d8	98.6	64.3-131		%REC	1	9/26/2015 12:37:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/26/2015 12:37:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:30:00 PM

Project: Pacific Park

Lab ID: 1509311-009

Matrix: Soil

Client Sample ID: MW-6-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11948 Analyst: TN

Mercury	ND	0.274		mg/Kg-dry	1	9/24/2015 6:30:02 PM
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Total Metals by EPA Method 6020

Batch ID: 11921 Analyst: TN

Arsenic	3.48	0.0872		mg/Kg-dry	1	9/23/2015 6:23:10 PM
Barium	39.2	0.436		mg/Kg-dry	1	9/23/2015 6:23:10 PM
Cadmium	ND	0.174		mg/Kg-dry	1	9/23/2015 6:23:10 PM
Chromium	18.3	0.0872		mg/Kg-dry	1	9/23/2015 6:23:10 PM
Lead	11.6	0.174		mg/Kg-dry	1	9/23/2015 6:23:10 PM
Selenium	1.45	0.436		mg/Kg-dry	1	9/23/2015 6:23:10 PM
Silver	ND	0.0872		mg/Kg-dry	1	9/23/2015 6:23:10 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179 Analyst: SL

Percent Moisture	10.5			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:00:00 PM

Project: Pacific Park

Lab ID: 1509311-010

Matrix: Soil

Client Sample ID: MW-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11961

Analyst: MD

Dicamba	ND	19.7		µg/Kg-dry	1	9/30/2015 1:40:00 AM
2,4-D	ND	16.9		µg/Kg-dry	1	9/30/2015 1:40:00 AM
2,4-DP	ND	14.1		µg/Kg-dry	1	9/30/2015 1:40:00 AM
2,4,5-TP (Silvex)	ND	11.3		µg/Kg-dry	1	9/30/2015 1:40:00 AM
2,4,5-T	ND	28.2		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Dinoseb	ND	16.9		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Dalapon	ND	113		µg/Kg-dry	1	9/30/2015 1:40:00 AM
2,4-DB	18.7	14.1		µg/Kg-dry	1	9/30/2015 1:40:00 AM
MCPP	ND	2,480		µg/Kg-dry	1	9/30/2015 1:40:00 AM
MCPA	ND	158		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Picloram	28.3	28.2		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Bentazon	ND	19.7		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Chloramben	20.7	11.3		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Acifluorfen	ND	45.1		µg/Kg-dry	1	9/30/2015 1:40:00 AM
3,5-Dichlorobenzoic acid	ND	22.6		µg/Kg-dry	1	9/30/2015 1:40:00 AM
4-Nitrophenol	ND	16.9		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Dacthal (DCPA)	ND	16.9		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Surr: 2,4-Dichlorophenylacetic acid	117	20.1-168		%REC	1	9/30/2015 1:40:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Toxaphene	ND	0.106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Alpha BHC	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Beta BHC	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Gamma BHC (Lindane)	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Delta BHC	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Heptachlor	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Aldrin	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Heptachlor epoxide	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
gamma-Chlordane	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Endosulfan I	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
alpha-Chlordane	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Dieldrin	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
4,4'-DDE	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Endrin	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Endosulfan II	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM
4,4'-DDD	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Endrin aldehyde	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Endosulfan sulfate	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:00:00 PM

Project: Pacific Park

Lab ID: 1509311-010

Matrix: Soil

Client Sample ID: MW-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

4,4'-DDT	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Endrin ketone	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Methoxychlor	ND	0.0531		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Surr: Decachlorobiphenyl	60.2	26.5-158		%REC	1	9/25/2015 9:45:00 PM
Surr: Tetrachloro-m-xylene	59.4	11-150		%REC	1	9/25/2015 9:45:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957

Analyst: AK

Diesel (Fuel Oil)	ND	20.4		mg/Kg-dry	1	9/28/2015 8:51:00 PM
Heavy Oil	ND	51.0		mg/Kg-dry	1	9/28/2015 8:51:00 PM
Surr: 2-Fluorobiphenyl	112	50-150		%REC	1	9/28/2015 8:51:00 PM
Surr: o-Terphenyl	109	50-150		%REC	1	9/28/2015 8:51:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Bis(2-chloroethyl) ether	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2-Chlorophenol	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
1,3-Dichlorobenzene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
1,4-Dichlorobenzene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
1,2-Dichlorobenzene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Benzyl alcohol	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2-Methylphenol (o-cresol)	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Hexachloroethane	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
N-Nitrosodi-n-propylamine	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Nitrobenzene	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Isophorone	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
4-Methylphenol (p-cresol)	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2-Nitrophenol	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2,4-Dimethylphenol	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Bis(2-chloroethoxy)methane	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2,4-Dichlorophenol	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
1,2,4-Trichlorobenzene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Naphthalene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
4-Chloroaniline	ND	588		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Hexachlorobutadiene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
4-Chloro-3-methylphenol	ND	588		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2-Methylnaphthalene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
1-Methylnaphthalene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM



Analytical Report

WO#: 1509311

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Client: Shannon & Wilson

Collection Date: 9/22/2015 2:00:00 PM

Project: Pacific Park

Lab ID: 1509311-010

Matrix: Soil

Client Sample ID: MW-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	118	*	µg/Kg-dry	1	10/2/2015 10:45:00 AM
2,4,6-Trichlorophenol	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2,4,5-Trichlorophenol	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2-Chloronaphthalene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2-Nitroaniline	ND	588		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Acenaphthene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Dimethylphthalate	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2,6-Dinitrotoluene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Acenaphthylene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2,4-Dinitrophenol	ND	235	*	µg/Kg-dry	1	10/2/2015 10:45:00 AM
Dibenzofuran	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2,4-Dinitrotoluene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
4-Nitrophenol	ND	588		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Fluorene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
4-Chlorophenyl phenyl ether	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Diethylphthalate	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
4,6-Dinitro-2-methylphenol	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
4-Bromophenyl phenyl ether	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Hexachlorobenzene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Pentachlorophenol	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Phenanthrene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Anthracene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Carbazole	ND	588		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Di-n-butylphthalate	139	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Fluoranthene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Pyrene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Butyl Benzylphthalate	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
bis(2-Ethylhexyl)adipate	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Benz (a) anthracene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Chrysene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
bis (2-Ethylhexyl) phthalate	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Di-n-octyl phthalate	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Benzo (b) fluoranthene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Benzo (k) fluoranthene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Benzo (a) pyrene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Indeno (1,2,3-cd) pyrene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Dibenz (a,h) anthracene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Benzo (g,h,i) perylene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Surr: 2,4,6-Tribromophenol	67.6	11.1-127		%REC	1	10/2/2015 10:45:00 AM



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Project: Pacific Park

Lab ID: 1509311-010

Matrix: Soil

Client Sample ID: MW-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Surr: 2-Fluorobiphenyl	41.6	16.1-150		%REC	1	10/2/2015 10:45:00 AM
Surr: Nitrobenzene-d5	19.9	10-133		%REC	1	10/2/2015 10:45:00 AM
Surr: Phenol-d6	32.1	11.6-133		%REC	1	10/2/2015 10:45:00 AM
Surr: p-Terphenyl	95.5	21.8-150		%REC	1	10/2/2015 10:45:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	3.88		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Surr: Toluene-d8	97.6	65-135		%REC	1	9/26/2015 3:00:00 AM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/26/2015 3:00:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0465		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Chloromethane	ND	0.0465		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Vinyl chloride	ND	0.00155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Bromomethane	ND	0.0698		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Chloroethane	ND	0.0465		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,1-Dichloroethene	ND	0.0388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Methylene chloride	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
trans-1,2-Dichloroethene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,1-Dichloroethane	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
2,2-Dichloropropane	ND	0.0388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
cis-1,2-Dichloroethene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Chloroform	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,1-Dichloropropene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Carbon tetrachloride	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2-Dichloroethane (EDC)	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Benzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Trichloroethene (TCE)	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2-Dichloropropane	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Bromodichloromethane	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Dibromomethane	ND	0.0310		mg/Kg-dry	1	9/26/2015 3:00:00 AM
cis-1,3-Dichloropropene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

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Collection Date: 9/22/2015 2:00:00 PM

Project: Pacific Park

Lab ID: 1509311-010

Matrix: Soil

Client Sample ID: MW-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Toluene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
trans-1,3-Dichloropropylene	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,1,2-Trichloroethane	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,3-Dichloropropane	ND	0.0388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Tetrachloroethene (PCE)	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Dibromochloromethane	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2-Dibromoethane (EDB)	ND	0.00388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Chlorobenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Ethylbenzene	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
m,p-Xylene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
o-Xylene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Styrene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Isopropylbenzene	ND	0.0621		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Bromoform	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
n-Propylbenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Bromobenzene	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,3,5-Trimethylbenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
2-Chlorotoluene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
4-Chlorotoluene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
tert-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2,3-Trichloropropane	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2,4-Trichlorobenzene	ND	0.0388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
sec-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
4-Isopropyltoluene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,3-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,4-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
n-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2-Dibromo-3-chloropropane	ND	0.388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2,4-Trimethylbenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Hexachlorobutadiene	ND	0.0776		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Naphthalene	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2,3-Trichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Surr: Dibromofluoromethane	94.9	56.5-129		%REC	1	9/26/2015 3:00:00 AM
Surr: Toluene-d8	96.7	64.3-131		%REC	1	9/26/2015 3:00:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.8	63.1-141		%REC	1	9/26/2015 3:00:00 AM



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WO#: 1509311

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Project: Pacific Park

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Matrix: Soil

Client Sample ID: MW-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11948 Analyst: TN

Mercury	ND	0.283		mg/Kg-dry	1	9/24/2015 6:31:38 PM
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Total Metals by EPA Method 6020

Batch ID: 11921 Analyst: TN

Arsenic	3.85	0.0867		mg/Kg-dry	1	9/23/2015 6:26:41 PM
Barium	28.0	0.433		mg/Kg-dry	1	9/23/2015 6:26:41 PM
Cadmium	ND	0.173		mg/Kg-dry	1	9/23/2015 6:26:41 PM
Chromium	13.4	0.0867		mg/Kg-dry	1	9/23/2015 6:26:41 PM
Lead	1.96	0.173		mg/Kg-dry	1	9/23/2015 6:26:41 PM
Selenium	1.35	0.433		mg/Kg-dry	1	9/23/2015 6:26:41 PM
Silver	ND	0.0867		mg/Kg-dry	1	9/23/2015 6:26:41 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179 Analyst: SL

Percent Moisture	15.2			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:40:00 PM

Project: Pacific Park

Lab ID: 1509311-011

Matrix: Water

Client Sample ID: MW-6-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11941		Analyst: AK
Diesel (Fuel Oil)	ND	49.9		µg/L	1	9/28/2015 12:38:00 PM
Heavy Oil	ND	99.8		µg/L	1	9/28/2015 12:38:00 PM
Surr: 2-Fluorobiphenyl	71.7	50-150		%REC	1	9/28/2015 12:38:00 PM
Surr: o-Terphenyl	69.1	50-150		%REC	1	9/28/2015 12:38:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 11916

Analyst: NG

Naphthalene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
2-Methylnaphthalene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
1-Methylnaphthalene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Acenaphthylene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Acenaphthene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Fluorene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Phenanthrene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Anthracene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Fluoranthene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Pyrene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Benz(a)anthracene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Chrysene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Benzo(b)fluoranthene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Benzo(k)fluoranthene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Benzo(a)pyrene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Dibenz(a,h)anthracene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Benzo(g,h,i)perylene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Surr: 2-Fluorobiphenyl	61.0	23.9-122		%REC	1	9/23/2015 11:04:00 PM
Surr: Terphenyl-d14	34.7	33.4-135		%REC	1	9/23/2015 11:04:00 PM

NOTES:

Internal standard areas were outside of the QC limits indicating a high bias. Sample results are ND

Gasoline by NWTPH-Gx

Batch ID: R25091

Analyst: BC

Gasoline	ND	50.0		µg/L	1	9/23/2015 11:12:00 PM
Surr: Toluene-d8	86.9	65-135		%REC	1	9/23/2015 11:12:00 PM
Surr: 4-Bromofluorobenzene	97.0	65-135		%REC	1	9/23/2015 11:12:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:40:00 PM

Project: Pacific Park

Lab ID: 1509311-011

Matrix: Water

Client Sample ID: MW-6-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Chloromethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Vinyl chloride	ND	0.200		µg/L	1	9/23/2015 11:12:00 PM
Bromomethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Chloroethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Methylene chloride	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/23/2015 11:12:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Chloroform	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Benzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/23/2015 11:12:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Dibromomethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Toluene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/23/2015 11:12:00 PM
Chlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Styrene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Bromoform	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:40:00 PM

Project: Pacific Park

Lab ID: 1509311-011

Matrix: Water

Client Sample ID: MW-6-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

n-Propylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Bromobenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/23/2015 11:12:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/23/2015 11:12:00 PM
Naphthalene	ND	1.00	Q	µg/L	1	9/23/2015 11:12:00 PM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/23/2015 11:12:00 PM
Surr: Dibromofluoromethane	102	45.4-152		%REC	1	9/23/2015 11:12:00 PM
Surr: Toluene-d8	101	40.1-139		%REC	1	9/23/2015 11:12:00 PM
Surr: 1-Bromo-4-fluorobenzene	102	64.2-128		%REC	1	9/23/2015 11:12:00 PM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:32:35 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:26:15 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Antimony	0.784	0.200		µg/L	1	9/23/2015 4:36:39 PM
Arsenic	3.35	1.00		µg/L	1	9/23/2015 4:36:39 PM
Beryllium	ND	0.200		µg/L	1	9/23/2015 4:36:39 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:40:00 PM

Project: Pacific Park

Lab ID: 1509311-011

Matrix: Water

Client Sample ID: MW-6-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Cadmium	ND	0.200		µg/L	1	9/23/2015 4:36:39 PM
Chromium	ND	0.500		µg/L	1	9/23/2015 4:36:39 PM
Copper	2.32	0.500		µg/L	1	9/23/2015 4:36:39 PM
Lead	ND	1.00		µg/L	1	9/23/2015 4:36:39 PM
Nickel	1.46	0.500		µg/L	1	9/23/2015 4:36:39 PM
Selenium	ND	1.00		µg/L	1	9/23/2015 4:36:39 PM
Silver	0.234	0.200		µg/L	1	9/23/2015 4:36:39 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 4:36:39 PM
Zinc	25.4	1.50		µg/L	1	9/23/2015 4:36:39 PM

Total Metals by EPA Method 200.8

Batch ID: 11925

Analyst: TN

Antimony	ND	0.200		µg/L	1	9/23/2015 3:54:20 PM
Arsenic	10.9	1.00		µg/L	1	9/23/2015 3:54:20 PM
Beryllium	0.526	0.200		µg/L	1	9/23/2015 3:54:20 PM
Cadmium	3.70	0.200		µg/L	1	9/23/2015 3:54:20 PM
Chromium	10.9	0.500		µg/L	1	9/23/2015 3:54:20 PM
Copper	13.4	0.500		µg/L	1	9/23/2015 3:54:20 PM
Lead	44.3	1.00		µg/L	1	9/23/2015 3:54:20 PM
Nickel	9.27	0.500		µg/L	1	9/23/2015 3:54:20 PM
Selenium	2.87	1.00		µg/L	1	9/23/2015 3:54:20 PM
Silver	ND	0.200		µg/L	1	9/23/2015 3:54:20 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 3:54:20 PM
Zinc	1,010	1.50		µg/L	1	9/23/2015 3:54:20 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:15:00 AM

Project: Pacific Park

Lab ID: 1509311-012

Matrix: Water

Client Sample ID: MW-6-15:GW:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11941

Analyst: AK

Diesel (Fuel Oil)	ND	49.9		µg/L	1	9/28/2015 2:29:00 PM
Heavy Oil	ND	99.8		µg/L	1	9/28/2015 2:29:00 PM
Surr: 2-Fluorobiphenyl	69.9	50-150		%REC	1	9/28/2015 2:29:00 PM
Surr: o-Terphenyl	69.9	50-150		%REC	1	9/28/2015 2:29:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 11916

Analyst: NG

Naphthalene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
2-Methylnaphthalene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
1-Methylnaphthalene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Acenaphthylene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Acenaphthene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Fluorene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Phenanthrene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Anthracene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Fluoranthene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Pyrene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Benz(a)anthracene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Chrysene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Benzo(b)fluoranthene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Benzo(k)fluoranthene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Benzo(a)pyrene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Dibenz(a,h)anthracene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Benzo(g,h,i)perylene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Surr: 2-Fluorobiphenyl	57.4	23.9-122		%REC	1	9/23/2015 11:30:00 PM
Surr: Terphenyl-d14	35.8	33.4-135		%REC	1	9/23/2015 11:30:00 PM

Gasoline by NWTPH-Gx

Batch ID: R25091

Analyst: BC

Gasoline	ND	50.0		µg/L	1	9/23/2015 11:40:00 PM
Surr: Toluene-d8	86.4	65-135		%REC	1	9/23/2015 11:40:00 PM
Surr: 4-Bromofluorobenzene	95.9	65-135		%REC	1	9/23/2015 11:40:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Chloromethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Vinyl chloride	ND	0.200		µg/L	1	9/23/2015 11:40:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:15:00 AM

Project: Pacific Park

Lab ID: 1509311-012

Matrix: Water

Client Sample ID: MW-6-15:GW:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Bromomethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Chloroethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Methylene chloride	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/23/2015 11:40:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Chloroform	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Benzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/23/2015 11:40:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Dibromomethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Toluene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/23/2015 11:40:00 PM
Chlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Styrene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Bromoform	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Bromobenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:15:00 AM

Project: Pacific Park

Lab ID: 1509311-012

Matrix: Water

Client Sample ID: MW-6-15:GW:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/23/2015 11:40:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/23/2015 11:40:00 PM
Naphthalene	ND	1.00	Q	µg/L	1	9/23/2015 11:40:00 PM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/23/2015 11:40:00 PM
Surr: Dibromofluoromethane	96.8	45.4-152		%REC	1	9/23/2015 11:40:00 PM
Surr: Toluene-d8	97.7	40.1-139		%REC	1	9/23/2015 11:40:00 PM
Surr: 1-Bromo-4-fluorobenzene	101	64.2-128		%REC	1	9/23/2015 11:40:00 PM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:34:16 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:27:58 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Antimony	0.588	0.200		µg/L	1	9/23/2015 4:40:11 PM
Arsenic	3.38	1.00		µg/L	1	9/23/2015 4:40:11 PM
Beryllium	ND	0.200		µg/L	1	9/23/2015 4:40:11 PM
Cadmium	ND	0.200		µg/L	1	9/23/2015 4:40:11 PM
Chromium	ND	0.500		µg/L	1	9/23/2015 4:40:11 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:15:00 AM

Project: Pacific Park

Lab ID: 1509311-012

Matrix: Water

Client Sample ID: MW-6-15:GW:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Copper	4.06	0.500		µg/L	1	9/23/2015 4:40:11 PM
Lead	ND	1.00		µg/L	1	9/23/2015 4:40:11 PM
Nickel	1.25	0.500		µg/L	1	9/23/2015 4:40:11 PM
Selenium	ND	1.00		µg/L	1	9/23/2015 4:40:11 PM
Silver	ND	0.200		µg/L	1	9/23/2015 4:40:11 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 4:40:11 PM
Zinc	26.2	1.50		µg/L	1	9/23/2015 4:40:11 PM

Total Metals by EPA Method 200.8

Batch ID: 11925

Analyst: TN

Antimony	ND	0.200		µg/L	1	9/23/2015 3:57:51 PM
Arsenic	18.8	1.00		µg/L	1	9/23/2015 3:57:51 PM
Beryllium	1.64	0.200		µg/L	1	9/23/2015 3:57:51 PM
Cadmium	8.14	0.200		µg/L	1	9/23/2015 3:57:51 PM
Chromium	50.2	0.500		µg/L	1	9/23/2015 3:57:51 PM
Copper	33.5	0.500		µg/L	1	9/23/2015 3:57:51 PM
Lead	125	1.00		µg/L	1	9/23/2015 3:57:51 PM
Nickel	35.2	0.500		µg/L	1	9/23/2015 3:57:51 PM
Selenium	5.10	1.00		µg/L	1	9/23/2015 3:57:51 PM
Silver	ND	0.200		µg/L	1	9/23/2015 3:57:51 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 3:57:51 PM
Zinc	1,720	1.50		µg/L	1	9/23/2015 3:57:51 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:15:00 PM

Project: Pacific Park

Lab ID: 1509311-013

Matrix: Soil

Client Sample ID: MW-6-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11961

Analyst: MD

Dicamba	ND	20.6		µg/Kg-dry	1	9/30/2015 2:14:00 AM
2,4-D	ND	17.7		µg/Kg-dry	1	9/30/2015 2:14:00 AM
2,4-DP	ND	14.7		µg/Kg-dry	1	9/30/2015 2:14:00 AM
2,4,5-TP (Silvex)	38.2	11.8		µg/Kg-dry	1	9/30/2015 2:14:00 AM
2,4,5-T	71.2	29.4		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Dinoseb	49.2	17.7		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Dalapon	ND	118		µg/Kg-dry	1	9/30/2015 2:14:00 AM
2,4-DB	21.9	14.7		µg/Kg-dry	1	9/30/2015 2:14:00 AM
MCPP	ND	2,590		µg/Kg-dry	1	9/30/2015 2:14:00 AM
MCPA	ND	165		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Picloram	40.4	29.4		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Bentazon	ND	20.6		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Chloramben	28.6	11.8		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Acifluorfen	ND	47.1		µg/Kg-dry	1	9/30/2015 2:14:00 AM
3,5-Dichlorobenzoic acid	ND	23.6		µg/Kg-dry	1	9/30/2015 2:14:00 AM
4-Nitrophenol	18.3	17.7		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Dacthal (DCPA)	ND	17.7		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Surr: 2,4-Dichlorophenylacetic acid	105	20.1-168		%REC	1	9/30/2015 2:14:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Toxaphene	ND	0.115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Alpha BHC	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Beta BHC	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Gamma BHC (Lindane)	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Delta BHC	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Heptachlor	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Aldrin	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Heptachlor epoxide	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
gamma-Chlordane	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Endosulfan I	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
alpha-Chlordane	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Dieldrin	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
4,4'-DDE	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Endrin	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Endosulfan II	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM
4,4'-DDD	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Endrin aldehyde	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Endosulfan sulfate	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:15:00 PM

Project: Pacific Park

Lab ID: 1509311-013

Matrix: Soil

Client Sample ID: MW-6-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

4,4'-DDT	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Endrin ketone	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Methoxychlor	ND	0.0575		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Surr: Decachlorobiphenyl	116	26.5-158		%REC	1	9/25/2015 9:56:00 PM
Surr: Tetrachloro-m-xylene	53.8	11-150		%REC	1	9/25/2015 9:56:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957

Analyst: AK

Diesel (Fuel Oil)	ND	20.4		mg/Kg-dry	1	9/29/2015 10:26:00 AM
Heavy Oil	4,080	511	D	mg/Kg-dry	10	9/29/2015 6:20:00 PM
Surr: 2-Fluorobiphenyl	119	50-150		%REC	1	9/29/2015 10:26:00 AM
Surr: o-Terphenyl	122	50-150		%REC	1	9/29/2015 10:26:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Bis(2-chloroethyl) ether	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2-Chlorophenol	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
1,3-Dichlorobenzene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
1,4-Dichlorobenzene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
1,2-Dichlorobenzene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Benzyl alcohol	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2-Methylphenol (o-cresol)	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Hexachloroethane	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
N-Nitrosodi-n-propylamine	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Nitrobenzene	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Isophorone	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
4-Methylphenol (p-cresol)	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2-Nitrophenol	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2,4-Dimethylphenol	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Bis(2-chloroethoxy)methane	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2,4-Dichlorophenol	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
1,2,4-Trichlorobenzene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Naphthalene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
4-Chloroaniline	ND	594		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Hexachlorobutadiene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
4-Chloro-3-methylphenol	ND	594		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2-Methylnaphthalene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
1-Methylnaphthalene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:15:00 PM

Project: Pacific Park

Lab ID: 1509311-013

Matrix: Soil

Client Sample ID: MW-6-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	119	*	µg/Kg-dry	1	10/2/2015 11:07:00 AM
2,4,6-Trichlorophenol	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2,4,5-Trichlorophenol	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2-Chloronaphthalene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2-Nitroaniline	ND	594		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Acenaphthene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Dimethylphthalate	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2,6-Dinitrotoluene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Acenaphthylene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2,4-Dinitrophenol	ND	238	*	µg/Kg-dry	1	10/2/2015 11:07:00 AM
Dibenzofuran	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2,4-Dinitrotoluene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
4-Nitrophenol	ND	594		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Fluorene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
4-Chlorophenyl phenyl ether	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Diethylphthalate	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
4,6-Dinitro-2-methylphenol	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
4-Bromophenyl phenyl ether	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Hexachlorobenzene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Pentachlorophenol	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Phenanthrene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Anthracene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Carbazole	ND	594		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Di-n-butylphthalate	160	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Fluoranthene	107	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Pyrene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Butyl Benzylphthalate	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
bis(2-Ethylhexyl)adipate	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Benz (a) anthracene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Chrysene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
bis (2-Ethylhexyl) phthalate	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Di-n-octyl phthalate	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Benzo (b) fluoranthene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Benzo (k) fluoranthene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Benzo (a) pyrene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Indeno (1,2,3-cd) pyrene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Dibenz (a,h) anthracene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Benzo (g,h,i) perylene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Surr: 2,4,6-Tribromophenol	59.7	11.1-127		%REC	1	10/2/2015 11:07:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:15:00 PM

Project: Pacific Park

Lab ID: 1509311-013

Matrix: Soil

Client Sample ID: MW-6-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	46.0	16.1-150	%REC	1	10/2/2015 11:07:00 AM
Surr: Nitrobenzene-d5	29.2	10-133	%REC	1	10/2/2015 11:07:00 AM
Surr: Phenol-d6	37.9	11.6-133	%REC	1	10/2/2015 11:07:00 AM
Surr: p-Terphenyl	74.5	21.8-150	%REC	1	10/2/2015 11:07:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	4.29	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Surr: Toluene-d8	99.3	65-135	%REC	1	9/26/2015 3:58:00 AM
Surr: 4-Bromofluorobenzene	103	65-135	%REC	1	9/26/2015 3:58:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0514	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Chloromethane	ND	0.0514	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Vinyl chloride	ND	0.00171	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Bromomethane	ND	0.0772	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0429	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Chloroethane	ND	0.0514	mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,1-Dichloroethene	ND	0.0429	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Methylene chloride	ND	0.0171	mg/Kg-dry	1	9/26/2015 3:58:00 AM
trans-1,2-Dichloroethene	ND	0.0171	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0429	mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,1-Dichloroethane	ND	0.0171	mg/Kg-dry	1	9/26/2015 3:58:00 AM
2,2-Dichloropropane	ND	0.0429	mg/Kg-dry	1	9/26/2015 3:58:00 AM
cis-1,2-Dichloroethene	ND	0.0171	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Chloroform	ND	0.0171	mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0171	mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,1-Dichloropropene	ND	0.0171	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Carbon tetrachloride	ND	0.0171	mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2-Dichloroethane (EDC)	ND	0.0257	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Benzene	ND	0.0171	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Trichloroethene (TCE)	ND	0.0171	mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2-Dichloropropane	ND	0.0171	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Bromodichloromethane	ND	0.0171	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Dibromomethane	ND	0.0343	mg/Kg-dry	1	9/26/2015 3:58:00 AM
cis-1,3-Dichloropropene	ND	0.0171	mg/Kg-dry	1	9/26/2015 3:58:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:15:00 PM

Project: Pacific Park

Lab ID: 1509311-013

Matrix: Soil

Client Sample ID: MW-6-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Toluene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
trans-1,3-Dichloropropylene	ND	0.0257		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,1,2-Trichloroethane	ND	0.0257		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,3-Dichloropropane	ND	0.0429		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Tetrachloroethene (PCE)	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Dibromochloromethane	ND	0.0257		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2-Dibromoethane (EDB)	ND	0.00429		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Chlorobenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0257		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Ethylbenzene	ND	0.0257		mg/Kg-dry	1	9/26/2015 3:58:00 AM
m,p-Xylene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
o-Xylene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Styrene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Isopropylbenzene	ND	0.0686		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Bromoform	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
n-Propylbenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Bromobenzene	ND	0.0257		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,3,5-Trimethylbenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
2-Chlorotoluene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
4-Chlorotoluene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
tert-Butylbenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2,3-Trichloropropane	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2,4-Trichlorobenzene	ND	0.0429		mg/Kg-dry	1	9/26/2015 3:58:00 AM
sec-Butylbenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
4-Isopropyltoluene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,3-Dichlorobenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,4-Dichlorobenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
n-Butylbenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2-Dichlorobenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2-Dibromo-3-chloropropane	ND	0.429		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2,4-Trimethylbenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Hexachlorobutadiene	ND	0.0857		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Naphthalene	ND	0.0257		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2,3-Trichlorobenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Surr: Dibromofluoromethane	94.6	56.5-129		%REC	1	9/26/2015 3:58:00 AM
Surr: Toluene-d8	98.3	64.3-131		%REC	1	9/26/2015 3:58:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.5	63.1-141		%REC	1	9/26/2015 3:58:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/6/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:15:00 PM

Project: Pacific Park

Lab ID: 1509311-013

Matrix: Soil

Client Sample ID: MW-6-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11948 Analyst: TN

Mercury	ND	0.286		mg/Kg-dry	1	9/24/2015 6:33:14 PM
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Total Metals by EPA Method 6020

Batch ID: 11921 Analyst: TN

Arsenic	3.33	0.0951		mg/Kg-dry	1	9/23/2015 6:30:13 PM
Barium	29.0	0.475		mg/Kg-dry	1	9/23/2015 6:30:13 PM
Cadmium	ND	0.190		mg/Kg-dry	1	9/23/2015 6:30:13 PM
Chromium	11.8	0.0951		mg/Kg-dry	1	9/23/2015 6:30:13 PM
Lead	14.1	0.190		mg/Kg-dry	1	9/23/2015 6:30:13 PM
Selenium	1.06	0.475		mg/Kg-dry	1	9/23/2015 6:30:13 PM
Silver	ND	0.0951		mg/Kg-dry	1	9/23/2015 6:30:13 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179 Analyst: SL

Percent Moisture	15.9			wt%	1	9/29/2015 2:15:36 PM
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Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID	MB-11927FB	SampType:	MBLK			Units:	µg/L			Prep Date:	9/23/2015		RunNo:	25059	
Client ID:	MBLKW	Batch ID:	11926							Analysis Date:	9/23/2015		SeqNo:	472286	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Antimony	ND	0.200									
Arsenic	ND	1.00									
Beryllium	ND	0.200									
Cadmium	ND	0.200									
Chromium	ND	0.500									
Copper	ND	0.500									
Lead	ND	1.00									
Nickel	ND	0.500									
Selenium	ND	1.00									
Silver	ND	0.200									
Thallium	ND	0.200									
Zinc	ND	1.50									

NOTES:

Filter Blank

Sample ID	MB-11926	SampType:	MBLK	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25059		
Client ID:	MBLKW	Batch ID:	11926			Analysis Date:	9/23/2015	SeqNo:	472287		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	ND	0.200									
Arsenic	ND	1.00									
Beryllium	ND	0.200									
Cadmium	ND	0.200									
Chromium	ND	0.500									
Copper	ND	0.500									
Lead	ND	1.00									
Nickel	ND	0.500									
Selenium	ND	1.00									
Silver	ND	0.200									
Thallium	ND	0.200									
Zinc	ND	1.50									



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID	LCS-11926	SampType:	LCS	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25059		
Client ID:	LCSW	Batch ID:	11926			Analysis Date:	9/23/2015	SeqNo:	472288		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	4.63	0.200	5.000	0	92.7	85	115				
Arsenic	99.7	1.00	100.0	0	99.7	85	115				
Beryllium	5.06	0.200	5.000	0	101	85	115				
Cadmium	4.95	0.200	5.000	0	99.0	85	115				
Chromium	103	0.500	100.0	0	103	85	115				
Copper	103	0.500	100.0	0	103	85	115				
Lead	49.1	1.00	50.00	0	98.2	85	115				
Nickel	102	0.500	100.0	0	102	85	115				
Selenium	11.0	1.00	10.00	0	110	85	115				
Silver	5.09	0.200	5.000	0	102	85	115				
Thallium	2.44	0.200	2.500	0	97.8	85	115				
Zinc	102	1.50	100.0	0	102	85	115				

Sample ID	1509311-005EDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25059		
Client ID:	MW-5-15:GW	Batch ID:	11926			Analysis Date:	9/23/2015	SeqNo:	472290		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.331	0.200						0.4670	34.1	30	
Arsenic	ND	1.00						0		30	
Beryllium	ND	0.200						0		30	
Cadmium	ND	0.200						0		30	
Chromium	ND	0.500						0		30	
Copper	1.15	0.500						1.061	7.92	30	
Lead	ND	1.00						0		30	
Nickel	2.49	0.500						2.525	1.54	30	
Selenium	ND	1.00						0		30	
Silver	ND	0.200						0		30	
Thallium	ND	0.200						0		30	
Zinc	5.54	1.50						5.833	5.16	30	



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID	1509311-005EMS	SampType:	MS	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25059		
Client ID:	MW-5-15:GW	Batch ID:	11926			Analysis Date:	9/23/2015	SeqNo:	472291		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	23.3	0.200	25.00	0.4670	91.4	70	130				
Arsenic	521	1.00	500.0	0.6690	104	70	130				
Beryllium	26.6	0.200	25.00	0	106	70	130				
Cadmium	26.2	0.200	25.00	0.05850	105	70	130				
Chromium	524	0.500	500.0	0.2315	105	70	130				
Copper	519	0.500	500.0	1.061	104	70	130				
Lead	238	1.00	250.0	0.6610	95.1	70	130				
Nickel	517	0.500	500.0	2.525	103	70	130				
Selenium	53.4	1.00	50.00	0.8505	105	70	130				
Silver	22.5	0.200	25.00	0.05450	89.6	70	130				
Thallium	12.2	0.200	12.50	0.007000	97.4	70	130				
Zinc	553	1.50	500.0	5.833	109	70	130				

Sample ID	1509311-005EMSD	SampType:	MSD	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25059		
Client ID:	MW-5-15:GW	Batch ID:	11926			Analysis Date:	9/23/2015	SeqNo:	472294		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	23.2	0.200	25.00	0.4670	91.1	70	130	23.31	0.312	30	
Arsenic	512	1.00	500.0	0.6690	102	70	130	520.8	1.71	30	
Beryllium	26.6	0.200	25.00	0	107	70	130	26.62	0.0601	30	
Cadmium	25.0	0.200	25.00	0.05850	99.6	70	130	26.19	4.77	30	
Chromium	504	0.500	500.0	0.2315	101	70	130	524.4	3.99	30	
Copper	499	0.500	500.0	1.061	99.6	70	130	518.9	3.92	30	
Lead	233	1.00	250.0	0.6610	93.1	70	130	238.3	2.09	30	
Nickel	506	0.500	500.0	2.525	101	70	130	517.2	2.13	30	
Selenium	54.8	1.00	50.00	0.8505	108	70	130	53.36	2.59	30	
Silver	22.1	0.200	25.00	0.05450	88.1	70	130	22.46	1.70	30	
Thallium	11.8	0.200	12.50	0.007000	94.5	70	130	12.18	3.07	30	
Zinc	520	1.50	500.0	5.833	103	70	130	553.3	6.15	30	



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID	MB-11925	SampType:	MBLK		Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25056	
Client ID:	MBLKW	Batch ID:	11925					Analysis Date:	9/23/2015		SeqNo:	472197	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Antimony		ND	0.200										
Arsenic		ND	1.00										
Beryllium		ND	0.200										
Cadmium		ND	0.200										
Chromium		ND	0.500										
Copper		ND	0.500										
Lead		ND	1.00										
Nickel		ND	0.500										
Selenium		ND	1.00										
Silver		0.202	0.200										
Thallium		ND	0.200										
Zinc		ND	1.50										

Sample ID	LCS-11925	SampType: LCS		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25056		
Client ID:	LCSW	Batch ID: 11925					Analysis Date: 9/23/2015			SeqNo: 472198	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	4.91	0.200	5.000	0	98.2	85	115				
Arsenic	104	1.00	100.0	0	104	85	115				
Beryllium	5.23	0.200	5.000	0	105	85	115				
Cadmium	4.97	0.200	5.000	0	99.5	85	115				
Chromium	105	0.500	100.0	0	105	85	115				
Copper	102	0.500	100.0	0	102	85	115				
Lead	49.2	1.00	50.00	0	98.3	85	115				
Nickel	102	0.500	100.0	0	102	85	115				
Selenium	10.8	1.00	10.00	0	108	85	115				
Silver	5.25	0.200	5.000	0	105	85	115				B
Thallium	2.52	0.200	2.500	0	101	85	115				
Zinc	109	1.50	100.0	0	109	85	115				



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 200.8

Sample ID	1509275-001ADUP	SampType:	DUP			Units:	µg/L			Prep Date:	9/23/2015			RunNo:	25056		
Client ID:	BATCH	Batch ID:	11925							Analysis Date:	9/23/2015			SeqNo:	472200		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual				
Antimony		ND	0.200						0.2655		90.6	30					
Arsenic		1.45	1.00						1.630		11.8	30					
Beryllium		ND	0.200						0			30					
Cadmium		ND	0.200						0			30					
Chromium		0.713	0.500						0.6925		2.85	30					
Copper		0.847	0.500						0.9350		9.88	30					
Lead		ND	1.00						0			30					
Nickel		1.80	0.500						2.008		10.9	30					
Selenium		ND	1.00						0			30					
Silver		ND	0.200						0			30					
Thallium		ND	0.200						0			30					
Zinc		1.96	1.50						1.940		1.05	30					

Sample ID	1509275-001AMS	SampType:	MS		Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25056	
Client ID:	BATCH	Batch ID:	11925					Analysis Date:	9/23/2015		SeqNo:	472201	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Antimony	24.6	0.200	25.00	0.2655	97.2	70	130						
Arsenic	509	1.00	500.0	1.630	101	70	130						
Beryllium	25.4	0.200	25.00	0.05100	102	70	130						
Cadmium	24.0	0.200	25.00	0	96.0	70	130						
Chromium	525	0.500	500.0	0.6925	105	70	130						
Copper	497	0.500	500.0	0.9350	99.2	70	130						
Lead	240	1.00	250.0	0.9360	95.7	70	130						
Nickel	509	0.500	500.0	2.008	101	70	130						
Selenium	50.5	1.00	50.00	0.5305	100	70	130						
Silver	26.1	0.200	25.00	0.06550	104	70	130				B		
Thallium	12.0	0.200	12.50	0.003500	95.8	70	130						
Zinc	545	1.50	500.0	1.940	109	70	130						



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID	1509275-001AMSD	SampType: MSD			Units: µg/L	Prep Date: 9/23/2015			RunNo: 25056		
Client ID:	BATCH	Batch ID: 11925			Analysis Date: 9/23/2015			SeqNo: 472202			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	24.9	0.200	25.00	0.2655	98.5	70	130	24.56	1.35	30	B
Arsenic	527	1.00	500.0	1.630	105	70	130	509.0	3.44	30	
Beryllium	25.8	0.200	25.00	0.05100	103	70	130	25.43	1.28	30	
Cadmium	25.7	0.200	25.00	0	103	70	130	24.00	6.63	30	
Chromium	541	0.500	500.0	0.6925	108	70	130	525.4	2.90	30	
Copper	509	0.500	500.0	0.9350	102	70	130	497.0	2.37	30	
Lead	245	1.00	250.0	0.9360	97.6	70	130	240.2	1.97	30	
Nickel	524	0.500	500.0	2.008	104	70	130	508.8	2.97	30	
Selenium	51.4	1.00	50.00	0.5305	102	70	130	50.53	1.69	30	
Silver	25.6	0.200	25.00	0.06550	102	70	130	26.11	1.87	30	
Thallium	12.4	0.200	12.50	0.003500	99.0	70	130	11.97	3.36	30	
Zinc	544	1.50	500.0	1.940	108	70	130	544.9	0.197	30	



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 245.1

Sample ID	MB-11934	SampType:	MBLK			Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25090	
Client ID:	MBLKW	Batch ID:	11934						Analysis Date:	9/24/2015		SeqNo:	472885	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
Mercury		ND	0.100											

Sample ID	LCS-11934	SampType:	LCS			Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25090	
Client ID:	LCSW	Batch ID:	11934						Analysis Date:	9/24/2015		SeqNo:	472886	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
Mercury		2.50	0.100	2.500	0	100	85	115						

Sample ID	1509270-027CDUP	SampType:	DUP			Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25090	
Client ID:	BATCH	Batch ID:	11934						Analysis Date:	9/24/2015		SeqNo:	472888	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
Mercury		ND	0.100						0				20	

Sample ID	1509270-027CMS	SampType:	MS			Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25090	
Client ID:	BATCH	Batch ID:	11934						Analysis Date:	9/24/2015		SeqNo:	472889	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
Mercury		2.51	0.100	2.500	0.01400	99.8	80	120						

Sample ID	1509270-027CMSD	SampType:	MSD			Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25090	
Client ID:	BATCH	Batch ID:	11934						Analysis Date:	9/24/2015		SeqNo:	472890	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
Mercury		2.47	0.100	2.500	0.01400	98.2	80	120	2.510			1.61	20	



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Dissolved Mercury by EPA Method 245.1

Sample ID	MB-11933	SampType:	MBLK			Units:	µg/L			Prep Date:	9/23/2015		RunNo:	25075	
Client ID:	MBLKW	Batch ID:	11933							Analysis Date:	9/24/2015		SeqNo:	472581	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Mercury	ND	0.100										
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Sample ID	LCS-11933	SampType:	LCS	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25075			
Client ID:	LCSW	Batch ID:	11933			Analysis Date:	9/24/2015	SeqNo:	472582			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	2.37	0.100	2.500	0	94.8	85	115					
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Sample ID	1509270-027DDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25075			
Client ID:	BATCH	Batch ID:	11933			Analysis Date:	9/24/2015	SeqNo:	472584			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.100							0		20	
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Sample ID	1509270-027DMS	SampType:	MS	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25075			
Client ID:	BATCH	Batch ID:	11933			Analysis Date:	9/24/2015	SeqNo:	472585			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	2.38	0.100	2.500	0.01700	94.5	80	120					
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Sample ID	1509270-027DMSD	SampType:	MSD	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25075			
Client ID:	BATCH	Batch ID:	11933			Analysis Date:	9/24/2015	SeqNo:	472586			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	2.54	0.100	2.500	0.01700	101	80	120	2.380	6.50	20		
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Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 6020

Sample ID	MB-11921	SampType: MBLK		Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25083		
Client ID:	MBLKS	Batch ID: 11921		Analysis Date: 9/23/2015			SeqNo: 472652				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.100									
Barium	ND	0.500									
Cadmium	ND	0.200									
Chromium	ND	0.100									
Lead	ND	0.200									
Selenium	ND	0.500									
Silver	ND	0.100									

Sample ID	LCS-11921	SampType:	LCS	Units:			mg/Kg	Prep Date:	9/23/2015	RunNo:			25083
Client ID:	LCSS	Batch ID:	11921					Analysis Date:	9/23/2015	SeqNo:			472653
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic		50.6	0.100	50.00	0	101	80	120					
Barium		46.8	0.500	50.00	0	93.6	80	120					
Cadmium		2.30	0.200	2.500	0	92.2	80	120					
Chromium		54.0	0.100	50.00	0	108	80	120					
Lead		23.6	0.200	25.00	0	94.4	80	120					
Selenium		5.14	0.500	5.000	0	103	80	120					
Silver		2.46	0.100	2.500	0	98.3	80	120					

Sample ID	1509300-022ADUP	SampType:	DUP			Units:	mg/Kg-dry			Prep Date:	9/23/2015			RunNo:	25083			
Client ID:	BATCH	Batch ID:	11921			Analysis Date:						9/23/2015			SeqNo:	472655		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual					
Arsenic		6.75	0.102						5.671		17.4	20						
Barium		36.9	0.511						38.20		3.38	20						
Cadmium		17.1	0.204						3.160		138	20	R					
Chromium		26.1	0.102						18.79		32.5	20	R					
Lead		53.3	0.204						39.25		30.4	20	R					
Selenium		1.29	0.511						1.467		12.7	20						



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509300-022ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25083		
Client ID:	BATCH	Batch ID:	11921			Analysis Date:	9/23/2015	SeqNo:	472655		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	ND	0.102						0		20	

NOTES:

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID	1509300-022AMS	SampType: MS		Units: mg/Kg-dry		Prep Date: 9/23/2015		RunNo: 25083			
Client ID:	BATCH	Batch ID: 11921				Analysis Date: 9/23/2015		SeqNo: 472659			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	59.9	0.101	50.70	5.671	107	75	125				
Barium	77.2	0.507	50.70	38.20	76.8	75	125				
Cadmium	6.62	0.203	2.535	3.160	136	75	125				S
Chromium	80.8	0.101	50.70	18.79	122	75	125				
Lead	86.6	0.203	25.35	39.25	187	75	125				S
Selenium	6.24	0.507	5.070	1.467	94.1	75	125				
Silver	2.35	0.101	2.535	0.06659	90.2	75	125				

NOTES:

S - Outlying spike recoveries observed, a duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID	1509300-022AMSD	SampType:	MSD		Units:	mg/Kg-dry		Prep Date:	9/23/2015		RunNo:	25083	
Client ID:	BATCH	Batch ID:	11921		Analysis Date:				9/23/2015		SeqNo:	472660	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Arsenic	61.6	0.101	50.70	5.671	110	75	125	59.93	2.72	20			
Barium	79.9	0.507	50.70	38.20	82.3	75	125	77.16	3.55	20			
Cadmium	7.42	0.203	2.535	3.160	168	75	125	6.619	11.4	20			S
Chromium	87.1	0.101	50.70	18.79	135	75	125	80.81	7.54	20			S
Lead	81.7	0.203	25.35	39.25	168	75	125	86.60	5.80	20			S
Selenium	6.47	0.507	5.070	1.467	98.7	75	125	6.240	3.64	20			
Silver	2.54	0.101	2.535	0.06659	97.5	75	125	2.354	7.55	20			

NOTES:

S - Outlying spike recoveries observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

S - Outlying spike recovery observed for Cr. A duplicate analysis was performed and recovered within range.



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 7471

Sample ID	MB-11948	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/24/2015		RunNo:	25107	
Client ID:	MBLKS	Batch ID:	11948						Analysis Date:	9/24/2015			SeqNo:	473300	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Mercury	ND	0.250										
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Sample ID	LCS-11948	SampType: LCS			Units: mg/Kg		Prep Date: 9/24/2015			RunNo: 25107		
Client ID:	LCSS	Batch ID: 11948			Analysis Date: 9/24/2015					SeqNo: 473301		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.561	0.250	0.5000	0	112	80	120					
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Sample ID	1509304-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25107			
Client ID:	BATCH	Batch ID:	11948			Analysis Date:	9/24/2015	SeqNo:	473303			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.244							0		20	
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Sample ID	1509304-001AMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25107			
Client ID:	BATCH	Batch ID:	11948			Analysis Date:	9/24/2015	SeqNo:	473304			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.539	0.244	0.4885	0.01641	107	70	130					
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Sample ID	1509304-001AMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25107			
Client ID:	BATCH	Batch ID:	11948			Analysis Date:	9/24/2015	SeqNo:	473305			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.500	0.224	0.4478	0.01641	108	70	130	0.5389	7.45	20		
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Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	MB-11945	SampType:	MBLK	Units:	mg/Kg	Prep Date:	9/24/2015	RunNo:	25122		
Client ID:	MBLKS	Batch ID:	11945			Analysis Date:	9/24/2015	SeqNo:	473714		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	19.1		20.00		95.7	50	150				
Surr: o-Terphenyl	19.1		20.00		95.6	50	150				

Sample ID	LCS-11945	SampType: LCS			Units: mg/Kg	Prep Date: 9/24/2015			RunNo: 25122		
Client ID:	LCSS	Batch ID: 11945			Analysis Date: 9/24/2015			SeqNo: 473713			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	429	20.0	500.0	0	85.9	65	135				
Surr: 2-Fluorobiphenyl	20.4		20.00		102	50	150				
Surr: o-Terphenyl	19.7		20.00		98.4	50	150				

Sample ID	1509332-008ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25122		
Client ID:	BATCH	Batch ID:	11945			Analysis Date:	9/24/2015	SeqNo:	473703		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	23.2						0		30	
Heavy Oil	ND	57.9						0		30	
Surr: 2-Fluorobiphenyl	26.5		23.15		114	50	150		0		
Surr: o-Terphenyl	26.7		23.15		115	50	150		0		

Sample ID	MB-11957	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/25/2015		RunNo:	25165	
Client ID:	MBLKS	Batch ID:	11957						Analysis Date:	9/28/2015			SeqNo:	474432	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	17.1		20.00		85.7	50	150				
Surr: o-Terphenyl	15.7		20.00		78.7	50	150				



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Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	MB-11957	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/25/2015		RunNo:	25165	
Client ID:	MBLKS	Batch ID:	11957						Analysis Date:	9/28/2015			SeqNo:	474432	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Sample ID	LCS-11957	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/25/2015	RunNo:	25165		
Client ID:	LCSS	Batch ID:	11957			Analysis Date:	9/28/2015	SeqNo:	474431		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	411	20.0	500.0	0	82.2	65	135				
Surr: 2-Fluorobiphenyl	17.8		20.00		89.0	50	150				
Surr: o-Terphenyl	16.1		20.00		80.5	50	150				

Sample ID	1509311-006ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25165		
Client ID:	GP-22-15:1.5	Batch ID:	11957			Analysis Date:	9/28/2015	SeqNo:	474684		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	21.6						0		30	
Heavy Oil	ND	53.9						0		30	
Surr: 2-Fluorobiphenyl	19.6		21.56		91.1	50	150		0		
Surr: o-Terphenyl	20.0		21.56		92.6	50	150		0		

Sample ID	1509340-003ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25165		
Client ID:	BATCH	Batch ID:	11957			Analysis Date:	9/29/2015	SeqNo:	475638		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	20.2						0		30	
Heavy Oil	ND	50.6						0		30	
Surr: 2-Fluorobiphenyl	25.8		20.23		128	50	150		0		
Surr: o-Terphenyl	26.5		20.23		131	50	150		0		



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	MB-11941	SampType:	MBLK			Units:	µg/L			Prep Date:	9/24/2015		RunNo:	25133	
Client ID:	MBLKW	Batch ID:	11941							Analysis Date:	9/25/2015		SeqNo:	473905	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Diesel (Fuel Oil)	ND	50.0									
Heavy Oil	ND	100									
Surr: 2-Fluorobiphenyl	59.8		80.00		74.8	50	150				
Surr: o-Terphenyl	67.3		80.00		84.1	50	150				

Sample ID	LCS-11941	SampType:	LCS	Units:	µg/L	Prep Date:	9/24/2015	RunNo:	25133		
Client ID:	LCSW	Batch ID:	11941			Analysis Date:	9/25/2015	SeqNo:	473904		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	675	50.0	1,000	0	67.5	65	135				
Surr: 2-Fluorobiphenyl	65.7		80.00		82.1	50	150				
Surr: o-Terphenyl	59.8		80.00		74.8	50	150				

Sample ID	1509300-020BDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/24/2015	RunNo:	25133		
Client ID:	BATCH	Batch ID:	11941			Analysis Date:	9/25/2015	SeqNo:	473912		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	50.0						0		30	
Heavy Oil	169	100						170.8	0.880	30	
Surr: 2-Fluorobiphenyl	45.4		79.97		56.8	50	150		0		
Surr: o-Terphenyl	48.5		79.97		60.6	50	150		0		



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	MB-11961	SampType:	MBLK	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25219		
Client ID:	MBLKS	Batch ID:	11961			Analysis Date:	9/30/2015	SeqNo:	475626		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	ND	17.5									
2,4-D	ND	15.0									
2,4-DP	ND	12.5									
2,4,5-TP (Silvex)	ND	10.0									
2,4,5-T	ND	25.0									
Dinoseb	ND	15.0									
Dalapon	ND	100									
2,4-DB	ND	12.5									
MCP	ND	2,200									
MCPA	ND	140									
Picloram	ND	25.0									
Bentazon	ND	17.5									
Chloramben	ND	10.0									
Acifluorfen	ND	40.0									
3,5-Dichlorobenzoic acid	ND	20.0									
4-Nitrophenol	ND	15.0									
Dacthal (DCPA)	ND	15.0									
Surr: 2,4-Dichlorophenylacetic acid	79.2		100.0		79.2	20.1	168				

Sample ID	LCS-11961	SampType: LCS			Units: µg/Kg	Prep Date: 9/25/2015			RunNo: 25219		
Client ID:	LCSS	Batch ID: 11961			Analysis Date: 9/30/2015			SeqNo: 475624			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	131	17.5	200.0	0	65.4	32.1	135				
2,4-D	137	15.0	200.0	0	68.7	22.4	130				
2,4-DP	145	12.5	200.0	0	72.3	26.4	130				
2,4,5-TP (Silvex)	123	10.0	200.0	0	61.3	21.2	138				
2,4,5-T	127	25.0	200.0	0	63.3	39	117				
Dinoseb	129	15.0	200.0	0	64.7	5	165				
Dalapon	13,000	100	20,000	0	65.0	18.4	162				
2,4-DB	159	12.5	200.0	0	79.6	5	164				



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	LCS-11961	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25219		
Client ID:	LCSS	Batch ID:	11961			Analysis Date:	9/30/2015	SeqNo:	475624		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MCPP	1560	2,200	2,000	0	78.1	22.2	157				
MCPA	2,200	140	2,000	0	110	47.4	128				
Picloram	140	25.0	200.0	0	70.2	5	175				
Bentazon	146	17.5	200.0	0	72.8	7.59	162				
Chloramben	93.0	10.0	200.0	0	46.5	5	147				
Acifluorfen	161	40.0	200.0	0	80.6	5	163				
3,5-Dichlorobenzoic acid	150	20.0	200.0	0	74.8	18.7	139				
4-Nitrophenol	65.6	15.0	200.0	0	32.8	5	163				
Dacthal (DCPA)	131	15.0	200.0	0	65.6	5	164				
Surr: 2,4-Dichlorophenylacetic acid	125		100.0		125	20.1	168				

Sample ID	1509311-010ADUP	SampType:	DUP			Units:	µg/Kg-dry			Prep Date:	9/25/2015			RunNo:	25219	
Client ID:	MW-6-15:14.0	Batch ID:	11961							Analysis Date:	9/30/2015			SeqNo:	475616	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val				%RPD	RPDLimit	Qual	
Dicamba		ND	20.1						0					30		
2,4-D		ND	17.2						0					30		
2,4-DP		ND	14.3						0					30		
2,4,5-TP (Silvex)		ND	11.5						0					30		
2,4,5-T		ND	28.7						0					30		
Dinoseb		ND	17.2						0					30		
Dalapon		ND	115						0					30		
2,4-DB		19.0	14.3						18.66			1.58		30		
MCP		ND	2,520						0					30		
MCPA		ND	160						0					30		
Picloram		28.8	28.7						28.31			1.64		30		
Bentazon		ND	20.1						0					30		
Chloramben		20.6	11.5						20.73			0.505		30		
Acifluorfen		ND	45.9						0					30		
3,5-Dichlorobenzoic acid		ND	22.9						0					30		
4-Nitrophenol		ND	17.2						0					30		



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	1509311-010ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25219		
Client ID:	MW-6-15:14.0	Batch ID:	11961	Analysis Date:	9/30/2015	SeqNo:	475616				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dacthal (DCPA)	17.6	17.2						16.26	7.76	30	
Surr: 2,4-Dichlorophenylacetic acid	141		114.6		123	20.1	168		0		

Sample ID	1509311-013AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25219		
Client ID:	MW-6-15:DUP	Batch ID:	11961	Analysis Date:	9/30/2015	SeqNo:	475618				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	170	20.7	236.2	0	72.2	31.9	118				
2,4-D	178	17.7	236.2	8.476	71.7	12.4	134				
2,4-DP	166	14.8	236.2	0	70.2	27.2	129				
2,4,5-TP (Silvex)	197	11.8	236.2	38.15	67.2	28.6	134				
2,4,5-T	182	29.5	236.2	71.24	47.0	13.1	147				
Dinoseb	168	17.7	236.2	49.23	50.3	10	179				
Dalapon	9,230	118	23,620	0	39.1	24.9	139				
2,4-DB	204	14.8	236.2	21.92	77.1	50.2	152				
MCPD	1770	2,600	2,362	0	74.9	37.8	140				
MCPA	2,920	165	2,362	0	124	13.7	147				
Picloram	169	29.5	236.2	40.36	54.6	5	153				
Bentazon	159	20.7	236.2	0	67.3	15	140				
Chloramben	110	11.8	236.2	28.62	34.4	5	162				
Acifluorfen	250	47.2	236.2	0	106	15	140				
3,5-Dichlorobenzoic acid	172	23.6	236.2	13.32	67.2	10	164				
4-Nitrophenol	184	17.7	236.2	18.34	70.3	44.8	125				
Dacthal (DCPA)	110	17.7	236.2	16.68	39.6	5	132				
Surr: 2,4-Dichlorophenylacetic acid	145		118.1		122	20.1	168				



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	1509270-021ADUP	SampType:	DUP	Units:	%REC	Prep Date:	9/24/2015	RunNo:	25230		
Client ID:	BATCH	Batch ID:	11938			Analysis Date:	9/30/2015	SeqNo:	475818		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 2,4-Dichlorophenylacetic acid	0		131.6		0	20.1	168		0		S
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Sample ID	1509270-022AMS	SampType: MS			Units: %REC	Prep Date: 9/24/2015			RunNo: 25248		
Client ID:	BATCH	Batch ID: 11938			Analysis Date: 10/1/2015			SeqNo: 476095			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 2,4-Dichlorophenylacetic acid	134		128.9		104	20.1	168				
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Sample ID	MB-11955	SampType:	MBLK			Units:	µg/Kg			Prep Date:	9/25/2015		RunNo:	25248	
Client ID:	MBLKS	Batch ID:	11955							Analysis Date:	10/1/2015		SeqNo:	476118	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Dicamba	ND	35.0									
2,4-D	ND	30.0									
2,4-DP	ND	25.0									
2,4,5-TP (Silvex)	ND	20.0									
2,4,5-T	ND	50.0									
Dinoseb	ND	30.0									
Dalapon	ND	200									
2,4-DB	ND	25.0									
MCP	ND	4,400									
MCPA	ND	280									
Picloram	ND	50.0									
Bentazon	ND	35.0									
Chloramben	ND	20.0									
Acifluorfen	ND	80.0									
3,5-Dichlorobenzoic acid	ND	40.0									
4-Nitrophenol	ND	30.0									
Dacthal (DCPA)	ND	30.0									

Surr: 2,4-Dichlorophenylacetic acid	89.6		100.0		89.6	20.1	168				
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Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	MB-11955	SampType:	MBLK			Units:	µg/Kg			Prep Date:	9/25/2015		RunNo:	25248	
Client ID:	MBLKS	Batch ID:	11955							Analysis Date:	10/1/2015		SeqNo:	476118	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Sample ID	LCS-11955	SampType: LCS			Units: µg/Kg	Prep Date: 9/25/2015			RunNo: 25248		
Client ID:	LCSS	Batch ID: 11955			Analysis Date: 10/1/2015			SeqNo: 476117			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	82.3	35.0	100.0	0	82.3	32.1	135				
2,4-D	88.5	30.0	100.0	0	88.5	22.4	130				
2,4-DP	97.6	25.0	100.0	0	97.6	26.4	130				
2,4,5-TP (Silvex)	103	20.0	100.0	0	103	21.2	138				
2,4,5-T	84.9	50.0	100.0	0	84.9	39	117				
Dinoseb	56.7	30.0	100.0	0	56.7	5	165				
Dalapon	8,630	200	10,000	0	86.3	18.4	162				
2,4-DB	82.2	25.0	100.0	0	82.2	5	164				
MCP	886	4,400	1,000	0	88.6	22.2	157				
MCPA	1,060	280	1,000	0	106	47.4	128				
Picloram	99.5	50.0	100.0	0	99.5	5	175				
Bentazon	68.6	35.0	100.0	0	68.6	7.59	162				
Chloramben	68.7	20.0	100.0	0	68.7	5	147				
Acifluorfen	80.7	80.0	100.0	0	80.7	5	163				
3,5-Dichlorobenzoic acid	103	40.0	100.0	0	103	18.7	139				
4-Nitrophenol	45.9	30.0	100.0	0	45.9	5	163				
Dacthal (DCPA)	91.1	30.0	100.0	0	91.1	5	164				
Surr: 2,4-Dichlorophenylacetic acid	108		100.0		108	20.1	168				



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID	MB-11916	SampType:	MBLK		Units:	µg/L		Prep Date:	9/22/2015		RunNo:	25071	
Client ID:	MBLKW	Batch ID:	11916					Analysis Date:	9/23/2015		SeqNo:	472505	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Naphthalene		ND	0.0996										
2-Methylnaphthalene		ND	0.0996										
1-Methylnaphthalene		ND	0.0996										
Acenaphthylene		ND	0.0996										
Acenaphthene		ND	0.0996										
Fluorene		ND	0.0996										
Phenanthrene		ND	0.0996										
Anthracene		ND	0.0996										
Fluoranthene		ND	0.0996										
Pyrene		ND	0.0996										
Benz(a)anthracene		ND	0.0996										
Chrysene		ND	0.0996										
Benzo(b)fluoranthene		ND	0.0996										
Benzo(k)fluoranthene		ND	0.0996										
Benzo(a)pyrene		ND	0.0996										
Indeno(1,2,3-cd)pyrene		ND	0.0996										
Dibenz(a,h)anthracene		ND	0.0996										
Benzo(g,h,i)perylene		ND	0.0996										
Surr: 2-Fluorobiphenyl		1.29		1.992		64.7	23.9	122					
Surr: Terphenyl-d14		1.54		1.992		77.5	33.4	135					

Sample ID	LCS-11916	SampType:	LCS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	LCSW	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472504		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.27	0.0998	3.993	0	56.8	26.7	106				
2-Methylnaphthalene	2.33	0.0998	3.993	0	58.3	35.4	110				
1-Methylnaphthalene	2.31	0.0998	3.993	0	57.9	37.5	116				
Acenaphthylene	2.88	0.0998	3.993	0	72.2	39.2	114				
Acenaphthene	2.44	0.0998	3.993	0	61.1	37	113				
Fluorene	1.80	0.0998	3.993	0	45.0	40.3	117				



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CLIENT: Shannon & Wilson
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QC SUMMARY REPORT**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID	LCS-11916	SampType:	LCS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	LCSW	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472504		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	2.42	0.0998	3.993	0	60.6	35.1	118				
Anthracene	2.33	0.0998	3.993	0	58.4	45.4	115				
Fluoranthene	2.48	0.0998	3.993	0	62.2	47.1	123				
Pyrene	3.05	0.0998	3.993	0	76.3	47.6	123				
Benz(a)anthracene	2.40	0.0998	3.993	0	60.0	48.7	126				
Chrysene	2.42	0.0998	3.993	0	60.5	45.1	114				
Benzo(b)fluoranthene	2.36	0.0998	3.993	0	59.1	52.2	126				
Benzo(k)fluoranthene	2.67	0.0998	3.993	0	66.8	45.5	121				
Benzo(a)pyrene	2.37	0.0998	3.993	0	59.3	38.4	121				
Indeno(1,2,3-cd)pyrene	2.28	0.0998	3.993	0	57.1	23.9	143				
Dibenz(a,h)anthracene	2.56	0.0998	3.993	0	64.0	24.9	141				
Benzo(g,h,i)perylene	2.12	0.0998	3.993	0	53.1	35.9	139				
Surr: 2-Fluorobiphenyl	1.39		1.997		69.7	23.9	122				
Surr: Terphenyl-d14	1.50		1.997		74.9	33.4	135				

Sample ID	1509270-027EDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	BATCH	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0997						0		30	
2-Methylnaphthalene	ND	0.0997						0		30	
1-Methylnaphthalene	ND	0.0997						0		30	
Acenaphthylene	ND	0.0997						0		30	
Acenaphthene	ND	0.0997						0		30	
Fluorene	ND	0.0997						0		30	
Phenanthrene	ND	0.0997						0		30	
Anthracene	ND	0.0997						0		30	
Fluoranthene	ND	0.0997						0		30	
Pyrene	ND	0.0997						0		30	
Benz(a)anthracene	ND	0.0997						0		30	
Chrysene	ND	0.0997						0		30	



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QC SUMMARY REPORT**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID	1509270-027EDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	BATCH	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	ND	0.0997						0		30	
Benzo(k)fluoranthene	ND	0.0997						0		30	
Benzo(a)pyrene	ND	0.0997						0		30	
Indeno(1,2,3-cd)pyrene	ND	0.0997						0		30	
Dibenz(a,h)anthracene	ND	0.0997						0		30	
Benzo(g,h,i)perylene	ND	0.0997						0		30	
Surr: 2-Fluorobiphenyl	1.14		1.995		56.9	23.9	122		0		
Surr: Terphenyl-d14	0.798		1.995		40.0	33.4	135		0		

Sample ID	1509270-032EMS	SampType:	MS		Units:	µg/L		Prep Date:	9/22/2015		RunNo:	25071		
Client ID:	BATCH	Batch ID:	11916						Analysis Date:	9/23/2015		SeqNo:	472493	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Naphthalene		2.33	0.0999	3.997	0	58.3	31.2	104						
2-Methylnaphthalene		2.30	0.0999	3.997	0	57.7	33.9	109						
1-Methylnaphthalene		2.28	0.0999	3.997	0	57.1	33.2	110						
Acenaphthylene		2.81	0.0999	3.997	0	70.4	40.5	98.7						
Acenaphthene		2.38	0.0999	3.997	0	59.6	30.6	117						
Fluorene		2.35	0.0999	3.997	0	58.8	35.2	99.1						
Phenanthrene		2.21	0.0999	3.997	0	55.4	42.7	111						
Anthracene		2.02	0.0999	3.997	0	50.5	43.9	103						
Fluoranthene		2.10	0.0999	3.997	0	52.5	56.1	115					S	
Pyrene		2.49	0.0999	3.997	0	62.2	44.2	134						
Benz(a)anthracene		1.65	0.0999	3.997	0	41.4	50.4	128					S	
Chrysene		1.53	0.0999	3.997	0	38.4	41.4	118					S	
Benzo(b)fluoranthene		1.25	0.0999	3.997	0	31.2	50.8	121					S	
Benzo(k)fluoranthene		1.33	0.0999	3.997	0	33.2	43.4	113					S	
Benzo(a)pyrene		1.21	0.0999	3.997	0	30.2	40.8	128					S	
Indeno(1,2,3-cd)pyrene		1.08	0.0999	3.997	0	26.9	29.5	126					S	
Dibenz(a,h)anthracene		1.27	0.0999	3.997	0	31.8	31.4	120						
Benzo(g,h,i)perylene		0.925	0.0999	3.997	0	23.2	30	116					S	



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Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID	1509270-032EMS	SampType: MS			Units: µg/L	Prep Date: 9/22/2015			RunNo: 25071		
Client ID:	BATCH	Batch ID: 11916			Analysis Date: 9/23/2015			SeqNo: 472493			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 2-Fluorobiphenyl	1.14		1.999		57.0	23.9	122				
Surr: Terphenyl-d14	0.865		1.999		43.3	33.4	135				

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.



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QC SUMMARY REPORT
Organochlorine Pesticides by EPA Method 8081

Sample ID	MB-11947	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/24/2015		RunNo:	25271	
Client ID:	MBLKS	Batch ID:	11947					Analysis Date:	9/25/2015		SeqNo:	476525	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Toxaphene	ND	0.100											
Alpha BHC	ND	0.0100											
Beta BHC	ND	0.0100											
Gamma BHC (Lindane)	ND	0.0100											
Delta BHC	ND	0.0100											
Heptachlor	ND	0.0100											
Aldrin	ND	0.0100											
Heptachlor epoxide	ND	0.0100											
gamma-Chlordane	ND	0.0100											
Endosulfan I	ND	0.0100											
alpha-Chlordane	ND	0.0100											
Dieldrin	ND	0.0100											
4,4'-DDE	ND	0.0200											
Endrin	ND	0.0200											
Endosulfan II	ND	0.0200											
4,4'-DDD	ND	0.0200											
Endrin aldehyde	ND	0.0200											
Endosulfan sulfate	ND	0.0200											
4,4'-DDT	ND	0.0200											
Endrin ketone	ND	0.0200											
Methoxychlor	ND	0.0500											
Surr: Decachlorobiphenyl	0.0623		0.1000		62.3	26.5	158						
Surr: Tetrachloro-m-xylene	0.0293		0.05000		58.6	11	150						

Sample ID	LCS-11947	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/24/2015	RunNo:	25271		
Client ID:	LCSS	Batch ID:	11947			Analysis Date:	9/25/2015	SeqNo:	476524		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.173	0.0100	0.2000	0	86.3	54.2	139				
Beta BHC	0.178	0.0100	0.2000	0	89.0	56.5	142				
Gamma BHC (Lindane)	0.178	0.0100	0.2000	0	88.8	55.5	142				



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QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	LCS-11947	SampType: LCS		Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25271		
Client ID:	LCSS	Batch ID: 11947					Analysis Date: 9/25/2015			SeqNo: 476524	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Delta BHC	0.181	0.0100	0.2000	0	90.4	47.4	157				
Heptachlor	0.191	0.0100	0.2000	0	95.3	54	141				
Aldrin	0.204	0.0100	0.2000	0	102	43.7	147				
Heptachlor epoxide	0.162	0.0100	0.2000	0	81.0	56.2	137				
gamma-Chlordane	0.179	0.0100	0.2000	0	89.4	58.5	136				
Endosulfan I	0.160	0.0100	0.2000	0	80.1	60	132				
alpha-Chlordane	0.0861	0.0100	0.2000	0	43.0	46.1	140				S
Dieldrin	0.161	0.0100	0.2000	0	80.7	61.2	133				
4,4´-DDE	0.174	0.0200	0.2000	0	87.2	55.4	142				
Endrin	0.168	0.0200	0.2000	0	84.2	56.5	143				
Endosulfan II	0.184	0.0200	0.2000	0	91.9	62	143				
4,4´-DDD	0.174	0.0200	0.2000	0	86.8	53.3	145				
Endrin aldehyde	0.178	0.0200	0.2000	0	88.9	39.5	153				
Endosulfan sulfate	0.188	0.0200	0.2000	0	94.0	53.8	148				
4,4´-DDT	0.187	0.0200	0.2000	0	93.7	48.2	152				
Endrin ketone	0.189	0.0200	0.2000	0	94.7	28.5	162				
Methoxychlor	0.221	0.0500	0.2000	0	110	34.6	159				
Surr: Decachlorobiphenyl	0.0658		0.1000		65.8	26.5	158				
Surr: Tetrachloro-m-xylene	0.0321		0.05000		64.3	11	150				

NOTES:

S - Outlying spike recovery observed for Alpha Chlordane. The MS recovered within specifications.

Sample ID	1509300-006ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25271		
Client ID:	BATCH	Batch ID:	11947			Analysis Date:	9/25/2015	SeqNo:	476500		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.143						0		30	
Alpha BHC	ND	0.0143						0		30	
Beta BHC	ND	0.0143						0		30	
Gamma BHC (Lindane)	ND	0.0143						0		30	
Delta BHC	ND	0.0143						0		30	
Heptachlor	ND	0.0143						0		30	



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Organochlorine Pesticides by EPA Method 8081

Sample ID	1509300-006ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25271		
Client ID:	BATCH	Batch ID:	11947			Analysis Date:	9/25/2015	SeqNo:	476500		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aldrin	ND	0.0143						0		30	
Heptachlor epoxide	ND	0.0143						0		30	
gamma-Chlordane	ND	0.0143						0		30	
Endosulfan I	ND	0.0143						0		30	
alpha-Chlordane	ND	0.0143						0		30	
Dieldrin	ND	0.0143						0		30	
4,4'-DDE	ND	0.0286						0		30	
Endrin	ND	0.0286						0		30	
Endosulfan II	ND	0.0286						0		30	
4,4'-DDD	ND	0.0286						0		30	
Endrin aldehyde	ND	0.0286						0		30	
Endosulfan sulfate	ND	0.0286						0		30	
4,4'-DDT	ND	0.0286						0		30	
Endrin ketone	ND	0.0286						0		30	
Methoxychlor	ND	0.0716						0		30	
Surr: Decachlorobiphenyl	0.0826		0.07161		115	26.5	158		0		
Surr: Tetrachloro-m-xylene	0.0406		0.07161		56.8	11	150		0		

Sample ID	1509300-007AMS	SampType: MS		Units: mg/Kg-dry		Prep Date: 9/24/2015			RunNo: 25271		
Client ID:	BATCH	Batch ID: 11947		Analysis Date: 9/25/2015					SeqNo: 476502		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.248	0.0118	0.2360	0	105	49.1	158				
Beta BHC	0.260	0.0118	0.2360	0	110	50.9	160				
Gamma BHC (Lindane)	0.255	0.0118	0.2360	0	108	55.3	157				
Delta BHC	0.266	0.0118	0.2360	0	113	55.8	160				
Heptachlor	0.271	0.0118	0.2360	0	115	59.1	150				
Aldrin	0.284	0.0118	0.2360	0	120	46.4	145				
Heptachlor epoxide	0.235	0.0118	0.2360	0	99.5	48.5	151				
gamma-Chlordane	0.263	0.0118	0.2360	0	112	50.9	143				
Endosulfan I	0.238	0.0118	0.2360	0	101	46.4	149				



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Organochlorine Pesticides by EPA Method 8081

Sample ID	1509300-007AMS	SampType:	MS		Units:	mg/Kg-dry		Prep Date:	9/24/2015		RunNo:	25271		
Client ID:	BATCH	Batch ID:	11947						Analysis Date:	9/25/2015		SeqNo:	476502	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
alpha-Chlordane		0.121	0.0118	0.2360	0	51.4	46.3	153						
Dieldrin		0.236	0.0118	0.2360	0	100	51	147						
4,4´-DDE		0.250	0.0236	0.2360	0	106	39.9	162						
Endrin		0.248	0.0236	0.2360	0	105	51.3	151						
Endosulfan II		0.267	0.0236	0.2360	0	113	51	152						
4,4´-DDD		0.258	0.0236	0.2360	0	109	45.8	160						
Endrin aldehyde		0.258	0.0236	0.2360	0	109	38.3	156						
Endosulfan sulfate		0.267	0.0236	0.2360	0	113	53.2	154						
4,4´-DDT		0.277	0.0236	0.2360	0	117	45.7	168						
Endrin ketone		0.280	0.0236	0.2360	0	119	68.3	144						
Methoxychlor		0.307	0.0590	0.2360	0	130	43.4	178						
Surr: Decachlorobiphenyl		0.0809		0.1180		68.5	26.5	158						
Surr: Tetrachloro-m-xylene		0.0385		0.05899		65.2	11	150						

Sample ID	MB-11962	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/25/2015		RunNo:	25268	
Client ID:	MBLKS	Batch ID:	11962					Analysis Date:	9/25/2015		SeqNo:	476442	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Toxaphene		ND	0.100										
Alpha BHC		ND	0.0100										
Beta BHC		ND	0.0100										
Gamma BHC (Lindane)		ND	0.0100										
Delta BHC		ND	0.0100										
Heptachlor		ND	0.0100										
Aldrin		ND	0.0100										
Heptachlor epoxide		ND	0.0100										
gamma-Chlordane		ND	0.0100										
Endosulfan I		ND	0.0100										
alpha-Chlordane		ND	0.0100										
Dieldrin		ND	0.0100										
4,4´-DDE		ND	0.0200										



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Sample ID	MB-11962	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/25/2015		RunNo:	25268	
Client ID:	MBLKS	Batch ID:	11962		Analysis Date:				9/25/2015		SeqNo:	476442	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Endrin		ND	0.0200										
Endosulfan II		ND	0.0200										
4,4´-DDD		ND	0.0200										
Endrin aldehyde		ND	0.0200										
Endosulfan sulfate		ND	0.0200										
4,4´-DDT		ND	0.0200										
Endrin ketone		ND	0.0200										
Methoxychlor		ND	0.0500										
Surr: Decachlorobiphenyl		0.0615		0.1000		61.5	26.5	158					
Surr: Tetrachloro-m-xylene		0.0327		0.05000		65.4	11	150					

Sample ID	LCS-11962	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015			RunNo:	25268	
Client ID:	LCSS	Batch ID:	11962				Analysis Date:	9/25/2015			SeqNo:	476441
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Alpha BHC	0.175	0.0100	0.2000	0	87.3	54.2	139					
Beta BHC	0.183	0.0100	0.2000	0	91.6	56.5	142					
Gamma BHC (Lindane)	0.180	0.0100	0.2000	0	90.2	55.5	142					
Delta BHC	0.173	0.0100	0.2000	0	86.4	47.4	157					
Heptachlor	0.197	0.0100	0.2000	0	98.4	54	141					
Aldrin	0.179	0.0100	0.2000	0	89.5	43.7	147					
Heptachlor epoxide	0.191	0.0100	0.2000	0	95.4	56.2	137					
gamma-Chlordane	0.194	0.0100	0.2000	0	96.8	58.5	136					
Endosulfan I	0.195	0.0100	0.2000	0	97.4	60	132					
alpha-Chlordane	0.196	0.0100	0.2000	0	98.2	46.1	140					
Dieldrin	0.191	0.0100	0.2000	0	95.3	61.2	133					
4,4´-DDE	0.191	0.0200	0.2000	0	95.6	55.4	142					
Endrin	0.201	0.0200	0.2000	0	100	56.5	143					
Endosulfan II	0.223	0.0200	0.2000	0	112	62	143					
4,4´-DDD	0.220	0.0200	0.2000	0	110	53.3	145					
Endrin aldehyde	0.186	0.0200	0.2000	0	93.2	39.5	153					



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Sample ID	LCS-11962	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	LCSS	Batch ID:	11962			Analysis Date:	9/25/2015	SeqNo:	476441		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Endosulfan sulfate	0.219	0.0200	0.2000	0	109	53.8	148				
4,4'-DDT	0.215	0.0200	0.2000	0	108	48.2	152				
Endrin ketone	0.228	0.0200	0.2000	0	114	28.5	162				
Methoxychlor	0.250	0.0500	0.2000	0	125	34.6	159				
Surr: Decachlorobiphenyl	0.0757		0.1000		75.7	26.5	158				
Surr: Tetrachloro-m-xylene	0.0395		0.05000		79.0	11	150				

Sample ID	1509311-007ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	GP-22-15:3.0	Batch ID:	11962			Analysis Date:	9/25/2015	SeqNo:	476428		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.114						0		30	
Alpha BHC	ND	0.0114						0		30	
Beta BHC	ND	0.0114						0		30	
Gamma BHC (Lindane)	ND	0.0114						0		30	
Delta BHC	ND	0.0114						0		30	
Heptachlor	ND	0.0114						0		30	
Aldrin	ND	0.0114						0		30	
Heptachlor epoxide	ND	0.0114						0		30	
gamma-Chlordane	ND	0.0114						0		30	
Endosulfan I	ND	0.0114						0		30	
alpha-Chlordane	ND	0.0114						0		30	
Dieldrin	ND	0.0114						0		30	
4,4´-DDE	ND	0.0228						0		30	
Endrin	ND	0.0228						0		30	
Endosulfan II	ND	0.0228						0		30	
4,4´-DDD	ND	0.0228						0		30	
Endrin aldehyde	ND	0.0228						0		30	
Endosulfan sulfate	ND	0.0228						0		30	
4,4´-DDT	ND	0.0228						0		30	
Endrin ketone	ND	0.0228						0		30	



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	1509311-007ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	GP-22-15:3.0	Batch ID:	11962			Analysis Date:	9/25/2015	SeqNo:	476428		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methoxychlor	ND	0.0570						0		30	
Surr: Decachlorobiphenyl	0.0661		0.1139		58.0	26.5	158		0		
Surr: Tetrachloro-m-xylene	0.0332		0.05697		58.3	11	150		0		

Sample ID	1509311-008AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	GP-22-15:DUP	Batch ID:	11962	Analysis Date:				9/25/2015	SeqNo:	476430	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alpha BHC	0.173	0.0113	0.2257	0	76.6	49.1	158				
Beta BHC	0.184	0.0113	0.2257	0	81.3	50.9	160				
Gamma BHC (Lindane)	0.181	0.0113	0.2257	0	80.2	55.3	157				
Delta BHC	0.176	0.0113	0.2257	0	77.9	55.8	160				
Heptachlor	0.195	0.0113	0.2257	0	86.3	59.1	150				
Aldrin	0.178	0.0113	0.2257	0	78.8	46.4	145				
Heptachlor epoxide	0.189	0.0113	0.2257	0	83.6	48.5	151				
gamma-Chlordane	0.190	0.0113	0.2257	0	84.1	50.9	143				
Endosulfan I	0.187	0.0113	0.2257	0	83.0	46.4	149				
alpha-Chlordane	0.194	0.0113	0.2257	0	86.0	46.3	153				
Dieldrin	0.186	0.0113	0.2257	0	82.6	51	147				
4,4'-DDE	0.190	0.0226	0.2257	0	84.1	39.9	162				
Endrin	0.198	0.0226	0.2257	0	87.8	51.3	151				
Endosulfan II	0.223	0.0226	0.2257	0	99.0	51	152				
4,4'-DDD	0.208	0.0226	0.2257	0	92.0	45.8	160				
Endrin aldehyde	0.189	0.0226	0.2257	0	83.6	38.3	156				
Endosulfan sulfate	0.222	0.0226	0.2257	0	98.4	53.2	154				
4,4'-DDT	0.201	0.0226	0.2257	0	89.0	45.7	168				
Endrin ketone	0.223	0.0226	0.2257	0	98.9	68.3	144				
Methoxychlor	0.243	0.0564	0.2257	0	108	43.4	178				
Surr: Decachlorobiphenyl	0.0652		0.1129		57.8	26.5	158				
Surr: Tetrachloro-m-xylene	0.0327		0.05643		58.0	11	150				



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11984	SampType: MBLK		Units: µg/Kg		Prep Date: 9/29/2015			RunNo: 25202		
Client ID:	MBLKS	Batch ID: 11984		Analysis Date: 9/29/2015					SeqNo: 475253		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	200									
Bis(2-chloroethyl) ether	ND	200									
2-Chlorophenol	ND	100									
1,3-Dichlorobenzene	ND	100									
1,4-Dichlorobenzene	ND	100									
1,2-Dichlorobenzene	ND	100									
Benzyl alcohol	ND	100									
2-Methylphenol (o-cresol)	ND	100									
Hexachloroethane	ND	100									
N-Nitrosodi-n-propylamine	ND	100									
Nitrobenzene	ND	200									
Isophorone	ND	100									
4-Methylphenol (p-cresol)	ND	100									
2-Nitrophenol	ND	200									
2,4-Dimethylphenol	ND	100									
Bis(2-chloroethoxy)methane	ND	100									
2,4-Dichlorophenol	ND	200									
1,2,4-Trichlorobenzene	ND	100									
Naphthalene	ND	80.0									
4-Chloroaniline	ND	500									
Hexachlorobutadiene	ND	100									
4-Chloro-3-methylphenol	ND	500									
2-Methylnaphthalene	ND	80.0									
1-Methylnaphthalene	ND	80.0									
Hexachlorocyclopentadiene	ND	100									*
2,4,6-Trichlorophenol	ND	200									
2,4,5-Trichlorophenol	ND	200									
2-Chloronaphthalene	ND	100									
2-Nitroaniline	ND	500									
Acenaphthene	ND	80.0									
Dimethylphthalate	ND	100									



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11984	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/29/2015		RunNo:	25202	
Client ID:	MBLKS	Batch ID:	11984					Analysis Date:	9/29/2015		SeqNo:	475253	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
2,6-Dinitrotoluene		ND	100										
Acenaphthylene		ND	80.0										
2,4-Dinitrophenol		ND	200										*
Dibenzofuran		ND	100										
2,4-Dinitrotoluene		ND	100										
4-Nitrophenol		ND	500										
Fluorene		ND	80.0										
4-Chlorophenyl phenyl ether		ND	100										
Diethylphthalate		ND	100										
4,6-Dinitro-2-methylphenol		ND	200										
4-Bromophenyl phenyl ether		ND	100										
Hexachlorobenzene		ND	100										
Pentachlorophenol		ND	100										
Phenanthrene		ND	80.0										
Anthracene		ND	80.0										
Carbazole		ND	500										
Di-n-butylphthalate		ND	100										
Fluoranthene		ND	80.0										
Pyrene		ND	80.0										
Butyl Benzylphthalate		ND	100										
bis(2-Ethylhexyl)adipate		ND	100										
Benz (a) anthracene		ND	80.0										
Chrysene		ND	80.0										
bis (2-Ethylhexyl) phthalate		ND	100										
Di-n-octyl phthalate		ND	100										
Benzo (b) fluoranthene		ND	80.0										
Benzo (k) fluoranthene		ND	80.0										
Benzo (a) pyrene		ND	80.0										
Indeno (1,2,3-cd) pyrene		ND	80.0										
Dibenz (a,h) anthracene		ND	80.0										
Benzo (g,h,i) perylene		ND	80.0										



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11984	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/29/2015		RunNo:	25202	
Client ID:	MBLKS	Batch ID:	11984					Analysis Date:	9/29/2015		SeqNo:	475253	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol		0		1,000		0	11.1	127					S
Surr: 2-Fluorobiphenyl		479		500.0		95.8	16.1	150					
Surr: Nitrobenzene-d5		471		500.0		94.1	13.1	124					
Surr: Phenol-d6		770		1,000		77.0	11.6	133					
Surr: p-Terphenyl		450		500.0		90.0	21.8	150					

NOTES:

S - Outlying surrogate recoveries observed.

* - Flagged value is not within established control limits.

Sample ID	LCS-11984	SampType: LCS		Units: µg/Kg		Prep Date: 9/29/2015			RunNo: 25202		
Client ID:	LCSS	Batch ID: 11984					Analysis Date: 9/29/2015			SeqNo: 475254	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	945	200	1,000	0	94.5	41.8	138				
Bis(2-chloroethyl) ether	912	200	1,000	0	91.2	65	116				
2-Chlorophenol	909	100	1,000	0	90.9	49.3	132				
1,3-Dichlorobenzene	968	100	1,000	0	96.8	50.9	133				
1,4-Dichlorobenzene	855	100	1,000	0	85.5	51.3	133				
1,2-Dichlorobenzene	951	100	1,000	0	95.1	54.2	129				
Benzyl alcohol	1,400	100	1,000	0	140	42.4	131				S
2-Methylphenol (o-cresol)	952	100	1,000	0	95.2	47.2	134				
Hexachloroethane	762	100	1,000	0	76.2	25.4	144				
N-Nitrosodi-n-propylamine	1,020	100	1,000	0	102	39.8	135				
Nitrobenzene	979	200	1,000	0	97.9	62.3	126				
Isophorone	1,050	100	1,000	0	105	62.7	131				
4-Methylphenol (p-cresol)	938	100	1,000	0	93.8	57.4	131				
2-Nitrophenol	714	200	1,000	0	71.4	44.2	129				
2,4-Dimethylphenol	919	100	1,000	0	91.9	57.8	121				
Bis(2-chloroethoxy)methane	977	100	1,000	0	97.7	67.5	124				
2,4-Dichlorophenol	868	200	1,000	0	86.8	57.1	128				
1,2,4-Trichlorobenzene	902	100	1,000	0	90.2	36.2	140				
Naphthalene	978	80.0	1,000	0	97.8	56.8	130				



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	LCS-11984	SampType: LCS		Units: µg/Kg		Prep Date: 9/29/2015			RunNo: 25202		
Client ID:	LCSS	Batch ID: 11984					Analysis Date: 9/29/2015			SeqNo: 475254	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chloroaniline	753	500	1,000	0	75.3	10.4	130				
Hexachlorobutadiene	962	100	1,000	0	96.2	55.9	131				
4-Chloro-3-methylphenol	1,030	500	1,000	0	103	49.4	138				
2-Methylnaphthalene	977	80.0	1,000	0	97.7	68.3	121				
1-Methylnaphthalene	974	80.0	1,000	0	97.4	64.1	126				
Hexachlorocyclopentadiene	147	100	1,000	0	14.7	21	130				S
2,4,6-Trichlorophenol	694	200	1,000	0	69.4	36.4	132				
2,4,5-Trichlorophenol	874	200	1,000	0	87.4	52.3	128				
2-Chloronaphthalene	946	100	1,000	0	94.6	67.1	123				
2-Nitroaniline	891	500	1,000	0	89.1	43.9	135				
Acenaphthene	969	80.0	1,000	0	96.9	49.2	127				
Dimethylphthalate	931	100	1,000	0	93.1	62.4	130				
2,6-Dinitrotoluene	850	100	1,000	0	85.0	54.6	127				
Acenaphthylene	957	80.0	1,000	0	95.7	64.8	127				
2,4-Dinitrophenol	ND	200	2,000	0	0	7.9	119				S
Dibenzofuran	956	100	1,000	0	95.6	67.5	123				
2,4-Dinitrotoluene	798	100	1,000	0	79.8	21.9	136				
4-Nitrophenol	2,910	500	1,000	0	291	25.4	138				S
Fluorene	980	80.0	1,000	0	98.0	64.8	126				
4-Chlorophenyl phenyl ether	969	100	1,000	0	96.9	66.6	124				
Diethylphthalate	959	100	1,000	0	95.9	42.9	132				
4,6-Dinitro-2-methylphenol	303	200	1,000	0	30.3	12.9	110				
4-Bromophenyl phenyl ether	917	100	1,000	0	91.7	61.8	128				
Hexachlorobenzene	932	100	1,000	0	93.2	66.8	124				
Pentachlorophenol	226	100	1,000	0	22.6	10	123				
Phenanthrene	946	80.0	1,000	0	94.6	61.2	130				
Anthracene	1,010	80.0	1,000	0	101	68.9	122				
Carbazole	969	500	1,000	0	96.9	64.5	135				
Di-n-butylphthalate	947	100	1,000	0	94.7	50.6	130				
Fluoranthene	954	80.0	1,000	0	95.4	66	129				
Pyrene	970	80.0	1,000	0	97.0	45.4	140				



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	LCS-11984	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/29/2015	RunNo:	25202		
Client ID:	LCSS	Batch ID:	11984			Analysis Date:	9/29/2015	SeqNo:	475254		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Butyl Benzylphthalate	927	100	1,000	0	92.7	31.1	157				
bis(2-Ethylhexyl)adipate	1,070	100	1,000	0	107	28.7	160				
Benz (a) anthracene	842	80.0	1,000	0	84.2	44	150				
Chrysene	1,000	80.0	1,000	0	100	65.8	128				
bis (2-Ethylhexyl) phthalate	1,100	100	1,000	0	110	36.3	149				
Di-n-octyl phthalate	1,260	100	1,000	0	126	37.2	135				
Benzo (b) fluoranthene	993	80.0	1,000	0	99.3	45.6	146				
Benzo (k) fluoranthene	739	80.0	1,000	0	73.9	45.5	138				
Benzo (a) pyrene	627	80.0	1,000	0	62.7	49.2	137				
Indeno (1,2,3-cd) pyrene	712	80.0	1,000	0	71.2	44.2	146				
Dibenz (a,h) anthracene	718	80.0	1,000	0	71.8	37.5	152				
Benzo (g,h,l) perylene	593	80.0	1,000	0	59.3	24.1	156				
Surr: 2,4,6-Tribromophenol	619		1,000		61.9	11.1	127				
Surr: 2-Fluorobiphenyl	470		500.0		94.0	16.1	150				
Surr: Nitrobenzene-d5	466		500.0		93.1	13.1	124				
Surr: Phenol-d6	609		1,000		60.9	11.6	133				
Surr: p-Terphenyl	455		500.0		91.0	21.8	150				

NOTES:

S - Outlying spike recovery(ies) observed for Benzyl alcohol and 4-Nitrophenol - High Bias. There were no detections of these analytes in the samples. No further action is required.

S - Outlying spike recovery(ies) observed for Hexachlorocyclopentadiene and 2,4-Dinitrophenol. Samples will be qualified with an *.

Sample ID	1509300-006ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25202		
Client ID:	BATCH	Batch ID:	11984			Analysis Date:	9/29/2015	SeqNo:	475256		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	288						0		50	
Bis(2-chloroethyl) ether	ND	288						0		50	
2-Chlorophenol	ND	144						0		50	
1,3-Dichlorobenzene	ND	144						0		50	
1,4-Dichlorobenzene	ND	144						0		50	
1,2-Dichlorobenzene	ND	144						0		50	
Benzyl alcohol	ND	144						0		50	



Date: 10/6/2015

Work Order: 1509311
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509300-006ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25202		
Client ID:	BATCH	Batch ID:	11984			Analysis Date:	9/29/2015	SeqNo:	475256		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylphenol (o-cresol)	ND	144						0		50	
Hexachloroethane	ND	144						0		50	
N-Nitrosodi-n-propylamine	ND	144						0		50	
Nitrobenzene	ND	288						0		50	
Isophorone	ND	144						0		50	
4-Methylphenol (p-cresol)	ND	144						0		50	
2-Nitrophenol	ND	288						0		50	
2,4-Dimethylphenol	ND	144						0		50	
Bis(2-chloroethoxy)methane	ND	144						0		50	
2,4-Dichlorophenol	ND	288						0		50	
1,2,4-Trichlorobenzene	ND	144						0		50	
Naphthalene	ND	115						0		50	
4-Chloroaniline	ND	719						0		50	
Hexachlorobutadiene	ND	144						0		50	
4-Chloro-3-methylphenol	ND	719						0		50	
2-Methylnaphthalene	ND	115						0		50	
1-Methylnaphthalene	ND	115						0		50	
Hexachlorocyclopentadiene	ND	144						0		50	*
2,4,6-Trichlorophenol	ND	288						0		50	
2,4,5-Trichlorophenol	ND	288						0		50	
2-Chloronaphthalene	ND	144						0		50	
2-Nitroaniline	ND	719						0		50	
Acenaphthene	ND	115						0		50	
Dimethylphthalate	ND	144						0		50	
2,6-Dinitrotoluene	ND	144						0		50	
Acenaphthylene	ND	115						0		50	
2,4-Dinitrophenol	ND	288						0		50	*
Dibenzofuran	ND	144						0		50	
2,4-Dinitrotoluene	ND	144						0		50	
4-Nitrophenol	ND	719						0		50	
Fluorene	ND	115						0		50	



Date: 10/6/2015

Work Order: 1509311
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509300-006ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25202		
Client ID:	BATCH	Batch ID:	11984			Analysis Date:	9/29/2015	SeqNo:	475256		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

4-Chlorophenyl phenyl ether	ND	144						0		50	
Diethylphthalate	ND	144						0		50	
4,6-Dinitro-2-methylphenol	ND	288						0		50	
4-Bromophenyl phenyl ether	ND	144						0		50	
Hexachlorobenzene	ND	144						0		50	
Pentachlorophenol	ND	144						0		50	
Phenanthrene	ND	115						0		50	
Anthracene	ND	115						0		50	
Carbazole	ND	719						0		50	
Di-n-butylphthalate	185	144						0	200	50	
Fluoranthene	123	115						108.7	12.5	50	
Pyrene	ND	115						0		50	
Butyl Benzylphthalate	ND	144						0		50	
bis(2-Ethylhexyl)adipate	ND	144						0		50	
Benz (a) anthracene	ND	115						0		50	
Chrysene	ND	115						0		50	
bis (2-Ethylhexyl) phthalate	149	144						147.3	1.17	50	
Di-n-octyl phthalate	ND	144						0		50	
Benzo (b) fluoranthene	ND	115						0		50	
Benzo (k) fluoranthene	ND	115						0		50	
Benzo (a) pyrene	ND	115						0		50	
Indeno (1,2,3-cd) pyrene	ND	115						0		50	
Dibenz (a,h) anthracene	ND	115						0		50	
Benzo (g,h,i) perylene	ND	115						0		50	
Surr: 2,4,6-Tribromophenol	1,050		1,438		73.2	11.1	127		0		
Surr: 2-Fluorobiphenyl	520		718.9		72.3	16.1	150		0		
Surr: Nitrobenzene-d5	347		718.9		48.3	13.1	124		0		
Surr: Phenol-d6	728		1,438		50.6	11.6	133		0		
Surr: p-Terphenyl	656		718.9		91.2	21.8	150		0		

NOTES:

* - Flagged value is not within established control limits.



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509300-007AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25202		
Client ID:	BATCH	Batch ID:	11984			Analysis Date:	9/29/2015	SeqNo:	475258		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	1,150	266	1,331	0	86.8	29.2	146				
Bis(2-chloroethyl) ether	1,130	266	1,331	0	84.8	65.4	115				
2-Chlorophenol	1,180	133	1,331	0	88.6	44	134				
1,3-Dichlorobenzene	973	133	1,331	0	73.1	69.1	117				
1,4-Dichlorobenzene	923	133	1,331	0	69.4	44.5	134				
1,2-Dichlorobenzene	1,050	133	1,331	0	78.7	35	131				
Benzyl alcohol	1,650	133	1,331	0	124	30.8	159				
2-Methylphenol (o-cresol)	1,370	133	1,331	0	103	57.7	125				
Hexachloroethane	800	133	1,331	0	60.1	67.1	118				S
N-Nitrosodi-n-propylamine	1,390	133	1,331	0	105	26.4	151				
Nitrobenzene	1,220	266	1,331	0	91.5	61.4	130				
Isophorone	1,440	133	1,331	0	108	61.8	132				
4-Methylphenol (p-cresol)	1,310	133	1,331	0	98.3	65.5	127				
2-Nitrophenol	1,080	266	1,331	0	81.1	46.3	118				
2,4-Dimethylphenol	1,310	133	1,331	0	98.2	46	158				
Bis(2-chloroethoxy)methane	1,360	133	1,331	0	102	66.8	124				
2,4-Dichlorophenol	1,230	266	1,331	0	92.5	56.2	128				
1,2,4-Trichlorobenzene	1,200	133	1,331	0	90.4	29.2	140				
Naphthalene	1,270	106	1,331	0	95.8	44.4	136				
4-Chloroaniline	1,140	665	1,331	0	86.0	27	126				
Hexachlorobutadiene	1,190	133	1,331	0	89.8	38.2	138				
4-Chloro-3-methylphenol	1,290	665	1,331	0	97.2	36.8	159				
2-Methylnaphthalene	1,310	106	1,331	0	98.5	51.7	138				
1-Methylnaphthalene	1,320	106	1,331	0	99.5	70.4	124				
Hexachlorocyclopentadiene	162	133	1,331	0	12.2	37.5	129				S
2,4,6-Trichlorophenol	1,230	266	1,331	0	92.5	62.7	122				
2,4,5-Trichlorophenol	1,290	266	1,331	0	97.3	54.7	127				
2-Chloronaphthalene	1,300	133	1,331	0	98.0	69.8	126				
2-Nitroaniline	1,350	665	1,331	0	101	39.3	145				
Acenaphthene	1,390	106	1,331	0	105	49.6	129				
Dimethylphtalate	1,270	133	1,331	0	95.8	61.5	131				



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509300-007AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25202		
Client ID:	BATCH	Batch ID:	11984			Analysis Date:	9/29/2015	SeqNo:	475258		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,6-Dinitrotoluene	1,200	133	1,331	0	90.0	56.8	137				
Acenaphthylene	1,350	106	1,331	0	101	64	128				
2,4-Dinitrophenol	509	266	1,331	0	38.3	35.3	144				
Dibenzofuran	1,310	133	1,331	0	98.4	64.7	131				
2,4-Dinitrotoluene	1,100	133	1,331	0	82.9	30.9	139				
4-Nitrophenol	3,970	665	1,331	0	298	48.6	137				S
Fluorene	1,310	106	1,331	0	98.6	64.2	127				
4-Chlorophenyl phenyl ether	1,330	133	1,331	0	100	70.9	128				
Diethylphthalate	1,360	133	1,331	0	102	61.7	129				
4,6-Dinitro-2-methylphenol	590	266	1,331	0	44.3	21.9	143				
4-Bromophenyl phenyl ether	1,320	133	1,331	0	99.0	69.6	136				
Hexachlorobenzene	1,240	133	1,331	0	93.0	66.5	123				
Pentachlorophenol	956	133	1,331	0	71.8	28.2	156				
Phenanthrene	1,330	106	1,331	0	99.9	57	134				
Anthracene	1,330	106	1,331	0	99.6	68.2	123				
Carbazole	1,320	665	1,331	0	99.0	64.1	152				
Di-n-butylphthalate	1,280	133	1,331	0	96.1	52.4	130				
Fluoranthene	1,350	106	1,331	0	101	46.5	165				
Pyrene	1,320	106	1,331	0	99.3	31.4	151				
Butyl Benzylphthalate	1,260	133	1,331	0	94.6	30.4	138				
bis(2-Ethylhexyl)adipate	1,410	133	1,331	0	106	32	136				
Benz (a) anthracene	1,190	106	1,331	0	89.4	43.9	151				
Chrysene	1,370	106	1,331	0	103	71.1	126				
bis (2-Ethylhexyl) phthalate	1,470	133	1,331	0	110	40.8	170				
Di-n-octyl phthalate	1,700	133	1,331	0	128	34.6	142				
Benzo (b) fluoranthene	1,380	106	1,331	0	104	52.1	136				
Benzo (k) fluoranthene	1,100	106	1,331	0	82.4	64.5	135				
Benzo (a) pyrene	849	106	1,331	0	63.8	50.5	137				
Indeno (1,2,3-cd) pyrene	920	106	1,331	0	69.2	49.7	143				
Dibenz (a,h) anthracene	836	106	1,331	0	62.8	40.7	152				
Benzo (g,h,l) perylene	827	106	1,331	0	62.2	34	157				



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509300-007AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25202		
Client ID:	BATCH	Batch ID:	11984			Analysis Date:	9/29/2015	SeqNo:	475258		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	1,090		1,331		82.0	11.1	127				
Surr: 2-Fluorobiphenyl	592		665.3		89.0	16.1	150				
Surr: Nitrobenzene-d5	460		665.3		69.2	13.1	124				
Surr: Phenol-d6	752		1,331		56.5	11.6	133				
Surr: p-Terphenyl	612		665.3		92.0	21.8	150				

Sample ID	MB-11985	SampType: MBLK		Units: µg/Kg	Prep Date: 9/29/2015				RunNo: 25270		
Client ID:	MBLKS	Batch ID: 11985			Analysis Date: 10/2/2015				SeqNo: 476486		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	200									
Bis(2-chloroethyl) ether	ND	200									
2-Chlorophenol	ND	100									
1,3-Dichlorobenzene	ND	100									
1,4-Dichlorobenzene	ND	100									
1,2-Dichlorobenzene	ND	100									
Benzyl alcohol	ND	100									
2-Methylphenol (o-cresol)	ND	100									
Hexachloroethane	ND	100									
N-Nitrosodi-n-propylamine	ND	100									
Nitrobenzene	ND	200									
Isophorone	ND	100									
4-Methylphenol (p-cresol)	ND	100									
2-Nitrophenol	ND	200									
2,4-Dimethylphenol	ND	100									
Bis(2-chloroethoxy)methane	ND	100									
2,4-Dichlorophenol	ND	200									
1,2,4-Trichlorobenzene	ND	100									
Naphthalene	ND	80.0									
4-Chloroaniline	ND	500									
Hexachlorobutadiene	ND	100									



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11985	SampType:	MBLK	Units:	µg/Kg	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	MBLKS	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476486		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

4-Chloro-3-methylphenol	ND	500									
2-Methylnaphthalene	ND	80.0									
1-Methylnaphthalene	ND	80.0									
Hexachlorocyclopentadiene	ND	100									
2,4,6-Trichlorophenol	ND	200									
2,4,5-Trichlorophenol	ND	200									
2-Chloronaphthalene	ND	100									
2-Nitroaniline	ND	500									
Acenaphthene	ND	80.0									
Dimethylphthalate	ND	100									
2,6-Dinitrotoluene	ND	100									
Acenaphthylene	ND	80.0									
2,4-Dinitrophenol	ND	200									*
Dibenzofuran	ND	100									
2,4-Dinitrotoluene	ND	100									
4-Nitrophenol	ND	500									*
Fluorene	ND	80.0									
4-Chlorophenyl phenyl ether	ND	100									
Diethylphthalate	ND	100									
4,6-Dinitro-2-methylphenol	ND	200									
4-Bromophenyl phenyl ether	ND	100									
Hexachlorobenzene	ND	100									
Pentachlorophenol	ND	100									
Phenanthrene	ND	80.0									
Anthracene	ND	80.0									
Carbazole	ND	500									
Di-n-butylphthalate	ND	100									
Fluoranthene	ND	80.0									
Pyrene	ND	80.0									
Butyl Benzylphthalate	ND	100									
bis(2-Ethylhexyl)adipate	ND	100									



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11985	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/29/2015		RunNo:	25270	
Client ID:	MBLKS	Batch ID:	11985					Analysis Date:	10/2/2015		SeqNo:	476486	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Benz (a) anthracene	ND	80.0											
Chrysene	ND	80.0											
bis (2-Ethylhexyl) phthalate	ND	100											
Di-n-octyl phthalate	ND	100											
Benzo (b) fluoranthene	ND	80.0											
Benzo (k) fluoranthene	ND	80.0											
Benzo (a) pyrene	ND	80.0											
Indeno (1,2,3-cd) pyrene	ND	80.0											
Dibenz (a,h) anthracene	ND	80.0											
Benzo (g,h,l) perylene	ND	80.0											
Surr: 2,4,6-Tribromophenol	165		1,000		16.5	11.1	127						
Surr: 2-Fluorobiphenyl	511		500.0		102	16.1	150						
Surr: Nitrobenzene-d5	466		500.0		93.2	13.1	124						
Surr: Phenol-d6	771		1,000		77.1	11.6	133						
Surr: p-Terphenyl	487		500.0		97.4	21.8	150						

NOTES:

* - Flagged value is not within established control limits.

Sample ID	LCS-11985	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	LCSS	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476487		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	885	200	1,000	0	88.5	41.8	138				
Bis(2-chloroethyl) ether	957	200	1,000	0	95.7	65	116				
2-Chlorophenol	912	100	1,000	0	91.2	49.3	132				
1,3-Dichlorobenzene	866	100	1,000	0	86.6	50.9	133				
1,4-Dichlorobenzene	780	100	1,000	0	78.0	51.3	133				
1,2-Dichlorobenzene	903	100	1,000	0	90.3	54.2	129				
Benzyl alcohol	2,140	100	1,000	0	214	42.4	131				S
2-Methylphenol (o-cresol)	824	100	1,000	0	82.4	47.2	134				
Hexachloroethane	891	100	1,000	0	89.1	48.9	133				
N-Nitrosodi-n-propylamine	945	100	1,000	0	94.5	39.8	135				



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Semi-Volatile Organic Compounds by EPA Method 8270**

Sample ID	LCS-11985	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	LCSS	Batch ID:	11985	Analysis Date:				10/2/2015	SeqNo:	476487	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrobenzene	958	200	1,000	0	95.8	62.3	126				
Isophorone	951	100	1,000	0	95.1	62.7	131				
4-Methylphenol (p-cresol)	775	100	1,000	0	77.5	57.4	131				
2-Nitrophenol	665	200	1,000	0	66.5	44.2	129				
2,4-Dimethylphenol	603	100	1,000	0	60.3	57.8	121				
Bis(2-chloroethoxy)methane	962	100	1,000	0	96.2	67.5	124				
2,4-Dichlorophenol	835	200	1,000	0	83.5	57.1	128				
1,2,4-Trichlorobenzene	976	100	1,000	0	97.6	36.2	140				
Naphthalene	981	80.0	1,000	0	98.1	56.8	130				
4-Chloroaniline	881	500	1,000	0	88.1	50.2	139				
Hexachlorobutadiene	927	100	1,000	0	92.7	55.9	131				
4-Chloro-3-methylphenol	669	500	1,000	0	66.9	49.4	138				
2-Methylnaphthalene	945	80.0	1,000	0	94.5	68.3	121				
1-Methylnaphthalene	944	80.0	1,000	0	94.4	64.1	126				
Hexachlorocyclopentadiene	775	100	1,000	0	77.5	36.7	128				
2,4,6-Trichlorophenol	558	200	1,000	0	55.8	36.4	132				
2,4,5-Trichlorophenol	762	200	1,000	0	76.2	52.3	128				
2-Chloronaphthalene	951	100	1,000	0	95.1	67.1	123				
2-Nitroaniline	874	500	1,000	0	87.4	43.9	135				
Acenaphthene	956	80.0	1,000	0	95.6	49.2	127				
Dimethylphthalate	893	100	1,000	0	89.3	62.4	130				
2,6-Dinitrotoluene	905	100	1,000	0	90.5	54.6	127				
Acenaphthylene	941	80.0	1,000	0	94.1	64.8	127				
2,4-Dinitrophenol	ND	200	1,000	0	0	7.9	119				S
Dibenzofuran	983	100	1,000	0	98.3	67.5	123				
2,4-Dinitrotoluene	845	100	1,000	0	84.5	21.9	136				
4-Nitrophenol	ND	500	1,000	0	0	25.4	138				S
Fluorene	961	80.0	1,000	0	96.1	64.8	126				
4-Chlorophenyl phenyl ether	997	100	1,000	0	99.7	66.6	124				
Diethylphthalate	943	100	1,000	0	94.3	42.9	132				
4,6-Dinitro-2-methylphenol	638	200	1,000	0	63.8	12.9	110				



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	LCS-11985	SampType: LCS		Units: µg/Kg	Prep Date: 9/29/2015			RunNo: 25270			
Client ID:	LCSS	Batch ID: 11985			Analysis Date: 10/2/2015			SeqNo: 476487			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Bromophenyl phenyl ether	964	100	1,000	0	96.4	61.8	128				
Hexachlorobenzene	962	100	1,000	0	96.2	66.8	124				
Pentachlorophenol	339	100	1,000	0	33.9	10	123				
Phenanthrene	961	80.0	1,000	0	96.1	61.2	130				
Anthracene	960	80.0	1,000	0	96.0	68.9	122				
Carbazole	919	500	1,000	0	91.9	64.5	135				
Di-n-butylphthalate	923	100	1,000	0	92.3	50.6	130				
Fluoranthene	965	80.0	1,000	0	96.5	66	129				
Pyrene	959	80.0	1,000	0	95.9	45.4	140				
Butyl Benzylphthalate	903	100	1,000	0	90.3	31.1	157				
bis(2-Ethylhexyl)adipate	933	100	1,000	0	93.3	28.7	160				
Benz (a) anthracene	891	80.0	1,000	0	89.1	44	150				
Chrysene	1,070	80.0	1,000	0	107	65.8	128				
bis (2-Ethylhexyl) phthalate	946	100	1,000	0	94.6	36.3	149				
Di-n-octyl phthalate	944	100	1,000	0	94.4	37.2	135				
Benzo (b) fluoranthene	811	80.0	1,000	0	81.1	45.6	146				
Benzo (k) fluoranthene	836	80.0	1,000	0	83.6	45.5	138				
Benzo (a) pyrene	775	80.0	1,000	0	77.5	49.2	137				
Indeno (1,2,3-cd) pyrene	706	80.0	1,000	0	70.6	44.2	146				
Dibenz (a,h) anthracene	772	80.0	1,000	0	77.2	37.5	152				
Benzo (g,h,i) perylene	707	80.0	1,000	0	70.7	24.1	156				
Surr: 2,4,6-Tribromophenol	630		1,000		63.0	11.1	127				
Surr: 2-Fluorobiphenyl	487		500.0		97.5	16.1	150				
Surr: Nitrobenzene-d5	476		500.0		95.1	13.1	124				
Surr: Phenol-d6	889		1,000		88.9	11.6	133				
Surr: p-Terphenyl	480		500.0		96.1	21.8	150				

NOTES:

S - Outlying spike recoveries observed (2,4-Dinitrophenol and 4-Nitrophenol; low bias). Samples will be qualified with an *.

S - Outlying spike recovery observed (Benzyl alcohol; high bias). Samples are non-detect for this analyte, no further action required.



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	BATCH	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476489		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	279						0		50	
Bis(2-chloroethyl) ether	ND	279						0		50	
2-Chlorophenol	ND	140						0		50	
1,3-Dichlorobenzene	ND	140						0		50	
1,4-Dichlorobenzene	ND	140						0		50	
1,2-Dichlorobenzene	ND	140						0		50	
Benzyl alcohol	ND	140						0		50	
2-Methylphenol (o-cresol)	ND	140						0		50	
Hexachloroethane	ND	140						0		50	
N-Nitrosodi-n-propylamine	ND	140						0		50	
Nitrobenzene	ND	279						0		50	
Isophorone	ND	140						0		50	
4-Methylphenol (p-cresol)	ND	140						0		50	
2-Nitrophenol	ND	279						0		50	
2,4-Dimethylphenol	ND	140						0		50	
Bis(2-chloroethoxy)methane	ND	140						0		50	
2,4-Dichlorophenol	ND	279						0		50	
1,2,4-Trichlorobenzene	ND	140						0		50	
Naphthalene	ND	112						0		50	
4-Chloroaniline	ND	698						0		50	
Hexachlorobutadiene	ND	140						0		50	
4-Chloro-3-methylphenol	ND	698						0		50	
2-Methylnaphthalene	ND	112						0		50	
1-Methylnaphthalene	ND	112						0		50	
Hexachlorocyclopentadiene	ND	140						0		50	
2,4,6-Trichlorophenol	ND	279						0		50	
2,4,5-Trichlorophenol	ND	279						0		50	
2-Chloronaphthalene	ND	140						0		50	
2-Nitroaniline	ND	698						0		50	
Acenaphthene	ND	112						0		50	
Dimethylphthalate	ND	140						0		50	



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	BATCH	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476489		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,6-Dinitrotoluene	ND	140						0		50	
Acenaphthylene	ND	112						0		50	
2,4-Dinitrophenol	ND	279						0		50	*
Dibenzofuran	ND	140						0		50	
2,4-Dinitrotoluene	ND	140						0		50	
4-Nitrophenol	ND	698						0		50	*
Fluorene	ND	112						0		50	
4-Chlorophenyl phenyl ether	ND	140						0		50	
Diethylphthalate	ND	140						0		50	
4,6-Dinitro-2-methylphenol	ND	279						0		50	
4-Bromophenyl phenyl ether	ND	140						0		50	
Hexachlorobenzene	ND	140						0		50	
Pentachlorophenol	ND	140						0		50	
Phenanthrene	ND	112						0		50	
Anthracene	ND	112						0		50	
Carbazole	ND	698						0		50	
Di-n-butylphthalate	289	140						312.5	7.65	50	
Fluoranthene	ND	112						0		50	
Pyrene	ND	112						0		50	
Butyl Benzylphthalate	ND	140						180.5	200	50	R
bis(2-Ethylhexyl)adipate	ND	140						0		50	
Benz (a) anthracene	151	112						156.3	3.66	50	
Chrysene	ND	112						0		50	
bis (2-Ethylhexyl) phthalate	195	140						160.6	19.2	50	
Di-n-octyl phthalate	ND	140						0		50	
Benzo (b) fluoranthene	ND	112						0		50	
Benzo (k) fluoranthene	ND	112						0		50	
Benzo (a) pyrene	ND	112						0		50	
Indeno (1,2,3-cd) pyrene	ND	112						0		50	
Dibenz (a,h) anthracene	ND	112						0		50	
Benzo (g,h,l) perylene	ND	112						0		50	



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-001ADUP	SampType:	DUP		Units:	µg/Kg-dry			Prep Date:	9/29/2015		RunNo:	25270	
Client ID:	BATCH	Batch ID:	11985						Analysis Date:	10/2/2015		SeqNo:	476489	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Surr: 2,4,6-Tribromophenol		646		1,396		46.3	11.1	127			0			
Surr: 2-Fluorobiphenyl		613		697.8		87.8	16.1	150			0			
Surr: Nitrobenzene-d5		523		697.8		75.0	13.1	124			0			
Surr: Phenol-d6		657		1,396		47.0	11.6	133			0			
Surr: p-Terphenyl		690		697.8		98.9	21.8	150			0			

NOTES:

* - Flagged value is not within established control limits.

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID	1509353-002AMS	SampType:	MS		Units:	µg/Kg-dry		Prep Date:	9/29/2015		RunNo:	25270
Client ID:	BATCH	Batch ID:	11985		Analysis Date:				10/2/2015		SeqNo:	476491
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Phenol	394	244	1,218	0	32.4	29.2	146					
Bis(2-chloroethyl) ether	759	244	1,218	0	62.4	65.4	115				S	
2-Chlorophenol	725	122	1,218	0	59.5	44	134					
1,3-Dichlorobenzene	724	122	1,218	0	59.4	69.1	117				S	
1,4-Dichlorobenzene	643	122	1,218	0	52.8	44.5	134					
1,2-Dichlorobenzene	729	122	1,218	0	59.9	35	131					
Benzyl alcohol	898	122	1,218	0	73.8	30.8	159					
2-Methylphenol (o-cresol)	388	122	1,218	0	31.9	57.7	125				S	
Hexachloroethane	667	122	1,218	0	54.8	67.1	118				S	
N-Nitrosodi-n-propylamine	985	122	1,218	0	80.9	26.4	151					
Nitrobenzene	762	244	1,218	0	62.6	61.4	130					
Isophorone	1,050	122	1,218	0	85.9	61.8	132					
4-Methylphenol (p-cresol)	341	122	1,218	0	28.0	65.5	127				S	
2-Nitrophenol	886	244	1,218	0	72.7	46.3	118					
2,4-Dimethylphenol	243	122	1,218	0	20.0	46	158				S	
Bis(2-chloroethoxy)methane	916	122	1,218	0	75.2	66.8	124					
2,4-Dichlorophenol	740	244	1,218	0	60.7	56.2	128					
1,2,4-Trichlorobenzene	860	122	1,218	0	70.7	29.2	140					
Naphthalene	855	97.4	1,218	50.51	66.1	44.4	136					



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Semi-Volatile Organic Compounds by EPA Method 8270**

Sample ID	1509353-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	BATCH	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chloroaniline	412	609	1,218	0	33.8	27	126				
Hexachlorobutadiene	892	122	1,218	0	73.3	38.2	138				
4-Chloro-3-methylphenol	ND	609	1,218	0	0	36.8	159				S
2-Methylnaphthalene	971	97.4	1,218	57.31	75.0	51.7	138				
1-Methylnaphthalene	983	97.4	1,218	48.77	76.7	70.4	124				
Hexachlorocyclopentadiene	189	122	1,218	0	15.5	37.5	129				S
2,4,6-Trichlorophenol	833	244	1,218	0	68.4	62.7	122				
2,4,5-Trichlorophenol	826	244	1,218	0	67.8	54.7	127				
2-Chloronaphthalene	999	122	1,218	0	82.1	69.8	126				
2-Nitroaniline	1,050	609	1,218	0	85.9	39.3	145				
Acenaphthene	1,060	97.4	1,218	0	87.1	49.6	129				
Dimethylphthalate	1,040	122	1,218	0	85.7	61.5	131				
2,6-Dinitrotoluene	1,000	122	1,218	0	82.3	56.8	137				
Acenaphthylene	982	97.4	1,218	51.91	76.4	64	128				
2,4-Dinitrophenol	1,140	244	1,218	0	93.5	35.3	144				
Dibenzofuran	1,020	122	1,218	0	83.8	64.7	131				
2,4-Dinitrotoluene	941	122	1,218	0	77.3	30.9	139				
4-Nitrophenol	ND	609	1,218	0	0	48.6	137				S
Fluorene	1,060	97.4	1,218	57.45	82.2	64.2	127				
4-Chlorophenyl phenyl ether	1,040	122	1,218	0	85.8	70.9	128				
Diethylphthalate	1,070	122	1,218	89.58	80.5	61.7	129				
4,6-Dinitro-2-methylphenol	596	244	1,218	0	48.9	21.9	143				
4-Bromophenyl phenyl ether	1,050	122	1,218	0	85.9	69.6	136				
Hexachlorobenzene	1,030	122	1,218	0	84.3	66.5	123				
Pentachlorophenol	495	122	1,218	0	40.7	28.2	156				
Phenanthrene	1,060	97.4	1,218	73.19	80.9	57	134				
Anthracene	1,030	97.4	1,218	0	84.6	68.2	123				
Carbazole	1,040	609	1,218	0	85.7	64.1	152				
Di-n-butylphthalate	1,120	122	1,218	135.4	80.6	52.4	130				
Fluoranthene	1,100	97.4	1,218	147.8	77.8	46.5	165				
Pyrene	1,120	97.4	1,218	135.8	81.0	31.4	151				



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	BATCH	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Butyl Benzylphthalate	1,300	122	1,218	155.5	93.7	30.4	138				
bis(2-Ethylhexyl)adipate	1,350	122	1,218	0	111	32	136				
Benz (a) anthracene	1,070	97.4	1,218	0	88.0	43.9	151				
Chrysene	1,150	97.4	1,218	63.14	89.2	71.1	126				
bis (2-Ethylhexyl) phthalate	1,280	122	1,218	132.9	94.0	40.8	170				
Di-n-octyl phthalate	1,920	122	1,218	0	158	34.6	142				S
Benzo (b) fluoranthene	1,250	97.4	1,218	214.7	85.3	52.1	136				
Benzo (k) fluoranthene	934	97.4	1,218	0	76.7	64.5	135				
Benzo (a) pyrene	1,050	97.4	1,218	0	85.9	50.5	137				
Indeno (1,2,3-cd) pyrene	1,290	97.4	1,218	184.3	90.7	49.7	143				
Dibenz (a,h) anthracene	1,500	97.4	1,218	0	123	40.7	152				
Benzo (g,h,l) perylene	1,080	97.4	1,218	150.9	76.4	34	157				
Surr: 2,4,6-Tribromophenol	1,010		1,218		83.0	11.1	127				
Surr: 2-Fluorobiphenyl	496		608.8		81.4	16.1	150				
Surr: Nitrobenzene-d5	381		608.8		62.6	13.1	124				
Surr: Phenol-d6	538		1,218		44.2	11.6	133				
Surr: p-Terphenyl	547		608.8		89.9	21.8	150				

NOTES:

S - Spike recovery indicates a possible matrix effect.



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Gasoline by NWTPH-Gx**

Sample ID	LCS-11959	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/25/2015	RunNo:	25145		
Client ID:	LCSS	Batch ID:	11959			Analysis Date:	9/25/2015	SeqNo:	474087		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	25.7	5.00	25.00	0	103	65	135				
Surr: Toluene-d8	1.24		1.250		99.3	65	135				
Surr: 4-Bromofluorobenzene	1.24		1.250		99.5	65	135				

Sample ID	MB-11959	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/25/2015		RunNo:	25145	
Client ID:	MBLKS	Batch ID:	11959						Analysis Date:	9/25/2015			SeqNo:	474088	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Gasoline	ND	5.00									
Surr: Toluene-d8	1.24		1.250		99.4	65	135				
Surr: 4-Bromofluorobenzene	1.29		1.250		103	65	135				

Sample ID	1509311-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25145		
Client ID:	MW-4-15:6.0	Batch ID:	11959			Analysis Date:	9/25/2015	SeqNo:	474066		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	2.66						0		30	
Surr: Toluene-d8	0.655		0.6647		98.6	65	135		0		
Surr: 4-Bromofluorobenzene	0.707		0.6647		106	65	135		0		

Sample ID	1509311-010BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25145		
Client ID:	MW-6-15:14.0	Batch ID:	11959			Analysis Date:	9/26/2015	SeqNo:	474075		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	3.88						0		30	
Surr: Toluene-d8	0.957		0.9698		98.7	65	135		0		
Surr: 4-Bromofluorobenzene	0.989		0.9698		102	65	135		0		



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Gasoline by NWTPH-Gx**

Sample ID	LCS-R25091	SampType: LCS			Units: µg/L	Prep Date: 9/23/2015			RunNo: 25091		
Client ID:	LCSW	Batch ID: R25091			Analysis Date: 9/23/2015			SeqNo: 472835			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	435	50.0	500.0	0	86.9	65	135				
Surr: Toluene-d8	21.8		25.00		87.2	65	135				
Surr: 4-Bromofluorobenzene	23.5		25.00		93.8	65	135				

Sample ID	MB-R25091	SampType:	MBLK			Units:	µg/L			Prep Date:	9/23/2015		RunNo:	25091	
Client ID:	MBLKW	Batch ID:	R25091						Analysis Date:	9/23/2015			SeqNo:	472925	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Gasoline	ND	50.0									
Surr: Toluene-d8	21.6		25.00		86.4	65	135				
Surr: 4-Bromofluorobenzene	24.0		25.00		96.1	65	135				

Sample ID	1509311-005ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25091		
Client ID:	MW-5-15:GW	Batch ID:	R25091			Analysis Date:	9/23/2015	SeqNo:	472840		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	21.5		25.00		86.2	65	135		0	0	
Surr: 4-Bromofluorobenzene	23.4		25.00		93.6	65	135		0	0	

Sample ID	1509315-003CDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/24/2015	RunNo:	25091		
Client ID:	BATCH	Batch ID:	R25091			Analysis Date:	9/24/2015	SeqNo:	472846		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	7,610	50.0						7,079	7.29	30	E
Surr: Toluene-d8	22.0		25.00		87.8	65	135		0	0	
Surr: 4-Bromofluorobenzene	24.5		25.00		97.9	65	135		0	0	



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11959	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	LCSS	Batch ID:	11959			Analysis Date:	9/25/2015	SeqNo:	474062		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.34	0.0600	1.000	0	134	34.5	141				
Chloromethane	1.06	0.0600	1.000	0	106	38.8	132				
Vinyl chloride	1.13	0.00200	1.000	0	113	56.1	130				
Bromomethane	1.16	0.0900	1.000	0	116	41.3	148				
Trichlorofluoromethane (CFC-11)	1.03	0.0500	1.000	0	103	42.9	147				
Chloroethane	1.08	0.0600	1.000	0	108	37.1	144				
1,1-Dichloroethene	1.12	0.0500	1.000	0	112	49.7	142				
Methylene chloride	0.948	0.0200	1.000	0	94.8	46.3	140				
trans-1,2-Dichloroethene	1.12	0.0200	1.000	0	112	68	130				
Methyl tert-butyl ether (MTBE)	0.915	0.0500	1.000	0	91.5	59.1	138				
1,1-Dichloroethane	1.09	0.0200	1.000	0	109	61.9	137				
2,2-Dichloropropane	1.44	0.0500	1.000	0	144	28.1	149				
cis-1,2-Dichloroethene	1.09	0.0200	1.000	0	109	71.3	135				
Chloroform	1.02	0.0200	1.000	0	102	67.5	129				
1,1,1-Trichloroethane (TCA)	1.19	0.0200	1.000	0	119	69	132				
1,1-Dichloropropene	1.04	0.0200	1.000	0	104	72.7	131				
Carbon tetrachloride	1.05	0.0200	1.000	0	105	63.4	137				
1,2-Dichloroethane (EDC)	0.985	0.0300	1.000	0	98.5	61.9	136				
Benzene	1.00	0.0200	1.000	0	100	64.3	133				
Trichloroethene (TCE)	1.06	0.0200	1.000	0	106	65.5	137				
1,2-Dichloropropane	1.06	0.0200	1.000	0	106	63.2	142				
Bromodichloromethane	0.929	0.0200	1.000	0	92.9	73.2	131				
Dibromomethane	1.13	0.0400	1.000	0	113	70	130				
cis-1,3-Dichloropropene	0.977	0.0200	1.000	0	97.7	59.1	143				
Toluene	0.982	0.0200	1.000	0	98.2	67.3	138				
trans-1,3-Dichloropropylene	1.08	0.0300	1.000	0	108	49.2	149				
1,1,2-Trichloroethane	1.10	0.0300	1.000	0	110	74.5	129				
1,3-Dichloropropane	1.06	0.0500	1.000	0	106	70	130				
Tetrachloroethene (PCE)	1.08	0.0200	1.000	0	108	52.7	150				
Dibromochloromethane	1.06	0.0300	1.000	0	106	70.6	144				
1,2-Dibromoethane (EDB)	1.19	0.00500	1.000	0	119	70	130				



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11959	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	LCSS	Batch ID:	11959			Analysis Date:	9/25/2015	SeqNo:	474062		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	1.07	0.0200	1.000	0	107	76.1	123				
1,1,1,2-Tetrachloroethane	1.06	0.0300	1.000	0	106	74.8	131				
Ethylbenzene	0.985	0.0300	1.000	0	98.5	74	129				
m,p-Xylene	1.96	0.0200	2.000	0	97.8	79.8	128				
o-Xylene	0.963	0.0200	1.000	0	96.3	72.7	124				
Styrene	1.13	0.0200	1.000	0	113	76.8	130				
Isopropylbenzene	1.09	0.0800	1.000	0	109	70	130				
Bromoform	1.06	0.0200	1.000	0	106	67	154				
1,1,2,2-Tetrachloroethane	1.17	0.0200	1.000	0	117	60	130				
n-Propylbenzene	1.08	0.0200	1.000	0	108	74.8	125				
Bromobenzene	1.10	0.0300	1.000	0	110	49.2	144				
1,3,5-Trimethylbenzene	1.05	0.0200	1.000	0	105	74.6	123				
2-Chlorotoluene	1.07	0.0200	1.000	0	107	76.7	129				
4-Chlorotoluene	1.09	0.0200	1.000	0	109	77.5	125				
tert-Butylbenzene	1.10	0.0200	1.000	0	110	66.2	130				
1,2,3-Trichloropropane	1.13	0.0200	1.000	0	113	67.9	136				
1,2,4-Trichlorobenzene	1.09	0.0500	1.000	0	109	65.6	137				
sec-Butylbenzene	1.12	0.0200	1.000	0	112	75.6	133				
4-Isopropyltoluene	1.11	0.0200	1.000	0	111	76.8	131				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	128				
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	72.6	126				
n-Butylbenzene	1.05	0.0200	1.000	0	105	65.3	136				
1,2-Dichlorobenzene	1.02	0.0200	1.000	0	102	72.8	126				
1,2-Dibromo-3-chloropropane	1.06	0.500	1.000	0	106	61.2	139				
1,2,4-Trimethylbenzene	0.962	0.0200	1.000	0	96.2	77.5	129				
Hexachlorobutadiene	1.12	0.100	1.000	0	112	42	151				
Naphthalene	0.975	0.0300	1.000	0	97.5	62.3	134				
1,2,3-Trichlorobenzene	1.04	0.0200	1.000	0	104	62.1	140				
Surr: Dibromofluoromethane	1.28		1.250		103	56.5	129				
Surr: Toluene-d8	1.24		1.250		99.0	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.250		101	63.1	141				



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11959	SampType: LCS			Units: mg/Kg	Prep Date: 9/25/2015			RunNo: 25144		
Client ID:	LCSS	Batch ID: 11959			Analysis Date: 9/25/2015			SeqNo: 474062			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	MB-11959	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/25/2015		RunNo:	25144	
Client ID:	MBLKS	Batch ID:	11959						Analysis Date:	9/25/2015			SeqNo:	474063	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Dichlorodifluoromethane (CFC-12)	ND	0.0600
Chloromethane	ND	0.0600
Vinyl chloride	ND	0.00200
Bromomethane	ND	0.0900
Trichlorofluoromethane (CFC-11)	ND	0.0500
Chloroethane	ND	0.0600
1,1-Dichloroethene	ND	0.0500
Methylene chloride	ND	0.0200
trans-1,2-Dichloroethene	ND	0.0200
Methyl tert-butyl ether (MTBE)	ND	0.0500
1,1-Dichloroethane	ND	0.0200
2,2-Dichloropropane	ND	0.0500
cis-1,2-Dichloroethene	ND	0.0200
Chloroform	ND	0.0200
1,1,1-Trichloroethane (TCA)	ND	0.0200
1,1-Dichloropropene	ND	0.0200
Carbon tetrachloride	ND	0.0200
1,2-Dichloroethane (EDC)	ND	0.0300
Benzene	ND	0.0200
Trichloroethene (TCE)	ND	0.0200
1,2-Dichloropropane	ND	0.0200
Bromodichloromethane	ND	0.0200
Dibromomethane	ND	0.0400
cis-1,3-Dichloropropene	ND	0.0200
Toluene	ND	0.0200
trans-1,3-Dichloropropylene	ND	0.0300



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11959	SampType:	MBLK	Units:	mg/Kg	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	MBLKS	Batch ID:	11959			Analysis Date:	9/25/2015	SeqNo:	474063		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,2-Trichloroethane	ND	0.0300									
1,3-Dichloropropane	ND	0.0500									
Tetrachloroethene (PCE)	ND	0.0200									
Dibromochloromethane	ND	0.0300									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0200									
1,1,1,2-Tetrachloroethane	ND	0.0300									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Styrene	ND	0.0200									
Isopropylbenzene	ND	0.0800									
Bromoform	ND	0.0200									
1,1,2,2-Tetrachloroethane	ND	0.0200									
n-Propylbenzene	ND	0.0200									
Bromobenzene	ND	0.0300									
1,3,5-Trimethylbenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0200									
4-Chlorotoluene	ND	0.0200									
tert-Butylbenzene	ND	0.0200									
1,2,3-Trichloropropane	ND	0.0200									
1,2,4-Trichlorobenzene	ND	0.0500									
sec-Butylbenzene	ND	0.0200									
4-Isopropyltoluene	ND	0.0200									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
n-Butylbenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
1,2,4-Trimethylbenzene	ND	0.0200									
Hexachlorobutadiene	ND	0.100									



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Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11959	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/25/2015		RunNo:	25144
Client ID:	MBLKS	Batch ID:	11959					Analysis Date:	9/25/2015		SeqNo:	474063
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Naphthalene	ND	0.0300										
1,2,3-Trichlorobenzene	ND	0.0200										
Surr: Dibromofluoromethane	1.17		1.250		93.4	56.5	129					
Surr: Toluene-d8	1.22		1.250		97.9	64.3	131					
Surr: 1-Bromo-4-fluorobenzene	1.24		1.250		99.4	63.1	141					

Sample ID	1509311-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	MW-4-15:6.0	Batch ID:	11959			Analysis Date:	9/25/2015	SeqNo:	474038		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0319						0		30	
Chloromethane	ND	0.0319						0		30	
Vinyl chloride	ND	0.00106						0		30	
Bromomethane	ND	0.0479						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0266						0		30	
Chloroethane	ND	0.0319						0		30	
1,1-Dichloroethene	ND	0.0266						0		30	
Methylene chloride	ND	0.0106						0.01064	200	30	R
trans-1,2-Dichloroethene	ND	0.0106						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0266						0		30	
1,1-Dichloroethane	ND	0.0106						0		30	
2,2-Dichloropropane	ND	0.0266						0		30	
cis-1,2-Dichloroethene	ND	0.0106						0		30	
Chloroform	ND	0.0106						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0106						0		30	
1,1-Dichloropropene	ND	0.0106						0		30	
Carbon tetrachloride	ND	0.0106						0		30	
1,2-Dichloroethane (EDC)	ND	0.0160						0		30	
Benzene	ND	0.0106						0		30	
Trichloroethene (TCE)	ND	0.0106						0		30	
1,2-Dichloropropane	ND	0.0106						0		30	



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Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509311-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	MW-4-15:6.0	Batch ID:	11959			Analysis Date:	9/25/2015	SeqNo:	474038		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	0.0106						0		30	
Dibromomethane	ND	0.0213						0		30	
cis-1,3-Dichloropropene	ND	0.0106						0		30	
Toluene	ND	0.0106						0		30	
trans-1,3-Dichloropropylene	ND	0.0160						0		30	
1,1,2-Trichloroethane	ND	0.0160						0		30	
1,3-Dichloropropane	ND	0.0266						0		30	
Tetrachloroethene (PCE)	ND	0.0106						0		30	
Dibromochloromethane	ND	0.0160						0		30	
1,2-Dibromoethane (EDB)	ND	0.00266						0		30	
Chlorobenzene	ND	0.0106						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0160						0		30	
Ethylbenzene	ND	0.0160						0		30	
m,p-Xylene	ND	0.0106						0		30	
o-Xylene	ND	0.0106						0		30	
Styrene	ND	0.0106						0		30	
Isopropylbenzene	ND	0.0425						0		30	
Bromoform	ND	0.0106						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0106						0		30	
n-Propylbenzene	ND	0.0106						0		30	
Bromobenzene	ND	0.0160						0		30	
1,3,5-Trimethylbenzene	ND	0.0106						0		30	
2-Chlorotoluene	ND	0.0106						0		30	
4-Chlorotoluene	ND	0.0106						0		30	
tert-Butylbenzene	ND	0.0106						0		30	
1,2,3-Trichloropropane	ND	0.0106						0		30	
1,2,4-Trichlorobenzene	ND	0.0266						0		30	
sec-Butylbenzene	ND	0.0106						0		30	
4-Isopropyltoluene	ND	0.0106						0		30	
1,3-Dichlorobenzene	ND	0.0106						0		30	
1,4-Dichlorobenzene	ND	0.0106						0		30	



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509311-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	MW-4-15:6.0	Batch ID:	11959			Analysis Date:	9/25/2015	SeqNo:	474038		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Butylbenzene	ND	0.0106						0		30	
1,2-Dichlorobenzene	ND	0.0106						0		30	
1,2-Dibromo-3-chloropropane	ND	0.266						0		30	
1,2,4-Trimethylbenzene	ND	0.0106						0		30	
Hexachlorobutadiene	ND	0.0532						0		30	
Naphthalene	ND	0.0160						0		30	
1,2,3-Trichlorobenzene	ND	0.0106						0		30	
Surr: Dibromofluoromethane	0.625		0.6647		94.1	56.5	129		0		
Surr: Toluene-d8	0.654		0.6647		98.5	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.681		0.6647		102	63.1	141		0		
NOTES:											
High RPD.											

Sample ID	1509311-009BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	MW-6-15:5.5	Batch ID:	11959			Analysis Date:	9/26/2015	SeqNo:	474046		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.510	0.0430	0.7175	0	71.0	43.5	121				
Chloromethane	0.576	0.0430	0.7175	0	80.3	45	130				
Vinyl chloride	0.697	0.00143	0.7175	0	97.1	51.2	146				
Bromomethane	0.791	0.0646	0.7175	0	110	21.3	120				
Trichlorofluoromethane (CFC-11)	0.864	0.0359	0.7175	0	120	35	131				
Chloroethane	0.807	0.0430	0.7175	0	113	43.8	117				
1,1-Dichloroethene	0.822	0.0359	0.7175	0	115	61.9	141				
Methylene chloride	0.684	0.0143	0.7175	0.002680	95.0	54.7	142				
trans-1,2-Dichloroethene	0.822	0.0143	0.7175	0	115	52	136				
Methyl tert-butyl ether (MTBE)	0.638	0.0359	0.7175	0	88.9	54.4	132				
1,1-Dichloroethane	0.796	0.0143	0.7175	0	111	51.8	141				
2,2-Dichloropropane	0.784	0.0359	0.7175	0	109	36	123				
cis-1,2-Dichloroethene	0.791	0.0143	0.7175	0	110	58.6	136				
Chloroform	0.761	0.0143	0.7175	0.003021	106	53.2	129				
1,1,1-Trichloroethane (TCA)	0.893	0.0143	0.7175	0	124	58.3	145				



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509311-009BMS	SampType: MS			Units: mg/Kg-dry	Prep Date: 9/25/2015			RunNo: 25144		
Client ID:	MW-6-15:5.5	Batch ID: 11959			Analysis Date: 9/26/2015			SeqNo: 474046			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloropropene	0.791	0.0143	0.7175	0	110	55.1	138				
Carbon tetrachloride	0.792	0.0143	0.7175	0	110	53.3	144				
1,2-Dichloroethane (EDC)	0.710	0.0215	0.7175	0	98.9	51.3	139				
Benzene	0.742	0.0143	0.7175	0	103	63.5	133				
Trichloroethene (TCE)	0.803	0.0143	0.7175	0	112	68.6	132				
1,2-Dichloropropane	0.773	0.0143	0.7175	0	108	59	136				
Bromodichloromethane	0.671	0.0143	0.7175	0	93.6	50.7	141				
Dibromomethane	0.817	0.0287	0.7175	0	114	50.6	137				
cis-1,3-Dichloropropene	0.671	0.0143	0.7175	0	93.5	50.4	138				
Toluene	0.734	0.0143	0.7175	0	102	63.4	132				
trans-1,3-Dichloropropylene	0.717	0.0215	0.7175	0	99.9	44.1	147				
1,1,2-Trichloroethane	0.779	0.0215	0.7175	0	109	51.6	137				
1,3-Dichloropropane	0.767	0.0359	0.7175	0	107	53.1	134				
Tetrachloroethene (PCE)	0.820	0.0143	0.7175	0	114	35.6	158				
Dibromochloromethane	0.688	0.0215	0.7175	0	95.9	55.3	140				
1,2-Dibromoethane (EDB)	0.826	0.00359	0.7175	0	115	50.4	136				
Chlorobenzene	0.792	0.0143	0.7175	0	110	60	133				
1,1,1,2-Tetrachloroethane	0.760	0.0215	0.7175	0	106	53.1	142				
Ethylbenzene	0.747	0.0215	0.7175	0	104	54.5	134				
m,p-Xylene	1.48	0.0143	1.435	0	103	53.1	132				
o-Xylene	0.721	0.0143	0.7175	0	100	53.3	139				
Styrene	0.833	0.0143	0.7175	0	116	51.1	132				
Isopropylbenzene	0.837	0.0574	0.7175	0	117	58.9	138				
Bromoform	0.747	0.0143	0.7175	0	104	57.9	130				
1,1,2,2-Tetrachloroethane	0.836	0.0143	0.7175	0	117	51.9	131				
n-Propylbenzene	0.837	0.0143	0.7175	0	117	53.6	140				
Bromobenzene	0.816	0.0215	0.7175	0	114	54.2	140				
1,3,5-Trimethylbenzene	0.803	0.0143	0.7175	0	112	51.8	136				
2-Chlorotoluene	0.816	0.0143	0.7175	0	114	51.6	136				
4-Chlorotoluene	0.825	0.0143	0.7175	0	115	50.1	139				
tert-Butylbenzene	0.847	0.0143	0.7175	0	118	50.5	135				



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Volatile Organic Compounds by EPA Method 8260

Sample ID	1509311-009BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	MW-6-15:5.5	Batch ID:	11959			Analysis Date:	9/26/2015	SeqNo:	474046		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichloropropane	0.794	0.0143	0.7175	0	111	50.5	131				
1,2,4-Trichlorobenzene	0.751	0.0359	0.7175	0	105	50.8	130				
sec-Butylbenzene	0.855	0.0143	0.7175	0	119	52.6	141				
4-Isopropyltoluene	0.857	0.0143	0.7175	0	119	52.9	134				
1,3-Dichlorobenzene	0.758	0.0143	0.7175	0	106	52.6	131				
1,4-Dichlorobenzene	0.757	0.0143	0.7175	0	106	52.9	129				
n-Butylbenzene	0.786	0.0143	0.7175	0	110	52.6	130				
1,2-Dichlorobenzene	0.732	0.0143	0.7175	0	102	55.8	129				
1,2-Dibromo-3-chloropropane	0.736	0.359	0.7175	0	103	40.5	131				
1,2,4-Trimethylbenzene	0.728	0.0143	0.7175	0	101	50.6	137				
Hexachlorobutadiene	0.783	0.0717	0.7175	0	109	40.6	158				
Naphthalene	0.657	0.0215	0.7175	0	91.5	52.3	124				
1,2,3-Trichlorobenzene	0.713	0.0143	0.7175	0	99.4	54.4	124				
Surr: Dibromofluoromethane	0.915		0.8969		102	56.5	129				
Surr: Toluene-d8	0.884		0.8969		98.5	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	0.919		0.8969		102	63.1	141				

Sample ID	1509311-010BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	MW-6-15:14.0	Batch ID:	11959			Analysis Date:	9/26/2015	SeqNo:	474048		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0465						0		30	
Chloromethane	ND	0.0465						0		30	
Vinyl chloride	ND	0.00155						0		30	
Bromomethane	ND	0.0698						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0388						0		30	
Chloroethane	ND	0.0465						0		30	
1,1-Dichloroethene	ND	0.0388						0		30	
Methylene chloride	ND	0.0155						0		30	
trans-1,2-Dichloroethene	ND	0.0155						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0388						0		30	



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Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509311-010BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	MW-6-15:14.0	Batch ID:	11959			Analysis Date:	9/26/2015	SeqNo:	474048		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethane	ND	0.0155						0		30	
2,2-Dichloropropane	ND	0.0388						0		30	
cis-1,2-Dichloroethene	ND	0.0155						0		30	
Chloroform	ND	0.0155						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0155						0		30	
1,1-Dichloropropene	ND	0.0155						0		30	
Carbon tetrachloride	ND	0.0155						0		30	
1,2-Dichloroethane (EDC)	ND	0.0233						0		30	
Benzene	ND	0.0155						0		30	
Trichloroethene (TCE)	ND	0.0155						0		30	
1,2-Dichloropropane	ND	0.0155						0		30	
Bromodichloromethane	ND	0.0155						0		30	
Dibromomethane	ND	0.0310						0		30	
cis-1,3-Dichloropropene	ND	0.0155						0		30	
Toluene	ND	0.0155						0		30	
trans-1,3-Dichloropropylene	ND	0.0233						0		30	
1,1,2-Trichloroethane	ND	0.0233						0		30	
1,3-Dichloropropane	ND	0.0388						0		30	
Tetrachloroethene (PCE)	ND	0.0155						0		30	
Dibromochloromethane	ND	0.0233						0		30	
1,2-Dibromoethane (EDB)	ND	0.00388						0		30	
Chlorobenzene	ND	0.0155						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0233						0		30	
Ethylbenzene	ND	0.0233						0		30	
m,p-Xylene	ND	0.0155						0		30	
o-Xylene	ND	0.0155						0		30	
Styrene	ND	0.0155						0		30	
Isopropylbenzene	ND	0.0621						0		30	
Bromoform	ND	0.0155						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0155						0		30	
n-Propylbenzene	ND	0.0155						0		30	



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Sample ID	1509311-010BDUP	SampType: DUP			Units: mg/Kg-dry	Prep Date: 9/25/2015			RunNo: 25144		
Client ID:	MW-6-15:14.0	Batch ID: 11959			Analysis Date: 9/26/2015			SeqNo: 474048			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	ND	0.0233						0		30	
1,3,5-Trimethylbenzene	ND	0.0155						0		30	
2-Chlorotoluene	ND	0.0155						0		30	
4-Chlorotoluene	ND	0.0155						0		30	
tert-Butylbenzene	ND	0.0155						0		30	
1,2,3-Trichloropropane	ND	0.0155						0		30	
1,2,4-Trichlorobenzene	ND	0.0388						0		30	
sec-Butylbenzene	ND	0.0155						0		30	
4-Isopropyltoluene	ND	0.0155						0		30	
1,3-Dichlorobenzene	ND	0.0155						0		30	
1,4-Dichlorobenzene	ND	0.0155						0		30	
n-Butylbenzene	ND	0.0155						0		30	
1,2-Dichlorobenzene	ND	0.0155						0		30	
1,2-Dibromo-3-chloropropane	ND	0.388						0		30	
1,2,4-Trimethylbenzene	ND	0.0155						0		30	
Hexachlorobutadiene	ND	0.0776						0		30	
Naphthalene	ND	0.0233						0		30	
1,2,3-Trichlorobenzene	ND	0.0155						0		30	
Surr: Dibromofluoromethane	0.903		0.9698		93.1	56.5	129		0		
Surr: Toluene-d8	0.945		0.9698		97.4	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.953		0.9698		98.3	63.1	141		0		



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-R25077	SampType:	LCS	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25077		
Client ID:	LCSW	Batch ID:	R25077			Analysis Date:	9/23/2015	SeqNo:	472630		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	18.3	1.00	20.00	0	91.6	43	136				
Chloromethane	18.2	1.00	20.00	0	91.0	43.9	139				
Vinyl chloride	21.8	0.200	20.00	0	109	53.6	139				
Bromomethane	27.1	1.00	20.00	0	136	42.5	152				
Trichlorofluoromethane (CFC-11)	20.4	1.00	20.00	0	102	63.7	133				
Chloroethane	19.4	1.00	20.00	0	96.9	53	141				
1,1-Dichloroethene	17.3	1.00	20.00	0	86.4	65.6	136				
Methylene chloride	17.9	1.00	20.00	0	89.7	67.1	131				
trans-1,2-Dichloroethene	18.7	1.00	20.00	0	93.3	71.7	129				
Methyl tert-butyl ether (MTBE)	18.7	1.00	20.00	0	93.5	67.7	131				
1,1-Dichloroethane	18.4	1.00	20.00	0	92.2	67.9	134				
2,2-Dichloropropane	17.7	2.00	20.00	0	88.7	33.7	152				
cis-1,2-Dichloroethene	17.8	1.00	20.00	0	89.0	71.1	130				
Chloroform	18.9	1.00	20.00	0	94.4	66.3	131				
1,1,1-Trichloroethane (TCA)	19.9	1.00	20.00	0	99.6	71	131				
1,1-Dichloropropene	18.1	1.00	20.00	0	90.4	74.5	126				
Carbon tetrachloride	20.8	1.00	20.00	0	104	66.2	134				
1,2-Dichloroethane (EDC)	18.2	1.00	20.00	0	91.1	68.8	123				
Benzene	18.3	1.00	20.00	0	91.4	69.3	132				
Trichloroethene (TCE)	19.2	0.500	20.00	0	96.1	65.2	136				
1,2-Dichloropropane	18.2	1.00	20.00	0	91.2	70.5	130				
Bromodichloromethane	20.6	1.00	20.00	0	103	67.2	137				
Dibromomethane	20.0	1.00	20.00	0	99.8	75.5	126				
cis-1,3-Dichloropropene	22.0	1.00	20.00	0	110	62.6	137				
Toluene	17.5	1.00	20.00	0	87.4	61.3	145				
trans-1,3-Dichloropropene	21.3	1.00	20.00	0	106	58.5	142				
1,1,2-Trichloroethane	17.9	1.00	20.00	0	89.5	71.7	131				
1,3-Dichloropropane	19.0	1.00	20.00	0	95.2	73.5	127				
Tetrachloroethene (PCE)	20.9	1.00	20.00	0	104	47.5	147				
Dibromochloromethane	21.3	1.00	20.00	0	107	67.2	134				
1,2-Dibromoethane (EDB)	20.0	0.0600	20.00	0	100	73.6	125				



Date: 10/6/2015

Work Order: 1509311
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-R25077	SampType: LCS		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25077		
Client ID:	LCSW	Batch ID: R25077					Analysis Date: 9/23/2015			SeqNo: 472630	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	21.3	1.00	20.00	0	107	73.9	126				
1,1,1,2-Tetrachloroethane	19.0	1.00	20.00	0	94.8	76.8	124				
Ethylbenzene	19.2	1.00	20.00	0	96.2	72	130				
m,p-Xylene	38.3	1.00	40.00	0	95.7	70.3	134				
o-Xylene	18.3	1.00	20.00	0	91.4	72.1	131				
Styrene	21.1	1.00	20.00	0	106	64.3	140				
Isopropylbenzene	20.9	1.00	20.00	0	104	73.9	128				
Bromoform	23.8	1.00	20.00	0	119	63.8	135				
1,1,2,2-Tetrachloroethane	20.2	1.00	20.00	0	101	62.9	132				
n-Propylbenzene	19.2	1.00	20.00	0	96.1	74.5	127				
Bromobenzene	19.2	1.00	20.00	0	96.1	71	131				
1,3,5-Trimethylbenzene	20.1	1.00	20.00	0	101	73.1	128				
2-Chlorotoluene	19.5	1.00	20.00	0	97.6	70.8	130				
4-Chlorotoluene	20.2	1.00	20.00	0	101	70.1	131				
tert-Butylbenzene	19.8	1.00	20.00	0	99.0	68.2	131				
1,2,3-Trichloropropane	18.8	1.00	20.00	0	93.8	67.7	131				
1,2,4-Trichlorobenzene	19.7	2.00	20.00	0	98.6	51.8	152				Q
sec-Butylbenzene	20.8	1.00	20.00	0	104	72	129				
4-Isopropyltoluene	20.3	1.00	20.00	0	102	69.2	130				
1,3-Dichlorobenzene	20.3	1.00	20.00	0	102	72.4	129				
1,4-Dichlorobenzene	20.4	1.00	20.00	0	102	70.6	128				
n-Butylbenzene	21.0	1.00	20.00	0	105	73.8	127				
1,2-Dichlorobenzene	21.5	1.00	20.00	0	107	74.2	129				
1,2-Dibromo-3-chloropropane	15.9	1.00	20.00	0	79.5	63.1	136				
1,2,4-Trimethylbenzene	19.4	1.00	20.00	0	97.2	73.4	127				
Hexachlorobutadiene	19.8	4.00	20.00	0	99.0	58.6	138				
Naphthalene	15.7	1.00	20.00	0	78.6	41.8	165				Q
1,2,3-Trichlorobenzene	17.2	4.00	20.00	0	86.0	48.7	156				Q
Surr: Dibromofluoromethane	23.1		25.00		92.3	45.4	152				
Surr: Toluene-d8	23.8		25.00		95.0	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	64.2	128				



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-R25077	SampType:	LCS	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25077		
Client ID:	LCSW	Batch ID:	R25077			Analysis Date:	9/23/2015	SeqNo:	472630		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID	MB-R25077	SampType:	MBLK			Units:	µg/L			Prep Date:	9/23/2015		RunNo:	25077	
Client ID:	MBLKW	Batch ID:	R25077						Analysis Date:	9/23/2015		SeqNo:	472631		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	1.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-R25077	SampType:	MBLK		Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25077	
Client ID:	MBLKW	Batch ID:	R25077					Analysis Date:	9/23/2015		SeqNo:	472631	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
trans-1,3-Dichloropropene	ND	1.00											
1,1,2-Trichloroethane	ND	1.00											
1,3-Dichloropropane	ND	1.00											
Tetrachloroethene (PCE)	ND	1.00											
Dibromochloromethane	ND	1.00											
1,2-Dibromoethane (EDB)	ND	0.0600											
Chlorobenzene	ND	1.00											
1,1,1,2-Tetrachloroethane	ND	1.00											
Ethylbenzene	ND	1.00											
m,p-Xylene	ND	1.00											
o-Xylene	ND	1.00											
Styrene	ND	1.00											
Isopropylbenzene	ND	1.00											
Bromoform	ND	1.00											
1,1,2,2-Tetrachloroethane	ND	1.00											
n-Propylbenzene	ND	1.00											
Bromobenzene	ND	1.00											
1,3,5-Trimethylbenzene	ND	1.00											
2-Chlorotoluene	ND	1.00											
4-Chlorotoluene	ND	1.00											
tert-Butylbenzene	ND	1.00											
1,2,3-Trichloropropane	ND	1.00											
1,2,4-Trichlorobenzene	ND	2.00											Q
sec-Butylbenzene	ND	1.00											
4-Isopropyltoluene	ND	1.00											
1,3-Dichlorobenzene	ND	1.00											
1,4-Dichlorobenzene	ND	1.00											
n-Butylbenzene	ND	1.00											
1,2-Dichlorobenzene	ND	1.00											
1,2-Dibromo-3-chloropropane	ND	1.00											
1,2,4-Trimethylbenzene	ND	1.00											

Q



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-R25077	SampType:	MBLK		Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25077	
Client ID:	MBLKW	Batch ID:	R25077					Analysis Date:	9/23/2015		SeqNo:	472631	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Hexachlorobutadiene		ND	4.00										
Naphthalene		ND	1.00										Q
1,2,3-Trichlorobenzene		ND	4.00										Q
Surr: Dibromofluoromethane		24.2		25.00		96.8	45.4	152					
Surr: Toluene-d8		24.0		25.00		96.1	40.1	139					
Surr: 1-Bromo-4-fluorobenzene		25.2		25.00		101	64.2	128					

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID	1509311-005ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25077		
Client ID:	MW-5-15:GW	Batch ID:	R25077			Analysis Date:	9/23/2015	SeqNo:	472607		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	1.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509311-005ADUP	SampType: DUP		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25077		
Client ID:	MW-5-15:GW	Batch ID: R25077					Analysis Date: 9/23/2015			SeqNo: 472607	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	1.00						0		30	
1,1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	Q
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	



Date: 10/6/2015

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Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509311-005ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25077		
Client ID:	MW-5-15:GW	Batch ID:	R25077			Analysis Date:	9/23/2015	SeqNo:	472607		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachlorobutadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	Q
1,2,3-Trichlorobenzene	ND	4.00						0		30	Q
Surr: Dibromofluoromethane	23.5		25.00		94.0	45.4	152		0		
Surr: Toluene-d8	24.6		25.00		98.5	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.2	64.2	128		0		

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID	1509312-002AMS	SampType:	MS	Units:	µg/L	Prep Date:	9/24/2015	RunNo:	25077		
Client ID:	BATCH	Batch ID:	R25077			Analysis Date:	9/24/2015	SeqNo:	472612		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	22.0	1.00	20.00	0	110	33.3	122				
Chloromethane	16.8	1.00	20.00	0.8700	79.5	48.2	145				
Vinyl chloride	24.8	0.200	20.00	0.1800	123	58.1	158				
Bromomethane	24.1	1.00	20.00	10.39	68.6	31.5	135				
Trichlorofluoromethane (CFC-11)	26.1	1.00	20.00	0	131	54.7	138				
Chloroethane	23.3	1.00	20.00	0	117	49.9	143				
1,1-Dichloroethene	21.8	1.00	20.00	0	109	63	141				
Methylene chloride	21.0	1.00	20.00	0	105	61.6	135				
trans-1,2-Dichloroethene	21.5	1.00	20.00	0	108	63.5	138				
Methyl tert-butyl ether (MTBE)	19.7	1.00	20.00	0	98.6	60.9	132				
1,1-Dichloroethane	21.8	1.00	20.00	0	109	67.8	136				
2,2-Dichloropropane	18.2	2.00	20.00	0	91.2	31.5	121				
cis-1,2-Dichloroethene	23.4	1.00	20.00	1.540	109	67.1	123				



Date: 10/6/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509312-002AMS	SampType:	MS	Units:	µg/L	Prep Date:	9/24/2015	RunNo:	25077		
Client ID:	BATCH	Batch ID:	R25077			Analysis Date:	9/24/2015	SeqNo:	472612		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	22.3	1.00	20.00	0	112	66.7	136				
1,1,1-Trichloroethane (TCA)	23.6	1.00	20.00	0	118	64.2	146				
1,1-Dichloropropene	21.7	1.00	20.00	0	109	73.8	136				
Carbon tetrachloride	20.5	1.00	20.00	1.200	96.4	62.7	146				
1,2-Dichloroethane (EDC)	20.7	1.00	20.00	0	103	63.4	137				
Benzene	21.7	1.00	20.00	0	108	65.4	138				
Trichloroethene (TCE)	27.0	0.500	20.00	2.790	121	60.4	134				
1,2-Dichloropropane	21.3	1.00	20.00	0	106	62.6	138				
Bromodichloromethane	22.4	1.00	20.00	0	112	59.4	139				
Dibromomethane	22.6	1.00	20.00	0	113	63.6	139				
cis-1,3-Dichloropropene	22.6	1.00	20.00	0	113	63.8	132				
Toluene	20.2	1.00	20.00	0	101	64	139				
trans-1,3-Dichloropropene	22.1	1.00	20.00	0	110	57.7	125				
1,1,2-Trichloroethane	21.1	1.00	20.00	0	105	59.4	127				
1,3-Dichloropropane	20.8	1.00	20.00	0	104	64.3	135				
Tetrachloroethene (PCE)	24.4	1.00	20.00	0	122	50.3	133				
Dibromochloromethane	22.6	1.00	20.00	0	113	61.6	139				
1,2-Dibromoethane (EDB)	23.2	0.0600	20.00	0	116	63.2	134				
Chlorobenzene	22.2	1.00	20.00	0	111	65.8	134				
1,1,1,2-Tetrachloroethane	20.0	1.00	20.00	0.1400	99.2	65.4	135				
Ethylbenzene	21.6	1.00	20.00	0	108	64.5	136				
m,p-Xylene	43.3	1.00	40.00	0	108	63.3	135				
o-Xylene	21.2	1.00	20.00	0	106	65.4	134				
Styrene	23.2	1.00	20.00	0	116	59.1	134				
Isopropylbenzene	22.9	1.00	20.00	0	115	56	147				
Bromoform	24.3	1.00	20.00	0	122	57.7	139				
1,1,2,2-Tetrachloroethane	21.6	1.00	20.00	0	108	59.8	146				
n-Propylbenzene	21.5	1.00	20.00	0	107	57.6	142				
Bromobenzene	20.6	1.00	20.00	0	103	63.6	130				
1,3,5-Trimethylbenzene	21.5	1.00	20.00	0	108	59.9	136				
2-Chlorotoluene	21.6	1.00	20.00	0	108	61.7	134				



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509312-002AMS	SampType: MS			Units: µg/L	Prep Date: 9/24/2015			RunNo: 25077		
Client ID:	BATCH	Batch ID: R25077			Analysis Date: 9/24/2015			SeqNo: 472612			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	21.6	1.00	20.00	0	108	58.4	134				
tert-Butylbenzene	21.8	1.00	20.00	0	109	66.8	141				
1,2,3-Trichloropropane	21.6	1.00	20.00	0	108	62.4	129				
1,2,4-Trichlorobenzene	21.1	2.00	20.00	0.5300	103	50.9	133				Q
sec-Butylbenzene	23.1	1.00	20.00	0	116	56	146				
4-Isopropyltoluene	21.8	1.00	20.00	0	109	56.4	136				
1,3-Dichlorobenzene	22.0	1.00	20.00	0	110	58.2	128				
1,4-Dichlorobenzene	21.6	1.00	20.00	0	108	60.1	123				
n-Butylbenzene	22.2	1.00	20.00	0	111	54.6	135				
1,2-Dichlorobenzene	23.5	1.00	20.00	0	118	65.4	133				
1,2-Dibromo-3-chloropropane	19.7	1.00	20.00	0	98.6	51.8	142				
1,2,4-Trimethylbenzene	20.2	1.00	20.00	0	101	63.7	132				
Hexachlorobutadiene	26.2	4.00	20.00	0	131	58.1	130				S
Naphthalene	15.0	1.00	20.00	0.6600	71.8	54.5	132				Q
1,2,3-Trichlorobenzene	16.0	4.00	20.00	0	80.2	57	131				Q
Surr: Dibromofluoromethane	24.0		25.00		96.2	45.4	152				
Surr: Toluene-d8	24.6		25.00		98.6	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.4	64.2	128				

NOTES:

S - Outlying QC recoveries were observed. The method is in control as indicated by the LCS.

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID	1509315-003CDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/24/2015	RunNo:	25077		
Client ID:	BATCH	Batch ID:	R25077			Analysis Date:	9/24/2015	SeqNo:	472622		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	1.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509315-003CDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/24/2015	RunNo:	25077		
Client ID:	BATCH	Batch ID:	R25077			Analysis Date:	9/24/2015	SeqNo:	472622		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	3.37	1.00						3.470	2.92	30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	23.5	1.00						22.32	5.19	30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	157	1.00						153.6	2.15	30	E
m,p-Xylene	361	1.00						352.4	2.34	30	E
o-Xylene	30.3	1.00						29.08	4.11	30	
Styrene	ND	1.00						0		30	



Date: 10/6/2015

Work Order: 1509311
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509315-003CDUP	SampType:	DUP		Units:	µg/L		Prep Date:	9/24/2015		RunNo:	25077	
Client ID:	BATCH	Batch ID:	R25077					Analysis Date:	9/24/2015		SeqNo:	472622	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD	Ref Val	%RPD	RPDLimit	Qual	
Isopropylbenzene	20.8	1.00							19.82	4.92	30		
Bromoform	ND	1.00							0		30		
1,1,2,2-Tetrachloroethane	ND	1.00							0		30		
n-Propylbenzene	71.3	1.00							70.13	1.67	30	E	
Bromobenzene	ND	1.00							0		30		
1,3,5-Trimethylbenzene	128	1.00							124.6	2.44	30	E	
2-Chlorotoluene	ND	1.00							0		30		
4-Chlorotoluene	ND	1.00							0		30		
tert-Butylbenzene	51.2	1.00							49.50	3.42	30	E	
1,2,3-Trichloropropane	ND	1.00							0		30		
1,2,4-Trichlorobenzene	ND	2.00							0		30		
sec-Butylbenzene	6.65	1.00							5.880	12.3	30		
4-Isopropyltoluene	2.92	1.00							9.380	105	30	R	
1,3-Dichlorobenzene	ND	1.00							0		30		
1,4-Dichlorobenzene	ND	1.00							0		30		
n-Butylbenzene	28.8	1.00							26.63	7.86	30		
1,2-Dichlorobenzene	ND	1.00							0		30		
1,2-Dibromo-3-chloropropane	11.6	1.00							0	200	30		
1,2,4-Trimethylbenzene	334	1.00							325.0	2.70	30	E	
Hexachlorobutadiene	ND	4.00							0		30		
Naphthalene	120	1.00							59.38	67.8	30	RE	
1,2,3-Trichlorobenzene	ND	4.00							0		30		
Surr: Dibromofluoromethane	23.4		25.00		93.7	45.4	152			0			
Surr: Toluene-d8	24.9		25.00		99.7	40.1	139			0			
Surr: 1-Bromo-4-fluorobenzene	25.7		25.00		103	64.2	128			0			



Date: 10/6/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID	1509304-001ADUP	SampType:	DUP	Units:	wt%	Prep Date:	9/29/2015	RunNo:	25179		
Client ID:	BATCH	Batch ID:	R25179			Analysis Date:	9/29/2015	SeqNo:	474776		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	7.38	0.500						6.952	5.96	20	

Sample ID	1509304-002ADUP	SampType:	DUP	Units:	wt%	Prep Date:	9/29/2015	RunNo:	25179		
Client ID:	BATCH	Batch ID:	R25179			Analysis Date:	9/29/2015	SeqNo:	474778		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	9.57	0.500						10.64	10.6	20	

Client Name: **SW**

 Work Order Number: **1509311**

 Logged by: **Clare Griggs**

 Date Received: **9/22/2015 3:55:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of >0°C to 10.0°C * Yes ☐ No ☒ NA ☐
- Please refer to item information.
8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Sample MW-6-15:GW:DUP should be marked as Water, not soil

Item Information

Item #	Temp °C
Cooler	16.9
Sample	18.5



1509311



Fremont

ANALYTICAL

Chain of Custody Record

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/24/15

Laboratory Project No (Internal):
Page: 2 of 2

Client: Shawna Wilson
Address: 400 N 34th St, Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-8020 Fax: 206-615-6177

Project Name: Pacific Park
Project No: 21-1-22055-0001 Collected by: EVP
Location: City of Pacific Park
Report To (PM): Elyria Park
PM Email: elyria@cityofpacificpark.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Soil, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOG (EPA 8260 / 624)	GV/PTX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Distillate/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8082 / 508)	Metals** (EPA 6020 / 200.9)	Total (T) / Dissolved (D)	Anions (IC)**	EDM (8011)	Comments	
1 MW-6-15:GW	9/24/15	1340	GW	X			X	X	X	X	X	X	X	X				
2 MW-6-15:GW	9/24/15	0815	S	X			X	X	X	X	X	X	X	X				
3 MW-6-15:DW	9/24/15	1415	S	X			X	X	X	X	X	X	X	X				
4																		
5																		
6																		
7																		
8																		
9																		
10																		

**Metals Analysis (Circle): MTCA-5 Circle 8 Priority Pollution TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposed by Lab (a fee may be assessed if samples are returned after 30 days.)

Relinquished: 9/23/15 1555 Date/Time 9/24/15 1555 Date/Time

Retransmitted: 9/23/15 1555 Date/Time 9/24/15 1555 Date/Time

Special Remarks: GW samples not field filtered for PPL metals total.

TAT → SameDay NextDay 2 Day 3 Day STD

*Please coordinate with the lab in advance



3600 Fremont Ave. N.

Seattle, WA 98103

T: (206) 352-3790

F: (206) 352-7178

info@fremontanalytical.com

Shannon & Wilson

Ed Ptak

400 N. 34th Street, Suite 100

Seattle, WA 98103

RE: Pacific Park

Lab ID: 1509311

October 29, 2015

Attention Ed Ptak:

Fremont Analytical, Inc. received 13 sample(s) on 9/22/2015 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Dissolved Mercury by EPA Method 245.1

Dissolved Metals by EPA Method 200.8

Gasoline by NWTPH-Gx

Herbicides by EPA Method 8151A

Mercury by EPA Method 245.1

Mercury by EPA Method 7471

Organochlorine Pesticides by EPA Method 8081

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample Moisture (Percent Moisture)

Semi-Volatile Organic Compounds by EPA Method 8270

Total Metals by EPA Method 200.8

Total Metals by EPA Method 6020

Volatile Organic Compounds by EPA Method 8260

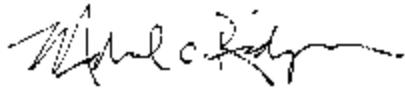
This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Ridgeway". The signature is fluid and cursive, with a prominent initial "M" and a long, sweeping underline.

Mike Ridgeway
President

CLIENT: Shannon & Wilson
Project: Pacific Park
Lab Order: 1509311

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1509311-001	MW-4-15:6.0	09/22/2015 8:55 AM	09/22/2015 3:55 PM
1509311-002	MW-4-15:14.5	09/22/2015 9:05 AM	09/22/2015 3:55 PM
1509311-003	MW-5-15:5.0	09/22/2015 10:35 AM	09/22/2015 3:55 PM
1509311-004	MW-5-15:12.5	09/22/2015 10:40 AM	09/22/2015 3:55 PM
1509311-005	MW-5-15:GW	09/22/2015 10:50 AM	09/22/2015 3:55 PM
1509311-006	GP-22-15:1.5	09/22/2015 2:30 PM	09/22/2015 3:55 PM
1509311-007	GP-22-15:3.0	09/22/2015 2:40 PM	09/22/2015 3:55 PM
1509311-008	GP-22-15:DUP	09/22/2015 3:00 PM	09/22/2015 3:55 PM
1509311-009	MW-6-15:5.5	09/22/2015 12:30 PM	09/22/2015 3:55 PM
1509311-010	MW-6-15:14.0	09/22/2015 2:00 PM	09/22/2015 3:55 PM
1509311-011	MW-6-15:GW	09/22/2015 12:40 PM	09/22/2015 3:55 PM
1509311-012	MW-6-15:GW:DUP	09/22/2015 8:15 AM	09/22/2015 3:55 PM
1509311-013	MW-6-15:DUP	09/22/2015 2:15 PM	09/22/2015 3:55 PM

CLIENT: Shannon & Wilson**Project:** Pacific Park

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509311-001

Matrix: Soil

Client Sample ID: MW-4-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	39.1		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4-D	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4-DP	ND	27.9		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4,5-TP (Silvex)	ND	22.3		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4,5-T	ND	55.8		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Dinoseb	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Dalapon	ND	223		µg/Kg-dry	1	10/1/2015 3:27:00 PM
2,4-DB	ND	27.9		µg/Kg-dry	1	10/1/2015 3:27:00 PM
MCPP	ND	4,910		µg/Kg-dry	1	10/1/2015 3:27:00 PM
MCPA	ND	3,120		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Picloram	ND	55.8		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Bentazon	ND	39.1		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Chloramben	ND	22.3		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Acifluorfen	ND	89.3		µg/Kg-dry	1	10/1/2015 3:27:00 PM
3,5-Dichlorobenzoic acid	ND	44.6		µg/Kg-dry	1	10/1/2015 3:27:00 PM
4-Nitrophenol	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Dacthal (DCPA)	ND	33.5		µg/Kg-dry	1	10/1/2015 3:27:00 PM
Surr: 2,4-Dichlorophenylacetic acid	98.4	20.1-168		%REC	1	10/1/2015 3:27:00 PM

Polychlorinated Biphenyls (PCB) by EPA 8082

Batch ID: 12180

Analyst: CM

Aroclor 1016	ND	0.112		mg/Kg-dry	1	10/22/2015 7:11:00 PM
Aroclor 1221	ND	0.112		mg/Kg-dry	1	10/22/2015 7:11:00 PM
Aroclor 1232	ND	0.112		mg/Kg-dry	1	10/22/2015 7:11:00 PM
Aroclor 1242	ND	0.112		mg/Kg-dry	1	10/22/2015 7:11:00 PM
Aroclor 1248	ND	0.112		mg/Kg-dry	1	10/22/2015 7:11:00 PM
Aroclor 1254	ND	0.112		mg/Kg-dry	1	10/22/2015 7:11:00 PM
Aroclor 1260	ND	0.112		mg/Kg-dry	1	10/22/2015 7:11:00 PM
Aroclor 1262	ND	0.112		mg/Kg-dry	1	10/22/2015 7:11:00 PM
Aroclor 1268	ND	0.112		mg/Kg-dry	1	10/22/2015 7:11:00 PM
Total PCBs	ND	0.112		mg/Kg-dry	1	10/22/2015 7:11:00 PM
Surr: Decachlorobiphenyl	62.9	41.2-143		%REC	1	10/22/2015 7:11:00 PM
Surr: Tetrachloro-m-xylene	39.4	26-140		%REC	1	10/22/2015 7:11:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.0980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Alpha BHC	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Beta BHC	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509311-001

Matrix: Soil

Client Sample ID: MW-4-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Gamma BHC (Lindane)	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Delta BHC	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Heptachlor	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Aldrin	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Heptachlor epoxide	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
gamma-Chlordane	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Endosulfan I	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
alpha-Chlordane	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Dieldrin	ND	0.00980		mg/Kg-dry	1	9/25/2015 6:52:00 PM
4,4' -DDE	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Endrin	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Endosulfan II	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM
4,4' -DDD	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Endrin aldehyde	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Endosulfan sulfate	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM
4,4' -DDT	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Endrin ketone	ND	0.0196		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Methoxychlor	ND	0.0490		mg/Kg-dry	1	9/25/2015 6:52:00 PM
Surr: Decachlorobiphenyl	124	26.5-158		%REC	1	9/25/2015 6:52:00 PM
Surr: Tetrachloro-m-xylene	55.4	11-150		%REC	1	9/25/2015 6:52:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11945

Analyst: AK

Diesel 1/ Kerosene	115	21.9		mg/Kg-dry	1	9/25/2015 10:59:00 AM
Diesel (Fuel Oil)	ND	21.9		mg/Kg-dry	1	9/25/2015 10:59:00 AM
Heavy Oil	1,250	54.7		mg/Kg-dry	1	9/25/2015 10:59:00 AM
Surr: 2-Fluorobiphenyl	107	50-150		%REC	1	9/25/2015 10:59:00 AM
Surr: o-Terphenyl	102	50-150		%REC	1	9/25/2015 10:59:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Bis(2-chloroethyl) ether	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2-Chlorophenol	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
1,3-Dichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
1,4-Dichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
1,2-Dichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Benzyl alcohol	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2-Methylphenol (o-cresol)	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509311-001

Matrix: Soil

Client Sample ID: MW-4-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Hexachloroethane	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
N-Nitrosodi-n-propylamine	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Nitrobenzene	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Isophorone	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
4-Methylphenol (p-cresol)	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2-Nitrophenol	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2,4-Dimethylphenol	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Bis(2-chloroethoxy)methane	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2,4-Dichlorophenol	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
1,2,4-Trichlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Naphthalene	ND	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
4-Chloroaniline	ND	572		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Hexachlorobutadiene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
4-Chloro-3-methylphenol	ND	572		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2-Methylnaphthalene	164	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
1-Methylnaphthalene	182	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Hexachlorocyclopentadiene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2,4,6-Trichlorophenol	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2,4,5-Trichlorophenol	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2-Chloronaphthalene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2-Nitroaniline	ND	572		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Acenaphthene	92.9	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Dimethylphthalate	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2,6-Dinitrotoluene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Acenaphthylene	ND	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2,4-Dinitrophenol	ND	229	*	µg/Kg-dry	1	10/2/2015 6:17:00 AM
Dibenzofuran	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
2,4-Dinitrotoluene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
4-Nitrophenol	801	572	*	µg/Kg-dry	1	10/2/2015 6:17:00 AM
Fluorene	175	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
4-Chlorophenyl phenyl ether	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Diethylphthalate	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
4,6-Dinitro-2-methylphenol	ND	229		µg/Kg-dry	1	10/2/2015 6:17:00 AM
4-Bromophenyl phenyl ether	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Hexachlorobenzene	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Pentachlorophenol	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Phenanthrene	823	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Anthracene	839	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Carbazole	ND	572		µg/Kg-dry	1	10/2/2015 6:17:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509311-001

Matrix: Soil

Client Sample ID: MW-4-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Di-n-butylphthalate	135	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Fluoranthene	473	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Pyrene	719	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Butyl Benzylphthalate	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
bis(2-Ethylhexyl)adipate	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Benz (a) anthracene	327	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Chrysene	295	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
bis (2-Ethylhexyl) phthalate	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Di-n-octyl phthalate	ND	114		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Benzo (b) fluoranthene	349	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Benzo (k) fluoranthene	ND	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Benzo (a) pyrene	203	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Indeno (1,2,3-cd) pyrene	ND	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Dibenz (a,h) anthracene	ND	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Benzo (g,h,i) perylene	ND	91.5		µg/Kg-dry	1	10/2/2015 6:17:00 AM
Surr: 2,4,6-Tribromophenol	86.1	11.1-127		%REC	1	10/2/2015 6:17:00 AM
Surr: 2-Fluorobiphenyl	84.9	16.1-150		%REC	1	10/2/2015 6:17:00 AM
Surr: Nitrobenzene-d5	79.0	13.1-124		%REC	1	10/2/2015 6:17:00 AM
Surr: Phenol-d6	69.1	11.6-133		%REC	1	10/2/2015 6:17:00 AM
Surr: p-Terphenyl	94.9	21.8-150		%REC	1	10/2/2015 6:17:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	2.66		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Surr: Toluene-d8	97.9	65-135		%REC	1	9/25/2015 8:48:00 PM
Surr: 4-Bromofluorobenzene	105	65-135		%REC	1	9/25/2015 8:48:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0319		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Chloromethane	ND	0.0319		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Vinyl chloride	ND	0.00106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Bromomethane	ND	0.0479		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0266		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Chloroethane	ND	0.0319		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,1-Dichloroethene	ND	0.0266		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Methylene chloride	0.0106	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509311-001

Matrix: Soil

Client Sample ID: MW-4-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

trans-1,2-Dichloroethene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0266		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,1-Dichloroethane	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
2,2-Dichloropropane	ND	0.0266		mg/Kg-dry	1	9/25/2015 8:48:00 PM
cis-1,2-Dichloroethene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Chloroform	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,1-Dichloropropene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Carbon tetrachloride	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2-Dichloroethane (EDC)	ND	0.0160		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Benzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Trichloroethene (TCE)	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2-Dichloropropane	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Bromodichloromethane	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Dibromomethane	ND	0.0213		mg/Kg-dry	1	9/25/2015 8:48:00 PM
cis-1,3-Dichloropropene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Toluene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
trans-1,3-Dichloropropylene	ND	0.0160		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,1,2-Trichloroethane	ND	0.0160		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,3-Dichloropropane	ND	0.0266		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Tetrachloroethene (PCE)	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Dibromochloromethane	ND	0.0160		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2-Dibromoethane (EDB)	ND	0.00266		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Chlorobenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0160		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Ethylbenzene	ND	0.0160		mg/Kg-dry	1	9/25/2015 8:48:00 PM
m,p-Xylene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
o-Xylene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Styrene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Isopropylbenzene	ND	0.0425		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Bromoform	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
n-Propylbenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Bromobenzene	ND	0.0160		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,3,5-Trimethylbenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
2-Chlorotoluene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
4-Chlorotoluene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
tert-Butylbenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2,3-Trichloropropane	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:55:00 AM

Project: Pacific Park

Lab ID: 1509311-001

Matrix: Soil

Client Sample ID: MW-4-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

1,2,4-Trichlorobenzene	ND	0.0266		mg/Kg-dry	1	9/25/2015 8:48:00 PM
sec-Butylbenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
4-Isopropyltoluene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,3-Dichlorobenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,4-Dichlorobenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
n-Butylbenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2-Dichlorobenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2-Dibromo-3-chloropropane	ND	0.266		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2,4-Trimethylbenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Hexachlorobutadiene	ND	0.0532		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Naphthalene	ND	0.0160		mg/Kg-dry	1	9/25/2015 8:48:00 PM
1,2,3-Trichlorobenzene	ND	0.0106		mg/Kg-dry	1	9/25/2015 8:48:00 PM
Surr: Dibromofluoromethane	95.9	56.5-129		%REC	1	9/25/2015 8:48:00 PM
Surr: Toluene-d8	97.6	64.3-131		%REC	1	9/25/2015 8:48:00 PM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/25/2015 8:48:00 PM

NOTES:

Methylene Chloride is a common laboratory solvent.

Mercury by EPA Method 7471

Batch ID: 11948

Analyst: TN

Mercury	ND	0.283		mg/Kg-dry	1	9/24/2015 6:15:23 PM
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Total Metals by EPA Method 6020

Batch ID: 11921

Analyst: TN

Arsenic	4.00	0.0939		mg/Kg-dry	1	9/23/2015 5:40:08 PM
Barium	44.7	0.470		mg/Kg-dry	1	9/23/2015 5:40:08 PM
Cadmium	ND	0.188		mg/Kg-dry	1	9/23/2015 5:40:08 PM
Chromium	26.3	0.0939		mg/Kg-dry	1	9/23/2015 5:40:08 PM
Lead	19.0	0.188		mg/Kg-dry	1	9/23/2015 5:40:08 PM
Selenium	1.24	0.470		mg/Kg-dry	1	9/23/2015 5:40:08 PM
Silver	ND	0.0939		mg/Kg-dry	1	9/23/2015 5:40:08 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179

Analyst: SL

Percent Moisture	13.4			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 9:05:00 AM

Project: Pacific Park

Lab ID: 1509311-002

Matrix: Soil

Client Sample ID: MW-4-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	51.9		µg/Kg-dry	1	10/1/2015 4:28:00 AM
2,4-D	ND	44.5		µg/Kg-dry	1	10/1/2015 4:28:00 AM
2,4-DP	ND	37.1		µg/Kg-dry	1	10/1/2015 4:28:00 AM
2,4,5-TP (Silvex)	ND	29.7		µg/Kg-dry	1	10/1/2015 4:28:00 AM
2,4,5-T	ND	74.2		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Dinoseb	ND	44.5		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Dalapon	ND	297		µg/Kg-dry	1	10/1/2015 4:28:00 AM
2,4-DB	ND	37.1		µg/Kg-dry	1	10/1/2015 4:28:00 AM
MCPP	ND	6,530		µg/Kg-dry	1	10/1/2015 4:28:00 AM
MCPA	ND	415		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Picloram	ND	74.2		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Bentazon	ND	51.9		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Chloramben	ND	29.7		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Acifluorfen	ND	119		µg/Kg-dry	1	10/1/2015 4:28:00 AM
3,5-Dichlorobenzoic acid	ND	59.3		µg/Kg-dry	1	10/1/2015 4:28:00 AM
4-Nitrophenol	ND	44.5		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Dacthal (DCPA)	ND	44.5		µg/Kg-dry	1	10/1/2015 4:28:00 AM
Surr: 2,4-Dichlorophenylacetic acid	43.3	20.1-168		%REC	1	10/1/2015 4:28:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Alpha BHC	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Beta BHC	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Gamma BHC (Lindane)	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Delta BHC	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Heptachlor	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Aldrin	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Heptachlor epoxide	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
gamma-Chlordane	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Endosulfan I	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
alpha-Chlordane	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Dieldrin	ND	0.0150		mg/Kg-dry	1	9/25/2015 7:03:00 PM
4,4'-DDE	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Endrin	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Endosulfan II	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM
4,4'-DDD	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Endrin aldehyde	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Endosulfan sulfate	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 9:05:00 AM

Project: Pacific Park

Lab ID: 1509311-002

Matrix: Soil

Client Sample ID: MW-4-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

4,4'-DDT	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Endrin ketone	ND	0.0301		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Methoxychlor	0.284	0.0752		mg/Kg-dry	1	9/25/2015 7:03:00 PM
Surr: Decachlorobiphenyl	63.6	26.5-158		%REC	1	9/25/2015 7:03:00 PM
Surr: Tetrachloro-m-xylene	37.7	11-150		%REC	1	9/25/2015 7:03:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11945

Analyst: AK

Diesel (Fuel Oil)	ND	29.4		mg/Kg-dry	1	9/25/2015 11:30:00 AM
Heavy Oil	ND	73.5		mg/Kg-dry	1	9/25/2015 11:30:00 AM
Surr: 2-Fluorobiphenyl	84.6	50-150		%REC	1	9/25/2015 11:30:00 AM
Surr: o-Terphenyl	85.3	50-150		%REC	1	9/25/2015 11:30:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Bis(2-chloroethyl) ether	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2-Chlorophenol	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
1,3-Dichlorobenzene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
1,4-Dichlorobenzene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
1,2-Dichlorobenzene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Benzyl alcohol	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2-Methylphenol (o-cresol)	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Hexachloroethane	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
N-Nitrosodi-n-propylamine	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Nitrobenzene	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Isophorone	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
4-Methylphenol (p-cresol)	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2-Nitrophenol	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2,4-Dimethylphenol	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Bis(2-chloroethoxy)methane	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2,4-Dichlorophenol	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
1,2,4-Trichlorobenzene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Naphthalene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
4-Chloroaniline	ND	771		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Hexachlorobutadiene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
4-Chloro-3-methylphenol	ND	771		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2-Methylnaphthalene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
1-Methylnaphthalene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 9:05:00 AM

Project: Pacific Park

Lab ID: 1509311-002

Matrix: Soil

Client Sample ID: MW-4-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11985		Analyst: NG
Hexachlorocyclopentadiene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2,4,6-Trichlorophenol	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2,4,5-Trichlorophenol	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2-Chloronaphthalene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2-Nitroaniline	ND	771		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Acenaphthene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Dimethylphthalate	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2,6-Dinitrotoluene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Acenaphthylene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2,4-Dinitrophenol	ND	308	*	µg/Kg-dry	1	10/2/2015 6:39:00 AM
Dibenzofuran	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
2,4-Dinitrotoluene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
4-Nitrophenol	ND	771	*	µg/Kg-dry	1	10/2/2015 6:39:00 AM
Fluorene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
4-Chlorophenyl phenyl ether	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Diethylphthalate	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
4,6-Dinitro-2-methylphenol	ND	308		µg/Kg-dry	1	10/2/2015 6:39:00 AM
4-Bromophenyl phenyl ether	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Hexachlorobenzene	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Pentachlorophenol	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Phenanthrene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Anthracene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Carbazole	ND	771		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Di-n-butylphthalate	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Fluoranthene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Pyrene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Butyl Benzylphthalate	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
bis(2-Ethylhexyl)adipate	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Benz (a) anthracene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Chrysene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
bis (2-Ethylhexyl) phthalate	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Di-n-octyl phthalate	ND	154		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Benzo (b) fluoranthene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Benzo (k) fluoranthene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Benzo (a) pyrene	266	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Indeno (1,2,3-cd) pyrene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Dibenz (a,h) anthracene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Benzo (g,h,i) perylene	ND	123		µg/Kg-dry	1	10/2/2015 6:39:00 AM
Surr: 2,4,6-Tribromophenol	89.2	11.1-127		%REC	1	10/2/2015 6:39:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 9:05:00 AM

Project: Pacific Park

Lab ID: 1509311-002

Matrix: Soil

Client Sample ID: MW-4-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Surr: 2-Fluorobiphenyl	78.9	16.1-150	%REC	1	10/2/2015 6:39:00 AM
Surr: Nitrobenzene-d5	60.7	13.1-124	%REC	1	10/2/2015 6:39:00 AM
Surr: Phenol-d6	74.0	11.6-133	%REC	1	10/2/2015 6:39:00 AM
Surr: p-Terphenyl	97.3	21.8-150	%REC	1	10/2/2015 6:39:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	4.89	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Surr: Toluene-d8	95.6	65-135	%REC	1	9/25/2015 9:45:00 PM
Surr: 4-Bromofluorobenzene	106	65-135	%REC	1	9/25/2015 9:45:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0587	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Chloromethane	ND	0.0587	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Vinyl chloride	ND	0.00196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Bromomethane	ND	0.0880	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0489	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Chloroethane	ND	0.0587	mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,1-Dichloroethene	ND	0.0489	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Methylene chloride	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
trans-1,2-Dichloroethene	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0489	mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,1-Dichloroethane	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
2,2-Dichloropropane	ND	0.0489	mg/Kg-dry	1	9/25/2015 9:45:00 PM
cis-1,2-Dichloroethene	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Chloroform	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,1-Dichloropropene	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Carbon tetrachloride	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2-Dichloroethane (EDC)	ND	0.0293	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Benzene	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Trichloroethene (TCE)	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2-Dichloropropane	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Bromodichloromethane	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM
Dibromomethane	ND	0.0391	mg/Kg-dry	1	9/25/2015 9:45:00 PM
cis-1,3-Dichloropropene	ND	0.0196	mg/Kg-dry	1	9/25/2015 9:45:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 9:05:00 AM

Project: Pacific Park

Lab ID: 1509311-002

Matrix: Soil

Client Sample ID: MW-4-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Toluene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
trans-1,3-Dichloropropylene	ND	0.0293		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,1,2-Trichloroethane	ND	0.0293		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,3-Dichloropropane	ND	0.0489		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Tetrachloroethene (PCE)	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Dibromochloromethane	ND	0.0293		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2-Dibromoethane (EDB)	ND	0.00489		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Chlorobenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0293		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Ethylbenzene	ND	0.0293		mg/Kg-dry	1	9/25/2015 9:45:00 PM
m,p-Xylene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
o-Xylene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Styrene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Isopropylbenzene	ND	0.0782		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Bromoform	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
n-Propylbenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Bromobenzene	ND	0.0293		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,3,5-Trimethylbenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
2-Chlorotoluene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
4-Chlorotoluene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
tert-Butylbenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2,3-Trichloropropane	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2,4-Trichlorobenzene	ND	0.0489		mg/Kg-dry	1	9/25/2015 9:45:00 PM
sec-Butylbenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
4-Isopropyltoluene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,3-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,4-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
n-Butylbenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2-Dibromo-3-chloropropane	ND	0.489		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2,4-Trimethylbenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Hexachlorobutadiene	ND	0.0978		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Naphthalene	ND	0.0293		mg/Kg-dry	1	9/25/2015 9:45:00 PM
1,2,3-Trichlorobenzene	ND	0.0196		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Surr: Dibromofluoromethane	95.7	56.5-129		%REC	1	9/25/2015 9:45:00 PM
Surr: Toluene-d8	97.9	64.3-131		%REC	1	9/25/2015 9:45:00 PM
Surr: 1-Bromo-4-fluorobenzene	102	63.1-141		%REC	1	9/25/2015 9:45:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 9:05:00 AM

Project: Pacific Park

Lab ID: 1509311-002

Matrix: Soil

Client Sample ID: MW-4-15:14.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11948 Analyst: TN

Mercury	ND	0.338		mg/Kg-dry	1	9/24/2015 6:16:59 PM
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Total Metals by EPA Method 6020

Batch ID: 11921 Analyst: TN

Arsenic	4.47	0.125		mg/Kg-dry	1	9/23/2015 6:02:03 PM
Barium	80.4	0.627		mg/Kg-dry	1	9/23/2015 6:02:03 PM
Cadmium	ND	0.251		mg/Kg-dry	1	9/23/2015 6:02:03 PM
Chromium	21.4	0.125		mg/Kg-dry	1	9/23/2015 6:02:03 PM
Lead	3.79	0.251		mg/Kg-dry	1	9/23/2015 6:02:03 PM
Selenium	2.53	0.627		mg/Kg-dry	1	9/23/2015 6:02:03 PM
Silver	ND	0.125		mg/Kg-dry	1	9/23/2015 6:02:03 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179 Analyst: SL

Percent Moisture	35.2			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1509311-003

Matrix: Soil

Client Sample ID: MW-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	42.5		µg/Kg-dry	1	10/1/2015 4:45:00 AM
2,4-D	ND	36.4		µg/Kg-dry	1	10/1/2015 4:45:00 AM
2,4-DP	ND	30.4		µg/Kg-dry	1	10/1/2015 4:45:00 AM
2,4,5-TP (Silvex)	ND	24.3		µg/Kg-dry	1	10/1/2015 4:45:00 AM
2,4,5-T	ND	60.7		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Dinoseb	ND	36.4		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Dalapon	ND	243		µg/Kg-dry	1	10/1/2015 4:45:00 AM
2,4-DB	ND	30.4		µg/Kg-dry	1	10/1/2015 4:45:00 AM
MCPP	ND	5,350		µg/Kg-dry	1	10/1/2015 4:45:00 AM
MCPA	ND	340		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Picloram	ND	60.7		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Bentazon	ND	42.5		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Chloramben	ND	24.3		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Acifluorfen	ND	97.2		µg/Kg-dry	1	10/1/2015 4:45:00 AM
3,5-Dichlorobenzoic acid	ND	48.6		µg/Kg-dry	1	10/1/2015 4:45:00 AM
4-Nitrophenol	ND	36.4		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Dacthal (DCPA)	ND	36.4		µg/Kg-dry	1	10/1/2015 4:45:00 AM
Surr: 2,4-Dichlorophenylacetic acid	97.4	20.1-168		%REC	1	10/1/2015 4:45:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Alpha BHC	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Beta BHC	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Gamma BHC (Lindane)	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Delta BHC	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Heptachlor	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Aldrin	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Heptachlor epoxide	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
gamma-Chlordane	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Endosulfan I	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
alpha-Chlordane	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Dieldrin	ND	0.0116		mg/Kg-dry	1	9/25/2015 7:14:00 PM
4,4'-DDE	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Endrin	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Endosulfan II	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM
4,4'-DDD	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Endrin aldehyde	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Endosulfan sulfate	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1509311-003

Matrix: Soil

Client Sample ID: MW-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

4,4'-DDT	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Endrin ketone	ND	0.0231		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Methoxychlor	ND	0.0578		mg/Kg-dry	1	9/25/2015 7:14:00 PM
Surr: Decachlorobiphenyl	89.4	26.5-158		%REC	1	9/25/2015 7:14:00 PM
Surr: Tetrachloro-m-xylene	68.5	11-150		%REC	1	9/25/2015 7:14:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11945

Analyst: AK

Diesel (Fuel Oil)	ND	24.2		mg/Kg-dry	1	9/25/2015 12:01:00 PM
Heavy Oil	ND	60.6		mg/Kg-dry	1	9/25/2015 12:01:00 PM
Surr: 2-Fluorobiphenyl	97.0	50-150		%REC	1	9/25/2015 12:01:00 PM
Surr: o-Terphenyl	102	50-150		%REC	1	9/25/2015 12:01:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Bis(2-chloroethyl) ether	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2-Chlorophenol	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
1,3-Dichlorobenzene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
1,4-Dichlorobenzene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
1,2-Dichlorobenzene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Benzyl alcohol	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2-Methylphenol (o-cresol)	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Hexachloroethane	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
N-Nitrosodi-n-propylamine	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Nitrobenzene	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Isophorone	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
4-Methylphenol (p-cresol)	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2-Nitrophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2,4-Dimethylphenol	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Bis(2-chloroethoxy)methane	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2,4-Dichlorophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
1,2,4-Trichlorobenzene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Naphthalene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
4-Chloroaniline	ND	602		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Hexachlorobutadiene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
4-Chloro-3-methylphenol	ND	602		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2-Methylnaphthalene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
1-Methylnaphthalene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1509311-003

Matrix: Soil

Client Sample ID: MW-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Hexachlorocyclopentadiene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2,4,6-Trichlorophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2,4,5-Trichlorophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2-Chloronaphthalene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2-Nitroaniline	ND	602		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Acenaphthene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Dimethylphthalate	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2,6-Dinitrotoluene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Acenaphthylene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2,4-Dinitrophenol	ND	241	*	µg/Kg-dry	1	10/2/2015 7:01:00 AM
Dibenzofuran	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
2,4-Dinitrotoluene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
4-Nitrophenol	ND	602	*	µg/Kg-dry	1	10/2/2015 7:01:00 AM
Fluorene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
4-Chlorophenyl phenyl ether	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Diethylphthalate	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
4,6-Dinitro-2-methylphenol	ND	241		µg/Kg-dry	1	10/2/2015 7:01:00 AM
4-Bromophenyl phenyl ether	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Hexachlorobenzene	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Pentachlorophenol	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Phenanthrene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Anthracene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Carbazole	ND	602		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Di-n-butylphthalate	142	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Fluoranthene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Pyrene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Butyl Benzylphthalate	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
bis(2-Ethylhexyl)adipate	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Benz (a) anthracene	125	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Chrysene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
bis (2-Ethylhexyl) phthalate	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Di-n-octyl phthalate	ND	120		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Benzo (b) fluoranthene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Benzo (k) fluoranthene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Benzo (a) pyrene	169	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Indeno (1,2,3-cd) pyrene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Dibenz (a,h) anthracene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Benzo (g,h,i) perylene	ND	96.2		µg/Kg-dry	1	10/2/2015 7:01:00 AM
Surr: 2,4,6-Tribromophenol	91.5	11.1-127		%REC	1	10/2/2015 7:01:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1509311-003

Matrix: Soil

Client Sample ID: MW-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Surr: 2-Fluorobiphenyl	85.9	16.1-150	%REC	1	10/2/2015 7:01:00 AM
Surr: Nitrobenzene-d5	74.7	13.1-124	%REC	1	10/2/2015 7:01:00 AM
Surr: Phenol-d6	76.5	11.6-133	%REC	1	10/2/2015 7:01:00 AM
Surr: p-Terphenyl	99.7	21.8-150	%REC	1	10/2/2015 7:01:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	3.79	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Surr: Toluene-d8	97.6	65-135	%REC	1	9/25/2015 10:14:00 PM
Surr: 4-Bromofluorobenzene	106	65-135	%REC	1	9/25/2015 10:14:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0455	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Chloromethane	ND	0.0455	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Vinyl chloride	ND	0.00152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Bromomethane	ND	0.0683	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0379	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Chloroethane	ND	0.0455	mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,1-Dichloroethene	ND	0.0379	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Methylene chloride	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
trans-1,2-Dichloroethene	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0379	mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,1-Dichloroethane	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
2,2-Dichloropropane	ND	0.0379	mg/Kg-dry	1	9/25/2015 10:14:00 PM
cis-1,2-Dichloroethene	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Chloroform	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,1-Dichloropropene	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Carbon tetrachloride	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2-Dichloroethane (EDC)	ND	0.0228	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Benzene	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Trichloroethene (TCE)	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2-Dichloropropane	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Bromodichloromethane	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM
Dibromomethane	ND	0.0304	mg/Kg-dry	1	9/25/2015 10:14:00 PM
cis-1,3-Dichloropropene	ND	0.0152	mg/Kg-dry	1	9/25/2015 10:14:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1509311-003

Matrix: Soil

Client Sample ID: MW-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11959		Analyst: BC
Toluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
trans-1,3-Dichloropropylene	ND	0.0228		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,1,2-Trichloroethane	ND	0.0228		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,3-Dichloropropane	ND	0.0379		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Tetrachloroethene (PCE)	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Dibromochloromethane	ND	0.0228		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2-Dibromoethane (EDB)	ND	0.00379		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Chlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0228		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Ethylbenzene	ND	0.0228		mg/Kg-dry	1	9/25/2015 10:14:00 PM
m,p-Xylene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
o-Xylene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Styrene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Isopropylbenzene	ND	0.0607		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Bromoform	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
n-Propylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Bromobenzene	ND	0.0228		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,3,5-Trimethylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
2-Chlorotoluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
4-Chlorotoluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
tert-Butylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2,3-Trichloropropane	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2,4-Trichlorobenzene	ND	0.0379		mg/Kg-dry	1	9/25/2015 10:14:00 PM
sec-Butylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
4-Isopropyltoluene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,3-Dichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,4-Dichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
n-Butylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2-Dichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2-Dibromo-3-chloropropane	ND	0.379		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2,4-Trimethylbenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Hexachlorobutadiene	ND	0.0759		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Naphthalene	ND	0.0228		mg/Kg-dry	1	9/25/2015 10:14:00 PM
1,2,3-Trichlorobenzene	ND	0.0152		mg/Kg-dry	1	9/25/2015 10:14:00 PM
Surr: Dibromofluoromethane	93.2	56.5-129		%REC	1	9/25/2015 10:14:00 PM
Surr: Toluene-d8	98.0	64.3-131		%REC	1	9/25/2015 10:14:00 PM
Surr: 1-Bromo-4-fluorobenzene	102	63.1-141		%REC	1	9/25/2015 10:14:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1509311-003

Matrix: Soil

Client Sample ID: MW-5-15:5.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11948 Analyst: TN

Mercury	ND	0.271		mg/Kg-dry	1	9/24/2015 6:21:57 PM
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Total Metals by EPA Method 6020

Batch ID: 11921 Analyst: TN

Arsenic	4.58	0.0916		mg/Kg-dry	1	9/23/2015 6:05:34 PM
Barium	97.6	0.458		mg/Kg-dry	1	9/23/2015 6:05:34 PM
Cadmium	5.41	0.183		mg/Kg-dry	1	9/23/2015 6:05:34 PM
Chromium	24.4	0.0916		mg/Kg-dry	1	9/23/2015 6:05:34 PM
Lead	56.3	0.183		mg/Kg-dry	1	9/23/2015 6:05:34 PM
Selenium	1.58	0.458		mg/Kg-dry	1	9/23/2015 6:05:34 PM
Silver	ND	0.0916		mg/Kg-dry	1	9/23/2015 6:05:34 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179 Analyst: SL

Percent Moisture	19.1			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:40:00 AM

Project: Pacific Park

Lab ID: 1509311-004

Matrix: Soil

Client Sample ID: MW-5-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	44.2		µg/Kg-dry	1	10/1/2015 5:02:00 AM
2,4-D	ND	37.9		µg/Kg-dry	1	10/1/2015 5:02:00 AM
2,4-DP	ND	31.6		µg/Kg-dry	1	10/1/2015 5:02:00 AM
2,4,5-TP (Silvex)	ND	25.3		µg/Kg-dry	1	10/1/2015 5:02:00 AM
2,4,5-T	ND	63.2		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Dinoseb	ND	37.9		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Dalapon	ND	253		µg/Kg-dry	1	10/1/2015 5:02:00 AM
2,4-DB	ND	31.6		µg/Kg-dry	1	10/1/2015 5:02:00 AM
MCPP	ND	5,560		µg/Kg-dry	1	10/1/2015 5:02:00 AM
MCPA	ND	354		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Picloram	ND	63.2		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Bentazon	ND	44.2		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Chloramben	ND	25.3		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Acifluorfen	ND	101		µg/Kg-dry	1	10/1/2015 5:02:00 AM
3,5-Dichlorobenzoic acid	ND	50.5		µg/Kg-dry	1	10/1/2015 5:02:00 AM
4-Nitrophenol	ND	37.9		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Dacthal (DCPA)	ND	37.9		µg/Kg-dry	1	10/1/2015 5:02:00 AM
Surr: 2,4-Dichlorophenylacetic acid	98.6	20.1-168		%REC	1	10/1/2015 5:02:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Alpha BHC	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Beta BHC	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Gamma BHC (Lindane)	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Delta BHC	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Heptachlor	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Aldrin	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Heptachlor epoxide	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
gamma-Chlordane	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Endosulfan I	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
alpha-Chlordane	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Dieldrin	ND	0.0119		mg/Kg-dry	1	9/25/2015 7:25:00 PM
4,4'-DDE	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Endrin	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Endosulfan II	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM
4,4'-DDD	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Endrin aldehyde	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Endosulfan sulfate	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:40:00 AM

Project: Pacific Park

Lab ID: 1509311-004

Matrix: Soil

Client Sample ID: MW-5-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11947		Analyst: MD
4,4'-DDT	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Endrin ketone	ND	0.0238		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Methoxychlor	ND	0.0595		mg/Kg-dry	1	9/25/2015 7:25:00 PM
Surr: Decachlorobiphenyl	74.6	26.5-158		%REC	1	9/25/2015 7:25:00 PM
Surr: Tetrachloro-m-xylene	69.4	11-150		%REC	1	9/25/2015 7:25:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11945

Analyst: AK

Diesel (Fuel Oil)	ND	24.3		mg/Kg-dry	1	9/25/2015 12:32:00 PM
Heavy Oil	ND	60.8		mg/Kg-dry	1	9/25/2015 12:32:00 PM
Surr: 2-Fluorobiphenyl	91.1	50-150		%REC	1	9/25/2015 12:32:00 PM
Surr: o-Terphenyl	60.1	50-150		%REC	1	9/25/2015 12:32:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Bis(2-chloroethyl) ether	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2-Chlorophenol	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
1,3-Dichlorobenzene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
1,4-Dichlorobenzene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
1,2-Dichlorobenzene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Benzyl alcohol	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2-Methylphenol (o-cresol)	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Hexachloroethane	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
N-Nitrosodi-n-propylamine	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Nitrobenzene	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Isophorone	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
4-Methylphenol (p-cresol)	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2-Nitrophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2,4-Dimethylphenol	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Bis(2-chloroethoxy)methane	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2,4-Dichlorophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
1,2,4-Trichlorobenzene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Naphthalene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
4-Chloroaniline	ND	604		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Hexachlorobutadiene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
4-Chloro-3-methylphenol	ND	604		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2-Methylnaphthalene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
1-Methylnaphthalene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:40:00 AM

Project: Pacific Park

Lab ID: 1509311-004

Matrix: Soil

Client Sample ID: MW-5-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Hexachlorocyclopentadiene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2,4,6-Trichlorophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2,4,5-Trichlorophenol	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2-Chloronaphthalene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2-Nitroaniline	ND	604		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Acenaphthene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Dimethylphthalate	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2,6-Dinitrotoluene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Acenaphthylene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2,4-Dinitrophenol	ND	241	*	µg/Kg-dry	1	10/2/2015 7:24:00 AM
Dibenzofuran	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
2,4-Dinitrotoluene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
4-Nitrophenol	ND	604	*	µg/Kg-dry	1	10/2/2015 7:24:00 AM
Fluorene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
4-Chlorophenyl phenyl ether	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Diethylphthalate	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
4,6-Dinitro-2-methylphenol	ND	241		µg/Kg-dry	1	10/2/2015 7:24:00 AM
4-Bromophenyl phenyl ether	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Hexachlorobenzene	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Pentachlorophenol	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Phenanthrene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Anthracene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Carbazole	ND	604		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Di-n-butylphthalate	153	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Fluoranthene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Pyrene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Butyl Benzylphthalate	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
bis(2-Ethylhexyl)adipate	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Benz (a) anthracene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Chrysene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
bis (2-Ethylhexyl) phthalate	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Di-n-octyl phthalate	ND	121		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Benzo (b) fluoranthene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Benzo (k) fluoranthene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Benzo (a) pyrene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Indeno (1,2,3-cd) pyrene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Dibenz (a,h) anthracene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Benzo (g,h,i) perylene	ND	96.6		µg/Kg-dry	1	10/2/2015 7:24:00 AM
Surr: 2,4,6-Tribromophenol	107	11.1-127		%REC	1	10/2/2015 7:24:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:40:00 AM

Project: Pacific Park

Lab ID: 1509311-004

Matrix: Soil

Client Sample ID: MW-5-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Surr: 2-Fluorobiphenyl	77.8	16.1-150	%REC	1	10/2/2015 7:24:00 AM
Surr: Nitrobenzene-d5	50.0	13.1-124	%REC	1	10/2/2015 7:24:00 AM
Surr: Phenol-d6	58.2	11.6-133	%REC	1	10/2/2015 7:24:00 AM
Surr: p-Terphenyl	98.5	21.8-150	%REC	1	10/2/2015 7:24:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	3.57	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Surr: Toluene-d8	98.3	65-135	%REC	1	9/25/2015 10:43:00 PM
Surr: 4-Bromofluorobenzene	105	65-135	%REC	1	9/25/2015 10:43:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0429	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Chloromethane	ND	0.0429	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Vinyl chloride	ND	0.00143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Bromomethane	ND	0.0643	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0357	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Chloroethane	ND	0.0429	mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,1-Dichloroethene	ND	0.0357	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Methylene chloride	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
trans-1,2-Dichloroethene	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0357	mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,1-Dichloroethane	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
2,2-Dichloropropane	ND	0.0357	mg/Kg-dry	1	9/25/2015 10:43:00 PM
cis-1,2-Dichloroethene	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Chloroform	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,1-Dichloropropene	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Carbon tetrachloride	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2-Dichloroethane (EDC)	ND	0.0214	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Benzene	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Trichloroethene (TCE)	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2-Dichloropropane	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Bromodichloromethane	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM
Dibromomethane	ND	0.0286	mg/Kg-dry	1	9/25/2015 10:43:00 PM
cis-1,3-Dichloropropene	ND	0.0143	mg/Kg-dry	1	9/25/2015 10:43:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:40:00 AM

Project: Pacific Park

Lab ID: 1509311-004

Matrix: Soil

Client Sample ID: MW-5-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: 11959		Analyst: BC
Toluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
trans-1,3-Dichloropropylene	ND	0.0214		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,1,2-Trichloroethane	ND	0.0214		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,3-Dichloropropane	ND	0.0357		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Tetrachloroethene (PCE)	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Dibromochloromethane	ND	0.0214		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2-Dibromoethane (EDB)	ND	0.00357		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Chlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0214		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Ethylbenzene	ND	0.0214		mg/Kg-dry	1	9/25/2015 10:43:00 PM
m,p-Xylene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
o-Xylene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Styrene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Isopropylbenzene	ND	0.0572		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Bromoform	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
n-Propylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Bromobenzene	ND	0.0214		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,3,5-Trimethylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
2-Chlorotoluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
4-Chlorotoluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
tert-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2,3-Trichloropropane	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2,4-Trichlorobenzene	ND	0.0357		mg/Kg-dry	1	9/25/2015 10:43:00 PM
sec-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
4-Isopropyltoluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,3-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,4-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
n-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2-Dibromo-3-chloropropane	ND	0.357		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2,4-Trimethylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Hexachlorobutadiene	ND	0.0715		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Naphthalene	ND	0.0214		mg/Kg-dry	1	9/25/2015 10:43:00 PM
1,2,3-Trichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 10:43:00 PM
Surr: Dibromofluoromethane	94.4	56.5-129		%REC	1	9/25/2015 10:43:00 PM
Surr: Toluene-d8	97.7	64.3-131		%REC	1	9/25/2015 10:43:00 PM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/25/2015 10:43:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:40:00 AM

Project: Pacific Park

Lab ID: 1509311-004

Matrix: Soil

Client Sample ID: MW-5-15:12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11948

Analyst: TN

Mercury	ND	0.277		mg/Kg-dry	1	9/24/2015 6:23:34 PM
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Total Metals by EPA Method 6020

Batch ID: 11921

Analyst: TN

Arsenic	2.23	0.0940		mg/Kg-dry	1	9/23/2015 6:09:05 PM
Barium	29.6	0.470		mg/Kg-dry	1	9/23/2015 6:09:05 PM
Cadmium	ND	0.188		mg/Kg-dry	1	9/23/2015 6:09:05 PM
Chromium	15.1	0.0940		mg/Kg-dry	1	9/23/2015 6:09:05 PM
Lead	7.72	0.188		mg/Kg-dry	1	9/23/2015 6:09:05 PM
Selenium	1.31	0.470		mg/Kg-dry	1	9/23/2015 6:09:05 PM
Silver	ND	0.0940		mg/Kg-dry	1	9/23/2015 6:09:05 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179

Analyst: SL

Percent Moisture	22.3			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:50:00 AM

Project: Pacific Park

Lab ID: 1509311-005

Matrix: Water

Client Sample ID: MW-5-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11941

Analyst: AK

Diesel (Fuel Oil)	ND	50.0		µg/L	1	9/28/2015 12:07:00 PM
Heavy Oil	ND	100		µg/L	1	9/28/2015 12:07:00 PM
Surr: 2-Fluorobiphenyl	72.0	50-150		%REC	1	9/28/2015 12:07:00 PM
Surr: o-Terphenyl	66.8	50-150		%REC	1	9/28/2015 12:07:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 11916

Analyst: NG

Naphthalene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
2-Methylnaphthalene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
1-Methylnaphthalene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Acenaphthylene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Acenaphthene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Fluorene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Phenanthrene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Anthracene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Fluoranthene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Pyrene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Benz(a)anthracene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Chrysene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Benzo(b)fluoranthene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Benzo(k)fluoranthene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Benzo(a)pyrene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Dibenz(a,h)anthracene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Benzo(g,h,i)perylene	ND	0.100		µg/L	1	9/23/2015 10:38:00 PM
Surr: 2-Fluorobiphenyl	64.4	23.9-122		%REC	1	9/23/2015 10:38:00 PM
Surr: Terphenyl-d14	58.7	33.4-135		%REC	1	9/23/2015 10:38:00 PM

NOTES:

Internal standard areas were outside of the QC limits indicating a high bias. Sample results are ND.

Gasoline by NWTPH-Gx

Batch ID: R25091

Analyst: BC

Gasoline	ND	50.0		µg/L	1	9/23/2015 10:15:00 PM
Surr: Toluene-d8	88.4	65-135		%REC	1	9/23/2015 10:15:00 PM
Surr: 4-Bromofluorobenzene	97.5	65-135		%REC	1	9/23/2015 10:15:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:50:00 AM

Project: Pacific Park

Lab ID: 1509311-005

Matrix: Water

Client Sample ID: MW-5-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Chloromethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Vinyl chloride	ND	0.200		µg/L	1	9/23/2015 10:15:00 PM
Bromomethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Chloroethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Methylene chloride	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/23/2015 10:15:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Chloroform	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Benzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/23/2015 10:15:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Dibromomethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Toluene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/23/2015 10:15:00 PM
Chlorobenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Styrene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Bromoform	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:50:00 AM

Project: Pacific Park

Lab ID: 1509311-005

Matrix: Water

Client Sample ID: MW-5-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

n-Propylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Bromobenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/23/2015 10:15:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 10:15:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/23/2015 10:15:00 PM
Naphthalene	ND	1.00	Q	µg/L	1	9/23/2015 10:15:00 PM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/23/2015 10:15:00 PM
Surr: Dibromofluoromethane	96.5	45.4-152		%REC	1	9/23/2015 10:15:00 PM
Surr: Toluene-d8	101	40.1-139		%REC	1	9/23/2015 10:15:00 PM
Surr: 1-Bromo-4-fluorobenzene	102	64.2-128		%REC	1	9/23/2015 10:15:00 PM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:30:52 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:24:33 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Antimony	0.467	0.200		µg/L	1	9/23/2015 4:15:29 PM
Arsenic	ND	1.00		µg/L	1	9/23/2015 4:15:29 PM
Beryllium	ND	0.200		µg/L	1	9/23/2015 4:15:29 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 10:50:00 AM

Project: Pacific Park

Lab ID: 1509311-005

Matrix: Water

Client Sample ID: MW-5-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Cadmium	ND	0.200		µg/L	1	9/23/2015 4:15:29 PM
Chromium	ND	0.500		µg/L	1	9/23/2015 4:15:29 PM
Copper	1.06	0.500		µg/L	1	9/23/2015 4:15:29 PM
Lead	ND	1.00		µg/L	1	9/23/2015 4:15:29 PM
Nickel	2.52	0.500		µg/L	1	9/23/2015 4:15:29 PM
Selenium	ND	1.00		µg/L	1	9/23/2015 4:15:29 PM
Silver	ND	0.200		µg/L	1	9/23/2015 4:15:29 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 4:15:29 PM
Zinc	5.83	1.50		µg/L	1	9/23/2015 4:15:29 PM

Total Metals by EPA Method 200.8

Batch ID: 11925

Analyst: TN

Antimony	0.302	0.200		µg/L	1	9/23/2015 3:50:49 PM
Arsenic	5.87	1.00		µg/L	1	9/23/2015 3:50:49 PM
Beryllium	0.338	0.200		µg/L	1	9/23/2015 3:50:49 PM
Cadmium	5.28	0.200		µg/L	1	9/23/2015 3:50:49 PM
Chromium	7.70	0.500		µg/L	1	9/23/2015 3:50:49 PM
Copper	6.26	0.500		µg/L	1	9/23/2015 3:50:49 PM
Lead	64.9	1.00		µg/L	1	9/23/2015 3:50:49 PM
Nickel	18.9	0.500		µg/L	1	9/23/2015 3:50:49 PM
Selenium	ND	1.00		µg/L	1	9/23/2015 3:50:49 PM
Silver	ND	0.200		µg/L	1	9/23/2015 3:50:49 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 3:50:49 PM
Zinc	1,200	1.50		µg/L	1	9/23/2015 3:50:49 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:30:00 PM

Project: Pacific Park

Lab ID: 1509311-006

Matrix: Soil

Client Sample ID: GP-22-15:1.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	38.3		µg/Kg-dry	1	10/1/2015 5:19:00 AM
2,4-D	ND	32.8		µg/Kg-dry	1	10/1/2015 5:19:00 AM
2,4-DP	ND	27.3		µg/Kg-dry	1	10/1/2015 5:19:00 AM
2,4,5-TP (Silvex)	ND	21.9		µg/Kg-dry	1	10/1/2015 5:19:00 AM
2,4,5-T	ND	54.7		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Dinoseb	ND	32.8		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Dalapon	ND	219		µg/Kg-dry	1	10/1/2015 5:19:00 AM
2,4-DB	ND	27.3		µg/Kg-dry	1	10/1/2015 5:19:00 AM
MCPP	ND	4,810		µg/Kg-dry	1	10/1/2015 5:19:00 AM
MCPA	ND	306		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Picloram	ND	54.7		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Bentazon	ND	38.3		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Chloramben	ND	21.9		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Acifluorfen	ND	87.5		µg/Kg-dry	1	10/1/2015 5:19:00 AM
3,5-Dichlorobenzoic acid	ND	43.8		µg/Kg-dry	1	10/1/2015 5:19:00 AM
4-Nitrophenol	ND	32.8		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Dacthal (DCPA)	ND	32.8		µg/Kg-dry	1	10/1/2015 5:19:00 AM
Surr: 2,4-Dichlorophenylacetic acid	111	20.1-168		%REC	1	10/1/2015 5:19:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

Toxaphene	ND	0.106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Alpha BHC	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Beta BHC	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Gamma BHC (Lindane)	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Delta BHC	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Heptachlor	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Aldrin	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Heptachlor epoxide	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
gamma-Chlordane	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Endosulfan I	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
alpha-Chlordane	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Dieldrin	ND	0.0106		mg/Kg-dry	1	9/25/2015 7:35:00 PM
4,4'-DDE	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Endrin	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Endosulfan II	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM
4,4'-DDD	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Endrin aldehyde	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Endosulfan sulfate	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:30:00 PM

Project: Pacific Park

Lab ID: 1509311-006

Matrix: Soil

Client Sample ID: GP-22-15:1.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11947

Analyst: MD

4,4'-DDT	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Endrin ketone	ND	0.0213		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Methoxychlor	ND	0.0531		mg/Kg-dry	1	9/25/2015 7:35:00 PM
Surr: Decachlorobiphenyl	85.7	26.5-158		%REC	1	9/25/2015 7:35:00 PM
Surr: Tetrachloro-m-xylene	81.0	11-150		%REC	1	9/25/2015 7:35:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957

Analyst: AK

Diesel (Fuel Oil)	ND	21.4		mg/Kg-dry	1	9/29/2015 6:53:00 PM
Heavy Oil	ND	53.4		mg/Kg-dry	1	9/29/2015 6:53:00 PM
Surr: 2-Fluorobiphenyl	119	50-150		%REC	1	9/29/2015 6:53:00 PM
Surr: o-Terphenyl	121	50-150		%REC	1	9/29/2015 6:53:00 PM

NOTES:

Rerun due to resolve discrepancy between earlier sample and duplicate.

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Bis(2-chloroethyl) ether	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2-Chlorophenol	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
1,3-Dichlorobenzene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
1,4-Dichlorobenzene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
1,2-Dichlorobenzene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Benzyl alcohol	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2-Methylphenol (o-cresol)	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Hexachloroethane	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
N-Nitrosodi-n-propylamine	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Nitrobenzene	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Isophorone	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
4-Methylphenol (p-cresol)	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2-Nitrophenol	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2,4-Dimethylphenol	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Bis(2-chloroethoxy)methane	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2,4-Dichlorophenol	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
1,2,4-Trichlorobenzene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Naphthalene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
4-Chloroaniline	ND	540		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Hexachlorobutadiene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
4-Chloro-3-methylphenol	ND	540		µg/Kg-dry	1	10/2/2015 7:46:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:30:00 PM

Project: Pacific Park

Lab ID: 1509311-006

Matrix: Soil

Client Sample ID: GP-22-15:1.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

2-Methylnaphthalene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
1-Methylnaphthalene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Hexachlorocyclopentadiene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2,4,6-Trichlorophenol	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2,4,5-Trichlorophenol	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2-Chloronaphthalene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2-Nitroaniline	ND	540		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Acenaphthene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Dimethylphthalate	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2,6-Dinitrotoluene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Acenaphthylene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2,4-Dinitrophenol	ND	216	*	µg/Kg-dry	1	10/2/2015 7:46:00 AM
Dibenzofuran	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
2,4-Dinitrotoluene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
4-Nitrophenol	ND	540	*	µg/Kg-dry	1	10/2/2015 7:46:00 AM
Fluorene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
4-Chlorophenyl phenyl ether	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Diethylphthalate	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
4,6-Dinitro-2-methylphenol	ND	216		µg/Kg-dry	1	10/2/2015 7:46:00 AM
4-Bromophenyl phenyl ether	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Hexachlorobenzene	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Pentachlorophenol	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Phenanthrene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Anthracene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Carbazole	ND	540		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Di-n-butylphthalate	115	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Fluoranthene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Pyrene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Butyl Benzylphthalate	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
bis(2-Ethylhexyl)adipate	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Benz (a) anthracene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Chrysene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
bis (2-Ethylhexyl) phthalate	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Di-n-octyl phthalate	ND	108		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Benzo (b) fluoranthene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Benzo (k) fluoranthene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Benzo (a) pyrene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Indeno (1,2,3-cd) pyrene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Dibenz (a,h) anthracene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:30:00 PM

Project: Pacific Park

Lab ID: 1509311-006

Matrix: Soil

Client Sample ID: GP-22-15:1.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Benzo (g,h,i) perylene	ND	86.4		µg/Kg-dry	1	10/2/2015 7:46:00 AM
Surr: 2,4,6-Tribromophenol	90.1	11.1-127		%REC	1	10/2/2015 7:46:00 AM
Surr: 2-Fluorobiphenyl	90.7	16.1-150		%REC	1	10/2/2015 7:46:00 AM
Surr: Nitrobenzene-d5	64.1	13.1-124		%REC	1	10/2/2015 7:46:00 AM
Surr: Phenol-d6	68.9	11.6-133		%REC	1	10/2/2015 7:46:00 AM
Surr: p-Terphenyl	99.6	21.8-150		%REC	1	10/2/2015 7:46:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	3.50		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Surr: Toluene-d8	97.6	65-135		%REC	1	9/25/2015 11:11:00 PM
Surr: 4-Bromofluorobenzene	103	65-135		%REC	1	9/25/2015 11:11:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0420		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Chloromethane	ND	0.0420		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Vinyl chloride	ND	0.00140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Bromomethane	ND	0.0630		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Chloroethane	ND	0.0420		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,1-Dichloroethene	ND	0.0350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Methylene chloride	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
trans-1,2-Dichloroethene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,1-Dichloroethane	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
2,2-Dichloropropane	ND	0.0350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
cis-1,2-Dichloroethene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Chloroform	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,1-Dichloropropene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Carbon tetrachloride	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2-Dichloroethane (EDC)	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Benzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Trichloroethene (TCE)	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2-Dichloropropane	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Bromodichloromethane	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:30:00 PM

Project: Pacific Park

Lab ID: 1509311-006

Matrix: Soil

Client Sample ID: GP-22-15:1.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dibromomethane	ND	0.0280		mg/Kg-dry	1	9/25/2015 11:11:00 PM
cis-1,3-Dichloropropene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Toluene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
trans-1,3-Dichloropropylene	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,1,2-Trichloroethane	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,3-Dichloropropane	ND	0.0350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Tetrachloroethene (PCE)	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Dibromochloromethane	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2-Dibromoethane (EDB)	ND	0.00350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Chlorobenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Ethylbenzene	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
m,p-Xylene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
o-Xylene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Styrene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Isopropylbenzene	ND	0.0560		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Bromoform	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
n-Propylbenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Bromobenzene	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,3,5-Trimethylbenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
2-Chlorotoluene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
4-Chlorotoluene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
tert-Butylbenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2,3-Trichloropropane	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2,4-Trichlorobenzene	ND	0.0350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
sec-Butylbenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
4-Isopropyltoluene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,3-Dichlorobenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,4-Dichlorobenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
n-Butylbenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2-Dichlorobenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2-Dibromo-3-chloropropane	ND	0.350		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2,4-Trimethylbenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Hexachlorobutadiene	ND	0.0700		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Naphthalene	ND	0.0210		mg/Kg-dry	1	9/25/2015 11:11:00 PM
1,2,3-Trichlorobenzene	ND	0.0140		mg/Kg-dry	1	9/25/2015 11:11:00 PM
Surr: Dibromofluoromethane	93.7	56.5-129		%REC	1	9/25/2015 11:11:00 PM
Surr: Toluene-d8	98.9	64.3-131		%REC	1	9/25/2015 11:11:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:30:00 PM

Project: Pacific Park

Lab ID: 1509311-006

Matrix: Soil

Client Sample ID: GP-22-15:1.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: 11959		Analyst: BC
Surr: 1-Bromo-4-fluorobenzene	99.6	63.1-141		%REC	1	9/25/2015 11:11:00 PM
<u>Mercury by EPA Method 7471</u>				Batch ID: 11948		Analyst: TN
Mercury	0.381	0.237		mg/Kg-dry	1	9/24/2015 6:25:12 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11921		Analyst: TN
Arsenic	3.78	0.0841		mg/Kg-dry	1	9/23/2015 6:12:36 PM
Barium	45.8	0.420		mg/Kg-dry	1	9/23/2015 6:12:36 PM
Cadmium	ND	0.168		mg/Kg-dry	1	9/23/2015 6:12:36 PM
Chromium	17.6	0.0841		mg/Kg-dry	1	9/23/2015 6:12:36 PM
Lead	5.11	0.168		mg/Kg-dry	1	9/23/2015 6:12:36 PM
Selenium	1.69	0.420		mg/Kg-dry	1	9/23/2015 6:12:36 PM
Silver	ND	0.0841		mg/Kg-dry	1	9/23/2015 6:12:36 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25179		Analyst: SL
Percent Moisture	10.6			wt%	1	9/29/2015 2:15:36 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:40:00 PM

Project: Pacific Park

Lab ID: 1509311-007

Matrix: Soil

Client Sample ID: GP-22-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	40.6		µg/Kg-dry	1	10/1/2015 5:36:00 AM
2,4-D	ND	34.8		µg/Kg-dry	1	10/1/2015 5:36:00 AM
2,4-DP	ND	29.0		µg/Kg-dry	1	10/1/2015 5:36:00 AM
2,4,5-TP (Silvex)	ND	23.2		µg/Kg-dry	1	10/1/2015 5:36:00 AM
2,4,5-T	ND	58.0		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Dinoseb	ND	34.8		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Dalapon	ND	232		µg/Kg-dry	1	10/1/2015 5:36:00 AM
2,4-DB	ND	29.0		µg/Kg-dry	1	10/1/2015 5:36:00 AM
MCP	ND	5,100		µg/Kg-dry	1	10/1/2015 5:36:00 AM
MCPA	ND	325		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Picloram	ND	58.0		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Bentazon	ND	40.6		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Chloramben	ND	23.2		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Acifluorfen	ND	92.8		µg/Kg-dry	1	10/1/2015 5:36:00 AM
3,5-Dichlorobenzoic acid	ND	46.4		µg/Kg-dry	1	10/1/2015 5:36:00 AM
4-Nitrophenol	ND	34.8		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Dacthal (DCPA)	ND	34.8		µg/Kg-dry	1	10/1/2015 5:36:00 AM
Surr: 2,4-Dichlorophenylacetic acid	103	20.1-168		%REC	1	10/1/2015 5:36:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Toxaphene	ND	0.100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Alpha BHC	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Beta BHC	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Gamma BHC (Lindane)	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Delta BHC	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Heptachlor	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Aldrin	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Heptachlor epoxide	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
gamma-Chlordane	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Endosulfan I	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
alpha-Chlordane	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Dieldrin	ND	0.0100		mg/Kg-dry	1	9/25/2015 8:51:00 PM
4,4'-DDE	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Endrin	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Endosulfan II	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM
4,4'-DDD	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Endrin aldehyde	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Endosulfan sulfate	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:40:00 PM

Project: Pacific Park

Lab ID: 1509311-007

Matrix: Soil

Client Sample ID: GP-22-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

4,4'-DDT	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Endrin ketone	ND	0.0200		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Methoxychlor	ND	0.0500		mg/Kg-dry	1	9/25/2015 8:51:00 PM
Surr: Decachlorobiphenyl	78.5	26.5-158		%REC	1	9/25/2015 8:51:00 PM
Surr: Tetrachloro-m-xylene	84.2	11-150		%REC	1	9/25/2015 8:51:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957

Analyst: AK

Diesel (Fuel Oil)	ND	20.4		mg/Kg-dry	1	9/28/2015 7:17:00 PM
Heavy Oil	ND	51.0		mg/Kg-dry	1	9/28/2015 7:17:00 PM
Surr: 2-Fluorobiphenyl	94.1	50-150		%REC	1	9/28/2015 7:17:00 PM
Surr: o-Terphenyl	91.2	50-150		%REC	1	9/28/2015 7:17:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Bis(2-chloroethyl) ether	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2-Chlorophenol	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
1,3-Dichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
1,4-Dichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
1,2-Dichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Benzyl alcohol	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2-Methylphenol (o-cresol)	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Hexachloroethane	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
N-Nitrosodi-n-propylamine	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Nitrobenzene	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Isophorone	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
4-Methylphenol (p-cresol)	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2-Nitrophenol	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2,4-Dimethylphenol	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Bis(2-chloroethoxy)methane	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2,4-Dichlorophenol	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
1,2,4-Trichlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Naphthalene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
4-Chloroaniline	ND	575		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Hexachlorobutadiene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
4-Chloro-3-methylphenol	ND	575		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2-Methylnaphthalene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
1-Methylnaphthalene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:40:00 PM

Project: Pacific Park

Lab ID: 1509311-007

Matrix: Soil

Client Sample ID: GP-22-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Hexachlorocyclopentadiene	ND	115	*	µg/Kg-dry	1	10/2/2015 9:38:00 AM
2,4,6-Trichlorophenol	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2,4,5-Trichlorophenol	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2-Chloronaphthalene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2-Nitroaniline	ND	575		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Acenaphthene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Dimethylphthalate	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2,6-Dinitrotoluene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Acenaphthylene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2,4-Dinitrophenol	ND	230	*	µg/Kg-dry	1	10/2/2015 9:38:00 AM
Dibenzofuran	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
2,4-Dinitrotoluene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
4-Nitrophenol	ND	575		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Fluorene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
4-Chlorophenyl phenyl ether	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Diethylphthalate	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
4,6-Dinitro-2-methylphenol	ND	230		µg/Kg-dry	1	10/2/2015 9:38:00 AM
4-Bromophenyl phenyl ether	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Hexachlorobenzene	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Pentachlorophenol	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Phenanthrene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Anthracene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Carbazole	ND	575		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Di-n-butylphthalate	137	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Fluoranthene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Pyrene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Butyl Benzylphthalate	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
bis(2-Ethylhexyl)adipate	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Benz (a) anthracene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Chrysene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
bis (2-Ethylhexyl) phthalate	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Di-n-octyl phthalate	ND	115		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Benzo (b) fluoranthene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Benzo (k) fluoranthene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Benzo (a) pyrene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Indeno (1,2,3-cd) pyrene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Dibenz (a,h) anthracene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Benzo (g,h,i) perylene	ND	92.0		µg/Kg-dry	1	10/2/2015 9:38:00 AM
Surr: 2,4,6-Tribromophenol	73.5	11.1-127		%REC	1	10/2/2015 9:38:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:40:00 PM

Project: Pacific Park

Lab ID: 1509311-007

Matrix: Soil

Client Sample ID: GP-22-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	44.6	16.1-150	%REC	1	10/2/2015 9:38:00 AM
Surr: Nitrobenzene-d5	23.1	10-133	%REC	1	10/2/2015 9:38:00 AM
Surr: Phenol-d6	43.5	11.6-133	%REC	1	10/2/2015 9:38:00 AM
Surr: p-Terphenyl	94.6	21.8-150	%REC	1	10/2/2015 9:38:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	3.58	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Surr: Toluene-d8	97.1	65-135	%REC	1	9/25/2015 11:40:00 PM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/25/2015 11:40:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0430	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Chloromethane	ND	0.0430	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Vinyl chloride	ND	0.00143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Bromomethane	ND	0.0645	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0358	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Chloroethane	ND	0.0430	mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,1-Dichloroethene	ND	0.0358	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Methylene chloride	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
trans-1,2-Dichloroethene	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.0358	mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,1-Dichloroethane	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
2,2-Dichloropropane	ND	0.0358	mg/Kg-dry	1	9/25/2015 11:40:00 PM
cis-1,2-Dichloroethene	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Chloroform	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,1-Dichloropropene	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Carbon tetrachloride	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2-Dichloroethane (EDC)	ND	0.0215	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Benzene	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Trichloroethene (TCE)	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2-Dichloropropane	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Bromodichloromethane	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM
Dibromomethane	ND	0.0286	mg/Kg-dry	1	9/25/2015 11:40:00 PM
cis-1,3-Dichloropropene	ND	0.0143	mg/Kg-dry	1	9/25/2015 11:40:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:40:00 PM

Project: Pacific Park

Lab ID: 1509311-007

Matrix: Soil

Client Sample ID: GP-22-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Toluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
trans-1,3-Dichloropropylene	ND	0.0215		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,1,2-Trichloroethane	ND	0.0215		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,3-Dichloropropane	ND	0.0358		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Tetrachloroethene (PCE)	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Dibromochloromethane	ND	0.0215		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2-Dibromoethane (EDB)	ND	0.00358		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Chlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0215		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Ethylbenzene	ND	0.0215		mg/Kg-dry	1	9/25/2015 11:40:00 PM
m,p-Xylene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
o-Xylene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Styrene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Isopropylbenzene	ND	0.0573		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Bromoform	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
n-Propylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Bromobenzene	ND	0.0215		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,3,5-Trimethylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
2-Chlorotoluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
4-Chlorotoluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
tert-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2,3-Trichloropropane	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2,4-Trichlorobenzene	ND	0.0358		mg/Kg-dry	1	9/25/2015 11:40:00 PM
sec-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
4-Isopropyltoluene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,3-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,4-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
n-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2-Dibromo-3-chloropropane	ND	0.358		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2,4-Trimethylbenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Hexachlorobutadiene	ND	0.0716		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Naphthalene	ND	0.0215		mg/Kg-dry	1	9/25/2015 11:40:00 PM
1,2,3-Trichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/25/2015 11:40:00 PM
Surr: Dibromofluoromethane	93.5	56.5-129		%REC	1	9/25/2015 11:40:00 PM
Surr: Toluene-d8	97.8	64.3-131		%REC	1	9/25/2015 11:40:00 PM
Surr: 1-Bromo-4-fluorobenzene	101	63.1-141		%REC	1	9/25/2015 11:40:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:40:00 PM

Project: Pacific Park

Lab ID: 1509311-007

Matrix: Soil

Client Sample ID: GP-22-15:3.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11948 Analyst: TN

Mercury	ND	0.248		mg/Kg-dry	1	9/24/2015 6:26:50 PM
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Total Metals by EPA Method 6020

Batch ID: 11921 Analyst: TN

Arsenic	3.78	0.0966		mg/Kg-dry	1	9/23/2015 6:16:08 PM
Barium	43.8	0.483		mg/Kg-dry	1	9/23/2015 6:16:08 PM
Cadmium	ND	0.193		mg/Kg-dry	1	9/23/2015 6:16:08 PM
Chromium	18.7	0.0966		mg/Kg-dry	1	9/23/2015 6:16:08 PM
Lead	4.14	0.193		mg/Kg-dry	1	9/23/2015 6:16:08 PM
Selenium	1.63	0.483		mg/Kg-dry	1	9/23/2015 6:16:08 PM
Silver	ND	0.0966		mg/Kg-dry	1	9/23/2015 6:16:08 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179 Analyst: SL

Percent Moisture	14.5			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 3:00:00 PM

Project: Pacific Park

Lab ID: 1509311-008

Matrix: Soil

Client Sample ID: GP-22-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	38.8		µg/Kg-dry	1	10/1/2015 5:52:00 AM
2,4-D	ND	33.3		µg/Kg-dry	1	10/1/2015 5:52:00 AM
2,4-DP	ND	27.7		µg/Kg-dry	1	10/1/2015 5:52:00 AM
2,4,5-TP (Silvex)	ND	22.2		µg/Kg-dry	1	10/1/2015 5:52:00 AM
2,4,5-T	ND	55.5		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Dinoseb	ND	33.3		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Dalapon	ND	222		µg/Kg-dry	1	10/1/2015 5:52:00 AM
2,4-DB	ND	27.7		µg/Kg-dry	1	10/1/2015 5:52:00 AM
MCPP	ND	4,880		µg/Kg-dry	1	10/1/2015 5:52:00 AM
MCPA	ND	311		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Picloram	ND	55.5		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Bentazon	ND	38.8		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Chloramben	ND	22.2		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Acifluorfen	ND	88.8		µg/Kg-dry	1	10/1/2015 5:52:00 AM
3,5-Dichlorobenzoic acid	ND	44.4		µg/Kg-dry	1	10/1/2015 5:52:00 AM
4-Nitrophenol	ND	33.3		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Dacthal (DCPA)	ND	33.3		µg/Kg-dry	1	10/1/2015 5:52:00 AM
Surr: 2,4-Dichlorophenylacetic acid	107	20.1-168		%REC	1	10/1/2015 5:52:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Toxaphene	ND	0.108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Alpha BHC	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Beta BHC	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Gamma BHC (Lindane)	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Delta BHC	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Heptachlor	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Aldrin	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Heptachlor epoxide	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
gamma-Chlordane	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Endosulfan I	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
alpha-Chlordane	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Dieldrin	ND	0.0108		mg/Kg-dry	1	9/25/2015 9:13:00 PM
4,4'-DDE	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Endrin	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Endosulfan II	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM
4,4'-DDD	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Endrin aldehyde	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Endosulfan sulfate	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 3:00:00 PM

Project: Pacific Park

Lab ID: 1509311-008

Matrix: Soil

Client Sample ID: GP-22-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11962		Analyst: MD
4,4'-DDT	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Endrin ketone	ND	0.0217		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Methoxychlor	ND	0.0541		mg/Kg-dry	1	9/25/2015 9:13:00 PM
Surr: Decachlorobiphenyl	48.3	26.5-158		%REC	1	9/25/2015 9:13:00 PM
Surr: Tetrachloro-m-xylene	49.6	11-150		%REC	1	9/25/2015 9:13:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957 Analyst: AK

Diesel (Fuel Oil)	ND	19.3		mg/Kg-dry	1	9/28/2015 7:48:00 PM
Heavy Oil	ND	48.2		mg/Kg-dry	1	9/28/2015 7:48:00 PM
Surr: 2-Fluorobiphenyl	83.9	50-150		%REC	1	9/28/2015 7:48:00 PM
Surr: o-Terphenyl	79.6	50-150		%REC	1	9/28/2015 7:48:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984 Analyst: NG

Phenol	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Bis(2-chloroethyl) ether	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2-Chlorophenol	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
1,3-Dichlorobenzene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
1,4-Dichlorobenzene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
1,2-Dichlorobenzene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Benzyl alcohol	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2-Methylphenol (o-cresol)	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Hexachloroethane	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
N-Nitrosodi-n-propylamine	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Nitrobenzene	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Isophorone	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
4-Methylphenol (p-cresol)	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2-Nitrophenol	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2,4-Dimethylphenol	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Bis(2-chloroethoxy)methane	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2,4-Dichlorophenol	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
1,2,4-Trichlorobenzene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Naphthalene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
4-Chloroaniline	ND	565		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Hexachlorobutadiene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
4-Chloro-3-methylphenol	ND	565		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2-Methylnaphthalene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
1-Methylnaphthalene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 3:00:00 PM

Project: Pacific Park

Lab ID: 1509311-008

Matrix: Soil

Client Sample ID: GP-22-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984	Analyst: NG	
Hexachlorocyclopentadiene	ND	113	*	µg/Kg-dry	1	10/2/2015 10:00:00 AM
2,4,6-Trichlorophenol	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2,4,5-Trichlorophenol	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2-Chloronaphthalene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2-Nitroaniline	ND	565		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Acenaphthene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Dimethylphthalate	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2,6-Dinitrotoluene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Acenaphthylene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2,4-Dinitrophenol	ND	226	*	µg/Kg-dry	1	10/2/2015 10:00:00 AM
Dibenzofuran	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
2,4-Dinitrotoluene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
4-Nitrophenol	ND	565		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Fluorene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
4-Chlorophenyl phenyl ether	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Diethylphthalate	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
4,6-Dinitro-2-methylphenol	ND	226		µg/Kg-dry	1	10/2/2015 10:00:00 AM
4-Bromophenyl phenyl ether	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Hexachlorobenzene	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Pentachlorophenol	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Phenanthrene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Anthracene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Carbazole	ND	565		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Di-n-butylphthalate	136	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Fluoranthene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Pyrene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Butyl Benzylphthalate	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
bis(2-Ethylhexyl)adipate	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Benz (a) anthracene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Chrysene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
bis (2-Ethylhexyl) phthalate	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Di-n-octyl phthalate	ND	113		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Benzo (b) fluoranthene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Benzo (k) fluoranthene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Benzo (a) pyrene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Indeno (1,2,3-cd) pyrene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Dibenz (a,h) anthracene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Benzo (g,h,i) perylene	ND	90.3		µg/Kg-dry	1	10/2/2015 10:00:00 AM
Surr: 2,4,6-Tribromophenol	78.3	11.1-127		%REC	1	10/2/2015 10:00:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 3:00:00 PM

Project: Pacific Park

Lab ID: 1509311-008

Matrix: Soil

Client Sample ID: GP-22-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	70.0	16.1-150	%REC	1	10/2/2015 10:00:00 AM
Surr: Nitrobenzene-d5	34.0	10-133	%REC	1	10/2/2015 10:00:00 AM
Surr: Phenol-d6	39.7	11.6-133	%REC	1	10/2/2015 10:00:00 AM
Surr: p-Terphenyl	99.8	21.8-150	%REC	1	10/2/2015 10:00:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	2.72	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Surr: Toluene-d8	98.5	65-135	%REC	1	9/26/2015 12:09:00 AM
Surr: 4-Bromofluorobenzene	105	65-135	%REC	1	9/26/2015 12:09:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0326	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Chloromethane	ND	0.0326	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Vinyl chloride	ND	0.00109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Bromomethane	ND	0.0490	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0272	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Chloroethane	ND	0.0326	mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,1-Dichloroethene	ND	0.0272	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Methylene chloride	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
trans-1,2-Dichloroethene	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0272	mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,1-Dichloroethane	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
2,2-Dichloropropane	ND	0.0272	mg/Kg-dry	1	9/26/2015 12:09:00 AM
cis-1,2-Dichloroethene	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Chloroform	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,1-Dichloropropene	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Carbon tetrachloride	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2-Dichloroethane (EDC)	ND	0.0163	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Benzene	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Trichloroethene (TCE)	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2-Dichloropropane	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Bromodichloromethane	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM
Dibromomethane	ND	0.0218	mg/Kg-dry	1	9/26/2015 12:09:00 AM
cis-1,3-Dichloropropene	ND	0.0109	mg/Kg-dry	1	9/26/2015 12:09:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 3:00:00 PM

Project: Pacific Park

Lab ID: 1509311-008

Matrix: Soil

Client Sample ID: GP-22-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Toluene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
trans-1,3-Dichloropropylene	ND	0.0163		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,1,2-Trichloroethane	ND	0.0163		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,3-Dichloropropane	ND	0.0272		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Tetrachloroethene (PCE)	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Dibromochloromethane	ND	0.0163		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2-Dibromoethane (EDB)	ND	0.00272		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Chlorobenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0163		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Ethylbenzene	ND	0.0163		mg/Kg-dry	1	9/26/2015 12:09:00 AM
m,p-Xylene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
o-Xylene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Styrene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Isopropylbenzene	ND	0.0435		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Bromoform	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
n-Propylbenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Bromobenzene	ND	0.0163		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,3,5-Trimethylbenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
2-Chlorotoluene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
4-Chlorotoluene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
tert-Butylbenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2,3-Trichloropropane	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2,4-Trichlorobenzene	ND	0.0272		mg/Kg-dry	1	9/26/2015 12:09:00 AM
sec-Butylbenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
4-Isopropyltoluene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,3-Dichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,4-Dichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
n-Butylbenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2-Dichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2-Dibromo-3-chloropropane	ND	0.272		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2,4-Trimethylbenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Hexachlorobutadiene	ND	0.0544		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Naphthalene	ND	0.0163		mg/Kg-dry	1	9/26/2015 12:09:00 AM
1,2,3-Trichlorobenzene	ND	0.0109		mg/Kg-dry	1	9/26/2015 12:09:00 AM
Surr: Dibromofluoromethane	92.3	56.5-129		%REC	1	9/26/2015 12:09:00 AM
Surr: Toluene-d8	98.2	64.3-131		%REC	1	9/26/2015 12:09:00 AM
Surr: 1-Bromo-4-fluorobenzene	102	63.1-141		%REC	1	9/26/2015 12:09:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 3:00:00 PM

Project: Pacific Park

Lab ID: 1509311-008

Matrix: Soil

Client Sample ID: GP-22-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11948

Analyst: TN

Mercury	ND	0.247		mg/Kg-dry	1	9/24/2015 6:28:26 PM
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Total Metals by EPA Method 6020

Batch ID: 11921

Analyst: TN

Arsenic	3.97	0.0908		mg/Kg-dry	1	9/23/2015 6:19:39 PM
Barium	44.1	0.454		mg/Kg-dry	1	9/23/2015 6:19:39 PM
Cadmium	ND	0.182		mg/Kg-dry	1	9/23/2015 6:19:39 PM
Chromium	18.7	0.0908		mg/Kg-dry	1	9/23/2015 6:19:39 PM
Lead	5.51	0.182		mg/Kg-dry	1	9/23/2015 6:19:39 PM
Selenium	1.76	0.454		mg/Kg-dry	1	9/23/2015 6:19:39 PM
Silver	ND	0.0908		mg/Kg-dry	1	9/23/2015 6:19:39 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179

Analyst: SL

Percent Moisture	12.6			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:30:00 PM

Project: Pacific Park

Lab ID: 1509311-009

Matrix: Soil

Client Sample ID: MW-6-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11955

Analyst: MD

Dicamba	ND	38.1		µg/Kg-dry	1	10/1/2015 6:09:00 AM
2,4-D	ND	32.7		µg/Kg-dry	1	10/1/2015 6:09:00 AM
2,4-DP	ND	27.2		µg/Kg-dry	1	10/1/2015 6:09:00 AM
2,4,5-TP (Silvex)	ND	21.8		µg/Kg-dry	1	10/1/2015 6:09:00 AM
2,4,5-T	ND	54.4		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Dinoseb	ND	32.7		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Dalapon	ND	218		µg/Kg-dry	1	10/1/2015 6:09:00 AM
2,4-DB	ND	27.2		µg/Kg-dry	1	10/1/2015 6:09:00 AM
MCPP	ND	4,790		µg/Kg-dry	1	10/1/2015 6:09:00 AM
MCPA	ND	305		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Picloram	ND	54.4		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Bentazon	ND	38.1		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Chloramben	ND	21.8		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Acifluorfen	ND	87.1		µg/Kg-dry	1	10/1/2015 6:09:00 AM
3,5-Dichlorobenzoic acid	ND	43.5		µg/Kg-dry	1	10/1/2015 6:09:00 AM
4-Nitrophenol	ND	32.7		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Dacthal (DCPA)	ND	32.7		µg/Kg-dry	1	10/1/2015 6:09:00 AM
Surr: 2,4-Dichlorophenylacetic acid	107	20.1-168		%REC	1	10/1/2015 6:09:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Toxaphene	ND	0.111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Alpha BHC	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Beta BHC	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Gamma BHC (Lindane)	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Delta BHC	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Heptachlor	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Aldrin	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Heptachlor epoxide	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
gamma-Chlordane	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Endosulfan I	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
alpha-Chlordane	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Dieldrin	ND	0.0111		mg/Kg-dry	1	9/25/2015 9:34:00 PM
4,4'-DDE	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Endrin	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Endosulfan II	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM
4,4'-DDD	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Endrin aldehyde	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Endosulfan sulfate	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:30:00 PM

Project: Pacific Park

Lab ID: 1509311-009

Matrix: Soil

Client Sample ID: MW-6-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

4,4'-DDT	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Endrin ketone	ND	0.0222		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Methoxychlor	ND	0.0556		mg/Kg-dry	1	9/25/2015 9:34:00 PM
Surr: Decachlorobiphenyl	53.9	26.5-158		%REC	1	9/25/2015 9:34:00 PM
Surr: Tetrachloro-m-xylene	50.5	11-150		%REC	1	9/25/2015 9:34:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957

Analyst: AK

Diesel (Fuel Oil)	ND	19.8		mg/Kg-dry	1	9/28/2015 8:20:00 PM
Heavy Oil	ND	49.5		mg/Kg-dry	1	9/28/2015 8:20:00 PM
Surr: 2-Fluorobiphenyl	113	50-150		%REC	1	9/28/2015 8:20:00 PM
Surr: o-Terphenyl	107	50-150		%REC	1	9/28/2015 8:20:00 PM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Bis(2-chloroethyl) ether	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2-Chlorophenol	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
1,3-Dichlorobenzene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
1,4-Dichlorobenzene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
1,2-Dichlorobenzene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Benzyl alcohol	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2-Methylphenol (o-cresol)	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Hexachloroethane	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
N-Nitrosodi-n-propylamine	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Nitrobenzene	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Isophorone	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
4-Methylphenol (p-cresol)	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2-Nitrophenol	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2,4-Dimethylphenol	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Bis(2-chloroethoxy)methane	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2,4-Dichlorophenol	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
1,2,4-Trichlorobenzene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Naphthalene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
4-Chloroaniline	ND	553		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Hexachlorobutadiene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
4-Chloro-3-methylphenol	ND	553		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2-Methylnaphthalene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
1-Methylnaphthalene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:30:00 PM

Project: Pacific Park

Lab ID: 1509311-009

Matrix: Soil

Client Sample ID: MW-6-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984	Analyst: NG	
Hexachlorocyclopentadiene	ND	111	*	µg/Kg-dry	1	10/2/2015 10:23:00 AM
2,4,6-Trichlorophenol	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2,4,5-Trichlorophenol	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2-Chloronaphthalene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2-Nitroaniline	ND	553		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Acenaphthene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Dimethylphthalate	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2,6-Dinitrotoluene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Acenaphthylene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2,4-Dinitrophenol	ND	221	*	µg/Kg-dry	1	10/2/2015 10:23:00 AM
Dibenzofuran	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
2,4-Dinitrotoluene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
4-Nitrophenol	ND	553		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Fluorene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
4-Chlorophenyl phenyl ether	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Diethylphthalate	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
4,6-Dinitro-2-methylphenol	ND	221		µg/Kg-dry	1	10/2/2015 10:23:00 AM
4-Bromophenyl phenyl ether	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Hexachlorobenzene	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Pentachlorophenol	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Phenanthrene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Anthracene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Carbazole	ND	553		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Di-n-butylphthalate	127	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Fluoranthene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Pyrene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Butyl Benzylphthalate	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
bis(2-Ethylhexyl)adipate	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Benz (a) anthracene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Chrysene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
bis (2-Ethylhexyl) phthalate	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Di-n-octyl phthalate	ND	111		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Benzo (b) fluoranthene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Benzo (k) fluoranthene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Benzo (a) pyrene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Indeno (1,2,3-cd) pyrene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Dibenz (a,h) anthracene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Benzo (g,h,i) perylene	ND	88.5		µg/Kg-dry	1	10/2/2015 10:23:00 AM
Surr: 2,4,6-Tribromophenol	67.9	11.1-127		%REC	1	10/2/2015 10:23:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:30:00 PM

Project: Pacific Park

Lab ID: 1509311-009

Matrix: Soil

Client Sample ID: MW-6-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Surr: 2-Fluorobiphenyl	52.9	16.1-150	%REC	1	10/2/2015 10:23:00 AM
Surr: Nitrobenzene-d5	26.4	10-133	%REC	1	10/2/2015 10:23:00 AM
Surr: Phenol-d6	32.2	11.6-133	%REC	1	10/2/2015 10:23:00 AM
Surr: p-Terphenyl	95.2	21.8-150	%REC	1	10/2/2015 10:23:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	3.59	mg/Kg-dry	1	9/26/2015 12:37:00 AM
Surr: Toluene-d8	98.4	65-135	%REC	1	9/26/2015 12:37:00 AM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/26/2015 12:37:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0430	mg/Kg-dry	1	9/26/2015 12:37:00 AM
Chloromethane	ND	0.0430	mg/Kg-dry	1	9/26/2015 12:37:00 AM
Vinyl chloride	ND	0.00143	mg/Kg-dry	1	9/26/2015 12:37:00 AM
Bromomethane	ND	0.0646	mg/Kg-dry	1	9/26/2015 12:37:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0359	mg/Kg-dry	1	9/26/2015 12:37:00 AM
Chloroethane	ND	0.0430	mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,1-Dichloroethene	ND	0.0359	mg/Kg-dry	1	9/26/2015 12:37:00 AM
Methylene chloride	ND	0.0143	mg/Kg-dry	1	9/26/2015 12:37:00 AM
trans-1,2-Dichloroethene	ND	0.0143	mg/Kg-dry	1	9/26/2015 12:37:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0359	mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,1-Dichloroethane	ND	0.0143	mg/Kg-dry	1	9/26/2015 12:37:00 AM
2,2-Dichloropropane	ND	0.0359	mg/Kg-dry	1	9/26/2015 12:37:00 AM
cis-1,2-Dichloroethene	ND	0.0143	mg/Kg-dry	1	9/26/2015 12:37:00 AM
Chloroform	ND	0.0143	mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0143	mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,1-Dichloropropene	ND	0.0143	mg/Kg-dry	1	9/26/2015 12:37:00 AM
Carbon tetrachloride	ND	0.0143	mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2-Dichloroethane (EDC)	ND	0.0215	mg/Kg-dry	1	9/26/2015 12:37:00 AM
Benzene	ND	0.0143	mg/Kg-dry	1	9/26/2015 12:37:00 AM
Trichloroethene (TCE)	ND	0.0143	mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2-Dichloropropane	ND	0.0143	mg/Kg-dry	1	9/26/2015 12:37:00 AM
Bromodichloromethane	ND	0.0143	mg/Kg-dry	1	9/26/2015 12:37:00 AM
Dibromomethane	ND	0.0287	mg/Kg-dry	1	9/26/2015 12:37:00 AM
cis-1,3-Dichloropropene	ND	0.0143	mg/Kg-dry	1	9/26/2015 12:37:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:30:00 PM

Project: Pacific Park

Lab ID: 1509311-009

Matrix: Soil

Client Sample ID: MW-6-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260			Batch ID: 11959		Analyst: BC	
Toluene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
trans-1,3-Dichloropropylene	ND	0.0215		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,1,2-Trichloroethane	ND	0.0215		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,3-Dichloropropane	ND	0.0359		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Tetrachloroethene (PCE)	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Dibromochloromethane	ND	0.0215		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2-Dibromoethane (EDB)	ND	0.00359		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Chlorobenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0215		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Ethylbenzene	ND	0.0215		mg/Kg-dry	1	9/26/2015 12:37:00 AM
m,p-Xylene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
o-Xylene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Styrene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Isopropylbenzene	ND	0.0574		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Bromoform	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
n-Propylbenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Bromobenzene	ND	0.0215		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,3,5-Trimethylbenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
2-Chlorotoluene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
4-Chlorotoluene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
tert-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2,3-Trichloropropane	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2,4-Trichlorobenzene	ND	0.0359		mg/Kg-dry	1	9/26/2015 12:37:00 AM
sec-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
4-Isopropyltoluene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,3-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,4-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
n-Butylbenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2-Dichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2-Dibromo-3-chloropropane	ND	0.359		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2,4-Trimethylbenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Hexachlorobutadiene	ND	0.0717		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Naphthalene	ND	0.0215		mg/Kg-dry	1	9/26/2015 12:37:00 AM
1,2,3-Trichlorobenzene	ND	0.0143		mg/Kg-dry	1	9/26/2015 12:37:00 AM
Surr: Dibromofluoromethane	93.4	56.5-129		%REC	1	9/26/2015 12:37:00 AM
Surr: Toluene-d8	98.6	64.3-131		%REC	1	9/26/2015 12:37:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/26/2015 12:37:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:30:00 PM

Project: Pacific Park

Lab ID: 1509311-009

Matrix: Soil

Client Sample ID: MW-6-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11948

Analyst: TN

Mercury	ND	0.274		mg/Kg-dry	1	9/24/2015 6:30:02 PM
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Total Metals by EPA Method 6020

Batch ID: 11921

Analyst: TN

Arsenic	3.48	0.0872		mg/Kg-dry	1	9/23/2015 6:23:10 PM
Barium	39.2	0.436		mg/Kg-dry	1	9/23/2015 6:23:10 PM
Cadmium	ND	0.174		mg/Kg-dry	1	9/23/2015 6:23:10 PM
Chromium	18.3	0.0872		mg/Kg-dry	1	9/23/2015 6:23:10 PM
Lead	11.6	0.174		mg/Kg-dry	1	9/23/2015 6:23:10 PM
Selenium	1.45	0.436		mg/Kg-dry	1	9/23/2015 6:23:10 PM
Silver	ND	0.0872		mg/Kg-dry	1	9/23/2015 6:23:10 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179

Analyst: SL

Percent Moisture	10.5			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:00:00 PM

Project: Pacific Park

Lab ID: 1509311-010

Matrix: Soil

Client Sample ID: MW-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11961

Analyst: MD

Dicamba	ND	19.7		µg/Kg-dry	1	9/30/2015 1:40:00 AM
2,4-D	ND	16.9		µg/Kg-dry	1	9/30/2015 1:40:00 AM
2,4-DP	ND	14.1		µg/Kg-dry	1	9/30/2015 1:40:00 AM
2,4,5-TP (Silvex)	ND	11.3		µg/Kg-dry	1	9/30/2015 1:40:00 AM
2,4,5-T	ND	28.2		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Dinoseb	ND	16.9		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Dalapon	ND	113		µg/Kg-dry	1	9/30/2015 1:40:00 AM
2,4-DB	18.7	14.1		µg/Kg-dry	1	9/30/2015 1:40:00 AM
MCPP	ND	2,480		µg/Kg-dry	1	9/30/2015 1:40:00 AM
MCPA	ND	158		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Picloram	28.3	28.2		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Bentazon	ND	19.7		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Chloramben	20.7	11.3		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Acifluorfen	ND	45.1		µg/Kg-dry	1	9/30/2015 1:40:00 AM
3,5-Dichlorobenzoic acid	ND	22.6		µg/Kg-dry	1	9/30/2015 1:40:00 AM
4-Nitrophenol	ND	16.9		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Dacthal (DCPA)	ND	16.9		µg/Kg-dry	1	9/30/2015 1:40:00 AM
Surr: 2,4-Dichlorophenylacetic acid	117	20.1-168		%REC	1	9/30/2015 1:40:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Toxaphene	ND	0.106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Alpha BHC	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Beta BHC	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Gamma BHC (Lindane)	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Delta BHC	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Heptachlor	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Aldrin	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Heptachlor epoxide	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
gamma-Chlordane	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Endosulfan I	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
alpha-Chlordane	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Dieldrin	ND	0.0106		mg/Kg-dry	1	9/25/2015 9:45:00 PM
4,4'-DDE	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Endrin	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Endosulfan II	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM
4,4'-DDD	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Endrin aldehyde	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Endosulfan sulfate	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:00:00 PM

Project: Pacific Park

Lab ID: 1509311-010

Matrix: Soil

Client Sample ID: MW-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Organochlorine Pesticides by EPA Method 8081</u>				Batch ID: 11962		Analyst: MD
4,4'-DDT	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Endrin ketone	ND	0.0212		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Methoxychlor	ND	0.0531		mg/Kg-dry	1	9/25/2015 9:45:00 PM
Surr: Decachlorobiphenyl	60.2	26.5-158		%REC	1	9/25/2015 9:45:00 PM
Surr: Tetrachloro-m-xylene	59.4	11-150		%REC	1	9/25/2015 9:45:00 PM
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11957		Analyst: AK
Diesel (Fuel Oil)	ND	20.4		mg/Kg-dry	1	9/28/2015 8:51:00 PM
Heavy Oil	ND	51.0		mg/Kg-dry	1	9/28/2015 8:51:00 PM
Surr: 2-Fluorobiphenyl	112	50-150		%REC	1	9/28/2015 8:51:00 PM
Surr: o-Terphenyl	109	50-150		%REC	1	9/28/2015 8:51:00 PM
<u>Semi-Volatile Organic Compounds by EPA Method 8270</u>				Batch ID: 11984		Analyst: NG
Phenol	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Bis(2-chloroethyl) ether	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2-Chlorophenol	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
1,3-Dichlorobenzene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
1,4-Dichlorobenzene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
1,2-Dichlorobenzene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Benzyl alcohol	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2-Methylphenol (o-cresol)	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Hexachloroethane	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
N-Nitrosodi-n-propylamine	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Nitrobenzene	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Isophorone	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
4-Methylphenol (p-cresol)	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2-Nitrophenol	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2,4-Dimethylphenol	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Bis(2-chloroethoxy)methane	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2,4-Dichlorophenol	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
1,2,4-Trichlorobenzene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Naphthalene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
4-Chloroaniline	ND	588		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Hexachlorobutadiene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
4-Chloro-3-methylphenol	ND	588		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2-Methylnaphthalene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
1-Methylnaphthalene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:00:00 PM

Project: Pacific Park

Lab ID: 1509311-010

Matrix: Soil

Client Sample ID: MW-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Hexachlorocyclopentadiene	ND	118	*	µg/Kg-dry	1	10/2/2015 10:45:00 AM
2,4,6-Trichlorophenol	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2,4,5-Trichlorophenol	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2-Chloronaphthalene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2-Nitroaniline	ND	588		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Acenaphthene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Dimethylphthalate	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2,6-Dinitrotoluene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Acenaphthylene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2,4-Dinitrophenol	ND	235	*	µg/Kg-dry	1	10/2/2015 10:45:00 AM
Dibenzofuran	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
2,4-Dinitrotoluene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
4-Nitrophenol	ND	588		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Fluorene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
4-Chlorophenyl phenyl ether	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Diethylphthalate	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
4,6-Dinitro-2-methylphenol	ND	235		µg/Kg-dry	1	10/2/2015 10:45:00 AM
4-Bromophenyl phenyl ether	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Hexachlorobenzene	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Pentachlorophenol	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Phenanthrene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Anthracene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Carbazole	ND	588		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Di-n-butylphthalate	139	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Fluoranthene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Pyrene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Butyl Benzylphthalate	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
bis(2-Ethylhexyl)adipate	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Benz (a) anthracene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Chrysene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
bis (2-Ethylhexyl) phthalate	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Di-n-octyl phthalate	ND	118		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Benzo (b) fluoranthene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Benzo (k) fluoranthene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Benzo (a) pyrene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Indeno (1,2,3-cd) pyrene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Dibenz (a,h) anthracene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Benzo (g,h,i) perylene	ND	94.0		µg/Kg-dry	1	10/2/2015 10:45:00 AM
Surr: 2,4,6-Tribromophenol	67.6	11.1-127		%REC	1	10/2/2015 10:45:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:00:00 PM

Project: Pacific Park

Lab ID: 1509311-010

Matrix: Soil

Client Sample ID: MW-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Surr: 2-Fluorobiphenyl	41.6	16.1-150		%REC	1	10/2/2015 10:45:00 AM
Surr: Nitrobenzene-d5	19.9	10-133		%REC	1	10/2/2015 10:45:00 AM
Surr: Phenol-d6	32.1	11.6-133		%REC	1	10/2/2015 10:45:00 AM
Surr: p-Terphenyl	95.5	21.8-150		%REC	1	10/2/2015 10:45:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	3.88		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Surr: Toluene-d8	97.6	65-135		%REC	1	9/26/2015 3:00:00 AM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/26/2015 3:00:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0465		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Chloromethane	ND	0.0465		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Vinyl chloride	ND	0.00155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Bromomethane	ND	0.0698		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Chloroethane	ND	0.0465		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,1-Dichloroethene	ND	0.0388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Methylene chloride	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
trans-1,2-Dichloroethene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,1-Dichloroethane	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
2,2-Dichloropropane	ND	0.0388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
cis-1,2-Dichloroethene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Chloroform	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,1-Dichloropropene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Carbon tetrachloride	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2-Dichloroethane (EDC)	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Benzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Trichloroethene (TCE)	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2-Dichloropropane	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Bromodichloromethane	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Dibromomethane	ND	0.0310		mg/Kg-dry	1	9/26/2015 3:00:00 AM
cis-1,3-Dichloropropene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:00:00 PM

Project: Pacific Park

Lab ID: 1509311-010

Matrix: Soil

Client Sample ID: MW-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Toluene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
trans-1,3-Dichloropropylene	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,1,2-Trichloroethane	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,3-Dichloropropane	ND	0.0388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Tetrachloroethene (PCE)	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Dibromochloromethane	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2-Dibromoethane (EDB)	ND	0.00388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Chlorobenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Ethylbenzene	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
m,p-Xylene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
o-Xylene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Styrene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Isopropylbenzene	ND	0.0621		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Bromoform	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
n-Propylbenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Bromobenzene	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,3,5-Trimethylbenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
2-Chlorotoluene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
4-Chlorotoluene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
tert-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2,3-Trichloropropane	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2,4-Trichlorobenzene	ND	0.0388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
sec-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
4-Isopropyltoluene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,3-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,4-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
n-Butylbenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2-Dichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2-Dibromo-3-chloropropane	ND	0.388		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2,4-Trimethylbenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Hexachlorobutadiene	ND	0.0776		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Naphthalene	ND	0.0233		mg/Kg-dry	1	9/26/2015 3:00:00 AM
1,2,3-Trichlorobenzene	ND	0.0155		mg/Kg-dry	1	9/26/2015 3:00:00 AM
Surr: Dibromofluoromethane	94.9	56.5-129		%REC	1	9/26/2015 3:00:00 AM
Surr: Toluene-d8	96.7	64.3-131		%REC	1	9/26/2015 3:00:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.8	63.1-141		%REC	1	9/26/2015 3:00:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:00:00 PM

Project: Pacific Park

Lab ID: 1509311-010

Matrix: Soil

Client Sample ID: MW-6-15:14.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Mercury by EPA Method 7471

Batch ID: 11948 Analyst: TN

Mercury	ND	0.283		mg/Kg-dry	1	9/24/2015 6:31:38 PM
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Total Metals by EPA Method 6020

Batch ID: 11921 Analyst: TN

Arsenic	3.85	0.0867		mg/Kg-dry	1	9/23/2015 6:26:41 PM
Barium	28.0	0.433		mg/Kg-dry	1	9/23/2015 6:26:41 PM
Cadmium	ND	0.173		mg/Kg-dry	1	9/23/2015 6:26:41 PM
Chromium	13.4	0.0867		mg/Kg-dry	1	9/23/2015 6:26:41 PM
Lead	1.96	0.173		mg/Kg-dry	1	9/23/2015 6:26:41 PM
Selenium	1.35	0.433		mg/Kg-dry	1	9/23/2015 6:26:41 PM
Silver	ND	0.0867		mg/Kg-dry	1	9/23/2015 6:26:41 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179 Analyst: SL

Percent Moisture	15.2			wt%	1	9/29/2015 2:15:36 PM
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Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:40:00 PM

Project: Pacific Park

Lab ID: 1509311-011

Matrix: Water

Client Sample ID: MW-6-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 11941		Analyst: AK
Diesel (Fuel Oil)	ND	49.9		µg/L	1	9/28/2015 12:38:00 PM
Heavy Oil	ND	99.8		µg/L	1	9/28/2015 12:38:00 PM
Surr: 2-Fluorobiphenyl	71.7	50-150		%REC	1	9/28/2015 12:38:00 PM
Surr: o-Terphenyl	69.1	50-150		%REC	1	9/28/2015 12:38:00 PM

<u>Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)</u>				Batch ID: 11916		Analyst: NG
Naphthalene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
2-Methylnaphthalene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
1-Methylnaphthalene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Acenaphthylene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Acenaphthene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Fluorene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Phenanthrene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Anthracene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Fluoranthene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Pyrene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Benz(a)anthracene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Chrysene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Benzo(b)fluoranthene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Benzo(k)fluoranthene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Benzo(a)pyrene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Dibenz(a,h)anthracene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Benzo(g,h,i)perylene	ND	0.0997		µg/L	1	9/23/2015 11:04:00 PM
Surr: 2-Fluorobiphenyl	61.0	23.9-122		%REC	1	9/23/2015 11:04:00 PM
Surr: Terphenyl-d14	34.7	33.4-135		%REC	1	9/23/2015 11:04:00 PM

NOTES:

Internal standard areas were outside of the QC limits indicating a high bias. Sample results are ND

<u>Gasoline by NWTPH-Gx</u>				Batch ID: R25091		Analyst: BC
Gasoline	ND	50.0		µg/L	1	9/23/2015 11:12:00 PM
Surr: Toluene-d8	86.9	65-135		%REC	1	9/23/2015 11:12:00 PM
Surr: 4-Bromofluorobenzene	97.0	65-135		%REC	1	9/23/2015 11:12:00 PM

<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: R25077		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:40:00 PM

Project: Pacific Park

Lab ID: 1509311-011

Matrix: Water

Client Sample ID: MW-6-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Chloromethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Vinyl chloride	ND	0.200		µg/L	1	9/23/2015 11:12:00 PM
Bromomethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Chloroethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Methylene chloride	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/23/2015 11:12:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Chloroform	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Benzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/23/2015 11:12:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Dibromomethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Toluene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/23/2015 11:12:00 PM
Chlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Styrene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Bromoform	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:40:00 PM

Project: Pacific Park

Lab ID: 1509311-011

Matrix: Water

Client Sample ID: MW-6-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

n-Propylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Bromobenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/23/2015 11:12:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 11:12:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/23/2015 11:12:00 PM
Naphthalene	ND	1.00	Q	µg/L	1	9/23/2015 11:12:00 PM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/23/2015 11:12:00 PM
Surr: Dibromofluoromethane	102	45.4-152		%REC	1	9/23/2015 11:12:00 PM
Surr: Toluene-d8	101	40.1-139		%REC	1	9/23/2015 11:12:00 PM
Surr: 1-Bromo-4-fluorobenzene	102	64.2-128		%REC	1	9/23/2015 11:12:00 PM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:32:35 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:26:15 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Antimony	0.784	0.200		µg/L	1	9/23/2015 4:36:39 PM
Arsenic	3.35	1.00		µg/L	1	9/23/2015 4:36:39 PM
Beryllium	ND	0.200		µg/L	1	9/23/2015 4:36:39 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 12:40:00 PM

Project: Pacific Park

Lab ID: 1509311-011

Matrix: Water

Client Sample ID: MW-6-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Cadmium	ND	0.200		µg/L	1	9/23/2015 4:36:39 PM
Chromium	ND	0.500		µg/L	1	9/23/2015 4:36:39 PM
Copper	2.32	0.500		µg/L	1	9/23/2015 4:36:39 PM
Lead	ND	1.00		µg/L	1	9/23/2015 4:36:39 PM
Nickel	1.46	0.500		µg/L	1	9/23/2015 4:36:39 PM
Selenium	ND	1.00		µg/L	1	9/23/2015 4:36:39 PM
Silver	0.234	0.200		µg/L	1	9/23/2015 4:36:39 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 4:36:39 PM
Zinc	25.4	1.50		µg/L	1	9/23/2015 4:36:39 PM

Total Metals by EPA Method 200.8

Batch ID: 11925

Analyst: TN

Antimony	ND	0.200		µg/L	1	9/23/2015 3:54:20 PM
Arsenic	10.9	1.00		µg/L	1	9/23/2015 3:54:20 PM
Beryllium	0.526	0.200		µg/L	1	9/23/2015 3:54:20 PM
Cadmium	3.70	0.200		µg/L	1	9/23/2015 3:54:20 PM
Chromium	10.9	0.500		µg/L	1	9/23/2015 3:54:20 PM
Copper	13.4	0.500		µg/L	1	9/23/2015 3:54:20 PM
Lead	44.3	1.00		µg/L	1	9/23/2015 3:54:20 PM
Nickel	9.27	0.500		µg/L	1	9/23/2015 3:54:20 PM
Selenium	2.87	1.00		µg/L	1	9/23/2015 3:54:20 PM
Silver	ND	0.200		µg/L	1	9/23/2015 3:54:20 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 3:54:20 PM
Zinc	1,010	1.50		µg/L	1	9/23/2015 3:54:20 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:15:00 AM

Project: Pacific Park

Lab ID: 1509311-012

Matrix: Water

Client Sample ID: MW-6-15:GW:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11941

Analyst: AK

Diesel (Fuel Oil)	ND	49.9		µg/L	1	9/28/2015 2:29:00 PM
Heavy Oil	ND	99.8		µg/L	1	9/28/2015 2:29:00 PM
Surr: 2-Fluorobiphenyl	69.9	50-150		%REC	1	9/28/2015 2:29:00 PM
Surr: o-Terphenyl	69.9	50-150		%REC	1	9/28/2015 2:29:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 11916

Analyst: NG

Naphthalene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
2-Methylnaphthalene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
1-Methylnaphthalene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Acenaphthylene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Acenaphthene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Fluorene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Phenanthrene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Anthracene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Fluoranthene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Pyrene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Benz(a)anthracene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Chrysene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Benzo(b)fluoranthene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Benzo(k)fluoranthene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Benzo(a)pyrene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Dibenz(a,h)anthracene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Benzo(g,h,i)perylene	ND	0.0996		µg/L	1	9/23/2015 11:30:00 PM
Surr: 2-Fluorobiphenyl	57.4	23.9-122		%REC	1	9/23/2015 11:30:00 PM
Surr: Terphenyl-d14	35.8	33.4-135		%REC	1	9/23/2015 11:30:00 PM

Gasoline by NWTPH-Gx

Batch ID: R25091

Analyst: BC

Gasoline	ND	50.0		µg/L	1	9/23/2015 11:40:00 PM
Surr: Toluene-d8	86.4	65-135		%REC	1	9/23/2015 11:40:00 PM
Surr: 4-Bromofluorobenzene	95.9	65-135		%REC	1	9/23/2015 11:40:00 PM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Chloromethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Vinyl chloride	ND	0.200		µg/L	1	9/23/2015 11:40:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:15:00 AM

Project: Pacific Park

Lab ID: 1509311-012

Matrix: Water

Client Sample ID: MW-6-15:GW:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

Bromomethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Chloroethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Methylene chloride	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	9/23/2015 11:40:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Chloroform	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Benzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	9/23/2015 11:40:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Dibromomethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Toluene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	9/23/2015 11:40:00 PM
Chlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Styrene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Bromoform	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Bromobenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:15:00 AM

Project: Pacific Park

Lab ID: 1509311-012

Matrix: Water

Client Sample ID: MW-6-15:GW:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25077

Analyst: BC

1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,2,4-Trichlorobenzene	ND	2.00	Q	µg/L	1	9/23/2015 11:40:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/23/2015 11:40:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	9/23/2015 11:40:00 PM
Naphthalene	ND	1.00	Q	µg/L	1	9/23/2015 11:40:00 PM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	9/23/2015 11:40:00 PM
Surr: Dibromofluoromethane	96.8	45.4-152		%REC	1	9/23/2015 11:40:00 PM
Surr: Toluene-d8	97.7	40.1-139		%REC	1	9/23/2015 11:40:00 PM
Surr: 1-Bromo-4-fluorobenzene	101	64.2-128		%REC	1	9/23/2015 11:40:00 PM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 11934

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 12:34:16 PM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 11933

Analyst: MW

Mercury	ND	0.100		µg/L	1	9/24/2015 11:27:58 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Antimony	0.588	0.200		µg/L	1	9/23/2015 4:40:11 PM
Arsenic	3.38	1.00		µg/L	1	9/23/2015 4:40:11 PM
Beryllium	ND	0.200		µg/L	1	9/23/2015 4:40:11 PM
Cadmium	ND	0.200		µg/L	1	9/23/2015 4:40:11 PM
Chromium	ND	0.500		µg/L	1	9/23/2015 4:40:11 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 8:15:00 AM

Project: Pacific Park

Lab ID: 1509311-012

Matrix: Water

Client Sample ID: MW-6-15:GW:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 11926

Analyst: TN

Copper	4.06	0.500		µg/L	1	9/23/2015 4:40:11 PM
Lead	ND	1.00		µg/L	1	9/23/2015 4:40:11 PM
Nickel	1.25	0.500		µg/L	1	9/23/2015 4:40:11 PM
Selenium	ND	1.00		µg/L	1	9/23/2015 4:40:11 PM
Silver	ND	0.200		µg/L	1	9/23/2015 4:40:11 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 4:40:11 PM
Zinc	26.2	1.50		µg/L	1	9/23/2015 4:40:11 PM

Total Metals by EPA Method 200.8

Batch ID: 11925

Analyst: TN

Antimony	ND	0.200		µg/L	1	9/23/2015 3:57:51 PM
Arsenic	18.8	1.00		µg/L	1	9/23/2015 3:57:51 PM
Beryllium	1.64	0.200		µg/L	1	9/23/2015 3:57:51 PM
Cadmium	8.14	0.200		µg/L	1	9/23/2015 3:57:51 PM
Chromium	50.2	0.500		µg/L	1	9/23/2015 3:57:51 PM
Copper	33.5	0.500		µg/L	1	9/23/2015 3:57:51 PM
Lead	125	1.00		µg/L	1	9/23/2015 3:57:51 PM
Nickel	35.2	0.500		µg/L	1	9/23/2015 3:57:51 PM
Selenium	5.10	1.00		µg/L	1	9/23/2015 3:57:51 PM
Silver	ND	0.200		µg/L	1	9/23/2015 3:57:51 PM
Thallium	ND	0.200		µg/L	1	9/23/2015 3:57:51 PM
Zinc	1,720	1.50		µg/L	1	9/23/2015 3:57:51 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:15:00 PM

Project: Pacific Park

Lab ID: 1509311-013

Matrix: Soil

Client Sample ID: MW-6-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11961

Analyst: MD

Dicamba	ND	20.6		µg/Kg-dry	1	9/30/2015 2:14:00 AM
2,4-D	ND	17.7		µg/Kg-dry	1	9/30/2015 2:14:00 AM
2,4-DP	ND	14.7		µg/Kg-dry	1	9/30/2015 2:14:00 AM
2,4,5-TP (Silvex)	38.2	11.8		µg/Kg-dry	1	9/30/2015 2:14:00 AM
2,4,5-T	71.2	29.4		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Dinoseb	49.2	17.7		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Dalapon	ND	118		µg/Kg-dry	1	9/30/2015 2:14:00 AM
2,4-DB	21.9	14.7		µg/Kg-dry	1	9/30/2015 2:14:00 AM
MCPP	ND	2,590		µg/Kg-dry	1	9/30/2015 2:14:00 AM
MCPA	ND	165		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Picloram	40.4	29.4		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Bentazon	ND	20.6		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Chloramben	28.6	11.8		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Acifluorfen	ND	47.1		µg/Kg-dry	1	9/30/2015 2:14:00 AM
3,5-Dichlorobenzoic acid	ND	23.6		µg/Kg-dry	1	9/30/2015 2:14:00 AM
4-Nitrophenol	18.3	17.7		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Dacthal (DCPA)	ND	17.7		µg/Kg-dry	1	9/30/2015 2:14:00 AM
Surr: 2,4-Dichlorophenylacetic acid	105	20.1-168		%REC	1	9/30/2015 2:14:00 AM

Polychlorinated Biphenyls (PCB) by EPA 8082

Batch ID: 12180

Analyst: CM

Aroclor 1016	ND	0.118		mg/Kg-dry	1	10/22/2015 7:22:00 PM
Aroclor 1221	ND	0.118		mg/Kg-dry	1	10/22/2015 7:22:00 PM
Aroclor 1232	ND	0.118		mg/Kg-dry	1	10/22/2015 7:22:00 PM
Aroclor 1242	ND	0.118		mg/Kg-dry	1	10/22/2015 7:22:00 PM
Aroclor 1248	ND	0.118		mg/Kg-dry	1	10/22/2015 7:22:00 PM
Aroclor 1254	ND	0.118		mg/Kg-dry	1	10/22/2015 7:22:00 PM
Aroclor 1260	ND	0.118		mg/Kg-dry	1	10/22/2015 7:22:00 PM
Aroclor 1262	ND	0.118		mg/Kg-dry	1	10/22/2015 7:22:00 PM
Aroclor 1268	ND	0.118		mg/Kg-dry	1	10/22/2015 7:22:00 PM
Total PCBs	ND	0.118		mg/Kg-dry	1	10/22/2015 7:22:00 PM
Surr: Decachlorobiphenyl	71.9	41.2-143		%REC	1	10/22/2015 7:22:00 PM
Surr: Tetrachloro-m-xylene	39.9	26-140		%REC	1	10/22/2015 7:22:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Toxaphene	ND	0.115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Alpha BHC	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Beta BHC	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:15:00 PM

Project: Pacific Park

Lab ID: 1509311-013

Matrix: Soil

Client Sample ID: MW-6-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Gamma BHC (Lindane)	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Delta BHC	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Heptachlor	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Aldrin	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Heptachlor epoxide	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
gamma-Chlordane	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Endosulfan I	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
alpha-Chlordane	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Dieldrin	ND	0.0115		mg/Kg-dry	1	9/25/2015 9:56:00 PM
4,4'-DDE	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Endrin	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Endosulfan II	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM
4,4'-DDD	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Endrin aldehyde	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Endosulfan sulfate	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM
4,4'-DDT	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Endrin ketone	ND	0.0230		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Methoxychlor	ND	0.0575		mg/Kg-dry	1	9/25/2015 9:56:00 PM
Surr: Decachlorobiphenyl	116	26.5-158		%REC	1	9/25/2015 9:56:00 PM
Surr: Tetrachloro-m-xylene	53.8	11-150		%REC	1	9/25/2015 9:56:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957

Analyst: AK

Diesel (Fuel Oil)	ND	20.4		mg/Kg-dry	1	9/29/2015 10:26:00 AM
Heavy Oil	4,080	511	D	mg/Kg-dry	10	9/29/2015 6:20:00 PM
Surr: 2-Fluorobiphenyl	119	50-150		%REC	1	9/29/2015 10:26:00 AM
Surr: o-Terphenyl	122	50-150		%REC	1	9/29/2015 10:26:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11984

Analyst: NG

Phenol	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Bis(2-chloroethyl) ether	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2-Chlorophenol	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
1,3-Dichlorobenzene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
1,4-Dichlorobenzene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
1,2-Dichlorobenzene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Benzyl alcohol	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2-Methylphenol (o-cresol)	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Hexachloroethane	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:15:00 PM

Project: Pacific Park

Lab ID: 1509311-013

Matrix: Soil

Client Sample ID: MW-6-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
N-Nitrosodi-n-propylamine	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Nitrobenzene	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Isophorone	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
4-Methylphenol (p-cresol)	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2-Nitrophenol	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2,4-Dimethylphenol	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Bis(2-chloroethoxy)methane	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2,4-Dichlorophenol	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
1,2,4-Trichlorobenzene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Naphthalene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
4-Chloroaniline	ND	594		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Hexachlorobutadiene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
4-Chloro-3-methylphenol	ND	594		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2-Methylnaphthalene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
1-Methylnaphthalene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Hexachlorocyclopentadiene	ND	119	*	µg/Kg-dry	1	10/2/2015 11:07:00 AM
2,4,6-Trichlorophenol	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2,4,5-Trichlorophenol	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2-Chloronaphthalene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2-Nitroaniline	ND	594		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Acenaphthene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Dimethylphthalate	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2,6-Dinitrotoluene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Acenaphthylene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2,4-Dinitrophenol	ND	238	*	µg/Kg-dry	1	10/2/2015 11:07:00 AM
Dibenzofuran	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
2,4-Dinitrotoluene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
4-Nitrophenol	ND	594		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Fluorene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
4-Chlorophenyl phenyl ether	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Diethylphthalate	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
4,6-Dinitro-2-methylphenol	ND	238		µg/Kg-dry	1	10/2/2015 11:07:00 AM
4-Bromophenyl phenyl ether	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Hexachlorobenzene	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Pentachlorophenol	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Phenanthrene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Anthracene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Carbazole	ND	594		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Di-n-butylphthalate	160	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:15:00 PM

Project: Pacific Park

Lab ID: 1509311-013

Matrix: Soil

Client Sample ID: MW-6-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semi-Volatile Organic Compounds by EPA Method 8270				Batch ID: 11984		Analyst: NG
Fluoranthene	107	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Pyrene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Butyl Benzylphthalate	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
bis(2-Ethylhexyl)adipate	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Benz (a) anthracene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Chrysene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
bis (2-Ethylhexyl) phthalate	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Di-n-octyl phthalate	ND	119		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Benzo (b) fluoranthene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Benzo (k) fluoranthene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Benzo (a) pyrene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Indeno (1,2,3-cd) pyrene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Dibenz (a,h) anthracene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Benzo (g,h,i) perylene	ND	95.0		µg/Kg-dry	1	10/2/2015 11:07:00 AM
Surr: 2,4,6-Tribromophenol	59.7	11.1-127		%REC	1	10/2/2015 11:07:00 AM
Surr: 2-Fluorobiphenyl	46.0	16.1-150		%REC	1	10/2/2015 11:07:00 AM
Surr: Nitrobenzene-d5	29.2	10-133		%REC	1	10/2/2015 11:07:00 AM
Surr: Phenol-d6	37.9	11.6-133		%REC	1	10/2/2015 11:07:00 AM
Surr: p-Terphenyl	74.5	21.8-150		%REC	1	10/2/2015 11:07:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11959

Analyst: BC

Gasoline	ND	4.29	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Surr: Toluene-d8	99.3	65-135	%REC	1	9/26/2015 3:58:00 AM
Surr: 4-Bromofluorobenzene	103	65-135	%REC	1	9/26/2015 3:58:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	0.0514	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Chloromethane	ND	0.0514	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Vinyl chloride	ND	0.00171	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Bromomethane	ND	0.0772	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0429	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Chloroethane	ND	0.0514	mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,1-Dichloroethene	ND	0.0429	mg/Kg-dry	1	9/26/2015 3:58:00 AM
Methylene chloride	ND	0.0171	mg/Kg-dry	1	9/26/2015 3:58:00 AM
trans-1,2-Dichloroethene	ND	0.0171	mg/Kg-dry	1	9/26/2015 3:58:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:15:00 PM

Project: Pacific Park

Lab ID: 1509311-013

Matrix: Soil

Client Sample ID: MW-6-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

Methyl tert-butyl ether (MTBE)	ND	0.0429		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,1-Dichloroethane	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
2,2-Dichloropropane	ND	0.0429		mg/Kg-dry	1	9/26/2015 3:58:00 AM
cis-1,2-Dichloroethene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Chloroform	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,1-Dichloropropene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Carbon tetrachloride	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2-Dichloroethane (EDC)	ND	0.0257		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Benzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Trichloroethene (TCE)	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2-Dichloropropane	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Bromodichloromethane	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Dibromomethane	ND	0.0343		mg/Kg-dry	1	9/26/2015 3:58:00 AM
cis-1,3-Dichloropropene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Toluene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
trans-1,3-Dichloropropylene	ND	0.0257		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,1,2-Trichloroethane	ND	0.0257		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,3-Dichloropropane	ND	0.0429		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Tetrachloroethene (PCE)	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Dibromochloromethane	ND	0.0257		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2-Dibromoethane (EDB)	ND	0.00429		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Chlorobenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0257		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Ethylbenzene	ND	0.0257		mg/Kg-dry	1	9/26/2015 3:58:00 AM
m,p-Xylene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
o-Xylene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Styrene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Isopropylbenzene	ND	0.0686		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Bromoform	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
n-Propylbenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Bromobenzene	ND	0.0257		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,3,5-Trimethylbenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
2-Chlorotoluene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
4-Chlorotoluene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
tert-Butylbenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2,3-Trichloropropane	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2,4-Trichlorobenzene	ND	0.0429		mg/Kg-dry	1	9/26/2015 3:58:00 AM



Analytical Report

WO#: 1509311

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/22/2015 2:15:00 PM

Project: Pacific Park

Lab ID: 1509311-013

Matrix: Soil

Client Sample ID: MW-6-15:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11959

Analyst: BC

sec-Butylbenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
4-Isopropyltoluene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,3-Dichlorobenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,4-Dichlorobenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
n-Butylbenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2-Dichlorobenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2-Dibromo-3-chloropropane	ND	0.429		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2,4-Trimethylbenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Hexachlorobutadiene	ND	0.0857		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Naphthalene	ND	0.0257		mg/Kg-dry	1	9/26/2015 3:58:00 AM
1,2,3-Trichlorobenzene	ND	0.0171		mg/Kg-dry	1	9/26/2015 3:58:00 AM
Surr: Dibromofluoromethane	94.6	56.5-129		%REC	1	9/26/2015 3:58:00 AM
Surr: Toluene-d8	98.3	64.3-131		%REC	1	9/26/2015 3:58:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.5	63.1-141		%REC	1	9/26/2015 3:58:00 AM

Mercury by EPA Method 7471

Batch ID: 11948

Analyst: TN

Mercury	ND	0.286		mg/Kg-dry	1	9/24/2015 6:33:14 PM
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Total Metals by EPA Method 6020

Batch ID: 11921

Analyst: TN

Arsenic	3.33	0.0951		mg/Kg-dry	1	9/23/2015 6:30:13 PM
Barium	29.0	0.475		mg/Kg-dry	1	9/23/2015 6:30:13 PM
Cadmium	ND	0.190		mg/Kg-dry	1	9/23/2015 6:30:13 PM
Chromium	11.8	0.0951		mg/Kg-dry	1	9/23/2015 6:30:13 PM
Lead	14.1	0.190		mg/Kg-dry	1	9/23/2015 6:30:13 PM
Selenium	1.06	0.475		mg/Kg-dry	1	9/23/2015 6:30:13 PM
Silver	ND	0.0951		mg/Kg-dry	1	9/23/2015 6:30:13 PM

Sample Moisture (Percent Moisture)

Batch ID: R25179

Analyst: SL

Percent Moisture	15.9			wt%	1	9/29/2015 2:15:36 PM
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Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID	MB-11927FB	SampType:	MBLK			Units:	µg/L			Prep Date:	9/23/2015		RunNo:	25059	
Client ID:	MBLKW	Batch ID:	11926							Analysis Date:	9/23/2015		SeqNo:	472286	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Antimony	ND	0.200									
Arsenic	ND	1.00									
Beryllium	ND	0.200									
Cadmium	ND	0.200									
Chromium	ND	0.500									
Copper	ND	0.500									
Lead	ND	1.00									
Nickel	ND	0.500									
Selenium	ND	1.00									
Silver	ND	0.200									
Thallium	ND	0.200									
Zinc	ND	1.50									

NOTES:
Filter Blank

Sample ID	MB-11926	SampType:	MBLK	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25059		
Client ID:	MBLKW	Batch ID:	11926			Analysis Date:	9/23/2015	SeqNo:	472287		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	ND	0.200									
Arsenic	ND	1.00									
Beryllium	ND	0.200									
Cadmium	ND	0.200									
Chromium	ND	0.500									
Copper	ND	0.500									
Lead	ND	1.00									
Nickel	ND	0.500									
Selenium	ND	1.00									
Silver	ND	0.200									
Thallium	ND	0.200									
Zinc	ND	1.50									



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID	LCS-11926	SampType:	LCS	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25059		
Client ID:	LCSW	Batch ID:	11926			Analysis Date:	9/23/2015	SeqNo:	472288		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	4.63	0.200	5.000	0	92.7	85	115				
Arsenic	99.7	1.00	100.0	0	99.7	85	115				
Beryllium	5.06	0.200	5.000	0	101	85	115				
Cadmium	4.95	0.200	5.000	0	99.0	85	115				
Chromium	103	0.500	100.0	0	103	85	115				
Copper	103	0.500	100.0	0	103	85	115				
Lead	49.1	1.00	50.00	0	98.2	85	115				
Nickel	102	0.500	100.0	0	102	85	115				
Selenium	11.0	1.00	10.00	0	110	85	115				
Silver	5.09	0.200	5.000	0	102	85	115				
Thallium	2.44	0.200	2.500	0	97.8	85	115				
Zinc	102	1.50	100.0	0	102	85	115				

Sample ID	1509311-005EDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25059		
Client ID:	MW-5-15:GW	Batch ID:	11926			Analysis Date:	9/23/2015	SeqNo:	472290		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.331	0.200						0.4670	34.1	30	
Arsenic	ND	1.00						0		30	
Beryllium	ND	0.200						0		30	
Cadmium	ND	0.200						0		30	
Chromium	ND	0.500						0		30	
Copper	1.15	0.500						1.061	7.92	30	
Lead	ND	1.00						0		30	
Nickel	2.49	0.500						2.525	1.54	30	
Selenium	ND	1.00						0		30	
Silver	ND	0.200						0		30	
Thallium	ND	0.200						0		30	
Zinc	5.54	1.50						5.833	5.16	30	



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID	1509311-005EMS	SampType:	MS		Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25059
Client ID:	MW-5-15:GW	Batch ID:	11926					Analysis Date:	9/23/2015		SeqNo:	472291
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Antimony	23.3	0.200	25.00	0.4670	91.4	70	130					
Arsenic	521	1.00	500.0	0.6690	104	70	130					
Beryllium	26.6	0.200	25.00	0	106	70	130					
Cadmium	26.2	0.200	25.00	0.05850	105	70	130					
Chromium	524	0.500	500.0	0.2315	105	70	130					
Copper	519	0.500	500.0	1.061	104	70	130					
Lead	238	1.00	250.0	0.6610	95.1	70	130					
Nickel	517	0.500	500.0	2.525	103	70	130					
Selenium	53.4	1.00	50.00	0.8505	105	70	130					
Silver	22.5	0.200	25.00	0.05450	89.6	70	130					
Thallium	12.2	0.200	12.50	0.007000	97.4	70	130					
Zinc	553	1.50	500.0	5.833	109	70	130					

Sample ID	1509311-005EMSD	SampType: MSD	Units: µg/L			Prep Date: 9/23/2015			RunNo: 25059		
Client ID:	MW-5-15:GW	Batch ID:	11926				Analysis Date: 9/23/2015			SeqNo: 472294	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	23.2	0.200	25.00	0.4670	91.1	70	130	23.31	0.312	30	
Arsenic	512	1.00	500.0	0.6690	102	70	130	520.8	1.71	30	
Beryllium	26.6	0.200	25.00	0	107	70	130	26.62	0.0601	30	
Cadmium	25.0	0.200	25.00	0.05850	99.6	70	130	26.19	4.77	30	
Chromium	504	0.500	500.0	0.2315	101	70	130	524.4	3.99	30	
Copper	499	0.500	500.0	1.061	99.6	70	130	518.9	3.92	30	
Lead	233	1.00	250.0	0.6610	93.1	70	130	238.3	2.09	30	
Nickel	506	0.500	500.0	2.525	101	70	130	517.2	2.13	30	
Selenium	54.8	1.00	50.00	0.8505	108	70	130	53.36	2.59	30	
Silver	22.1	0.200	25.00	0.05450	88.1	70	130	22.46	1.70	30	
Thallium	11.8	0.200	12.50	0.007000	94.5	70	130	12.18	3.07	30	
Zinc	520	1.50	500.0	5.833	103	70	130	553.3	6.15	30	



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID	MB-11925	SampType:	MBLK		Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25056	
Client ID:	MBLKW	Batch ID:	11925					Analysis Date:	9/23/2015		SeqNo:	472197	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Antimony		ND	0.200										
Arsenic		ND	1.00										
Beryllium		ND	0.200										
Cadmium		ND	0.200										
Chromium		ND	0.500										
Copper		ND	0.500										
Lead		ND	1.00										
Nickel		ND	0.500										
Selenium		ND	1.00										
Silver		0.202	0.200										
Thallium		ND	0.200										
Zinc		ND	1.50										

Sample ID	LCS-11925	SampType:	LCS	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25056		
Client ID:	LCSW	Batch ID:	11925			Analysis Date:	9/23/2015	SeqNo:	472198		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	4.91	0.200	5.000	0	98.2	85	115				
Arsenic	104	1.00	100.0	0	104	85	115				
Beryllium	5.23	0.200	5.000	0	105	85	115				
Cadmium	4.97	0.200	5.000	0	99.5	85	115				
Chromium	105	0.500	100.0	0	105	85	115				
Copper	102	0.500	100.0	0	102	85	115				
Lead	49.2	1.00	50.00	0	98.3	85	115				
Nickel	102	0.500	100.0	0	102	85	115				
Selenium	10.8	1.00	10.00	0	108	85	115				
Silver	5.25	0.200	5.000	0	105	85	115				B
Thallium	2.52	0.200	2.500	0	101	85	115				
Zinc	109	1.50	100.0	0	109	85	115				



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 200.8

Sample ID	1509275-001ADUP	SampType:	DUP		Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25056	
Client ID:	BATCH	Batch ID:	11925					Analysis Date:	9/23/2015		SeqNo:	472200	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Antimony		ND	0.200						0.2655		90.6	30	
Arsenic		1.45	1.00						1.630		11.8	30	
Beryllium		ND	0.200						0			30	
Cadmium		ND	0.200						0			30	
Chromium		0.713	0.500						0.6925		2.85	30	
Copper		0.847	0.500						0.9350		9.88	30	
Lead		ND	1.00						0			30	
Nickel		1.80	0.500						2.008		10.9	30	
Selenium		ND	1.00						0			30	
Silver		ND	0.200						0			30	
Thallium		ND	0.200						0			30	
Zinc		1.96	1.50						1.940		1.05	30	

Sample ID	1509275-001AMS	SampType:	MS		Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25056	
Client ID:	BATCH	Batch ID:	11925		Analysis Date:				9/23/2015		SeqNo:	472201	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Antimony	24.6	0.200	25.00	0.2655	97.2	70	130						
Arsenic	509	1.00	500.0	1.630	101	70	130						
Beryllium	25.4	0.200	25.00	0.05100	102	70	130						
Cadmium	24.0	0.200	25.00	0	96.0	70	130						
Chromium	525	0.500	500.0	0.6925	105	70	130						
Copper	497	0.500	500.0	0.9350	99.2	70	130						
Lead	240	1.00	250.0	0.9360	95.7	70	130						
Nickel	509	0.500	500.0	2.008	101	70	130						
Selenium	50.5	1.00	50.00	0.5305	100	70	130						
Silver	26.1	0.200	25.00	0.06550	104	70	130						
Thallium	12.0	0.200	12.50	0.003500	95.8	70	130						
Zinc	545	1.50	500.0	1.940	109	70	130						



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 200.8

Sample ID	1509275-001AMSD	SampType:	MSD		Units:	µg/L		Prep Date:	9/23/2015		RunNo:	25056	
Client ID:	BATCH	Batch ID:	11925					Analysis Date:	9/23/2015		SeqNo:	472202	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Antimony	24.9	0.200	25.00	0.2655	98.5	70	130	24.56	1.35	30			
Arsenic	527	1.00	500.0	1.630	105	70	130	509.0	3.44	30			
Beryllium	25.8	0.200	25.00	0.05100	103	70	130	25.43	1.28	30			
Cadmium	25.7	0.200	25.00	0	103	70	130	24.00	6.63	30			
Chromium	541	0.500	500.0	0.6925	108	70	130	525.4	2.90	30			
Copper	509	0.500	500.0	0.9350	102	70	130	497.0	2.37	30			
Lead	245	1.00	250.0	0.9360	97.6	70	130	240.2	1.97	30			
Nickel	524	0.500	500.0	2.008	104	70	130	508.8	2.97	30			
Selenium	51.4	1.00	50.00	0.5305	102	70	130	50.53	1.69	30			
Silver	25.6	0.200	25.00	0.06550	102	70	130	26.11	1.87	30		B	
Thallium	12.4	0.200	12.50	0.003500	99.0	70	130	11.97	3.36	30			
Zinc	544	1.50	500.0	1.940	108	70	130	544.9	0.197	30			



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 245.1

Sample ID	MB-11934	SampType:	MBLK			Units:	µg/L			Prep Date:	9/23/2015		RunNo:	25090	
Client ID:	MBLKW	Batch ID:	11934							Analysis Date:	9/24/2015		SeqNo:	472885	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Mercury	ND	0.100										
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Sample ID	LCS-11934	SampType: LCS			Units: µg/L	Prep Date: 9/23/2015			RunNo: 25090			
Client ID:	LCSW	Batch ID: 11934			Analysis Date: 9/24/2015			SeqNo: 472886				
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	2.50	0.100	2.500	0	100	85	115					
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Sample ID	1509270-027CDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25090			
Client ID:	BATCH	Batch ID:	11934			Analysis Date:	9/24/2015	SeqNo:	472888			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.100							0		20	
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Sample ID	1509270-027CMS	SampType:	MS	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25090			
Client ID:	BATCH	Batch ID:	11934			Analysis Date:	9/24/2015	SeqNo:	472889			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	2.51	0.100	2.500	0.01400	99.8	80	120					
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Sample ID	1509270-027CMSD	SampType:	MSD	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25090			
Client ID:	BATCH	Batch ID:	11934			Analysis Date:	9/24/2015	SeqNo:	472890			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	2.47	0.100	2.500	0.01400	98.2	80	120	2.510	1.61	20		
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Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Dissolved Mercury by EPA Method 245.1

Sample ID	MB-11933	SampType:	MBLK			Units:	µg/L			Prep Date:	9/23/2015		RunNo:	25075	
Client ID:	MBLKW	Batch ID:	11933							Analysis Date:	9/24/2015		SeqNo:	472581	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit		Qual	

Mercury	ND	0.100										
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Sample ID	LCS-11933	SampType: LCS			Units: µg/L	Prep Date: 9/23/2015			RunNo: 25075			
Client ID:	LCSW	Batch ID: 11933			Analysis Date: 9/24/2015			SeqNo: 472582				
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	2.37	0.100	2.500	0	94.8	85	115					
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Sample ID	1509270-027DDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25075			
Client ID:	BATCH	Batch ID:	11933			Analysis Date:	9/24/2015	SeqNo:	472584			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.100							0		20	
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Sample ID	1509270-027DMS	SampType:	MS	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25075			
Client ID:	BATCH	Batch ID:	11933			Analysis Date:	9/24/2015	SeqNo:	472585			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	2.38	0.100	2.500	0.01700	94.5	80	120					
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Sample ID	1509270-027DMSD	SampType:	MSD	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25075			
Client ID:	BATCH	Batch ID:	11933			Analysis Date:	9/24/2015	SeqNo:	472586			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	2.54	0.100	2.500	0.01700	101	80	120	2.380	6.50	20		
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Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	MB-11921	SampType: MBLK		Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25083		
Client ID:	MBLKS	Batch ID: 11921		Analysis Date: 9/23/2015			SeqNo: 472652				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.100									
Barium	ND	0.500									
Cadmium	ND	0.200									
Chromium	ND	0.100									
Lead	ND	0.200									
Selenium	ND	0.500									
Silver	ND	0.100									

Sample ID	LCS-11921	SampType: LCS		Units: mg/Kg		Prep Date: 9/23/2015			RunNo: 25083		
Client ID:	LCSS	Batch ID: 11921		Analysis Date: 9/23/2015						SeqNo: 472653	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	50.6	0.100	50.00	0	101	80	120				
Barium	46.8	0.500	50.00	0	93.6	80	120				
Cadmium	2.30	0.200	2.500	0	92.2	80	120				
Chromium	54.0	0.100	50.00	0	108	80	120				
Lead	23.6	0.200	25.00	0	94.4	80	120				
Selenium	5.14	0.500	5.000	0	103	80	120				
Silver	2.46	0.100	2.500	0	98.3	80	120				

Sample ID	1509300-022ADUP	SampType:	DUP			Units:	mg/Kg-dry			Prep Date:	9/23/2015			RunNo:	25083			
Client ID:	BATCH	Batch ID:	11921			Analysis Date:						9/23/2015			SeqNo:	472655		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual					
Arsenic		6.75	0.102						5.671		17.4	20						
Barium		36.9	0.511						38.20		3.38	20						
Cadmium		17.1	0.204						3.160		138	20	R					
Chromium		26.1	0.102						18.79		32.5	20	R					
Lead		53.3	0.204						39.25		30.4	20	R					
Selenium		1.29	0.511						1.467		12.7	20						



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509300-022ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25083		
Client ID:	BATCH	Batch ID:	11921			Analysis Date:	9/23/2015	SeqNo:	472655		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	ND	0.102						0		20	

NOTES:

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID	1509300-022AMS	SampType: MS		Units: mg/Kg-dry		Prep Date: 9/23/2015		RunNo: 25083			
Client ID:	BATCH	Batch ID: 11921				Analysis Date: 9/23/2015		SeqNo: 472659			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	59.9	0.101	50.70	5.671	107	75	125				
Barium	77.2	0.507	50.70	38.20	76.8	75	125				
Cadmium	6.62	0.203	2.535	3.160	136	75	125				S
Chromium	80.8	0.101	50.70	18.79	122	75	125				
Lead	86.6	0.203	25.35	39.25	187	75	125				S
Selenium	6.24	0.507	5.070	1.467	94.1	75	125				
Silver	2.35	0.101	2.535	0.06659	90.2	75	125				

NOTES:

S - Outlying spike recoveries observed, a duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID	1509300-022AMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25083		
Client ID:	BATCH	Batch ID:	11921			Analysis Date:	9/23/2015	SeqNo:	472660		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	61.6	0.101	50.70	5.671	110	75	125	59.93	2.72	20	
Barium	79.9	0.507	50.70	38.20	82.3	75	125	77.16	3.55	20	
Cadmium	7.42	0.203	2.535	3.160	168	75	125	6.619	11.4	20	S
Chromium	87.1	0.101	50.70	18.79	135	75	125	80.81	7.54	20	S
Lead	81.7	0.203	25.35	39.25	168	75	125	86.60	5.80	20	S
Selenium	6.47	0.507	5.070	1.467	98.7	75	125	6.240	3.64	20	
Silver	2.54	0.101	2.535	0.06659	97.5	75	125	2.354	7.55	20	

NOTES:

S - Outlying spike recoveries observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

S - Outlying spike recovery observed for Cr. A duplicate analysis was performed and recovered within range.



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QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509300-022APDS	SampType:	PDS	Units:	mg/Kg-dry	Prep Date:	9/23/2015	RunNo:	25083		
Client ID:	BATCH	Batch ID:	11921			Analysis Date:	9/23/2015	SeqNo:	472661		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	11.1	0.204	2.50	6.18	98.2	80	120				
Lead	119	0.204	25.0	76.8	85.0	80	120				



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QC SUMMARY REPORT

Mercury by EPA Method 7471

Sample ID	MB-11948	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/24/2015		RunNo:	25107	
Client ID:	MBLKS	Batch ID:	11948						Analysis Date:	9/24/2015			SeqNo:	473300	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Mercury	ND	0.250										
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Sample ID	LCS-11948	SampType: LCS			Units: mg/Kg		Prep Date: 9/24/2015			RunNo: 25107		
Client ID:	LCSS	Batch ID: 11948			Analysis Date: 9/24/2015					SeqNo: 473301		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.561	0.250	0.5000	0	112	80	120					
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Sample ID	1509304-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25107			
Client ID:	BATCH	Batch ID:	11948			Analysis Date:	9/24/2015	SeqNo:	473303			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.244							0		20	
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Sample ID	1509304-001AMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25107			
Client ID:	BATCH	Batch ID:	11948			Analysis Date:	9/24/2015	SeqNo:	473304			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.539	0.244	0.4885	0.01641	107	70	130					
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Sample ID	1509304-001AMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25107			
Client ID:	BATCH	Batch ID:	11948			Analysis Date:	9/24/2015	SeqNo:	473305			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.500	0.224	0.4478	0.01641	108	70	130	0.5389	7.45	20		
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Project: Pacific Park

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	MB-11945	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/24/2015		RunNo:	25122	
Client ID:	MBLKS	Batch ID:	11945						Analysis Date:	9/24/2015			SeqNo:	473714	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	19.1		20.00		95.7	50	150				
Surr: o-Terphenyl	19.1		20.00		95.6	50	150				

Sample ID	LCS-11945	SampType: LCS			Units: mg/Kg		Prep Date: 9/24/2015		RunNo: 25122		
Client ID:	LCSS	Batch ID: 11945			Analysis Date: 9/24/2015				SeqNo: 473713		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	429	20.0	500.0	0	85.9	65	135				
Surr: 2-Fluorobiphenyl	20.4		20.00		102	50	150				
Surr: o-Terphenyl	19.7		20.00		98.4	50	150				

Sample ID	1509332-008ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25122		
Client ID:	BATCH	Batch ID:	11945			Analysis Date:	9/24/2015	SeqNo:	473703		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	23.2						0		30	
Heavy Oil	ND	57.9						0		30	
Surr: 2-Fluorobiphenyl	26.5		23.15		114	50	150		0		
Surr: o-Terphenyl	26.7		23.15		115	50	150		0		

Sample ID	MB-11957	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/25/2015		RunNo:	25165	
Client ID:	MBLKS	Batch ID:	11957						Analysis Date:	9/28/2015			SeqNo:	474432	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	17.1		20.00		85.7	50	150				
Surr: o-Terphenyl	15.7		20.00		78.7	50	150				



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Project: Pacific Park

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	MB-11957	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/25/2015		RunNo:	25165	
Client ID:	MBLKS	Batch ID:	11957						Analysis Date:	9/28/2015		SeqNo:	474432		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Sample ID	LCS-11957	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/25/2015	RunNo:	25165		
Client ID:	LCSS	Batch ID:	11957			Analysis Date:	9/28/2015	SeqNo:	474431		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	411	20.0	500.0	0	82.2	65	135				
Surr: 2-Fluorobiphenyl	17.8		20.00		89.0	50	150				
Surr: o-Terphenyl	16.1		20.00		80.5	50	150				

Sample ID	1509311-006ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25165		
Client ID:	GP-22-15:1.5	Batch ID:	11957			Analysis Date:	9/28/2015	SeqNo:	474684		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	21.6						0		30	
Heavy Oil	ND	53.9						0		30	
Surr: 2-Fluorobiphenyl	19.6		21.56		91.1	50	150		0		
Surr: o-Terphenyl	20.0		21.56		92.6	50	150		0		

Sample ID	1509340-003ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25165		
Client ID:	BATCH	Batch ID:	11957			Analysis Date:	9/29/2015	SeqNo:	475638		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	20.2						0		30	
Heavy Oil	ND	50.6						0		30	
Surr: 2-Fluorobiphenyl	25.8		20.23		128	50	150		0		
Surr: o-Terphenyl	26.5		20.23		131	50	150		0		



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	MB-11941	SampType:	MBLK			Units:	µg/L			Prep Date:	9/24/2015		RunNo:	25133	
Client ID:	MBLKW	Batch ID:	11941						Analysis Date:	9/25/2015			SeqNo:	473905	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Diesel (Fuel Oil)	ND	50.0									
Heavy Oil	ND	100									
Surr: 2-Fluorobiphenyl	59.8		80.00		74.8	50	150				
Surr: o-Terphenyl	67.3		80.00		84.1	50	150				

Sample ID	LCS-11941	SampType:	LCS	Units:	µg/L	Prep Date:	9/24/2015	RunNo:	25133		
Client ID:	LCSW	Batch ID:	11941			Analysis Date:	9/25/2015	SeqNo:	473904		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	675	50.0	1,000	0	67.5	65	135				
Surr: 2-Fluorobiphenyl	65.7		80.00		82.1	50	150				
Surr: o-Terphenyl	59.8		80.00		74.8	50	150				

Sample ID	1509300-020BDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/24/2015	RunNo:	25133		
Client ID:	BATCH	Batch ID:	11941			Analysis Date:	9/25/2015	SeqNo:	473912		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	50.0						0		30	
Heavy Oil	169	100						170.8	0.880	30	
Surr: 2-Fluorobiphenyl	45.4		79.97		56.8	50	150		0		
Surr: o-Terphenyl	48.5		79.97		60.6	50	150		0		



Date: 10/29/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Herbicides by EPA Method 8151A

Sample ID	MB-11961	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/25/2015		RunNo:	25219	
Client ID:	MBLKS	Batch ID:	11961					Analysis Date:	9/30/2015		SeqNo:	475626	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Dicamba	ND	17.5											
2,4-D	ND	15.0											
2,4-DP	ND	12.5											
2,4,5-TP (Silvex)	ND	10.0											
2,4,5-T	ND	25.0											
Dinoseb	ND	15.0											
Dalapon	ND	100											
2,4-DB	ND	12.5											
MCPP	ND	2,200											
MCPA	ND	140											
Picloram	ND	25.0											
Bentazon	ND	17.5											
Chloramben	ND	10.0											
Acifluorfen	ND	40.0											
3,5-Dichlorobenzoic acid	ND	20.0											
4-Nitrophenol	ND	15.0											
Dacthal (DCPA)	ND	15.0											
Surr: 2,4-Dichlorophenylacetic acid	79.2		100.0		79.2	20.1	168						

Sample ID	LCS-11961	SampType: LCS		Units: µg/Kg		Prep Date: 9/25/2015			RunNo: 25219		
Client ID:	LCSS	Batch ID: 11961		Analysis Date: 9/30/2015					SeqNo: 475624		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	131	17.5	200.0	0	65.4	32.1	135				
2,4-D	137	15.0	200.0	0	68.7	22.4	130				
2,4-DP	145	12.5	200.0	0	72.3	26.4	130				
2,4,5-TP (Silvex)	123	10.0	200.0	0	61.3	21.2	138				
2,4,5-T	127	25.0	200.0	0	63.3	39	117				
Dinoseb	129	15.0	200.0	0	64.7	5	165				
Dalapon	13,000	100	20,000	0	65.0	18.4	162				
2,4-DB	159	12.5	200.0	0	79.6	5	164				



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QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	LCS-11961	SampType: LCS		Units: µg/Kg		Prep Date: 9/25/2015			RunNo: 25219		
Client ID:	LCSS	Batch ID: 11961		Analysis Date: 9/30/2015						SeqNo: 475624	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MCPP	1560	2,200	2,000	0	78.1	22.2	157				
MCPA	2,200	140	2,000	0	110	47.4	128				
Picloram	140	25.0	200.0	0	70.2	5	175				
Bentazon	146	17.5	200.0	0	72.8	7.59	162				
Chloramben	93.0	10.0	200.0	0	46.5	5	147				
Acifluorfen	161	40.0	200.0	0	80.6	5	163				
3,5-Dichlorobenzoic acid	150	20.0	200.0	0	74.8	18.7	139				
4-Nitrophenol	65.6	15.0	200.0	0	32.8	5	163				
Dacthal (DCPA)	131	15.0	200.0	0	65.6	5	164				
Surr: 2,4-Dichlorophenylacetic acid	125		100.0		125	20.1	168				

Sample ID	1509311-010ADUP	SampType:	DUP			Units:	µg/Kg-dry			Prep Date:	9/25/2015			RunNo:	25219		
Client ID:	MW-6-15:14.0	Batch ID:	11961			Analysis Date:						9/30/2015			SeqNo:	475616	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual				
Dicamba		ND	20.1						0			30					
2,4-D		ND	17.2						0			30					
2,4-DP		ND	14.3						0			30					
2,4,5-TP (Silvex)		ND	11.5						0			30					
2,4,5-T		ND	28.7						0			30					
Dinoseb		ND	17.2						0			30					
Dalapon		ND	115						0			30					
2,4-DB		19.0	14.3						18.66	1.58		30					
MCPP		ND	2,520						0			30					
MCPA		ND	160						0			30					
Picloram		28.8	28.7						28.31	1.64		30					
Bentazon		ND	20.1						0			30					
Chloramben		20.6	11.5						20.73	0.505		30					
Acifluorfen		ND	45.9						0			30					
3,5-Dichlorobenzoic acid		ND	22.9						0			30					
4-Nitrophenol		ND	17.2						0			30					



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	1509311-010ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25219		
Client ID:	MW-6-15:14.0	Batch ID:	11961			Analysis Date:	9/30/2015	SeqNo:	475616		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dacthal (DCPA)	17.6	17.2						16.26	7.76	30	
Surr: 2,4-Dichlorophenylacetic acid	141		114.6		123	20.1	168		0		

Sample ID	1509311-013AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25219		
Client ID:	MW-6-15:DUP	Batch ID:	11961			Analysis Date:	9/30/2015	SeqNo:	475618		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	170	20.7	236.2	0	72.2	31.9	118				
2,4-D	178	17.7	236.2	8.476	71.7	12.4	134				
2,4-DP	166	14.8	236.2	0	70.2	27.2	129				
2,4,5-TP (Silvex)	197	11.8	236.2	38.15	67.2	28.6	134				
2,4,5-T	182	29.5	236.2	71.24	47.0	13.1	147				
Dinoseb	168	17.7	236.2	49.23	50.3	10	179				
Dalapon	9,230	118	23,620	0	39.1	24.9	139				
2,4-DB	204	14.8	236.2	21.92	77.1	50.2	152				
MCPD	1770	2,600	2,362	0	74.9	37.8	140				
MCPA	2,920	165	2,362	0	124	13.7	147				
Picloram	169	29.5	236.2	40.36	54.6	5	153				
Bentazon	159	20.7	236.2	0	67.3	15	140				
Chloramben	110	11.8	236.2	28.62	34.4	5	162				
Acifluorfen	250	47.2	236.2	0	106	15	140				
3,5-Dichlorobenzoic acid	172	23.6	236.2	13.32	67.2	10	164				
4-Nitrophenol	184	17.7	236.2	18.34	70.3	44.8	125				
Dacthal (DCPA)	110	17.7	236.2	16.68	39.6	5	132				
Surr: 2,4-Dichlorophenylacetic acid	145		118.1		122	20.1	168				



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	MB-11955	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/25/2015		RunNo:	25248	
Client ID:	MBLKS	Batch ID:	11955					Analysis Date:	10/1/2015		SeqNo:	476118	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Dicamba	ND	35.0											
2,4-D	ND	30.0											
2,4-DP	ND	25.0											
2,4,5-TP (Silvex)	ND	20.0											
2,4,5-T	ND	50.0											
Dinoseb	ND	30.0											
Dalapon	ND	200											
2,4-DB	ND	25.0											
MCPP	ND	4,400											
MCPA	ND	280											
Picloram	ND	50.0											
Bentazon	ND	35.0											
Chloramben	ND	20.0											
Acifluorfen	ND	80.0											
3,5-Dichlorobenzoic acid	ND	40.0											
4-Nitrophenol	ND	30.0											
Dacthal (DCPA)	ND	30.0											
Surr: 2,4-Dichlorophenylacetic acid	89.6		100.0		89.6	20.1	168						

Sample ID	LCS-11955	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25248		
Client ID:	LCSS	Batch ID:	11955			Analysis Date:	10/1/2015	SeqNo:	476117		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	82.3	35.0	100.0	0	82.3	32.1	135				
2,4-D	88.5	30.0	100.0	0	88.5	22.4	130				
2,4-DP	97.6	25.0	100.0	0	97.6	26.4	130				
2,4,5-TP (Silvex)	103	20.0	100.0	0	103	21.2	138				
2,4,5-T	84.9	50.0	100.0	0	84.9	39	117				
Dinoseb	56.7	30.0	100.0	0	56.7	5	165				
Dalapon	8,630	200	10,000	0	86.3	18.4	162				
2,4-DB	82.2	25.0	100.0	0	82.2	5	164				



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CLIENT: Shannon & Wilson
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QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	LCS-11955	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25248		
Client ID:	LCSS	Batch ID:	11955			Analysis Date:	10/1/2015	SeqNo:	476117		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MCPP	886	4,400	1,000	0	88.6	22.2	157				
MCPA	1,060	280	1,000	0	106	47.4	128				
Picloram	99.5	50.0	100.0	0	99.5	5	175				
Bentazon	68.6	35.0	100.0	0	68.6	7.59	162				
Chloramben	68.7	20.0	100.0	0	68.7	5	147				
Acifluorfen	80.7	80.0	100.0	0	80.7	5	163				
3,5-Dichlorobenzoic acid	103	40.0	100.0	0	103	18.7	139				
4-Nitrophenol	45.9	30.0	100.0	0	45.9	5	163				
Dacthal (DCPA)	91.1	30.0	100.0	0	91.1	5	164				
Surr: 2,4-Dichlorophenylacetic acid	108		100.0		108	20.1	168				

Sample ID	1509300-009ADUP	SampType:	DUP			Units:	µg/Kg-dry			Prep Date:	9/25/2015			RunNo:	25303		
Client ID:	BATCH	Batch ID:	11955			Analysis Date:						10/5/2015			SeqNo:	477205	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual					
Dicamba	ND	43.9						0			30						
2,4-D	ND	37.6						0			30						
2,4-DP	ND	31.4						0			30						
2,4,5-TP (Silvex)	ND	25.1						0			30						
2,4,5-T	ND	62.7						0			30						
Dinoseb	ND	37.6						0			30						
Dalapon	ND	251						0			30						
2,4-DB	ND	31.4						0			30						
MCPP	ND	5,520						0			30						
MCPA	ND	3,510						0			30						
Picloram	ND	62.7						0			30						
Bentazon	ND	43.9						0			30						
Chloramben	ND	25.1						0			30						
Acifluorfen	ND	100						0			30						
3,5-Dichlorobenzoic acid	ND	50.2						0			30						
4-Nitrophenol	ND	37.6						0			30						



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	1509300-009ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25303		
Client ID:	BATCH	Batch ID:	11955			Analysis Date:	10/5/2015	SeqNo:	477205		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dacthal (DCPA)	ND	37.6						0		30	
Surr: 2,4-Dichlorophenylacetic acid	131		125.4		104	20.1	168		0		

Sample ID	1509300-010AMS	SampType: MS			Units: µg/Kg-dry		Prep Date: 9/25/2015		RunNo: 25303		
Client ID:	BATCH	Batch ID: 11955			Analysis Date: 10/5/2015				SeqNo: 477207		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	109	47.6	136.0	0	80.5	31.9	118				
2,4-D	116	40.8	136.0	0	85.2	12.4	134				
2,4-DP	125	34.0	136.0	0	92.3	27.2	129				
2,4,5-TP (Silvex)	133	27.2	136.0	0	97.7	28.6	134				
2,4,5-T	107	68.0	136.0	0	78.9	13.1	147				
Dinoseb	136	40.8	136.0	0	100	10	179				
Dalapon	5,650	272	13,600	0	41.6	24.9	139				
2,4-DB	117	34.0	136.0	0	86.3	50.2	152				
MCP	1340	5,980	3,399	0	39.4	37.8	140				
MCPA	2400	3,810	3,399	0	70.5	13.7	147				
Picloram	126	68.0	136.0	0	92.8	5	153				
Bentazon	106	47.6	136.0	0	78.3	15	140				
Chloramben	116	27.2	136.0	0	85.3	5	162				
Acifluorfen	167	109	136.0	0	123	15	140				
3,5-Dichlorobenzoic acid	146	54.4	136.0	0	107	10	164				
4-Nitrophenol	145	40.8	136.0	0	107	44.8	125				
Dacthal (DCPA)	ND	40.8	136.0	0	23.0	5	132				
Surr: 2,4-Dichlorophenylacetic acid	122		136.0		89.4	20.1	168				



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID	MB-11916	SampType:	MBLK		Units:	µg/L		Prep Date:	9/22/2015		RunNo:	25071	
Client ID:	MBLKW	Batch ID:	11916					Analysis Date:	9/23/2015		SeqNo:	472505	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Naphthalene		ND	0.0996										
2-Methylnaphthalene		ND	0.0996										
1-Methylnaphthalene		ND	0.0996										
Acenaphthylene		ND	0.0996										
Acenaphthene		ND	0.0996										
Fluorene		ND	0.0996										
Phenanthrene		ND	0.0996										
Anthracene		ND	0.0996										
Fluoranthene		ND	0.0996										
Pyrene		ND	0.0996										
Benz(a)anthracene		ND	0.0996										
Chrysene		ND	0.0996										
Benzo(b)fluoranthene		ND	0.0996										
Benzo(k)fluoranthene		ND	0.0996										
Benzo(a)pyrene		ND	0.0996										
Indeno(1,2,3-cd)pyrene		ND	0.0996										
Dibenz(a,h)anthracene		ND	0.0996										
Benzo(g,h,i)perylene		ND	0.0996										
Surr: 2-Fluorobiphenyl		1.29		1.992		64.7	23.9	122					
Surr: Terphenyl-d14		1.54		1.992		77.5	33.4	135					

Sample ID	LCS-11916	SampType:	LCS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	LCSW	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472504		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.27	0.0998	3.993	0	56.8	26.7	106				
2-Methylnaphthalene	2.33	0.0998	3.993	0	58.3	35.4	110				
1-Methylnaphthalene	2.31	0.0998	3.993	0	57.9	37.5	116				
Acenaphthylene	2.88	0.0998	3.993	0	72.2	39.2	114				
Acenaphthene	2.44	0.0998	3.993	0	61.1	37	113				
Fluorene	1.80	0.0998	3.993	0	45.0	40.3	117				



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID	LCS-11916	SampType:	LCS	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	LCSW	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472504		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	2.42	0.0998	3.993	0	60.6	35.1	118				
Anthracene	2.33	0.0998	3.993	0	58.4	45.4	115				
Fluoranthene	2.48	0.0998	3.993	0	62.2	47.1	123				
Pyrene	3.05	0.0998	3.993	0	76.3	47.6	123				
Benz(a)anthracene	2.40	0.0998	3.993	0	60.0	48.7	126				
Chrysene	2.42	0.0998	3.993	0	60.5	45.1	114				
Benzo(b)fluoranthene	2.36	0.0998	3.993	0	59.1	52.2	126				
Benzo(k)fluoranthene	2.67	0.0998	3.993	0	66.8	45.5	121				
Benzo(a)pyrene	2.37	0.0998	3.993	0	59.3	38.4	121				
Indeno(1,2,3-cd)pyrene	2.28	0.0998	3.993	0	57.1	23.9	143				
Dibenz(a,h)anthracene	2.56	0.0998	3.993	0	64.0	24.9	141				
Benzo(g,h,i)perylene	2.12	0.0998	3.993	0	53.1	35.9	139				
Surr: 2-Fluorobiphenyl	1.39		1.997		69.7	23.9	122				
Surr: Terphenyl-d14	1.50		1.997		74.9	33.4	135				

Sample ID	1509270-027EDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/22/2015	RunNo:	25071		
Client ID:	BATCH	Batch ID:	11916			Analysis Date:	9/23/2015	SeqNo:	472491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0997						0		30	
2-Methylnaphthalene	ND	0.0997						0		30	
1-Methylnaphthalene	ND	0.0997						0		30	
Acenaphthylene	ND	0.0997						0		30	
Acenaphthene	ND	0.0997						0		30	
Fluorene	ND	0.0997						0		30	
Phenanthrene	ND	0.0997						0		30	
Anthracene	ND	0.0997						0		30	
Fluoranthene	ND	0.0997						0		30	
Pyrene	ND	0.0997						0		30	
Benz(a)anthracene	ND	0.0997						0		30	
Chrysene	ND	0.0997						0		30	



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 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID	1509270-027EDUP		SampType: DUP		Units: µg/L		Prep Date: 9/22/2015			RunNo: 25071		
Client ID:	BATCH		Batch ID: 11916					Analysis Date: 9/23/2015			SeqNo: 472491	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzo(b)fluoranthene	ND	0.0997						0		30		
Benzo(k)fluoranthene	ND	0.0997						0		30		
Benzo(a)pyrene	ND	0.0997						0		30		
Indeno(1,2,3-cd)pyrene	ND	0.0997						0		30		
Dibenz(a,h)anthracene	ND	0.0997						0		30		
Benzo(g,h,i)perylene	ND	0.0997						0		30		
Surr: 2-Fluorobiphenyl	1.14		1.995		56.9	23.9	122		0			
Surr: Terphenyl-d14	0.798		1.995		40.0	33.4	135		0			

Sample ID	1509270-032EMS	SampType: MS	Units: µg/L			Prep Date: 9/22/2015			RunNo: 25071		
Client ID:	BATCH	Batch ID: 11916				Analysis Date: 9/23/2015			SeqNo: 472493		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.33	0.0999	3.997	0	58.3	31.2	104				
2-Methylnaphthalene	2.30	0.0999	3.997	0	57.7	33.9	109				
1-Methylnaphthalene	2.28	0.0999	3.997	0	57.1	33.2	110				
Acenaphthylene	2.81	0.0999	3.997	0	70.4	40.5	98.7				
Acenaphthene	2.38	0.0999	3.997	0	59.6	30.6	117				
Fluorene	2.35	0.0999	3.997	0	58.8	35.2	99.1				
Phenanthrene	2.21	0.0999	3.997	0	55.4	42.7	111				
Anthracene	2.02	0.0999	3.997	0	50.5	43.9	103				
Fluoranthene	2.10	0.0999	3.997	0	52.5	56.1	115				S
Pyrene	2.49	0.0999	3.997	0	62.2	44.2	134				
Benz(a)anthracene	1.65	0.0999	3.997	0	41.4	50.4	128				S
Chrysene	1.53	0.0999	3.997	0	38.4	41.4	118				S
Benzo(b)fluoranthene	1.25	0.0999	3.997	0	31.2	50.8	121				S
Benzo(k)fluoranthene	1.33	0.0999	3.997	0	33.2	43.4	113				S
Benzo(a)pyrene	1.21	0.0999	3.997	0	30.2	40.8	128				S
Indeno(1,2,3-cd)pyrene	1.08	0.0999	3.997	0	26.9	29.5	126				S
Dibenz(a,h)anthracene	1.27	0.0999	3.997	0	31.8	31.4	120				
Benzo(g,h,i)perylene	0.925	0.0999	3.997	0	23.2	30	116				S



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID	1509270-032EMS	SampType: MS			Units: µg/L		Prep Date: 9/22/2015		RunNo: 25071		
Client ID:	BATCH	Batch ID: 11916			Analysis Date: 9/23/2015				SeqNo: 472493		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 2-Fluorobiphenyl	1.14		1.999		57.0	23.9	122				
Surr: Terphenyl-d14	0.865		1.999		43.3	33.4	135				

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID	MB-12180	SampType:	MBLK		Units:	mg/Kg		Prep Date:	10/21/2015		RunNo:	25736	
Client ID:	MBLKS	Batch ID:	12180					Analysis Date:	10/22/2015		SeqNo:	485995	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Aroclor 1016	ND	0.100											
Aroclor 1221	ND	0.100											
Aroclor 1232	ND	0.100											
Aroclor 1242	ND	0.100											
Aroclor 1248	ND	0.100											
Aroclor 1254	ND	0.100											
Aroclor 1260	ND	0.100											
Aroclor 1262	ND	0.100											
Aroclor 1268	ND	0.100											
Total PCBs	ND	0.100											
Surr: Decachlorobiphenyl	26.0		50.00		52.0	41.2	143						
Surr: Tetrachloro-m-xylene	24.5		50.00		49.0	26	140						

Sample ID	LCS1-12180	SampType:	LCS	Units:	mg/Kg	Prep Date:	10/21/2015	RunNo:	25736		
Client ID:	LCSS	Batch ID:	12180			Analysis Date:	10/22/2015	SeqNo:	486035		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.648	0.100	1.000	0	64.8	42.3	147				
Aroclor 1260	0.621	0.100	1.000	0	62.1	45.2	151				
Surr: Decachlorobiphenyl	25.0		50.00		49.9	41.2	143				
Surr: Tetrachloro-m-xylene	27.5		50.00		55.0	26	140				

Sample ID	1509270-006AMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	10/21/2015	RunNo:	25736		
Client ID:	BATCH	Batch ID:	12180			Analysis Date:	10/22/2015	SeqNo:	485986		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.78	0.197	1.970	0	90.4	61.7	139				
Aroclor 1260	1.55	0.197	1.970	0.1414	71.4	63.1	138				
Surr: Decachlorobiphenyl	70.1		98.49		71.2	41.2	143				
Surr: Tetrachloro-m-xylene	86.4		98.49		87.7	26	140				



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QC SUMMARY REPORT
Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID	1509270-006AMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	10/21/2015	RunNo:	25736		
Client ID:	BATCH	Batch ID:	12180			Analysis Date:	10/22/2015	SeqNo:	485986		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	1509270-006AMSD	SampType:	MSD		Units:	mg/Kg-dry		Prep Date:	10/21/2015		RunNo:	25736
Client ID:	BATCH	Batch ID:	12180					Analysis Date:	10/22/2015		SeqNo:	485987
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Aroclor 1016	1.86	0.186	1.862	0	100	61.7	139	1.780	4.49	30		
Aroclor 1260	1.69	0.186	1.862	0.1414	83.3	63.1	138	1.547	8.92	30		
Surr: Decachlorobiphenyl	75.7		93.10		81.3	41.2	143		0			
Surr: Tetrachloro-m-xylene	86.9		93.10		93.4	26	140		0			



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Work Order: 1509311
CLIENT: Shannon & Wilson
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QC SUMMARY REPORT
Organochlorine Pesticides by EPA Method 8081

Sample ID	MB-11947	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/24/2015		RunNo:	25271	
Client ID:	MBLKS	Batch ID:	11947					Analysis Date:	9/25/2015		SeqNo:	476525	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Toxaphene	ND	0.100											
Alpha BHC	ND	0.0100											
Beta BHC	ND	0.0100											
Gamma BHC (Lindane)	ND	0.0100											
Delta BHC	ND	0.0100											
Heptachlor	ND	0.0100											
Aldrin	ND	0.0100											
Heptachlor epoxide	ND	0.0100											
gamma-Chlordane	ND	0.0100											
Endosulfan I	ND	0.0100											
alpha-Chlordane	ND	0.0100											
Dieldrin	ND	0.0100											
4,4'-DDE	ND	0.0200											
Endrin	ND	0.0200											
Endosulfan II	ND	0.0200											
4,4'-DDD	ND	0.0200											
Endrin aldehyde	ND	0.0200											
Endosulfan sulfate	ND	0.0200											
4,4'-DDT	ND	0.0200											
Endrin ketone	ND	0.0200											
Methoxychlor	ND	0.0500											
Surr: Decachlorobiphenyl	0.0623		0.1000		62.3	26.5	158						
Surr: Tetrachloro-m-xylene	0.0293		0.05000		58.6	11	150						

Sample ID	LCS-11947	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/24/2015	RunNo:	25271		
Client ID:	LCSS	Batch ID:	11947			Analysis Date:	9/25/2015	SeqNo:	476524		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.173	0.0100	0.2000	0	86.3	54.2	139				
Beta BHC	0.178	0.0100	0.2000	0	89.0	56.5	142				
Gamma BHC (Lindane)	0.178	0.0100	0.2000	0	88.8	55.5	142				



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QC SUMMARY REPORT
Organochlorine Pesticides by EPA Method 8081

Sample ID	LCS-11947	SampType: LCS		Units: µg/Kg		Prep Date: 9/24/2015			RunNo: 25271		
Client ID:	LCSS	Batch ID: 11947					Analysis Date: 9/25/2015			SeqNo: 476524	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Delta BHC	0.181	0.0100	0.2000	0	90.4	47.4	157				
Heptachlor	0.191	0.0100	0.2000	0	95.3	54	141				
Aldrin	0.204	0.0100	0.2000	0	102	43.7	147				
Heptachlor epoxide	0.162	0.0100	0.2000	0	81.0	56.2	137				
gamma-Chlordane	0.179	0.0100	0.2000	0	89.4	58.5	136				
Endosulfan I	0.160	0.0100	0.2000	0	80.1	60	132				
alpha-Chlordane	0.0861	0.0100	0.2000	0	43.0	46.1	140				S
Dieldrin	0.161	0.0100	0.2000	0	80.7	61.2	133				
4,4´-DDE	0.174	0.0200	0.2000	0	87.2	55.4	142				
Endrin	0.168	0.0200	0.2000	0	84.2	56.5	143				
Endosulfan II	0.184	0.0200	0.2000	0	91.9	62	143				
4,4´-DDD	0.174	0.0200	0.2000	0	86.8	53.3	145				
Endrin aldehyde	0.178	0.0200	0.2000	0	88.9	39.5	153				
Endosulfan sulfate	0.188	0.0200	0.2000	0	94.0	53.8	148				
4,4´-DDT	0.187	0.0200	0.2000	0	93.7	48.2	152				
Endrin ketone	0.189	0.0200	0.2000	0	94.7	28.5	162				
Methoxychlor	0.221	0.0500	0.2000	0	110	34.6	159				
Surr: Decachlorobiphenyl	0.0658		0.1000		65.8	26.5	158				
Surr: Tetrachloro-m-xylene	0.0321		0.05000		64.3	11	150				

NOTES:

S - Outlying spike recovery observed for Alpha Chlordane. The MS recovered within specifications.

Sample ID	1509300-006ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25271		
Client ID:	BATCH	Batch ID:	11947			Analysis Date:	9/25/2015	SeqNo:	476500		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.143						0		30	
Alpha BHC	ND	0.0143						0		30	
Beta BHC	ND	0.0143						0		30	
Gamma BHC (Lindane)	ND	0.0143						0		30	
Delta BHC	ND	0.0143						0		30	
Heptachlor	ND	0.0143						0		30	



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Organochlorine Pesticides by EPA Method 8081

Sample ID	1509300-006ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/24/2015	RunNo:	25271		
Client ID:	BATCH	Batch ID:	11947			Analysis Date:	9/25/2015	SeqNo:	476500		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aldrin	ND	0.0143						0		30	
Heptachlor epoxide	ND	0.0143						0		30	
gamma-Chlordane	ND	0.0143						0		30	
Endosulfan I	ND	0.0143						0		30	
alpha-Chlordane	ND	0.0143						0		30	
Dieldrin	ND	0.0143						0		30	
4,4'-DDE	ND	0.0286						0		30	
Endrin	ND	0.0286						0		30	
Endosulfan II	ND	0.0286						0		30	
4,4'-DDD	ND	0.0286						0		30	
Endrin aldehyde	ND	0.0286						0		30	
Endosulfan sulfate	ND	0.0286						0		30	
4,4'-DDT	ND	0.0286						0		30	
Endrin ketone	ND	0.0286						0		30	
Methoxychlor	ND	0.0716						0		30	
Surr: Decachlorobiphenyl	0.0826		0.07161		115	26.5	158		0		
Surr: Tetrachloro-m-xylene	0.0406		0.07161		56.8	11	150		0		

Sample ID	1509300-007AMS	SampType:	MS			Units:	mg/Kg-dry		Prep Date:	9/24/2015		RunNo:	25271		
Client ID:	BATCH	Batch ID:	11947			Analysis Date:					9/25/2015		SeqNo:	476502	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual	
Alpha BHC		0.248	0.0118	0.2360	0	105	49.1	158							
Beta BHC		0.260	0.0118	0.2360	0	110	50.9	160							
Gamma BHC (Lindane)		0.255	0.0118	0.2360	0	108	55.3	157							
Delta BHC		0.266	0.0118	0.2360	0	113	55.8	160							
Heptachlor		0.271	0.0118	0.2360	0	115	59.1	150							
Aldrin		0.284	0.0118	0.2360	0	120	46.4	145							
Heptachlor epoxide		0.235	0.0118	0.2360	0	99.5	48.5	151							
gamma-Chlordane		0.263	0.0118	0.2360	0	112	50.9	143							
Endosulfan I		0.238	0.0118	0.2360	0	101	46.4	149							



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Organochlorine Pesticides by EPA Method 8081

Sample ID	1509300-007AMS	SampType:	MS		Units:	mg/Kg-dry		Prep Date:	9/24/2015		RunNo:	25271		
Client ID:	BATCH	Batch ID:	11947						Analysis Date:	9/25/2015		SeqNo:	476502	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
alpha-Chlordane		0.121	0.0118	0.2360	0	51.4	46.3	153						
Dieldrin		0.236	0.0118	0.2360	0	100	51	147						
4,4'-DDE		0.250	0.0236	0.2360	0	106	39.9	162						
Endrin		0.248	0.0236	0.2360	0	105	51.3	151						
Endosulfan II		0.267	0.0236	0.2360	0	113	51	152						
4,4'-DDD		0.258	0.0236	0.2360	0	109	45.8	160						
Endrin aldehyde		0.258	0.0236	0.2360	0	109	38.3	156						
Endosulfan sulfate		0.267	0.0236	0.2360	0	113	53.2	154						
4,4'-DDT		0.277	0.0236	0.2360	0	117	45.7	168						
Endrin ketone		0.280	0.0236	0.2360	0	119	68.3	144						
Methoxychlor		0.307	0.0590	0.2360	0	130	43.4	178						
Surr: Decachlorobiphenyl		0.0809		0.1180		68.5	26.5	158						
Surr: Tetrachloro-m-xylene		0.0385		0.05899		65.2	11	150						

Sample ID	MB-11962	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/25/2015		RunNo:	25268	
Client ID:	MBLKS	Batch ID:	11962					Analysis Date:	9/25/2015		SeqNo:	476442	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Toxaphene		ND	0.100										
Alpha BHC		ND	0.0100										
Beta BHC		ND	0.0100										
Gamma BHC (Lindane)		ND	0.0100										
Delta BHC		ND	0.0100										
Heptachlor		ND	0.0100										
Aldrin		ND	0.0100										
Heptachlor epoxide		ND	0.0100										
gamma-Chlordane		ND	0.0100										
Endosulfan I		ND	0.0100										
alpha-Chlordane		ND	0.0100										
Dieldrin		ND	0.0100										
4,4´-DDE		ND	0.0200										



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QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	MB-11962	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/25/2015		RunNo:	25268
Client ID:	MBLKS	Batch ID:	11962		Analysis Date:				9/25/2015		SeqNo:	476442
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Endrin	ND	0.0200										
Endosulfan II	ND	0.0200										
4,4´-DDD	ND	0.0200										
Endrin aldehyde	ND	0.0200										
Endosulfan sulfate	ND	0.0200										
4,4´-DDT	ND	0.0200										
Endrin ketone	ND	0.0200										
Methoxychlor	ND	0.0500										
Surr: Decachlorobiphenyl	0.0615		0.1000		61.5	26.5	158					
Surr: Tetrachloro-m-xylene	0.0327		0.05000		65.4	11	150					

Sample ID	LCS-11962	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015			RunNo:	25268	
Client ID:	LCSS	Batch ID:	11962				Analysis Date:	9/25/2015			SeqNo:	476441
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Alpha BHC	0.175	0.0100	0.2000	0	87.3	54.2	139					
Beta BHC	0.183	0.0100	0.2000	0	91.6	56.5	142					
Gamma BHC (Lindane)	0.180	0.0100	0.2000	0	90.2	55.5	142					
Delta BHC	0.173	0.0100	0.2000	0	86.4	47.4	157					
Heptachlor	0.197	0.0100	0.2000	0	98.4	54	141					
Aldrin	0.179	0.0100	0.2000	0	89.5	43.7	147					
Heptachlor epoxide	0.191	0.0100	0.2000	0	95.4	56.2	137					
gamma-Chlordane	0.194	0.0100	0.2000	0	96.8	58.5	136					
Endosulfan I	0.195	0.0100	0.2000	0	97.4	60	132					
alpha-Chlordane	0.196	0.0100	0.2000	0	98.2	46.1	140					
Dieldrin	0.191	0.0100	0.2000	0	95.3	61.2	133					
4,4´-DDE	0.191	0.0200	0.2000	0	95.6	55.4	142					
Endrin	0.201	0.0200	0.2000	0	100	56.5	143					
Endosulfan II	0.223	0.0200	0.2000	0	112	62	143					
4,4´-DDD	0.220	0.0200	0.2000	0	110	53.3	145					
Endrin aldehyde	0.186	0.0200	0.2000	0	93.2	39.5	153					



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QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	LCS-11962	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	LCSS	Batch ID:	11962			Analysis Date:	9/25/2015	SeqNo:	476441		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Endosulfan sulfate	0.219	0.0200	0.2000	0	109	53.8	148				
4,4'-DDT	0.215	0.0200	0.2000	0	108	48.2	152				
Endrin ketone	0.228	0.0200	0.2000	0	114	28.5	162				
Methoxychlor	0.250	0.0500	0.2000	0	125	34.6	159				
Surr: Decachlorobiphenyl	0.0757		0.1000		75.7	26.5	158				
Surr: Tetrachloro-m-xylene	0.0395		0.05000		79.0	11	150				

Sample ID	1509311-007ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	GP-22-15:3.0	Batch ID:	11962			Analysis Date:	9/25/2015	SeqNo:	476428		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.114						0		30	
Alpha BHC	ND	0.0114						0		30	
Beta BHC	ND	0.0114						0		30	
Gamma BHC (Lindane)	ND	0.0114						0		30	
Delta BHC	ND	0.0114						0		30	
Heptachlor	ND	0.0114						0		30	
Aldrin	ND	0.0114						0		30	
Heptachlor epoxide	ND	0.0114						0		30	
gamma-Chlordane	ND	0.0114						0		30	
Endosulfan I	ND	0.0114						0		30	
alpha-Chlordane	ND	0.0114						0		30	
Dieldrin	ND	0.0114						0		30	
4,4´-DDE	ND	0.0228						0		30	
Endrin	ND	0.0228						0		30	
Endosulfan II	ND	0.0228						0		30	
4,4´-DDD	ND	0.0228						0		30	
Endrin aldehyde	ND	0.0228						0		30	
Endosulfan sulfate	ND	0.0228						0		30	
4,4´-DDT	ND	0.0228						0		30	
Endrin ketone	ND	0.0228						0		30	



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Project: Pacific Park

QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	1509311-007ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	GP-22-15:3.0	Batch ID:	11962	Analysis Date:				9/25/2015	SeqNo:	476428	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methoxychlor	ND	0.0570						0		30	
Surr: Decachlorobiphenyl	0.0661		0.1139		58.0	26.5	158		0		
Surr: Tetrachloro-m-xylene	0.0332		0.05697		58.3	11	150		0		

Sample ID	1509311-008AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	GP-22-15:DUP	Batch ID:	11962	Analysis Date:				9/25/2015	SeqNo:	476430	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alpha BHC	0.173	0.0113	0.2257	0	76.6	49.1	158				
Beta BHC	0.184	0.0113	0.2257	0	81.3	50.9	160				
Gamma BHC (Lindane)	0.181	0.0113	0.2257	0	80.2	55.3	157				
Delta BHC	0.176	0.0113	0.2257	0	77.9	55.8	160				
Heptachlor	0.195	0.0113	0.2257	0	86.3	59.1	150				
Aldrin	0.178	0.0113	0.2257	0	78.8	46.4	145				
Heptachlor epoxide	0.189	0.0113	0.2257	0	83.6	48.5	151				
gamma-Chlordane	0.190	0.0113	0.2257	0	84.1	50.9	143				
Endosulfan I	0.187	0.0113	0.2257	0	83.0	46.4	149				
alpha-Chlordane	0.194	0.0113	0.2257	0	86.0	46.3	153				
Dieldrin	0.186	0.0113	0.2257	0	82.6	51	147				
4,4'-DDE	0.190	0.0226	0.2257	0	84.1	39.9	162				
Endrin	0.198	0.0226	0.2257	0	87.8	51.3	151				
Endosulfan II	0.223	0.0226	0.2257	0	99.0	51	152				
4,4'-DDD	0.208	0.0226	0.2257	0	92.0	45.8	160				
Endrin aldehyde	0.189	0.0226	0.2257	0	83.6	38.3	156				
Endosulfan sulfate	0.222	0.0226	0.2257	0	98.4	53.2	154				
4,4'-DDT	0.201	0.0226	0.2257	0	89.0	45.7	168				
Endrin ketone	0.223	0.0226	0.2257	0	98.9	68.3	144				
Methoxychlor	0.243	0.0564	0.2257	0	108	43.4	178				
Surr: Decachlorobiphenyl	0.0652		0.1129		57.8	26.5	158				
Surr: Tetrachloro-m-xylene	0.0327		0.05643		58.0	11	150				



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Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11984	SampType:	MBLK	Units:	µg/Kg	Prep Date:	9/29/2015	RunNo:	25202		
Client ID:	MBLKS	Batch ID:	11984			Analysis Date:	9/29/2015	SeqNo:	475253		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	ND	200
Bis(2-chloroethyl) ether	ND	200
2-Chlorophenol	ND	100
1,3-Dichlorobenzene	ND	100
1,4-Dichlorobenzene	ND	100
1,2-Dichlorobenzene	ND	100
Benzyl alcohol	ND	100
2-Methylphenol (o-cresol)	ND	100
Hexachloroethane	ND	100
N-Nitrosodi-n-propylamine	ND	100
Nitrobenzene	ND	200
Isophorone	ND	100
4-Methylphenol (p-cresol)	ND	100
2-Nitrophenol	ND	200
2,4-Dimethylphenol	ND	100
Bis(2-chloroethoxy)methane	ND	100
2,4-Dichlorophenol	ND	200
1,2,4-Trichlorobenzene	ND	100
Naphthalene	ND	80.0
4-Chloroaniline	ND	500
Hexachlorobutadiene	ND	100
4-Chloro-3-methylphenol	ND	500
2-Methylnaphthalene	ND	80.0
1-Methylnaphthalene	ND	80.0
Hexachlorocyclopentadiene	ND	100
2,4,6-Trichlorophenol	ND	200
2,4,5-Trichlorophenol	ND	200
2-Chloronaphthalene	ND	100
2-Nitroaniline	ND	500
Acenaphthene	ND	80.0
Dimethylphthalate	ND	100

*



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11984	SampType: MBLK		Units: µg/Kg		Prep Date: 9/29/2015			RunNo: 25202		
Client ID:	MBLKS	Batch ID: 11984					Analysis Date: 9/29/2015			SeqNo: 475253	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,6-Dinitrotoluene	ND	100									
Acenaphthylene	ND	80.0									
2,4-Dinitrophenol	ND	200									*
Dibenzofuran	ND	100									
2,4-Dinitrotoluene	ND	100									
4-Nitrophenol	ND	500									
Fluorene	ND	80.0									
4-Chlorophenyl phenyl ether	ND	100									
Diethylphthalate	ND	100									
4,6-Dinitro-2-methylphenol	ND	200									
4-Bromophenyl phenyl ether	ND	100									
Hexachlorobenzene	ND	100									
Pentachlorophenol	ND	100									
Phenanthrene	ND	80.0									
Anthracene	ND	80.0									
Carbazole	ND	500									
Di-n-butylphthalate	ND	100									
Fluoranthene	ND	80.0									
Pyrene	ND	80.0									
Butyl Benzylphthalate	ND	100									
bis(2-Ethylhexyl)adipate	ND	100									
Benz (a) anthracene	ND	80.0									
Chrysene	ND	80.0									
bis (2-Ethylhexyl) phthalate	ND	100									
Di-n-octyl phthalate	ND	100									
Benzo (b) fluoranthene	ND	80.0									
Benzo (k) fluoranthene	ND	80.0									
Benzo (a) pyrene	ND	80.0									
Indeno (1,2,3-cd) pyrene	ND	80.0									
Dibenz (a,h) anthracene	ND	80.0									
Benzo (g,h,l) perylene	ND	80.0									



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11984	SampType:	MBLK		Units:	µg/Kg			Prep Date:	9/29/2015		RunNo:	25202	
Client ID:	MBLKS	Batch ID:	11984						Analysis Date:	9/29/2015		SeqNo:	475253	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Surr: 2,4,6-Tribromophenol		0		1,000		0	11.1	127					S	
Surr: 2-Fluorobiphenyl		479		500.0		95.8	16.1	150						
Surr: Nitrobenzene-d5		471		500.0		94.1	13.1	124						
Surr: Phenol-d6		770		1,000		77.0	11.6	133						
Surr: p-Terphenyl		450		500.0		90.0	21.8	150						

NOTES:

S - Outlying surrogate recoveries observed.

* - Flagged value is not within established control limits.

Sample ID	LCS-11984	SampType: LCS		Units: µg/Kg		Prep Date: 9/29/2015			RunNo: 25202		
Client ID:	LCSS	Batch ID: 11984					Analysis Date: 9/29/2015			SeqNo: 475254	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	945	200	1,000	0	94.5	41.8	138				
Bis(2-chloroethyl) ether	912	200	1,000	0	91.2	65	116				
2-Chlorophenol	909	100	1,000	0	90.9	49.3	132				
1,3-Dichlorobenzene	968	100	1,000	0	96.8	50.9	133				
1,4-Dichlorobenzene	855	100	1,000	0	85.5	51.3	133				
1,2-Dichlorobenzene	951	100	1,000	0	95.1	54.2	129				
Benzyl alcohol	1,400	100	1,000	0	140	42.4	131				S
2-Methylphenol (o-cresol)	952	100	1,000	0	95.2	47.2	134				
Hexachloroethane	762	100	1,000	0	76.2	25.4	144				
N-Nitrosodi-n-propylamine	1,020	100	1,000	0	102	39.8	135				
Nitrobenzene	979	200	1,000	0	97.9	62.3	126				
Isophorone	1,050	100	1,000	0	105	62.7	131				
4-Methylphenol (p-cresol)	938	100	1,000	0	93.8	57.4	131				
2-Nitrophenol	714	200	1,000	0	71.4	44.2	129				
2,4-Dimethylphenol	919	100	1,000	0	91.9	57.8	121				
Bis(2-chloroethoxy)methane	977	100	1,000	0	97.7	67.5	124				
2,4-Dichlorophenol	868	200	1,000	0	86.8	57.1	128				
1,2,4-Trichlorobenzene	902	100	1,000	0	90.2	36.2	140				
Naphthalene	978	80.0	1,000	0	97.8	56.8	130				



Date: 10/29/2015

Work Order: 1509311
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	LCS-11984	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/29/2015	RunNo:	25202		
Client ID:	LCSS	Batch ID:	11984	Analysis Date:				9/29/2015	SeqNo:	475254	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chloroaniline	753	500	1,000	0	75.3	10.4	130				
Hexachlorobutadiene	962	100	1,000	0	96.2	55.9	131				
4-Chloro-3-methylphenol	1,030	500	1,000	0	103	49.4	138				
2-Methylnaphthalene	977	80.0	1,000	0	97.7	68.3	121				
1-Methylnaphthalene	974	80.0	1,000	0	97.4	64.1	126				
Hexachlorocyclopentadiene	147	100	1,000	0	14.7	21	130				S
2,4,6-Trichlorophenol	694	200	1,000	0	69.4	36.4	132				
2,4,5-Trichlorophenol	874	200	1,000	0	87.4	52.3	128				
2-Chloronaphthalene	946	100	1,000	0	94.6	67.1	123				
2-Nitroaniline	891	500	1,000	0	89.1	43.9	135				
Acenaphthene	969	80.0	1,000	0	96.9	49.2	127				
Dimethylphthalate	931	100	1,000	0	93.1	62.4	130				
2,6-Dinitrotoluene	850	100	1,000	0	85.0	54.6	127				
Acenaphthylene	957	80.0	1,000	0	95.7	64.8	127				
2,4-Dinitrophenol	ND	200	2,000	0	0	7.9	119				S
Dibenzofuran	956	100	1,000	0	95.6	67.5	123				
2,4-Dinitrotoluene	798	100	1,000	0	79.8	21.9	136				
4-Nitrophenol	2,910	500	1,000	0	291	25.4	138				S
Fluorene	980	80.0	1,000	0	98.0	64.8	126				
4-Chlorophenyl phenyl ether	969	100	1,000	0	96.9	66.6	124				
Diethylphthalate	959	100	1,000	0	95.9	42.9	132				
4,6-Dinitro-2-methylphenol	303	200	1,000	0	30.3	12.9	110				
4-Bromophenyl phenyl ether	917	100	1,000	0	91.7	61.8	128				
Hexachlorobenzene	932	100	1,000	0	93.2	66.8	124				
Pentachlorophenol	226	100	1,000	0	22.6	10	123				
Phenanthrene	946	80.0	1,000	0	94.6	61.2	130				
Anthracene	1,010	80.0	1,000	0	101	68.9	122				
Carbazole	969	500	1,000	0	96.9	64.5	135				
Di-n-butylphthalate	947	100	1,000	0	94.7	50.6	130				
Fluoranthene	954	80.0	1,000	0	95.4	66	129				
Pyrene	970	80.0	1,000	0	97.0	45.4	140				



Date: 10/29/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	LCS-11984	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/29/2015	RunNo:	25202		
Client ID:	LCSS	Batch ID:	11984			Analysis Date:	9/29/2015	SeqNo:	475254		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Butyl Benzylphthalate	927	100	1,000	0	92.7	31.1	157				
bis(2-Ethylhexyl)adipate	1,070	100	1,000	0	107	28.7	160				
Benz (a) anthracene	842	80.0	1,000	0	84.2	44	150				
Chrysene	1,000	80.0	1,000	0	100	65.8	128				
bis (2-Ethylhexyl) phthalate	1,100	100	1,000	0	110	36.3	149				
Di-n-octyl phthalate	1,260	100	1,000	0	126	37.2	135				
Benzo (b) fluoranthene	993	80.0	1,000	0	99.3	45.6	146				
Benzo (k) fluoranthene	739	80.0	1,000	0	73.9	45.5	138				
Benzo (a) pyrene	627	80.0	1,000	0	62.7	49.2	137				
Indeno (1,2,3-cd) pyrene	712	80.0	1,000	0	71.2	44.2	146				
Dibenz (a,h) anthracene	718	80.0	1,000	0	71.8	37.5	152				
Benzo (g,h,l) perylene	593	80.0	1,000	0	59.3	24.1	156				
Surr: 2,4,6-Tribromophenol	619		1,000		61.9	11.1	127				
Surr: 2-Fluorobiphenyl	470		500.0		94.0	16.1	150				
Surr: Nitrobenzene-d5	466		500.0		93.1	13.1	124				
Surr: Phenol-d6	609		1,000		60.9	11.6	133				
Surr: p-Terphenyl	455		500.0		91.0	21.8	150				

NOTES:

S - Outlyingspike recovery(ies) observed for Benzyl alcohol and 4-Nitrophenol - High Bias. There were no detections of these analytes in the samples. No further action is required.

S - Outlyingspike recovery(ies) observed for Hexachlorocyclopentadiene and 2,4-Dinitrophenol. Samples will be qualified with an *.

Sample ID	1509300-006ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25202		
Client ID:	BATCH	Batch ID:	11984			Analysis Date:	9/29/2015	SeqNo:	475256		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	288						0		50	
Bis(2-chloroethyl) ether	ND	288						0		50	
2-Chlorophenol	ND	144						0		50	
1,3-Dichlorobenzene	ND	144						0		50	
1,4-Dichlorobenzene	ND	144						0		50	
1,2-Dichlorobenzene	ND	144						0		50	
Benzyl alcohol	ND	144						0		50	



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509300-006ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25202		
Client ID:	BATCH	Batch ID:	11984			Analysis Date:	9/29/2015	SeqNo:	475256		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylphenol (o-cresol)	ND	144						0		50	
Hexachloroethane	ND	144						0		50	
N-Nitrosodi-n-propylamine	ND	144						0		50	
Nitrobenzene	ND	288						0		50	
Isophorone	ND	144						0		50	
4-Methylphenol (p-cresol)	ND	144						0		50	
2-Nitrophenol	ND	288						0		50	
2,4-Dimethylphenol	ND	144						0		50	
Bis(2-chloroethoxy)methane	ND	144						0		50	
2,4-Dichlorophenol	ND	288						0		50	
1,2,4-Trichlorobenzene	ND	144						0		50	
Naphthalene	ND	115						0		50	
4-Chloroaniline	ND	719						0		50	
Hexachlorobutadiene	ND	144						0		50	
4-Chloro-3-methylphenol	ND	719						0		50	
2-Methylnaphthalene	ND	115						0		50	
1-Methylnaphthalene	ND	115						0		50	
Hexachlorocyclopentadiene	ND	144						0		50	*
2,4,6-Trichlorophenol	ND	288						0		50	
2,4,5-Trichlorophenol	ND	288						0		50	
2-Chloronaphthalene	ND	144						0		50	
2-Nitroaniline	ND	719						0		50	
Acenaphthene	ND	115						0		50	
Dimethylphthalate	ND	144						0		50	
2,6-Dinitrotoluene	ND	144						0		50	
Acenaphthylene	ND	115						0		50	
2,4-Dinitrophenol	ND	288						0		50	*
Dibenzofuran	ND	144						0		50	
2,4-Dinitrotoluene	ND	144						0		50	
4-Nitrophenol	ND	719						0		50	
Fluorene	ND	115						0		50	



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QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509300-006ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25202		
Client ID:	BATCH	Batch ID:	11984			Analysis Date:	9/29/2015	SeqNo:	475256		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorophenyl phenyl ether	ND	144						0		50	
Diethylphthalate	ND	144						0		50	
4,6-Dinitro-2-methylphenol	ND	288						0		50	
4-Bromophenyl phenyl ether	ND	144						0		50	
Hexachlorobenzene	ND	144						0		50	
Pentachlorophenol	ND	144						0		50	
Phenanthrene	ND	115						0		50	
Anthracene	ND	115						0		50	
Carbazole	ND	719						0		50	
Di-n-butylphthalate	185	144						0	200	50	
Fluoranthene	123	115						108.7	12.5	50	
Pyrene	ND	115						0		50	
Butyl Benzylphthalate	ND	144						0		50	
bis(2-Ethylhexyl)adipate	ND	144						0		50	
Benz (a) anthracene	ND	115						0		50	
Chrysene	ND	115						0		50	
bis (2-Ethylhexyl) phthalate	149	144						147.3	1.17	50	
Di-n-octyl phthalate	ND	144						0		50	
Benzo (b) fluoranthene	ND	115						0		50	
Benzo (k) fluoranthene	ND	115						0		50	
Benzo (a) pyrene	ND	115						0		50	
Indeno (1,2,3-cd) pyrene	ND	115						0		50	
Dibenz (a,h) anthracene	ND	115						0		50	
Benzo (g,h,l) perylene	ND	115						0		50	
Surr: 2,4,6-Tribromophenol	1,050		1,438		73.2	11.1	127		0		
Surr: 2-Fluorobiphenyl	520		718.9		72.3	16.1	150		0		
Surr: Nitrobenzene-d5	347		718.9		48.3	13.1	124		0		
Surr: Phenol-d6	728		1,438		50.6	11.6	133		0		
Surr: p-Terphenyl	656		718.9		91.2	21.8	150		0		

NOTES:

* - Flagged value is not within established control limits.



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509300-007AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25202		
Client ID:	BATCH	Batch ID:	11984			Analysis Date:	9/29/2015	SeqNo:	475258		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	1,150	266	1,331	0	86.8	29.2	146				
Bis(2-chloroethyl) ether	1,130	266	1,331	0	84.8	65.4	115				
2-Chlorophenol	1,180	133	1,331	0	88.6	44	134				
1,3-Dichlorobenzene	973	133	1,331	0	73.1	69.1	117				
1,4-Dichlorobenzene	923	133	1,331	0	69.4	44.5	134				
1,2-Dichlorobenzene	1,050	133	1,331	0	78.7	35	131				
Benzyl alcohol	1,650	133	1,331	0	124	30.8	159				
2-Methylphenol (o-cresol)	1,370	133	1,331	0	103	57.7	125				
Hexachloroethane	800	133	1,331	0	60.1	67.1	118				S
N-Nitrosodi-n-propylamine	1,390	133	1,331	0	105	26.4	151				
Nitrobenzene	1,220	266	1,331	0	91.5	61.4	130				
Isophorone	1,440	133	1,331	0	108	61.8	132				
4-Methylphenol (p-cresol)	1,310	133	1,331	0	98.3	65.5	127				
2-Nitrophenol	1,080	266	1,331	0	81.1	46.3	118				
2,4-Dimethylphenol	1,310	133	1,331	0	98.2	46	158				
Bis(2-chloroethoxy)methane	1,360	133	1,331	0	102	66.8	124				
2,4-Dichlorophenol	1,230	266	1,331	0	92.5	56.2	128				
1,2,4-Trichlorobenzene	1,200	133	1,331	0	90.4	29.2	140				
Naphthalene	1,270	106	1,331	0	95.8	44.4	136				
4-Chloroaniline	1,140	665	1,331	0	86.0	27	126				
Hexachlorobutadiene	1,190	133	1,331	0	89.8	38.2	138				
4-Chloro-3-methylphenol	1,290	665	1,331	0	97.2	36.8	159				
2-Methylnaphthalene	1,310	106	1,331	0	98.5	51.7	138				
1-Methylnaphthalene	1,320	106	1,331	0	99.5	70.4	124				
Hexachlorocyclopentadiene	162	133	1,331	0	12.2	37.5	129				S
2,4,6-Trichlorophenol	1,230	266	1,331	0	92.5	62.7	122				
2,4,5-Trichlorophenol	1,290	266	1,331	0	97.3	54.7	127				
2-Chloronaphthalene	1,300	133	1,331	0	98.0	69.8	126				
2-Nitroaniline	1,350	665	1,331	0	101	39.3	145				
Acenaphthene	1,390	106	1,331	0	105	49.6	129				
Dimethylphthalate	1,270	133	1,331	0	95.8	61.5	131				



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QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509300-007AMS	SampType: MS	Units: µg/Kg-dry			Prep Date: 9/29/2015			RunNo: 25202		
Client ID:	BATCH	Batch ID: 11984				Analysis Date: 9/29/2015			SeqNo: 475258		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,6-Dinitrotoluene	1,200	133	1,331	0	90.0	56.8	137				
Acenaphthylene	1,350	106	1,331	0	101	64	128				
2,4-Dinitrophenol	509	266	1,331	0	38.3	35.3	144				
Dibenzofuran	1,310	133	1,331	0	98.4	64.7	131				
2,4-Dinitrotoluene	1,100	133	1,331	0	82.9	30.9	139				
4-Nitrophenol	3,970	665	1,331	0	298	48.6	137				S
Fluorene	1,310	106	1,331	0	98.6	64.2	127				
4-Chlorophenyl phenyl ether	1,330	133	1,331	0	100	70.9	128				
Diethylphthalate	1,360	133	1,331	0	102	61.7	129				
4,6-Dinitro-2-methylphenol	590	266	1,331	0	44.3	21.9	143				
4-Bromophenyl phenyl ether	1,320	133	1,331	0	99.0	69.6	136				
Hexachlorobenzene	1,240	133	1,331	0	93.0	66.5	123				
Pentachlorophenol	956	133	1,331	0	71.8	28.2	156				
Phenanthrene	1,330	106	1,331	0	99.9	57	134				
Anthracene	1,330	106	1,331	0	99.6	68.2	123				
Carbazole	1,320	665	1,331	0	99.0	64.1	152				
Di-n-butylphthalate	1,280	133	1,331	0	96.1	52.4	130				
Fluoranthene	1,350	106	1,331	0	101	46.5	165				
Pyrene	1,320	106	1,331	0	99.3	31.4	151				
Butyl Benzylphthalate	1,260	133	1,331	0	94.6	30.4	138				
bis(2-Ethylhexyl)adipate	1,410	133	1,331	0	106	32	136				
Benz (a) anthracene	1,190	106	1,331	0	89.4	43.9	151				
Chrysene	1,370	106	1,331	0	103	71.1	126				
bis (2-Ethylhexyl) phthalate	1,470	133	1,331	0	110	40.8	170				
Di-n-octyl phthalate	1,700	133	1,331	0	128	34.6	142				
Benzo (b) fluoranthene	1,380	106	1,331	0	104	52.1	136				
Benzo (k) fluoranthene	1,100	106	1,331	0	82.4	64.5	135				
Benzo (a) pyrene	849	106	1,331	0	63.8	50.5	137				
Indeno (1,2,3-cd) pyrene	920	106	1,331	0	69.2	49.7	143				
Dibenz (a,h) anthracene	836	106	1,331	0	62.8	40.7	152				
Benzo (g,h,i) perylene	827	106	1,331	0	62.2	34	157				



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509300-007AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25202		
Client ID:	BATCH	Batch ID:	11984			Analysis Date:	9/29/2015	SeqNo:	475258		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	1,090		1,331		82.0	11.1	127				
Surr: 2-Fluorobiphenyl	592		665.3		89.0	16.1	150				
Surr: Nitrobenzene-d5	460		665.3		69.2	13.1	124				
Surr: Phenol-d6	752		1,331		56.5	11.6	133				
Surr: p-Terphenyl	612		665.3		92.0	21.8	150				

Sample ID	MB-11985	SampType: MBLK		Units: µg/Kg	Prep Date: 9/29/2015				RunNo: 25270		
Client ID:	MBLKS	Batch ID: 11985			Analysis Date: 10/2/2015				SeqNo: 476486		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	200									
Bis(2-chloroethyl) ether	ND	200									
2-Chlorophenol	ND	100									
1,3-Dichlorobenzene	ND	100									
1,4-Dichlorobenzene	ND	100									
1,2-Dichlorobenzene	ND	100									
Benzyl alcohol	ND	100									
2-Methylphenol (o-cresol)	ND	100									
Hexachloroethane	ND	100									
N-Nitrosodi-n-propylamine	ND	100									
Nitrobenzene	ND	200									
Isophorone	ND	100									
4-Methylphenol (p-cresol)	ND	100									
2-Nitrophenol	ND	200									
2,4-Dimethylphenol	ND	100									
Bis(2-chloroethoxy)methane	ND	100									
2,4-Dichlorophenol	ND	200									
1,2,4-Trichlorobenzene	ND	100									
Naphthalene	ND	80.0									
4-Chloroaniline	ND	500									
Hexachlorobutadiene	ND	100									



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Sample ID	MB-11985	SampType: MBLK			Units: µg/Kg	Prep Date: 9/29/2015			RunNo: 25270		
Client ID:	MBLKS	Batch ID: 11985				Analysis Date: 10/2/2015			SeqNo: 476486		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chloro-3-methylphenol	ND	500									
2-Methylnaphthalene	ND	80.0									
1-Methylnaphthalene	ND	80.0									
Hexachlorocyclopentadiene	ND	100									
2,4,6-Trichlorophenol	ND	200									
2,4,5-Trichlorophenol	ND	200									
2-Chloronaphthalene	ND	100									
2-Nitroaniline	ND	500									
Acenaphthene	ND	80.0									
Dimethylphthalate	ND	100									
2,6-Dinitrotoluene	ND	100									
Acenaphthylene	ND	80.0									
2,4-Dinitrophenol	ND	200									*
Dibenzofuran	ND	100									
2,4-Dinitrotoluene	ND	100									
4-Nitrophenol	ND	500									*
Fluorene	ND	80.0									
4-Chlorophenyl phenyl ether	ND	100									
Diethylphthalate	ND	100									
4,6-Dinitro-2-methylphenol	ND	200									
4-Bromophenyl phenyl ether	ND	100									
Hexachlorobenzene	ND	100									
Pentachlorophenol	ND	100									
Phenanthrene	ND	80.0									
Anthracene	ND	80.0									
Carbazole	ND	500									
Di-n-butylphthalate	ND	100									
Fluoranthene	ND	80.0									
Pyrene	ND	80.0									
Butyl Benzylphthalate	ND	100									
bis(2-Ethylhexyl)adipate	ND	100									



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Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11985	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/29/2015		RunNo:	25270	
Client ID:	MBLKS	Batch ID:	11985					Analysis Date:	10/2/2015		SeqNo:	476486	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Benz (a) anthracene	ND	80.0											
Chrysene	ND	80.0											
bis (2-Ethylhexyl) phthalate	ND	100											
Di-n-octyl phthalate	ND	100											
Benzo (b) fluoranthene	ND	80.0											
Benzo (k) fluoranthene	ND	80.0											
Benzo (a) pyrene	ND	80.0											
Indeno (1,2,3-cd) pyrene	ND	80.0											
Dibenz (a,h) anthracene	ND	80.0											
Benzo (g,h,i) perylene	ND	80.0											
Surr: 2,4,6-Tribromophenol	165		1,000		16.5	11.1	127						
Surr: 2-Fluorobiphenyl	511		500.0		102	16.1	150						
Surr: Nitrobenzene-d5	466		500.0		93.2	13.1	124						
Surr: Phenol-d6	771		1,000		77.1	11.6	133						
Surr: p-Terphenyl	487		500.0		97.4	21.8	150						

NOTES:

* - Flagged value is not within established control limits.

Sample ID	LCS-11985	SampType: LCS		Units: µg/Kg		Prep Date: 9/29/2015			RunNo: 25270		
Client ID:	LCSS	Batch ID: 11985		Analysis Date: 10/2/2015					SeqNo: 476487		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	885	200	1,000	0	88.5	41.8	138				
Bis(2-chloroethyl) ether	957	200	1,000	0	95.7	65	116				
2-Chlorophenol	912	100	1,000	0	91.2	49.3	132				
1,3-Dichlorobenzene	866	100	1,000	0	86.6	50.9	133				
1,4-Dichlorobenzene	780	100	1,000	0	78.0	51.3	133				
1,2-Dichlorobenzene	903	100	1,000	0	90.3	54.2	129				
Benzyl alcohol	2,140	100	1,000	0	214	42.4	131				S
2-Methylphenol (o-cresol)	824	100	1,000	0	82.4	47.2	134				
Hexachloroethane	891	100	1,000	0	89.1	48.9	133				
N-Nitrosodi-n-propylamine	945	100	1,000	0	94.5	39.8	135				



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Sample ID	LCS-11985	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	LCSS	Batch ID:	11985	Analysis Date:				10/2/2015	SeqNo:	476487	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrobenzene	958	200	1,000	0	95.8	62.3	126				
Isophorone	951	100	1,000	0	95.1	62.7	131				
4-Methylphenol (p-cresol)	775	100	1,000	0	77.5	57.4	131				
2-Nitrophenol	665	200	1,000	0	66.5	44.2	129				
2,4-Dimethylphenol	603	100	1,000	0	60.3	57.8	121				
Bis(2-chloroethoxy)methane	962	100	1,000	0	96.2	67.5	124				
2,4-Dichlorophenol	835	200	1,000	0	83.5	57.1	128				
1,2,4-Trichlorobenzene	976	100	1,000	0	97.6	36.2	140				
Naphthalene	981	80.0	1,000	0	98.1	56.8	130				
4-Chloroaniline	881	500	1,000	0	88.1	50.2	139				
Hexachlorobutadiene	927	100	1,000	0	92.7	55.9	131				
4-Chloro-3-methylphenol	669	500	1,000	0	66.9	49.4	138				
2-Methylnaphthalene	945	80.0	1,000	0	94.5	68.3	121				
1-Methylnaphthalene	944	80.0	1,000	0	94.4	64.1	126				
Hexachlorocyclopentadiene	775	100	1,000	0	77.5	36.7	128				
2,4,6-Trichlorophenol	558	200	1,000	0	55.8	36.4	132				
2,4,5-Trichlorophenol	762	200	1,000	0	76.2	52.3	128				
2-Chloronaphthalene	951	100	1,000	0	95.1	67.1	123				
2-Nitroaniline	874	500	1,000	0	87.4	43.9	135				
Acenaphthene	956	80.0	1,000	0	95.6	49.2	127				
Dimethylphthalate	893	100	1,000	0	89.3	62.4	130				
2,6-Dinitrotoluene	905	100	1,000	0	90.5	54.6	127				
Acenaphthylene	941	80.0	1,000	0	94.1	64.8	127				
2,4-Dinitrophenol	ND	200	1,000	0	0	7.9	119				S
Dibenzofuran	983	100	1,000	0	98.3	67.5	123				
2,4-Dinitrotoluene	845	100	1,000	0	84.5	21.9	136				
4-Nitrophenol	ND	500	1,000	0	0	25.4	138				S
Fluorene	961	80.0	1,000	0	96.1	64.8	126				
4-Chlorophenyl phenyl ether	997	100	1,000	0	99.7	66.6	124				
Diethylphthalate	943	100	1,000	0	94.3	42.9	132				
4,6-Dinitro-2-methylphenol	638	200	1,000	0	63.8	12.9	110				



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Sample ID	LCS-11985	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	LCSS	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476487		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Bromophenyl phenyl ether	964	100	1,000	0	96.4	61.8	128				
Hexachlorobenzene	962	100	1,000	0	96.2	66.8	124				
Pentachlorophenol	339	100	1,000	0	33.9	10	123				
Phenanthrene	961	80.0	1,000	0	96.1	61.2	130				
Anthracene	960	80.0	1,000	0	96.0	68.9	122				
Carbazole	919	500	1,000	0	91.9	64.5	135				
Di-n-butylphthalate	923	100	1,000	0	92.3	50.6	130				
Fluoranthene	965	80.0	1,000	0	96.5	66	129				
Pyrene	959	80.0	1,000	0	95.9	45.4	140				
Butyl Benzylphthalate	903	100	1,000	0	90.3	31.1	157				
bis(2-Ethylhexyl)adipate	933	100	1,000	0	93.3	28.7	160				
Benz (a) anthracene	891	80.0	1,000	0	89.1	44	150				
Chrysene	1,070	80.0	1,000	0	107	65.8	128				
bis (2-Ethylhexyl) phthalate	946	100	1,000	0	94.6	36.3	149				
Di-n-octyl phthalate	944	100	1,000	0	94.4	37.2	135				
Benzo (b) fluoranthene	811	80.0	1,000	0	81.1	45.6	146				
Benzo (k) fluoranthene	836	80.0	1,000	0	83.6	45.5	138				
Benzo (a) pyrene	775	80.0	1,000	0	77.5	49.2	137				
Indeno (1,2,3-cd) pyrene	706	80.0	1,000	0	70.6	44.2	146				
Dibenz (a,h) anthracene	772	80.0	1,000	0	77.2	37.5	152				
Benzo (g,h,i) perylene	707	80.0	1,000	0	70.7	24.1	156				
Surr: 2,4,6-Tribromophenol	630		1,000		63.0	11.1	127				
Surr: 2-Fluorobiphenyl	487		500.0		97.5	16.1	150				
Surr: Nitrobenzene-d5	476		500.0		95.1	13.1	124				
Surr: Phenol-d6	889		1,000		88.9	11.6	133				
Surr: p-Terphenyl	480		500.0		96.1	21.8	150				

NOTES:

S - Outlying spike recoveries observed (2,4-Dinitrophenol and 4-Nitrophenol; low bias). Samples will be qualified with an *.

S - Outlying spike recovery observed (Benzyl alcohol; high bias). Samples are non-detect for this analyte, no further action required.



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QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	BATCH	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476489		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	ND	279						0		50	
Bis(2-chloroethyl) ether	ND	279						0		50	
2-Chlorophenol	ND	140						0		50	
1,3-Dichlorobenzene	ND	140						0		50	
1,4-Dichlorobenzene	ND	140						0		50	
1,2-Dichlorobenzene	ND	140						0		50	
Benzyl alcohol	ND	140						0		50	
2-Methylphenol (o-cresol)	ND	140						0		50	
Hexachloroethane	ND	140						0		50	
N-Nitrosodi-n-propylamine	ND	140						0		50	
Nitrobenzene	ND	279						0		50	
Isophorone	ND	140						0		50	
4-Methylphenol (p-cresol)	ND	140						0		50	
2-Nitrophenol	ND	279						0		50	
2,4-Dimethylphenol	ND	140						0		50	
Bis(2-chloroethoxy)methane	ND	140						0		50	
2,4-Dichlorophenol	ND	279						0		50	
1,2,4-Trichlorobenzene	ND	140						0		50	
Naphthalene	ND	112						0		50	
4-Chloroaniline	ND	698						0		50	
Hexachlorobutadiene	ND	140						0		50	
4-Chloro-3-methylphenol	ND	698						0		50	
2-Methylnaphthalene	ND	112						0		50	
1-Methylnaphthalene	ND	112						0		50	
Hexachlorocyclopentadiene	ND	140						0		50	
2,4,6-Trichlorophenol	ND	279						0		50	
2,4,5-Trichlorophenol	ND	279						0		50	
2-Chloronaphthalene	ND	140						0		50	
2-Nitroaniline	ND	698						0		50	
Acenaphthene	ND	112						0		50	
Dimethylphthalate	ND	140						0		50	



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Sample ID	1509353-001ADUP	SampType:	DUP		Units:	µg/Kg-dry			Prep Date:	9/29/2015		RunNo:	25270	
Client ID:	BATCH	Batch ID:	11985						Analysis Date:	10/2/2015		SeqNo:	476489	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
2,6-Dinitrotoluene		ND	140						0			50		
Acenaphthylene		ND	112						0			50		
2,4-Dinitrophenol		ND	279						0			50	*	
Dibenzofuran		ND	140						0			50		
2,4-Dinitrotoluene		ND	140						0			50		
4-Nitrophenol		ND	698						0			50	*	
Fluorene		ND	112						0			50		
4-Chlorophenyl phenyl ether		ND	140						0			50		
Diethylphthalate		ND	140						0			50		
4,6-Dinitro-2-methylphenol		ND	279						0			50		
4-Bromophenyl phenyl ether		ND	140						0			50		
Hexachlorobenzene		ND	140						0			50		
Pentachlorophenol		ND	140						0			50		
Phenanthrene		ND	112						0			50		
Anthracene		ND	112						0			50		
Carbazole		ND	698						0			50		
Di-n-butylphthalate		289	140						312.5		7.65	50		
Fluoranthene		ND	112						0			50		
Pyrene		ND	112						0			50		
Butyl Benzylphthalate		ND	140						180.5		200	50	R	
bis(2-Ethylhexyl)adipate		ND	140						0			50		
Benz (a) anthracene		151	112						156.3		3.66	50		
Chrysene		ND	112						0			50		
bis (2-Ethylhexyl) phthalate		195	140						160.6		19.2	50		
Di-n-octyl phthalate		ND	140						0			50		
Benzo (b) fluoranthene		ND	112						0			50		
Benzo (k) fluoranthene		ND	112						0			50		
Benzo (a) pyrene		ND	112						0			50		
Indeno (1,2,3-cd) pyrene		ND	112						0			50		
Dibenz (a,h) anthracene		ND	112						0			50		
Benzo (q,h,l) perylene		ND	112						0			50		



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Sample ID	1509353-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	BATCH	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476489		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	646		1,396		46.3	11.1	127		0		
Surr: 2-Fluorobiphenyl	613		697.8		87.8	16.1	150		0		
Surr: Nitrobenzene-d5	523		697.8		75.0	13.1	124		0		
Surr: Phenol-d6	657		1,396		47.0	11.6	133		0		
Surr: p-Terphenyl	690		697.8		98.9	21.8	150		0		

NOTES:

* - Flagged value is not within established control limits.

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID	1509353-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	BATCH	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	394	244	1,218	0	32.4	29.2	146				
Bis(2-chloroethyl) ether	759	244	1,218	0	62.4	65.4	115				S
2-Chlorophenol	725	122	1,218	0	59.5	44	134				
1,3-Dichlorobenzene	724	122	1,218	0	59.4	69.1	117				S
1,4-Dichlorobenzene	643	122	1,218	0	52.8	44.5	134				
1,2-Dichlorobenzene	729	122	1,218	0	59.9	35	131				
Benzyl alcohol	898	122	1,218	0	73.8	30.8	159				
2-Methylphenol (o-cresol)	388	122	1,218	0	31.9	57.7	125				S
Hexachloroethane	667	122	1,218	0	54.8	67.1	118				S
N-Nitrosodi-n-propylamine	985	122	1,218	0	80.9	26.4	151				
Nitrobenzene	762	244	1,218	0	62.6	61.4	130				
Isophorone	1,050	122	1,218	0	85.9	61.8	132				
4-Methylphenol (p-cresol)	341	122	1,218	0	28.0	65.5	127				S
2-Nitrophenol	886	244	1,218	0	72.7	46.3	118				
2,4-Dimethylphenol	243	122	1,218	0	20.0	46	158				S
Bis(2-chloroethoxy)methane	916	122	1,218	0	75.2	66.8	124				
2,4-Dichlorophenol	740	244	1,218	0	60.7	56.2	128				
1,2,4-Trichlorobenzene	860	122	1,218	0	70.7	29.2	140				
Naphthalene	855	97.4	1,218	50.51	66.1	44.4	136				



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Sample ID	1509353-002AMS	SampType: MS	Units: µg/Kg-dry			Prep Date: 9/29/2015			RunNo: 25270		
Client ID:	BATCH	Batch ID:	11985	Analysis Date: 10/2/2015					SeqNo: 476491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chloroaniline	412	609	1,218	0	33.8	27	126				
Hexachlorobutadiene	892	122	1,218	0	73.3	38.2	138				
4-Chloro-3-methylphenol	ND	609	1,218	0	0	36.8	159				S
2-Methylnaphthalene	971	97.4	1,218	57.31	75.0	51.7	138				
1-Methylnaphthalene	983	97.4	1,218	48.77	76.7	70.4	124				
Hexachlorocyclopentadiene	189	122	1,218	0	15.5	37.5	129				S
2,4,6-Trichlorophenol	833	244	1,218	0	68.4	62.7	122				
2,4,5-Trichlorophenol	826	244	1,218	0	67.8	54.7	127				
2-Chloronaphthalene	999	122	1,218	0	82.1	69.8	126				
2-Nitroaniline	1,050	609	1,218	0	85.9	39.3	145				
Acenaphthene	1,060	97.4	1,218	0	87.1	49.6	129				
Dimethylphthalate	1,040	122	1,218	0	85.7	61.5	131				
2,6-Dinitrotoluene	1,000	122	1,218	0	82.3	56.8	137				
Acenaphthylene	982	97.4	1,218	51.91	76.4	64	128				
2,4-Dinitrophenol	1,140	244	1,218	0	93.5	35.3	144				
Dibenzofuran	1,020	122	1,218	0	83.8	64.7	131				
2,4-Dinitrotoluene	941	122	1,218	0	77.3	30.9	139				
4-Nitrophenol	ND	609	1,218	0	0	48.6	137				S
Fluorene	1,060	97.4	1,218	57.45	82.2	64.2	127				
4-Chlorophenyl phenyl ether	1,040	122	1,218	0	85.8	70.9	128				
Diethylphthalate	1,070	122	1,218	89.58	80.5	61.7	129				
4,6-Dinitro-2-methylphenol	596	244	1,218	0	48.9	21.9	143				
4-Bromophenyl phenyl ether	1,050	122	1,218	0	85.9	69.6	136				
Hexachlorobenzene	1,030	122	1,218	0	84.3	66.5	123				
Pentachlorophenol	495	122	1,218	0	40.7	28.2	156				
Phenanthrene	1,060	97.4	1,218	73.19	80.9	57	134				
Anthracene	1,030	97.4	1,218	0	84.6	68.2	123				
Carbazole	1,040	609	1,218	0	85.7	64.1	152				
Di-n-butylphthalate	1,120	122	1,218	135.4	80.6	52.4	130				
Fluoranthene	1,100	97.4	1,218	147.8	77.8	46.5	165				
Pyrene	1,120	97.4	1,218	135.8	81.0	31.4	151				



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-002AMS	SampType:	MS		Units:	µg/Kg-dry		Prep Date:	9/29/2015		RunNo:	25270	
Client ID:	BATCH	Batch ID:	11985		Analysis Date:					10/2/2015		SeqNo:	476491
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Butyl Benzylphthalate	1,300	122	1,218	155.5	93.7	30.4	138						
bis(2-Ethylhexyl)adipate	1,350	122	1,218	0	111	32	136						
Benz (a) anthracene	1,070	97.4	1,218	0	88.0	43.9	151						
Chrysene	1,150	97.4	1,218	63.14	89.2	71.1	126						
bis (2-Ethylhexyl) phthalate	1,280	122	1,218	132.9	94.0	40.8	170						
Di-n-octyl phthalate	1,920	122	1,218	0	158	34.6	142				S		
Benzo (b) fluoranthene	1,250	97.4	1,218	214.7	85.3	52.1	136						
Benzo (k) fluoranthene	934	97.4	1,218	0	76.7	64.5	135						
Benzo (a) pyrene	1,050	97.4	1,218	0	85.9	50.5	137						
Indeno (1,2,3-cd) pyrene	1,290	97.4	1,218	184.3	90.7	49.7	143						
Dibenz (a,h) anthracene	1,500	97.4	1,218	0	123	40.7	152						
Benzo (g,h,l) perylene	1,080	97.4	1,218	150.9	76.4	34	157						
Surr: 2,4,6-Tribromophenol	1,010		1,218		83.0	11.1	127						
Surr: 2-Fluorobiphenyl	496		608.8		81.4	16.1	150						
Surr: Nitrobenzene-d5	381		608.8		62.6	13.1	124						
Surr: Phenol-d6	538		1,218		44.2	11.6	133						
Surr: p-Terphenyl	547		608.8		89.9	21.8	150						

NOTES:

S - Spike recovery indicates a possible matrix effect.



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Gasoline by NWTPH-Gx**

Sample ID	LCS-11959	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/25/2015	RunNo:	25145		
Client ID:	LCSS	Batch ID:	11959			Analysis Date:	9/25/2015	SeqNo:	474087		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	25.7	5.00	25.00	0	103	65	135				
Surr: Toluene-d8	1.24		1.250		99.3	65	135				
Surr: 4-Bromofluorobenzene	1.24		1.250		99.5	65	135				

Sample ID	MB-11959	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/25/2015		RunNo:	25145	
Client ID:	MBLKS	Batch ID:	11959						Analysis Date:	9/25/2015			SeqNo:	474088	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Gasoline	ND	5.00									
Surr: Toluene-d8	1.24		1.250		99.4	65	135				
Surr: 4-Bromofluorobenzene	1.29		1.250		103	65	135				

Sample ID	1509311-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25145		
Client ID:	MW-4-15:6.0	Batch ID:	11959			Analysis Date:	9/25/2015	SeqNo:	474066		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	2.66						0		30	
Surr: Toluene-d8	0.655		0.6647		98.6	65	135		0		
Surr: 4-Bromofluorobenzene	0.707		0.6647		106	65	135		0		

Sample ID	1509311-010BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25145		
Client ID:	MW-6-15:14.0	Batch ID:	11959			Analysis Date:	9/26/2015	SeqNo:	474075		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	3.88						0		30	
Surr: Toluene-d8	0.957		0.9698		98.7	65	135		0		
Surr: 4-Bromofluorobenzene	0.989		0.9698		102	65	135		0		



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Gasoline by NWTPH-Gx**

Sample ID	LCS-R25091	SampType: LCS			Units: µg/L	Prep Date: 9/23/2015			RunNo: 25091		
Client ID:	LCSW	Batch ID: R25091			Analysis Date: 9/23/2015			SeqNo: 472835			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	435	50.0	500.0	0	86.9	65	135				
Surr: Toluene-d8	21.8		25.00		87.2	65	135				
Surr: 4-Bromofluorobenzene	23.5		25.00		93.8	65	135				

Sample ID	MB-R25091	SampType:	MBLK			Units:	µg/L			Prep Date:	9/23/2015		RunNo:	25091	
Client ID:	MBLKW	Batch ID:	R25091						Analysis Date:	9/23/2015			SeqNo:	472925	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Gasoline	ND	50.0									
Surr: Toluene-d8	21.6		25.00		86.4	65	135				
Surr: 4-Bromofluorobenzene	24.0		25.00		96.1	65	135				

Sample ID	1509311-005ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25091		
Client ID:	MW-5-15:GW	Batch ID:	R25091			Analysis Date:	9/23/2015	SeqNo:	472840		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	21.5		25.00		86.2	65	135		0	0	
Surr: 4-Bromofluorobenzene	23.4		25.00		93.6	65	135		0	0	

Sample ID	1509315-003CDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/24/2015	RunNo:	25091		
Client ID:	BATCH	Batch ID:	R25091			Analysis Date:	9/24/2015	SeqNo:	472846		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	7,610	50.0						7,079	7.29	30	E
Surr: Toluene-d8	22.0		25.00		87.8	65	135		0	0	
Surr: 4-Bromofluorobenzene	24.5		25.00		97.9	65	135		0	0	



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11959	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	LCSS	Batch ID:	11959			Analysis Date:	9/25/2015	SeqNo:	474062		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.34	0.0600	1.000	0	134	34.5	141				
Chloromethane	1.06	0.0600	1.000	0	106	38.8	132				
Vinyl chloride	1.13	0.00200	1.000	0	113	56.1	130				
Bromomethane	1.16	0.0900	1.000	0	116	41.3	148				
Trichlorofluoromethane (CFC-11)	1.03	0.0500	1.000	0	103	42.9	147				
Chloroethane	1.08	0.0600	1.000	0	108	37.1	144				
1,1-Dichloroethene	1.12	0.0500	1.000	0	112	49.7	142				
Methylene chloride	0.948	0.0200	1.000	0	94.8	46.3	140				
trans-1,2-Dichloroethene	1.12	0.0200	1.000	0	112	68	130				
Methyl tert-butyl ether (MTBE)	0.915	0.0500	1.000	0	91.5	59.1	138				
1,1-Dichloroethane	1.09	0.0200	1.000	0	109	61.9	137				
2,2-Dichloropropane	1.44	0.0500	1.000	0	144	28.1	149				
cis-1,2-Dichloroethene	1.09	0.0200	1.000	0	109	71.3	135				
Chloroform	1.02	0.0200	1.000	0	102	67.5	129				
1,1,1-Trichloroethane (TCA)	1.19	0.0200	1.000	0	119	69	132				
1,1-Dichloropropene	1.04	0.0200	1.000	0	104	72.7	131				
Carbon tetrachloride	1.05	0.0200	1.000	0	105	63.4	137				
1,2-Dichloroethane (EDC)	0.985	0.0300	1.000	0	98.5	61.9	136				
Benzene	1.00	0.0200	1.000	0	100	64.3	133				
Trichloroethene (TCE)	1.06	0.0200	1.000	0	106	65.5	137				
1,2-Dichloropropane	1.06	0.0200	1.000	0	106	63.2	142				
Bromodichloromethane	0.929	0.0200	1.000	0	92.9	73.2	131				
Dibromomethane	1.13	0.0400	1.000	0	113	70	130				
cis-1,3-Dichloropropene	0.977	0.0200	1.000	0	97.7	59.1	143				
Toluene	0.982	0.0200	1.000	0	98.2	67.3	138				
trans-1,3-Dichloropropylene	1.08	0.0300	1.000	0	108	49.2	149				
1,1,2-Trichloroethane	1.10	0.0300	1.000	0	110	74.5	129				
1,3-Dichloropropane	1.06	0.0500	1.000	0	106	70	130				
Tetrachloroethene (PCE)	1.08	0.0200	1.000	0	108	52.7	150				
Dibromochloromethane	1.06	0.0300	1.000	0	106	70.6	144				
1,2-Dibromoethane (EDB)	1.19	0.00500	1.000	0	119	70	130				



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11959	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	LCSS	Batch ID:	11959			Analysis Date:	9/25/2015	SeqNo:	474062		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	1.07	0.0200	1.000	0	107	76.1	123				
1,1,1,2-Tetrachloroethane	1.06	0.0300	1.000	0	106	74.8	131				
Ethylbenzene	0.985	0.0300	1.000	0	98.5	74	129				
m,p-Xylene	1.96	0.0200	2.000	0	97.8	79.8	128				
o-Xylene	0.963	0.0200	1.000	0	96.3	72.7	124				
Styrene	1.13	0.0200	1.000	0	113	76.8	130				
Isopropylbenzene	1.09	0.0800	1.000	0	109	70	130				
Bromoform	1.06	0.0200	1.000	0	106	67	154				
1,1,2,2-Tetrachloroethane	1.17	0.0200	1.000	0	117	60	130				
n-Propylbenzene	1.08	0.0200	1.000	0	108	74.8	125				
Bromobenzene	1.10	0.0300	1.000	0	110	49.2	144				
1,3,5-Trimethylbenzene	1.05	0.0200	1.000	0	105	74.6	123				
2-Chlorotoluene	1.07	0.0200	1.000	0	107	76.7	129				
4-Chlorotoluene	1.09	0.0200	1.000	0	109	77.5	125				
tert-Butylbenzene	1.10	0.0200	1.000	0	110	66.2	130				
1,2,3-Trichloropropane	1.13	0.0200	1.000	0	113	67.9	136				
1,2,4-Trichlorobenzene	1.09	0.0500	1.000	0	109	65.6	137				
sec-Butylbenzene	1.12	0.0200	1.000	0	112	75.6	133				
4-Isopropyltoluene	1.11	0.0200	1.000	0	111	76.8	131				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	128				
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	72.6	126				
n-Butylbenzene	1.05	0.0200	1.000	0	105	65.3	136				
1,2-Dichlorobenzene	1.02	0.0200	1.000	0	102	72.8	126				
1,2-Dibromo-3-chloropropane	1.06	0.500	1.000	0	106	61.2	139				
1,2,4-Trimethylbenzene	0.962	0.0200	1.000	0	96.2	77.5	129				
Hexachlorobutadiene	1.12	0.100	1.000	0	112	42	151				
Naphthalene	0.975	0.0300	1.000	0	97.5	62.3	134				
1,2,3-Trichlorobenzene	1.04	0.0200	1.000	0	104	62.1	140				
Surr: Dibromofluoromethane	1.28		1.250		103	56.5	129				
Surr: Toluene-d8	1.24		1.250		99.0	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.250		101	63.1	141				



Date: 10/29/2015

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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11959	SampType: LCS			Units: mg/Kg		Prep Date: 9/25/2015			RunNo: 25144		
Client ID:	LCSS	Batch ID: 11959			Analysis Date: 9/25/2015					SeqNo: 474062		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Sample ID	MB-11959	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/25/2015		RunNo:	25144	
Client ID:	MBLKS	Batch ID:	11959						Analysis Date:	9/25/2015			SeqNo:	474063	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Dichlorodifluoromethane (CFC-12)	ND	0.0600
Chloromethane	ND	0.0600
Vinyl chloride	ND	0.00200
Bromomethane	ND	0.0900
Trichlorofluoromethane (CFC-11)	ND	0.0500
Chloroethane	ND	0.0600
1,1-Dichloroethene	ND	0.0500
Methylene chloride	ND	0.0200
trans-1,2-Dichloroethene	ND	0.0200
Methyl tert-butyl ether (MTBE)	ND	0.0500
1,1-Dichloroethane	ND	0.0200
2,2-Dichloropropane	ND	0.0500
cis-1,2-Dichloroethene	ND	0.0200
Chloroform	ND	0.0200
1,1,1-Trichloroethane (TCA)	ND	0.0200
1,1-Dichloropropene	ND	0.0200
Carbon tetrachloride	ND	0.0200
1,2-Dichloroethane (EDC)	ND	0.0300
Benzene	ND	0.0200
Trichloroethene (TCE)	ND	0.0200
1,2-Dichloropropane	ND	0.0200
Bromodichloromethane	ND	0.0200
Dibromomethane	ND	0.0400
cis-1,3-Dichloropropene	ND	0.0200
Toluene	ND	0.0200
trans-1,3-Dichloropropylene	ND	0.0300



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11959	SampType: MBLK		Units: mg/Kg		Prep Date: 9/25/2015			RunNo: 25144		
Client ID:	MBLKS	Batch ID: 11959		Analysis Date: 9/25/2015					SeqNo: 474063		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	0.0300									
1,3-Dichloropropane	ND	0.0500									
Tetrachloroethene (PCE)	ND	0.0200									
Dibromochloromethane	ND	0.0300									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0200									
1,1,1,2-Tetrachloroethane	ND	0.0300									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Styrene	ND	0.0200									
Isopropylbenzene	ND	0.0800									
Bromoform	ND	0.0200									
1,1,2,2-Tetrachloroethane	ND	0.0200									
n-Propylbenzene	ND	0.0200									
Bromobenzene	ND	0.0300									
1,3,5-Trimethylbenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0200									
4-Chlorotoluene	ND	0.0200									
tert-Butylbenzene	ND	0.0200									
1,2,3-Trichloropropane	ND	0.0200									
1,2,4-Trichlorobenzene	ND	0.0500									
sec-Butylbenzene	ND	0.0200									
4-Isopropyltoluene	ND	0.0200									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
n-Butylbenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
1,2,4-Trimethylbenzene	ND	0.0200									
Hexachlorobutadiene	ND	0.100									



Date: 10/29/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11959	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/25/2015		RunNo:	25144
Client ID:	MBLKS	Batch ID:	11959					Analysis Date:	9/25/2015		SeqNo:	474063
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Naphthalene	ND	0.0300										
1,2,3-Trichlorobenzene	ND	0.0200										
Surr: Dibromofluoromethane	1.17		1.250		93.4	56.5	129					
Surr: Toluene-d8	1.22		1.250		97.9	64.3	131					
Surr: 1-Bromo-4-fluorobenzene	1.24		1.250		99.4	63.1	141					

Sample ID	1509311-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	MW-4-15:6.0	Batch ID:	11959			Analysis Date:	9/25/2015	SeqNo:	474038		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0319						0		30	
Chloromethane	ND	0.0319						0		30	
Vinyl chloride	ND	0.00106						0		30	
Bromomethane	ND	0.0479						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0266						0		30	
Chloroethane	ND	0.0319						0		30	
1,1-Dichloroethene	ND	0.0266						0		30	
Methylene chloride	ND	0.0106						0.01064	200	30	R
trans-1,2-Dichloroethene	ND	0.0106						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0266						0		30	
1,1-Dichloroethane	ND	0.0106						0		30	
2,2-Dichloropropane	ND	0.0266						0		30	
cis-1,2-Dichloroethene	ND	0.0106						0		30	
Chloroform	ND	0.0106						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0106						0		30	
1,1-Dichloropropene	ND	0.0106						0		30	
Carbon tetrachloride	ND	0.0106						0		30	
1,2-Dichloroethane (EDC)	ND	0.0160						0		30	
Benzene	ND	0.0106						0		30	
Trichloroethene (TCE)	ND	0.0106						0		30	
1,2-Dichloropropane	ND	0.0106						0		30	



Date: 10/29/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509311-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	MW-4-15:6.0	Batch ID:	11959			Analysis Date:	9/25/2015	SeqNo:	474038		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	0.0106						0		30	
Dibromomethane	ND	0.0213						0		30	
cis-1,3-Dichloropropene	ND	0.0106						0		30	
Toluene	ND	0.0106						0		30	
trans-1,3-Dichloropropylene	ND	0.0160						0		30	
1,1,2-Trichloroethane	ND	0.0160						0		30	
1,3-Dichloropropane	ND	0.0266						0		30	
Tetrachloroethene (PCE)	ND	0.0106						0		30	
Dibromochloromethane	ND	0.0160						0		30	
1,2-Dibromoethane (EDB)	ND	0.00266						0		30	
Chlorobenzene	ND	0.0106						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0160						0		30	
Ethylbenzene	ND	0.0160						0		30	
m,p-Xylene	ND	0.0106						0		30	
o-Xylene	ND	0.0106						0		30	
Styrene	ND	0.0106						0		30	
Isopropylbenzene	ND	0.0425						0		30	
Bromoform	ND	0.0106						0		30	
1,1,1,2,2-Tetrachloroethane	ND	0.0106						0		30	
n-Propylbenzene	ND	0.0106						0		30	
Bromobenzene	ND	0.0160						0		30	
1,3,5-Trimethylbenzene	ND	0.0106						0		30	
2-Chlorotoluene	ND	0.0106						0		30	
4-Chlorotoluene	ND	0.0106						0		30	
tert-Butylbenzene	ND	0.0106						0		30	
1,2,3-Trichloropropane	ND	0.0106						0		30	
1,2,4-Trichlorobenzene	ND	0.0266						0		30	
sec-Butylbenzene	ND	0.0106						0		30	
4-Isopropyltoluene	ND	0.0106						0		30	
1,3-Dichlorobenzene	ND	0.0106						0		30	
1,4-Dichlorobenzene	ND	0.0106						0		30	



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509311-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	MW-4-15:6.0	Batch ID:	11959			Analysis Date:	9/25/2015	SeqNo:	474038		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Butylbenzene	ND	0.0106						0		30	
1,2-Dichlorobenzene	ND	0.0106						0		30	
1,2-Dibromo-3-chloropropane	ND	0.266						0		30	
1,2,4-Trimethylbenzene	ND	0.0106						0		30	
Hexachlorobutadiene	ND	0.0532						0		30	
Naphthalene	ND	0.0160						0		30	
1,2,3-Trichlorobenzene	ND	0.0106						0		30	
Surr: Dibromofluoromethane	0.625		0.6647		94.1	56.5	129		0		
Surr: Toluene-d8	0.654		0.6647		98.5	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.681		0.6647		102	63.1	141		0		
NOTES:											
High RPD.											

Sample ID	1509311-009BMS	SampType:	MS		Units:	mg/Kg-dry		Prep Date:	9/25/2015		RunNo:	25144
Client ID:	MW-6-15:5.5	Batch ID:	11959		Analysis Date:				9/26/2015		SeqNo:	474046
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Dichlorodifluoromethane (CFC-12)	0.510	0.0430	0.7175	0	71.0	43.5	121					
Chloromethane	0.576	0.0430	0.7175	0	80.3	45	130					
Vinyl chloride	0.697	0.00143	0.7175	0	97.1	51.2	146					
Bromomethane	0.791	0.0646	0.7175	0	110	21.3	120					
Trichlorofluoromethane (CFC-11)	0.864	0.0359	0.7175	0	120	35	131					
Chloroethane	0.807	0.0430	0.7175	0	113	43.8	117					
1,1-Dichloroethene	0.822	0.0359	0.7175	0	115	61.9	141					
Methylene chloride	0.684	0.0143	0.7175	0.002680	95.0	54.7	142					
trans-1,2-Dichloroethene	0.822	0.0143	0.7175	0	115	52	136					
Methyl tert-butyl ether (MTBE)	0.638	0.0359	0.7175	0	88.9	54.4	132					
1,1-Dichloroethane	0.796	0.0143	0.7175	0	111	51.8	141					
2,2-Dichloropropane	0.784	0.0359	0.7175	0	109	36	123					
cis-1,2-Dichloroethene	0.791	0.0143	0.7175	0	110	58.6	136					
Chloroform	0.761	0.0143	0.7175	0.003021	106	53.2	129					
1,1,1-Trichloroethane (TCA)	0.893	0.0143	0.7175	0	124	58.3	145					



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509311-009BMS	SampType: MS		Units: mg/Kg-dry		Prep Date: 9/25/2015			RunNo: 25144		
Client ID:	MW-6-15:5.5	Batch ID: 11959					Analysis Date: 9/26/2015			SeqNo: 474046	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	0.791	0.0143	0.7175	0	110	55.1	138				
Carbon tetrachloride	0.792	0.0143	0.7175	0	110	53.3	144				
1,2-Dichloroethane (EDC)	0.710	0.0215	0.7175	0	98.9	51.3	139				
Benzene	0.742	0.0143	0.7175	0	103	63.5	133				
Trichloroethene (TCE)	0.803	0.0143	0.7175	0	112	68.6	132				
1,2-Dichloropropane	0.773	0.0143	0.7175	0	108	59	136				
Bromodichloromethane	0.671	0.0143	0.7175	0	93.6	50.7	141				
Dibromomethane	0.817	0.0287	0.7175	0	114	50.6	137				
cis-1,3-Dichloropropene	0.671	0.0143	0.7175	0	93.5	50.4	138				
Toluene	0.734	0.0143	0.7175	0	102	63.4	132				
trans-1,3-Dichloropropylene	0.717	0.0215	0.7175	0	99.9	44.1	147				
1,1,2-Trichloroethane	0.779	0.0215	0.7175	0	109	51.6	137				
1,3-Dichloropropane	0.767	0.0359	0.7175	0	107	53.1	134				
Tetrachloroethene (PCE)	0.820	0.0143	0.7175	0	114	35.6	158				
Dibromochloromethane	0.688	0.0215	0.7175	0	95.9	55.3	140				
1,2-Dibromoethane (EDB)	0.826	0.00359	0.7175	0	115	50.4	136				
Chlorobenzene	0.792	0.0143	0.7175	0	110	60	133				
1,1,1,2-Tetrachloroethane	0.760	0.0215	0.7175	0	106	53.1	142				
Ethylbenzene	0.747	0.0215	0.7175	0	104	54.5	134				
m,p-Xylene	1.48	0.0143	1.435	0	103	53.1	132				
o-Xylene	0.721	0.0143	0.7175	0	100	53.3	139				
Styrene	0.833	0.0143	0.7175	0	116	51.1	132				
Isopropylbenzene	0.837	0.0574	0.7175	0	117	58.9	138				
Bromoform	0.747	0.0143	0.7175	0	104	57.9	130				
1,1,2,2-Tetrachloroethane	0.836	0.0143	0.7175	0	117	51.9	131				
n-Propylbenzene	0.837	0.0143	0.7175	0	117	53.6	140				
Bromobenzene	0.816	0.0215	0.7175	0	114	54.2	140				
1,3,5-Trimethylbenzene	0.803	0.0143	0.7175	0	112	51.8	136				
2-Chlorotoluene	0.816	0.0143	0.7175	0	114	51.6	136				
4-Chlorotoluene	0.825	0.0143	0.7175	0	115	50.1	139				
tert-Butylbenzene	0.847	0.0143	0.7175	0	118	50.5	135				



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Volatile Organic Compounds by EPA Method 8260

Sample ID	1509311-009BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	MW-6-15:5.5	Batch ID:	11959			Analysis Date:	9/26/2015	SeqNo:	474046		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichloropropane	0.794	0.0143	0.7175	0	111	50.5	131				
1,2,4-Trichlorobenzene	0.751	0.0359	0.7175	0	105	50.8	130				
sec-Butylbenzene	0.855	0.0143	0.7175	0	119	52.6	141				
4-Isopropyltoluene	0.857	0.0143	0.7175	0	119	52.9	134				
1,3-Dichlorobenzene	0.758	0.0143	0.7175	0	106	52.6	131				
1,4-Dichlorobenzene	0.757	0.0143	0.7175	0	106	52.9	129				
n-Butylbenzene	0.786	0.0143	0.7175	0	110	52.6	130				
1,2-Dichlorobenzene	0.732	0.0143	0.7175	0	102	55.8	129				
1,2-Dibromo-3-chloropropane	0.736	0.359	0.7175	0	103	40.5	131				
1,2,4-Trimethylbenzene	0.728	0.0143	0.7175	0	101	50.6	137				
Hexachlorobutadiene	0.783	0.0717	0.7175	0	109	40.6	158				
Naphthalene	0.657	0.0215	0.7175	0	91.5	52.3	124				
1,2,3-Trichlorobenzene	0.713	0.0143	0.7175	0	99.4	54.4	124				
Surr: Dibromofluoromethane	0.915		0.8969		102	56.5	129				
Surr: Toluene-d8	0.884		0.8969		98.5	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	0.919		0.8969		102	63.1	141				

Sample ID	1509311-010BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25144		
Client ID:	MW-6-15:14.0	Batch ID:	11959			Analysis Date:	9/26/2015	SeqNo:	474048		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0465						0		30	
Chloromethane	ND	0.0465						0		30	
Vinyl chloride	ND	0.00155						0		30	
Bromomethane	ND	0.0698						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0388						0		30	
Chloroethane	ND	0.0465						0		30	
1,1-Dichloroethene	ND	0.0388						0		30	
Methylene chloride	ND	0.0155						0		30	
trans-1,2-Dichloroethene	ND	0.0155						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0388						0		30	



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Volatile Organic Compounds by EPA Method 8260

Sample ID	1509311-010BDUP	SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/25/2015			RunNo: 25144		
Client ID:	MW-6-15:14.0	Batch ID: 11959		Analysis Date: 9/26/2015						SeqNo: 474048	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	ND	0.0155						0		30	
2,2-Dichloropropane	ND	0.0388						0		30	
cis-1,2-Dichloroethene	ND	0.0155						0		30	
Chloroform	ND	0.0155						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0155						0		30	
1,1-Dichloropropene	ND	0.0155						0		30	
Carbon tetrachloride	ND	0.0155						0		30	
1,2-Dichloroethane (EDC)	ND	0.0233						0		30	
Benzene	ND	0.0155						0		30	
Trichloroethene (TCE)	ND	0.0155						0		30	
1,2-Dichloropropane	ND	0.0155						0		30	
Bromodichloromethane	ND	0.0155						0		30	
Dibromomethane	ND	0.0310						0		30	
cis-1,3-Dichloropropene	ND	0.0155						0		30	
Toluene	ND	0.0155						0		30	
trans-1,3-Dichloropropylene	ND	0.0233						0		30	
1,1,2-Trichloroethane	ND	0.0233						0		30	
1,3-Dichloropropane	ND	0.0388						0		30	
Tetrachloroethene (PCE)	ND	0.0155						0		30	
Dibromochloromethane	ND	0.0233						0		30	
1,2-Dibromoethane (EDB)	ND	0.00388						0		30	
Chlorobenzene	ND	0.0155						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0233						0		30	
Ethylbenzene	ND	0.0233						0		30	
m,p-Xylene	ND	0.0155						0		30	
o-Xylene	ND	0.0155						0		30	
Styrene	ND	0.0155						0		30	
Isopropylbenzene	ND	0.0621						0		30	
Bromoform	ND	0.0155						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0155						0		30	
n-Propylbenzene	ND	0.0155						0		30	



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Volatile Organic Compounds by EPA Method 8260

Sample ID	1509311-010BDUP	SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/25/2015			RunNo: 25144		
Client ID:	MW-6-15:14.0	Batch ID: 11959		Analysis Date: 9/26/2015						SeqNo: 474048	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	ND	0.0233						0		30	
1,3,5-Trimethylbenzene	ND	0.0155						0		30	
2-Chlorotoluene	ND	0.0155						0		30	
4-Chlorotoluene	ND	0.0155						0		30	
tert-Butylbenzene	ND	0.0155						0		30	
1,2,3-Trichloropropane	ND	0.0155						0		30	
1,2,4-Trichlorobenzene	ND	0.0388						0		30	
sec-Butylbenzene	ND	0.0155						0		30	
4-Isopropyltoluene	ND	0.0155						0		30	
1,3-Dichlorobenzene	ND	0.0155						0		30	
1,4-Dichlorobenzene	ND	0.0155						0		30	
n-Butylbenzene	ND	0.0155						0		30	
1,2-Dichlorobenzene	ND	0.0155						0		30	
1,2-Dibromo-3-chloropropane	ND	0.388						0		30	
1,2,4-Trimethylbenzene	ND	0.0155						0		30	
Hexachlorobutadiene	ND	0.0776						0		30	
Naphthalene	ND	0.0233						0		30	
1,2,3-Trichlorobenzene	ND	0.0155						0		30	
Surr: Dibromofluoromethane	0.903		0.9698		93.1	56.5	129		0		
Surr: Toluene-d8	0.945		0.9698		97.4	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.953		0.9698		98.3	63.1	141		0		



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-R25077	SampType: LCS		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25077		
Client ID:	LCSW	Batch ID: R25077					Analysis Date: 9/23/2015			SeqNo: 472630	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	18.3	1.00	20.00	0	91.6	43	136				
Chloromethane	18.2	1.00	20.00	0	91.0	43.9	139				
Vinyl chloride	21.8	0.200	20.00	0	109	53.6	139				
Bromomethane	27.1	1.00	20.00	0	136	42.5	152				
Trichlorofluoromethane (CFC-11)	20.4	1.00	20.00	0	102	63.7	133				
Chloroethane	19.4	1.00	20.00	0	96.9	53	141				
1,1-Dichloroethene	17.3	1.00	20.00	0	86.4	65.6	136				
Methylene chloride	17.9	1.00	20.00	0	89.7	67.1	131				
trans-1,2-Dichloroethene	18.7	1.00	20.00	0	93.3	71.7	129				
Methyl tert-butyl ether (MTBE)	18.7	1.00	20.00	0	93.5	67.7	131				
1,1-Dichloroethane	18.4	1.00	20.00	0	92.2	67.9	134				
2,2-Dichloropropane	17.7	2.00	20.00	0	88.7	33.7	152				
cis-1,2-Dichloroethene	17.8	1.00	20.00	0	89.0	71.1	130				
Chloroform	18.9	1.00	20.00	0	94.4	66.3	131				
1,1,1-Trichloroethane (TCA)	19.9	1.00	20.00	0	99.6	71	131				
1,1-Dichloropropene	18.1	1.00	20.00	0	90.4	74.5	126				
Carbon tetrachloride	20.8	1.00	20.00	0	104	66.2	134				
1,2-Dichloroethane (EDC)	18.2	1.00	20.00	0	91.1	68.8	123				
Benzene	18.3	1.00	20.00	0	91.4	69.3	132				
Trichloroethene (TCE)	19.2	0.500	20.00	0	96.1	65.2	136				
1,2-Dichloropropane	18.2	1.00	20.00	0	91.2	70.5	130				
Bromodichloromethane	20.6	1.00	20.00	0	103	67.2	137				
Dibromomethane	20.0	1.00	20.00	0	99.8	75.5	126				
cis-1,3-Dichloropropene	22.0	1.00	20.00	0	110	62.6	137				
Toluene	17.5	1.00	20.00	0	87.4	61.3	145				
trans-1,3-Dichloropropene	21.3	1.00	20.00	0	106	58.5	142				
1,1,2-Trichloroethane	17.9	1.00	20.00	0	89.5	71.7	131				
1,3-Dichloropropane	19.0	1.00	20.00	0	95.2	73.5	127				
Tetrachloroethene (PCE)	20.9	1.00	20.00	0	104	47.5	147				
Dibromochloromethane	21.3	1.00	20.00	0	107	67.2	134				
1,2-Dibromoethane (EDB)	20.0	0.0600	20.00	0	100	73.6	125				



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Sample ID	LCS-R25077	SampType: LCS		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25077		
Client ID:	LCSW	Batch ID: R25077		Analysis Date: 9/23/2015					SeqNo: 472630		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	21.3	1.00	20.00	0	107	73.9	126				
1,1,1,2-Tetrachloroethane	19.0	1.00	20.00	0	94.8	76.8	124				
Ethylbenzene	19.2	1.00	20.00	0	96.2	72	130				
m,p-Xylene	38.3	1.00	40.00	0	95.7	70.3	134				
o-Xylene	18.3	1.00	20.00	0	91.4	72.1	131				
Styrene	21.1	1.00	20.00	0	106	64.3	140				
Isopropylbenzene	20.9	1.00	20.00	0	104	73.9	128				
Bromoform	23.8	1.00	20.00	0	119	63.8	135				
1,1,2,2-Tetrachloroethane	20.2	1.00	20.00	0	101	62.9	132				
n-Propylbenzene	19.2	1.00	20.00	0	96.1	74.5	127				
Bromobenzene	19.2	1.00	20.00	0	96.1	71	131				
1,3,5-Trimethylbenzene	20.1	1.00	20.00	0	101	73.1	128				
2-Chlorotoluene	19.5	1.00	20.00	0	97.6	70.8	130				
4-Chlorotoluene	20.2	1.00	20.00	0	101	70.1	131				
tert-Butylbenzene	19.8	1.00	20.00	0	99.0	68.2	131				
1,2,3-Trichloropropane	18.8	1.00	20.00	0	93.8	67.7	131				
1,2,4-Trichlorobenzene	19.7	2.00	20.00	0	98.6	51.8	152				Q
sec-Butylbenzene	20.8	1.00	20.00	0	104	72	129				
4-Isopropyltoluene	20.3	1.00	20.00	0	102	69.2	130				
1,3-Dichlorobenzene	20.3	1.00	20.00	0	102	72.4	129				
1,4-Dichlorobenzene	20.4	1.00	20.00	0	102	70.6	128				
n-Butylbenzene	21.0	1.00	20.00	0	105	73.8	127				
1,2-Dichlorobenzene	21.5	1.00	20.00	0	107	74.2	129				
1,2-Dibromo-3-chloropropane	15.9	1.00	20.00	0	79.5	63.1	136				
1,2,4-Trimethylbenzene	19.4	1.00	20.00	0	97.2	73.4	127				
Hexachlorobutadiene	19.8	4.00	20.00	0	99.0	58.6	138				
Naphthalene	15.7	1.00	20.00	0	78.6	41.8	165				Q
1,2,3-Trichlorobenzene	17.2	4.00	20.00	0	86.0	48.7	156				Q
Surr: Dibromofluoromethane	23.1		25.00		92.3	45.4	152				
Surr: Toluene-d8	23.8		25.00		95.0	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	64.2	128				



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-R25077	SampType:	LCS	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25077		
Client ID:	LCSW	Batch ID:	R25077			Analysis Date:	9/23/2015	SeqNo:	472630		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID	MB-R25077	SampType: MBLK		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25077		
Client ID:	MBLKW	Batch ID: R25077		Analysis Date: 9/23/2015					SeqNo: 472631		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	1.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-R25077	SampType: MBLK		Units: µg/L		Prep Date: 9/23/2015			RunNo: 25077		
Client ID:	MBLKW	Batch ID: R25077		Analysis Date: 9/23/2015					SeqNo: 472631		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.0600									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	1.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									Q
sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									

Q



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-R25077	SampType:	MBLK	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25077		
Client ID:	MBLKW	Batch ID:	R25077			Analysis Date:	9/23/2015	SeqNo:	472631		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	4.00									
Naphthalene	ND	1.00									Q
1,2,3-Trichlorobenzene	ND	4.00									Q
Surr: Dibromofluoromethane	24.2		25.00		96.8	45.4	152				
Surr: Toluene-d8	24.0		25.00		96.1	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.2		25.00		101	64.2	128				

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID	1509311-005ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25077		
Client ID:	MW-5-15:GW	Batch ID:	R25077			Analysis Date:	9/23/2015	SeqNo:	472607		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	1.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	



Date: 10/29/2015

Work Order: 1509311
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509311-005ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25077		
Client ID:	MW-5-15:GW	Batch ID:	R25077			Analysis Date:	9/23/2015	SeqNo:	472607		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	Q
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	



Date: 10/29/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509311-005ADUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/23/2015	RunNo:	25077		
Client ID:	MW-5-15:GW	Batch ID:	R25077			Analysis Date:	9/23/2015	SeqNo:	472607		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachlorobutadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	Q
1,2,3-Trichlorobenzene	ND	4.00						0		30	Q
Surr: Dibromofluoromethane	23.5		25.00		94.0	45.4	152		0		
Surr: Toluene-d8	24.6		25.00		98.5	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.2	64.2	128		0		

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID	1509312-002AMS	SampType:	MS	Units:	µg/L	Prep Date:	9/24/2015	RunNo:	25077		
Client ID:	BATCH	Batch ID:	R25077			Analysis Date:	9/24/2015	SeqNo:	472612		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	22.0	1.00	20.00	0	110	33.3	122				
Chloromethane	16.8	1.00	20.00	0.8700	79.5	48.2	145				
Vinyl chloride	24.8	0.200	20.00	0.1800	123	58.1	158				
Bromomethane	24.1	1.00	20.00	10.39	68.6	31.5	135				
Trichlorofluoromethane (CFC-11)	26.1	1.00	20.00	0	131	54.7	138				
Chloroethane	23.3	1.00	20.00	0	117	49.9	143				
1,1-Dichloroethene	21.8	1.00	20.00	0	109	63	141				
Methylene chloride	21.0	1.00	20.00	0	105	61.6	135				
trans-1,2-Dichloroethene	21.5	1.00	20.00	0	108	63.5	138				
Methyl tert-butyl ether (MTBE)	19.7	1.00	20.00	0	98.6	60.9	132				
1,1-Dichloroethane	21.8	1.00	20.00	0	109	67.8	136				
2,2-Dichloropropane	18.2	2.00	20.00	0	91.2	31.5	121				
cis-1,2-Dichloroethene	23.4	1.00	20.00	1.540	109	67.1	123				



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509312-002AMS	SampType:	MS		Units:	µg/L		Prep Date:	9/24/2015		RunNo:	25077		
Client ID:	BATCH	Batch ID:	R25077						Analysis Date:	9/24/2015		SeqNo:	472612	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual			
Chloroform	22.3	1.00	20.00	0	112	66.7	136							
1,1,1-Trichloroethane (TCA)	23.6	1.00	20.00	0	118	64.2	146							
1,1-Dichloropropene	21.7	1.00	20.00	0	109	73.8	136							
Carbon tetrachloride	20.5	1.00	20.00	1.200	96.4	62.7	146							
1,2-Dichloroethane (EDC)	20.7	1.00	20.00	0	103	63.4	137							
Benzene	21.7	1.00	20.00	0	108	65.4	138							
Trichloroethene (TCE)	27.0	0.500	20.00	2.790	121	60.4	134							
1,2-Dichloropropane	21.3	1.00	20.00	0	106	62.6	138							
Bromodichloromethane	22.4	1.00	20.00	0	112	59.4	139							
Dibromomethane	22.6	1.00	20.00	0	113	63.6	139							
cis-1,3-Dichloropropene	22.6	1.00	20.00	0	113	63.8	132							
Toluene	20.2	1.00	20.00	0	101	64	139							
trans-1,3-Dichloropropene	22.1	1.00	20.00	0	110	57.7	125							
1,1,2-Trichloroethane	21.1	1.00	20.00	0	105	59.4	127							
1,3-Dichloropropane	20.8	1.00	20.00	0	104	64.3	135							
Tetrachloroethene (PCE)	24.4	1.00	20.00	0	122	50.3	133							
Dibromochloromethane	22.6	1.00	20.00	0	113	61.6	139							
1,2-Dibromoethane (EDB)	23.2	0.0600	20.00	0	116	63.2	134							
Chlorobenzene	22.2	1.00	20.00	0	111	65.8	134							
1,1,1,2-Tetrachloroethane	20.0	1.00	20.00	0.1400	99.2	65.4	135							
Ethylbenzene	21.6	1.00	20.00	0	108	64.5	136							
m,p-Xylene	43.3	1.00	40.00	0	108	63.3	135							
o-Xylene	21.2	1.00	20.00	0	106	65.4	134							
Styrene	23.2	1.00	20.00	0	116	59.1	134							
Isopropylbenzene	22.9	1.00	20.00	0	115	56	147							
Bromoform	24.3	1.00	20.00	0	122	57.7	139							
1,1,1,2-Tetrachloroethane	21.6	1.00	20.00	0	108	59.8	146							
n-Propylbenzene	21.5	1.00	20.00	0	107	57.6	142							
Bromobenzene	20.6	1.00	20.00	0	103	63.6	130							
1,3,5-Trimethylbenzene	21.5	1.00	20.00	0	108	59.9	136							
2-Chlorotoluene	21.6	1.00	20.00	0	108	61.7	134							



Date: 10/29/2015

Work Order: 1509311
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509312-002AMS	SampType:	MS		Units:	µg/L		Prep Date:	9/24/2015		RunNo:	25077	
Client ID:	BATCH	Batch ID:	R25077					Analysis Date:	9/24/2015		SeqNo:	472612	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
4-Chlorotoluene	21.6	1.00	20.00	0	108	58.4	134						
tert-Butylbenzene	21.8	1.00	20.00	0	109	66.8	141						
1,2,3-Trichloropropane	21.6	1.00	20.00	0	108	62.4	129						
1,2,4-Trichlorobenzene	21.1	2.00	20.00	0.5300	103	50.9	133					Q	
sec-Butylbenzene	23.1	1.00	20.00	0	116	56	146						
4-Isopropyltoluene	21.8	1.00	20.00	0	109	56.4	136						
1,3-Dichlorobenzene	22.0	1.00	20.00	0	110	58.2	128						
1,4-Dichlorobenzene	21.6	1.00	20.00	0	108	60.1	123						
n-Butylbenzene	22.2	1.00	20.00	0	111	54.6	135						
1,2-Dichlorobenzene	23.5	1.00	20.00	0	118	65.4	133						
1,2-Dibromo-3-chloropropane	19.7	1.00	20.00	0	98.6	51.8	142						
1,2,4-Trimethylbenzene	20.2	1.00	20.00	0	101	63.7	132						
Hexachlorobutadiene	26.2	4.00	20.00	0	131	58.1	130					S	
Naphthalene	15.0	1.00	20.00	0.6600	71.8	54.5	132					Q	
1,2,3-Trichlorobenzene	16.0	4.00	20.00	0	80.2	57	131					Q	
Surr: Dibromofluoromethane	24.0		25.00		96.2	45.4	152						
Surr: Toluene-d8	24.6		25.00		98.6	40.1	139						
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.4	64.2	128						

NOTES:

S - Outlying QC recoveries were observed. The method is in control as indicated by the LCS.

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID	1509315-003CDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/24/2015	RunNo:	25077		
Client ID:	BATCH	Batch ID:	R25077			Analysis Date:	9/24/2015	SeqNo:	472622		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	1.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509315-003CDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/24/2015	RunNo:	25077		
Client ID:	BATCH	Batch ID:	R25077			Analysis Date:	9/24/2015	SeqNo:	472622		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	3.37	1.00						3.470	2.92	30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	23.5	1.00						22.32	5.19	30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	157	1.00						153.6	2.15	30	E
m,p-Xylene	361	1.00						352.4	2.34	30	E
o-Xylene	30.3	1.00						29.08	4.11	30	
Styrene	ND	1.00						0		30	



Date: 10/29/2015

Work Order: 1509311
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509315-003CDUP	SampType:	DUP	Units:	µg/L	Prep Date:	9/24/2015	RunNo:	25077		
Client ID:	BATCH	Batch ID:	R25077				Analysis Date:	9/24/2015	SeqNo:	472622	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Isopropylbenzene	20.8	1.00						19.82	4.92	30	
Bromoform	ND	1.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	71.3	1.00						70.13	1.67	30	E
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	128	1.00						124.6	2.44	30	E
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	51.2	1.00						49.50	3.42	30	E
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	6.65	1.00						5.880	12.3	30	
4-Isopropyltoluene	2.92	1.00						9.380	105	30	R
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	28.8	1.00						26.63	7.86	30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	11.6	1.00						0	200	30	
1,2,4-Trimethylbenzene	334	1.00						325.0	2.70	30	E
Hexachlorobutadiene	ND	4.00						0		30	
Naphthalene	120	1.00						59.38	67.8	30	RE
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	23.4		25.00		93.7	45.4	152		0		
Surr: Toluene-d8	24.9		25.00		99.7	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	25.7		25.00		103	64.2	128		0		



Date: 10/29/2015

Work Order: 1509311
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID	1509304-001ADUP	SampType:	DUP	Units:	wt%	Prep Date:	9/29/2015	RunNo:	25179		
Client ID:	BATCH	Batch ID:	R25179			Analysis Date:	9/29/2015	SeqNo:	474776		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	7.38	0.500						6.952	5.96	20	

Sample ID	1509304-002ADUP	SampType:	DUP	Units:	wt%	Prep Date:	9/29/2015	RunNo:	25179		
Client ID:	BATCH	Batch ID:	R25179			Analysis Date:	9/29/2015	SeqNo:	474778		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	9.57	0.500						10.64	10.6	20	



Sample Log-In Check List

Client Name: **SW**

Work Order Number: **1509311**

Logged by: **Clare Griggs**

Date Received: **9/22/2015 3:55:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of $>0^{\circ}\text{C}$ to 10.0°C * Yes ☐ No ☒ NA ☐
- Please refer to item information.
8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

19. Additional remarks:

Sample MW-6-15:GW:DUP should be marked as Water, not soil

Item Information

Item #	Temp $^{\circ}\text{C}$
Cooler	16.9
Sample	18.5

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



Fremont

ANALYTICAL

Chain of Custody Record

Laboratory Project No (Internal):

1509311

3600 Fremont Ave N,
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/22/15

Page: 1 of 2

Client:

Address:

City, State, Zip:

Telephone:

Project Name:

Collected by:

Location:

Report To (PM):

PM Email:

*Matrix Codes: A = Air, AQ = Aqueduct, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GVXTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Distillate/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8270 / 625)	Metals** (EPA 8082 / 609)	Total (T) / Dissolved (D)	Anions (IC)**	EDS (8011)	Herbicides / Pesticides (8068)	Comments
1 MW-4-15:6.0	9/22/15	0855	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 MW-4-15:14.5		0905	I	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3 MW-5-15:5.0		1035	I	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
4 MW-5-15:12.5		1040	I	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5 MW-5-15:6W		1050	GW	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
6 GP-22-15:1.5		1420	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
7 GP-22-15:3.0		1440	I	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
8 GP-22-15:04P		1500	I	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
9 MW-6-15:5.5		1230	I	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
10 MW-6-15:14.0		1400	I	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide C-Phosphate Fluoride Nitrate+Nitrite

Special Remarks:

Sample Disposal: ☐ Return to Client ☒ Disposal by lab (a fee may be assessed if samples are returned after 30 days)

Relinquished: [Signature] Date/Time: 9/22/15 1555

Relinquished: [Signature] Date/Time: 9/22/15 1555

Received: [Signature] Date/Time: 9/22/15 1555

Received: [Signature] Date/Time: 9/22/15 1555

TAT → SameDay* NextDay* 2 Day 3 Day STB

*Please coordinate with the lab in advance

Distribution: White - Lab, Yellow - File, Pink - Originator

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Fremont

ANALYTICAL

Chain of Custody Record

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/20/15

Laboratory Project No (Internal):
Page: 2 of 2

Client: Shawna Wilson
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-8020 Fax: 206-615-6177

Project Name: Pacific Park
Project No: 21-1-2205
Location: City of Pacific Park
Report To (PM): Elyria Park
PM Email: elyria@cityofpacificpark.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Soil, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOG (EPA 8260 / 624)	GV/PTX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Distillate/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8082 / 508)	Metals** (EPA 6020 / 200.9)	Total (T) / Dissolved (D)	Anions (IC)**	ED (8011)	Comments	
1 MW-6-15:GW	9/15/15	1440	GW	X			X	X	X	X	X	X	X	X				
2 MW-6-15:GW	9/15/15	1445	S	X			X	X	X	X	X	X	X	X				
3 MW-6-15:DW	9/15/15	1445	S	X			X	X	X	X	X	X	X	X				
4																		
5																		
6																		
7																		
8																		
9																		
10																		

**Metals Analysis (Circle): MTCA-5 Circle 8 Priority Pollution TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposed by Lab (a fee may be assessed if samples are returned after 30 days.)

Relinquished: 9/20/15 1555 Date/Time 9/20/15 1555 Date/Time

Retransmitted: 9/20/15 1555 Date/Time

Special Remarks: GW samples not field filtered for PPL metals total.

TAT → SameDay NextDay 2 Day 3 Day STD

*Please coordinate with the lab in advance



Fremont

Laboratory Project No (internal):

Chain of Custody Record

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/22/15

Page: 1 of 2

Client: Shawna & Wilson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-6020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 21-2055-006 Collected by: EVP
Location: City of Pacific WA
Report To (PM): Edwin Plot
PM Email: cupeshawna@gmail.com

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GV/BTEX	BTEX	Gasoline Range Organics (GRO)	Hydrocarbon Ionization (HCI)	Diethylhexyl Phthalate (DEHP)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - 514)	PCBs (EPA 8270 - 514)	Metals** (EPA 8210 / 508)	Total (T) (EPA 8210 / 508)	Anions (IC)***	ED 808 (90)	Herbicides (EPA 8210 / 508)	Pesticides (EPA 8210 / 508)	Comments
1 MW-4-15:6.0	9/22/15	0855	S	X															
2 MW-4-15:14.5		0905	L	X															
3 MW-5-15:5.0		1035	L	X															
4 MW-5-15:12.5		1040	L	X															
5 MW-5-15:6W		1050	GW	X															
6 GP-22-15:1.5		1420	S	X															
7 GP-22-15:3.0		1440	L	X															
8 GP-22-15:04P		1500	L	X															
9 MW-6-15:5.5		1230	L	X															
10 MW-6-15:11.0		1400	L	X															

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

Sample Disposed: ☐ Return to Client ☒ Disposed by Lab (a two may be assigned if samples are returned after 30 days.)

Requisitioned by: [Signature] Date/Time: 9/22/15 1555 Received by: [Signature] Date/Time: 9/22/15 1555

Requisitioned by: [Signature] Date/Time: 9/22/15 1555 Received by: [Signature] Date/Time: 9/22/15 1555

TAT → SameDay* NextDay* 2 Day 3 Day ☒

*Please coordinate with the lab in advance



Chain of Custody Record

Laboratory Project No. (Internally)

Date: 9/22/15Page: 2 of 2

Client: Shenoy & Wilson

Project Name: _____
Project No: _____

Pacific Park
21-1-22055-0000

Collected by: BVT

Address: 400 N 34th St. Suite 100

Location:

City of Pacific, Wash

Telephone: 206-652-8000 Fax: 206-615-6177

PMI Email:

Copy Journal.com

*Matrix Legend: A = Air, AQ = Aquifers, B = Bldg, C = Other, F = Product, S = Soil, SO = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

[illegible]

Distribution: White - Lab, Yellow - File, Pink - Originator

www.fremontanalytical.com



3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Shannon & Wilson
Ed Ptak
400 N. 34th Street, Suite 100
Seattle, WA 98103

RE: Pacific Park
Lab ID: 1509353

October 09, 2015

Attention Ed Ptak:

Fremont Analytical, Inc. received 2 sample(s) on 9/25/2015 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Gasoline by NWTPH-Gx
Herbicides by EPA Method 8151A
Mercury by EPA Method 7471
Organochlorine Pesticides by EPA Method 8081
Sample Moisture (Percent Moisture)
Semi-Volatile Organic Compounds by EPA Method 8270
Total Metals by EPA Method 6020
Volatile Organic Compounds by EPA Method 8260

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
President



Date: 10/09/2015

CLIENT: Shannon & Wilson
Project: Pacific Park
Lab Order: 1509353

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1509353-001	TP-1:5.5	09/23/2015 9:00 AM	09/25/2015 12:20 PM
1509353-002	TP-3:6.0	09/23/2015 11:30 AM	09/25/2015 12:20 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: Shannon & Wilson**Project:** Pacific Park

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below LOQ
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate



Analytical Report

WO#: 1509353

Date Reported: 10/9/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Herbicides by EPA Method 8151A</u>			Batch ID: 11961		Analyst: MD	
Dicamba	ND	23.6		µg/Kg-dry	1	9/30/2015 2:47:00 AM
2,4-D	ND	20.3		µg/Kg-dry	1	9/30/2015 2:47:00 AM
2,4-DP	ND	16.9		µg/Kg-dry	1	9/30/2015 2:47:00 AM
2,4,5-TP (Silvex)	ND	13.5		µg/Kg-dry	1	9/30/2015 2:47:00 AM
2,4,5-T	ND	33.8		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Dinoseb	41.9	20.3		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Dalapon	118,000	135		µg/Kg-dry	1	9/30/2015 2:47:00 AM
2,4-DB	23.6	16.9		µg/Kg-dry	1	9/30/2015 2:47:00 AM
MCPP	ND	2,970		µg/Kg-dry	1	9/30/2015 2:47:00 AM
MCPA	ND	189		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Picloram	44.6	33.8		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Bentazon	25.4	23.6		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Chloramben	77.3	13.5		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Acifluorfen	ND	54.0		µg/Kg-dry	1	9/30/2015 2:47:00 AM
3,5-Dichlorobenzoic acid	ND	27.0		µg/Kg-dry	1	9/30/2015 2:47:00 AM
4-Nitrophenol	40.8	20.3		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Dacthal (DCPA)	20.4	20.3		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Surr: 2,4-Dichlorophenylacetic acid	119	20.1-168		%REC	1	9/30/2015 2:47:00 AM
<u>Organochlorine Pesticides by EPA Method 8081</u>			Batch ID: 11962		Analyst: MD	
Toxaphene	ND	0.118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Alpha BHC	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Beta BHC	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Gamma BHC (Lindane)	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Delta BHC	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Heptachlor	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Aldrin	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Heptachlor epoxide	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
gamma-Chlordane	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endosulfan I	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
alpha-Chlordane	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Dieldrin	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
4,4'-DDE	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endrin	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endosulfan II	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
4,4'-DDD	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endrin aldehyde	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endosulfan sulfate	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM



Analytical Report

WO#: 1509353

Date Reported: 10/9/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11962		Analyst: MD
4,4'-DDT	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endrin ketone	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Methoxychlor	ND	0.0591		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Surr: Decachlorobiphenyl	73.9	26.5-158		%REC	1	9/25/2015 10:18:00 PM
Surr: Tetrachloro-m-xylene	58.6	11-150		%REC	1	9/25/2015 10:18:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957

Analyst: AK

Diesel (Fuel Oil)	ND	26.7		mg/Kg-dry	1	9/30/2015 12:19:00 AM
Heavy Oil	895	66.7		mg/Kg-dry	1	9/30/2015 12:19:00 AM
Surr: 2-Fluorobiphenyl	114	50-150		%REC	1	9/30/2015 12:19:00 AM
Surr: o-Terphenyl	116	50-150		%REC	1	9/30/2015 12:19:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Bis(2-chloroethyl) ether	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Chlorophenol	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
1,3-Dichlorobenzene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
1,4-Dichlorobenzene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
1,2-Dichlorobenzene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benzyl alcohol	ND	138	*	µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Methylphenol (o-cresol)	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Hexachloroethane	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
N-Nitrosodi-n-propylamine	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Nitrobenzene	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Isophorone	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Methylphenol (p-cresol)	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Nitrophenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4-Dimethylphenol	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Bis(2-chloroethoxy)methane	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4-Dichlorophenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
1,2,4-Trichlorobenzene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Naphthalene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Chloroaniline	ND	689		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Hexachlorobutadiene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Chloro-3-methylphenol	ND	689		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Methylnaphthalene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
1-Methylnaphthalene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/9/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Hexachlorocyclopentadiene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4,6-Trichlorophenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4,5-Trichlorophenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Chloronaphthalene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Nitroaniline	ND	689		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Acenaphthene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Dimethylphthalate	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,6-Dinitrotoluene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Acenaphthylene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4-Dinitrophenol	ND	276	*	µg/Kg-dry	1	10/2/2015 4:26:00 AM
Dibenzofuran	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4-Dinitrotoluene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Nitrophenol	ND	689		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Fluorene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Chlorophenyl phenyl ether	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Diethylphthalate	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4,6-Dinitro-2-methylphenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Bromophenyl phenyl ether	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Hexachlorobenzene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Pentachlorophenol	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Phenanthrene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Anthracene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Carbazole	ND	689		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Di-n-butylphthalate	312	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Fluoranthene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Pyrene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Butyl Benzylphthalate	181	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
bis(2-Ethylhexyl)adipate	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benz (a) anthracene	156	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Chrysene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
bis (2-Ethylhexyl) phthalate	161	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Di-n-octyl phthalate	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benzo (b) fluoranthene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benzo (k) fluoranthene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benzo (a) pyrene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Indeno (1,2,3-cd) pyrene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Dibenz (a,h) anthracene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benzo (g,h,i) perylene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Surr: 2,4,6-Tribromophenol	19.3	11.1-127		%REC	1	10/2/2015 4:26:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/9/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Surr: 2-Fluorobiphenyl	76.9	16.1-150	%REC	1	10/2/2015 4:26:00 AM
Surr: Nitrobenzene-d5	63.7	13.1-124	%REC	1	10/2/2015 4:26:00 AM
Surr: Phenol-d6	41.7	11.6-133	%REC	1	10/2/2015 4:26:00 AM
Surr: p-Terphenyl	92.4	21.8-150	%REC	1	10/2/2015 4:26:00 AM

Gasoline by NWTPH-Gx

Batch ID: 11979

Analyst: EM

Gasoline	ND	5.83	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Surr: Toluene-d8	98.1	65-135	%REC	1	9/30/2015 1:21:00 AM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/30/2015 1:21:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11979

Analyst: EM

Dichlorodifluoromethane (CFC-12)	ND	0.0700	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Chloromethane	ND	0.0700	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Vinyl chloride	ND	0.00233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Bromomethane	ND	0.105	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0583	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Chloroethane	ND	0.0700	mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1-Dichloroethene	ND	0.0583	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Methylene chloride	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
trans-1,2-Dichloroethene	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0583	mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1-Dichloroethane	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
2,2-Dichloropropane	ND	0.0583	mg/Kg-dry	1	9/30/2015 1:21:00 AM
cis-1,2-Dichloroethene	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Chloroform	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1-Dichloropropene	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Carbon tetrachloride	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2-Dichloroethane (EDC)	ND	0.0350	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Benzene	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Trichloroethene (TCE)	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2-Dichloropropane	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Bromodichloromethane	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Dibromomethane	ND	0.0466	mg/Kg-dry	1	9/30/2015 1:21:00 AM
cis-1,3-Dichloropropene	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Toluene	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
trans-1,3-Dichloropropylene	ND	0.0350	mg/Kg-dry	1	9/30/2015 1:21:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/9/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11979

Analyst: EM

1,1,2-Trichloroethane	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,3-Dichloropropane	ND	0.0583		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Tetrachloroethene (PCE)	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Dibromochloromethane	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2-Dibromoethane (EDB)	ND	0.00583		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Chlorobenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Ethylbenzene	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
m,p-Xylene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
o-Xylene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Styrene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Isopropylbenzene	ND	0.0933		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Bromoform	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
n-Propylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Bromobenzene	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,3,5-Trimethylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
2-Chlorotoluene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
4-Chlorotoluene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
tert-Butylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2,3-Trichloropropane	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2,4-Trichlorobenzene	ND	0.0583		mg/Kg-dry	1	9/30/2015 1:21:00 AM
sec-Butylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
4-Isopropyltoluene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,3-Dichlorobenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,4-Dichlorobenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
n-Butylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2-Dichlorobenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2-Dibromo-3-chloropropane	ND	0.583		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2,4-Trimethylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Hexachlorobutadiene	ND	0.117		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Naphthalene	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2,3-Trichlorobenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Surr: Dibromofluoromethane	93.8	56.5-129		%REC	1	9/30/2015 1:21:00 AM
Surr: Toluene-d8	96.2	64.3-131		%REC	1	9/30/2015 1:21:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/30/2015 1:21:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/9/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11964		Analyst: MW
Mercury	ND	0.345		mg/Kg-dry	1	9/28/2015 12:32:53 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11982		Analyst: TN
Arsenic	5.24	0.109		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Barium	77.8	0.546		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Cadmium	0.605	0.219		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Chromium	22.2	0.109		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Lead	88.4	0.219		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Selenium	1.03	0.546		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Silver	0.196	0.109		mg/Kg-dry	1	9/29/2015 3:21:27 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25189		Analyst: SB
Percent Moisture	29.1			wt%	1	9/29/2015 4:04:42 PM



Analytical Report

WO#: 1509353

Date Reported: 10/9/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11961

Analyst: MD

Dicamba	ND	21.6		µg/Kg-dry	1	9/30/2015 3:04:00 AM
2,4-D	ND	18.5		µg/Kg-dry	1	9/30/2015 3:04:00 AM
2,4-DP	ND	15.4		µg/Kg-dry	1	9/30/2015 3:04:00 AM
2,4,5-TP (Silvex)	ND	12.3		µg/Kg-dry	1	9/30/2015 3:04:00 AM
2,4,5-T	ND	30.8		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Dinoseb	ND	18.5		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Dalapon	42,100	123		µg/Kg-dry	1	9/30/2015 3:04:00 AM
2,4-DB	ND	15.4		µg/Kg-dry	1	9/30/2015 3:04:00 AM
MCPP	ND	2,710		µg/Kg-dry	1	9/30/2015 3:04:00 AM
MCPA	ND	173		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Picloram	32.2	30.8		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Bentazon	ND	21.6		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Chloramben	105	12.3		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Acifluorfen	ND	49.3		µg/Kg-dry	1	9/30/2015 3:04:00 AM
3,5-Dichlorobenzoic acid	ND	24.7		µg/Kg-dry	1	9/30/2015 3:04:00 AM
4-Nitrophenol	49.3	18.5		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Dacthal (DCPA)	19.4	18.5		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Surr: 2,4-Dichlorophenylacetic acid	116	20.1-168		%REC	1	9/30/2015 3:04:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Toxaphene	ND	0.115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Alpha BHC	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Beta BHC	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Gamma BHC (Lindane)	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Delta BHC	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Heptachlor	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Aldrin	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Heptachlor epoxide	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
gamma-Chlordane	0.0150	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endosulfan I	0.0218	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
alpha-Chlordane	0.0207	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Dieldrin	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
4,4'-DDE	0.0355	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endrin	ND	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endosulfan II	0.141	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
4,4'-DDD	0.138	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endrin aldehyde	ND	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endosulfan sulfate	ND	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM



Analytical Report

WO#: 1509353

Date Reported: 10/9/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11962		Analyst: MD
4,4'-DDT	ND	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endrin ketone	ND	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Methoxychlor	ND	0.0577		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Surr: Decachlorobiphenyl	74.5	26.5-158		%REC	1	9/25/2015 10:28:00 PM
Surr: Tetrachloro-m-xylene	68.4	11-150		%REC	1	9/25/2015 10:28:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957

Analyst: AK

Diesel (Fuel Oil)	ND	23.9		mg/Kg-dry	1	9/30/2015 12:52:00 AM
Heavy Oil	267	59.7		mg/Kg-dry	1	9/30/2015 12:52:00 AM
Surr: 2-Fluorobiphenyl	135	50-150		%REC	1	9/30/2015 12:52:00 AM
Surr: o-Terphenyl	139	50-150		%REC	1	9/30/2015 12:52:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Bis(2-chloroethyl) ether	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Chlorophenol	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
1,3-Dichlorobenzene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
1,4-Dichlorobenzene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
1,2-Dichlorobenzene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benzyl alcohol	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Methylphenol (o-cresol)	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Hexachloroethane	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
N-Nitrosodi-n-propylamine	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Nitrobenzene	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Isophorone	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Methylphenol (p-cresol)	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Nitrophenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4-Dimethylphenol	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Bis(2-chloroethoxy)methane	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4-Dichlorophenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
1,2,4-Trichlorobenzene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Naphthalene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Chloroaniline	ND	611		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Hexachlorobutadiene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Chloro-3-methylphenol	ND	611		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Methylnaphthalene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
1-Methylnaphthalene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/9/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Hexachlorocyclopentadiene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4,6-Trichlorophenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4,5-Trichlorophenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Chloronaphthalene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Nitroaniline	ND	611		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Acenaphthene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Dimethylphthalate	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,6-Dinitrotoluene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Acenaphthylene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4-Dinitrophenol	ND	244	*	µg/Kg-dry	1	10/2/2015 5:10:00 AM
Dibenzofuran	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4-Dinitrotoluene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Nitrophenol	ND	611	*	µg/Kg-dry	1	10/2/2015 5:10:00 AM
Fluorene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Chlorophenyl phenyl ether	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Diethylphthalate	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4,6-Dinitro-2-methylphenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Bromophenyl phenyl ether	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Hexachlorobenzene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Pentachlorophenol	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Phenanthrene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Anthracene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Carbazole	ND	611		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Di-n-butylphthalate	135	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Fluoranthene	148	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Pyrene	136	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Butyl Benzylphthalate	156	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
bis(2-Ethylhexyl)adipate	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benz (a) anthracene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Chrysene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
bis (2-Ethylhexyl) phthalate	133	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Di-n-octyl phthalate	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benzo (b) fluoranthene	215	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benzo (k) fluoranthene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benzo (a) pyrene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Indeno (1,2,3-cd) pyrene	184	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Dibenz (a,h) anthracene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benzo (g,h,i) perylene	151	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Surr: 2,4,6-Tribromophenol	80.9	11.1-127		%REC	1	10/2/2015 5:10:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/9/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Surr: 2-Fluorobiphenyl	82.5	16.1-150	%REC	1	10/2/2015 5:10:00 AM
Surr: Nitrobenzene-d5	75.5	13.1-124	%REC	1	10/2/2015 5:10:00 AM
Surr: Phenol-d6	46.6	11.6-133	%REC	1	10/2/2015 5:10:00 AM
Surr: p-Terphenyl	87.2	21.8-150	%REC	1	10/2/2015 5:10:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11979

Analyst: EM

Gasoline	ND	3.66	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Surr: Toluene-d8	98.7	65-135	%REC	1	9/30/2015 1:50:00 AM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/30/2015 1:50:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11979

Analyst: EM

Dichlorodifluoromethane (CFC-12)	ND	0.0439	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Chloromethane	ND	0.0439	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Vinyl chloride	ND	0.00146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Bromomethane	ND	0.0658	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0366	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Chloroethane	ND	0.0439	mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1-Dichloroethene	ND	0.0366	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Methylene chloride	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
trans-1,2-Dichloroethene	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0366	mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1-Dichloroethane	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
2,2-Dichloropropane	ND	0.0366	mg/Kg-dry	1	9/30/2015 1:50:00 AM
cis-1,2-Dichloroethene	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Chloroform	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1-Dichloropropene	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Carbon tetrachloride	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2-Dichloroethane (EDC)	ND	0.0219	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Benzene	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Trichloroethene (TCE)	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2-Dichloropropane	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Bromodichloromethane	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Dibromomethane	ND	0.0293	mg/Kg-dry	1	9/30/2015 1:50:00 AM
cis-1,3-Dichloropropene	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/9/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11979

Analyst: EM

Toluene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
trans-1,3-Dichloropropylene	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1,2-Trichloroethane	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,3-Dichloropropane	ND	0.0366		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Tetrachloroethene (PCE)	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Dibromochloromethane	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2-Dibromoethane (EDB)	ND	0.00366		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Chlorobenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Ethylbenzene	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
m,p-Xylene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
o-Xylene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Styrene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Isopropylbenzene	ND	0.0585		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Bromoform	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
n-Propylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Bromobenzene	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,3,5-Trimethylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
2-Chlorotoluene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
4-Chlorotoluene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
tert-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2,3-Trichloropropane	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2,4-Trichlorobenzene	ND	0.0366		mg/Kg-dry	1	9/30/2015 1:50:00 AM
sec-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
4-Isopropyltoluene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,3-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,4-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
n-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2-Dibromo-3-chloropropane	ND	0.366		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2,4-Trimethylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Hexachlorobutadiene	ND	0.0732		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Naphthalene	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2,3-Trichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Surr: Dibromofluoromethane	94.8	56.5-129		%REC	1	9/30/2015 1:50:00 AM
Surr: Toluene-d8	98.0	64.3-131		%REC	1	9/30/2015 1:50:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/30/2015 1:50:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/9/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11964		Analyst: MW
Mercury	ND	0.301		mg/Kg-dry	1	9/28/2015 12:34:29 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11982		Analyst: TN
Arsenic	16.9	0.100		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Barium	315	0.501		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Cadmium	1.35	0.200		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Chromium	30.1	0.100		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Lead	364	0.200		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Selenium	1.18	0.501		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Silver	0.465	0.100		mg/Kg-dry	1	9/29/2015 3:42:34 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25189		Analyst: SB
Percent Moisture	20.2			wt%	1	9/29/2015 4:04:42 PM



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	MB-11982	SampType: MBLK		Units: mg/Kg		Prep Date: 9/29/2015			RunNo: 25190		
Client ID:	MBLKS	Batch ID: 11982		Analysis Date: 9/29/2015						SeqNo: 474985	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.100									
Barium	ND	0.500									
Cadmium	ND	0.200									
Chromium	ND	0.100									
Lead	ND	0.200									
Selenium	ND	0.500									
Silver	ND	0.100									

Sample ID	LCS-11982	SampType: LCS		Units: mg/Kg		Prep Date: 9/29/2015			RunNo: 25190		
Client ID:	LCSS	Batch ID: 11982		Analysis Date: 9/29/2015					SeqNo: 474986		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	48.0	0.100	50.00	0	96.1	80	120				
Barium	47.9	0.500	50.00	0	95.7	80	120				
Cadmium	2.48	0.200	2.500	0	99.3	80	120				
Chromium	54.1	0.100	50.00	0	108	80	120				
Lead	23.9	0.200	25.00	0	95.7	80	120				
Selenium	4.39	0.500	5.000	0	87.9	80	120				
Silver	2.39	0.100	2.500	0	95.4	80	120				

Sample ID	1509353-001ADUP	SampType:	DUP	Units:			mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25190
Client ID:	TP-1:5.5	Batch ID:	11982	Analysis Date:					9/29/2015	SeqNo:	474988
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	5.41	0.108						5.242	3.07	20	
Barium	81.2	0.542						77.84	4.22	20	
Cadmium	1.15	0.217						0.6051	62.0	20	R
Chromium	24.2	0.108						22.25	8.40	20	
Lead	95.3	0.217						88.44	7.48	20	
Selenium	0.950	0.542						1.033	8.35	20	



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509353-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25190		
Client ID:	TP-1:5.5	Batch ID:	11982			Analysis Date:	9/29/2015	SeqNo:	474988		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.213	0.108						0.1957	8.21	20	

NOTES:

R - High RPD observed. The method is in control as indicated by the LCS.

Sample ID	1509353-001AMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25190		
Client ID:	TP-1:5.5	Batch ID:	11982			Analysis Date:	9/29/2015	SeqNo:	474990		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	57.4	0.108	54.21	5.242	96.2	75	125				
Barium	112	0.542	54.21	77.84	62.5	75	125				S
Cadmium	3.39	0.217	2.711	0.6051	103	75	125				
Chromium	80.1	0.108	54.21	22.25	107	75	125				
Lead	131	0.217	27.11	88.44	158	75	125				S
Selenium	5.83	0.542	5.421	1.033	88.5	75	125				
Silver	2.55	0.108	2.711	0.1957	86.7	75	125				

NOTES:

S - Outlying spike recoveries observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID	1509353-001AMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25190		
Client ID:	TP-1:5.5	Batch ID:	11982			Analysis Date:	9/29/2015	SeqNo:	474991		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	66.6	0.108	54.21	5.242	113	75	125	57.41	14.8	20	
Barium	237	0.542	54.21	77.84	294	75	125	111.7	71.9	20	RS
Cadmium	3.52	0.217	2.711	0.6051	108	75	125	3.385	3.92	20	
Chromium	117	0.108	54.21	22.25	175	75	125	80.12	37.6	20	RS
Lead	162	0.217	27.11	88.44	271	75	125	131.1	21.0	20	RS
Selenium	6.09	0.542	5.421	1.033	93.3	75	125	5.830	4.39	20	
Silver	2.65	0.108	2.711	0.1957	90.4	75	125	2.546	3.85	20	

NOTES:

SR - Outlying spike recoveries and high RPD due to suspected sample inhomogeneity. The method is in control as indicated by the LCS.



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509353-001APDS	SampType:	PDS	Units:			mg/Kg-dry	Prep Date:	9/29/2015	RunNo:			25190
Client ID:	TP-1:5.5	Batch ID:	11982					Analysis Date:	9/29/2015	SeqNo:			474992
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Barium	245	0.546	50.0	142	103	80	120						
Lead	247	0.219	25.0	162	171	80	120				S		

NOTES:

S - Outlying spike recovery observed for Pb.



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 7471

Sample ID	MB-11964	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/28/2015		RunNo:	25155	
Client ID:	MBLKS	Batch ID:	11964							Analysis Date:	9/28/2015		SeqNo:	474258	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Mercury	ND	0.250										
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Sample ID	LCS-11964	SampType: LCS			Units: mg/Kg		Prep Date: 9/28/2015			RunNo: 25155		
Client ID:	LCSS	Batch ID: 11964			Analysis Date: 9/28/2015					SeqNo: 474259		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.505	0.250	0.5000	0	101	80	120					
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Sample ID	1509346-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/28/2015	RunNo:	25155			
Client ID:	BATCH	Batch ID:	11964			Analysis Date:	9/28/2015	SeqNo:	474261			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.254							0		20	
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Sample ID	1509346-001AMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/28/2015	RunNo:	25155			
Client ID:	BATCH	Batch ID:	11964			Analysis Date:	9/28/2015	SeqNo:	474262			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.512	0.254	0.5080	0.02889	95.1	70	130					
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Sample ID	1509346-001AMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	9/28/2015	RunNo:	25155			
Client ID:	BATCH	Batch ID:	11964			Analysis Date:	9/28/2015	SeqNo:	474263			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.536	0.258	0.5169	0.02889	98.0	70	130	0.5118	4.57	20		
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Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	MB-11957	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/25/2015			RunNo:	25165		
Client ID:	MBLKS	Batch ID:	11957			Analysis Date:					9/28/2015			SeqNo:	474432		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual				

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	17.1		20.00		85.7	50	150				
Surr: o-Terphenyl	15.7		20.00		78.7	50	150				

Sample ID	LCS-11957	SampType: LCS			Units: mg/Kg		Prep Date: 9/25/2015			RunNo: 25165		
Client ID:	LCSS	Batch ID: 11957			Analysis Date: 9/28/2015					SeqNo: 474431		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	411	20.0	500.0	0	82.2	65	135				
Surr: 2-Fluorobiphenyl	17.8		20.00		89.0	50	150				
Surr: o-Terphenyl	16.1		20.00		80.5	50	150				

Sample ID	1509311-006ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25165		
Client ID:	BATCH	Batch ID:	11957			Analysis Date:	9/28/2015	SeqNo:	474684		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	21.6						0		30	
Heavy Oil	ND	53.9						0		30	
Surr: 2-Fluorobiphenyl	19.6		21.56		91.1	50	150		0		
Surr: o-Terphenyl	20.0		21.56		92.6	50	150		0		

Sample ID	1509340-003ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25165		
Client ID:	BATCH	Batch ID:	11957			Analysis Date:	9/29/2015	SeqNo:	475638		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.2						0		30	
Heavy Oil	ND	50.6						0		30	
Surr: 2-Fluorobiphenyl	25.8		20.23		128	50	150		0		
Surr: o-Terphenyl	26.5		20.23		131	50	150		0		



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	1509340-003ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25165		
Client ID:	BATCH	Batch ID:	11957			Analysis Date:	9/29/2015	SeqNo:	475638		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	MB-11961	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/25/2015		RunNo:	25219	
Client ID:	MBLKS	Batch ID:	11961					Analysis Date:	9/30/2015		SeqNo:	475626	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Dicamba		ND	17.5										
2,4-D		ND	15.0										
2,4-DP		ND	12.5										
2,4,5-TP (Silvex)		ND	10.0										
2,4,5-T		ND	25.0										
Dinoseb		ND	15.0										
Dalapon		ND	100										
2,4-DB		ND	12.5										
MCPP		ND	2,200										
MCPA		ND	140										
Picloram		ND	25.0										
Bentazon		ND	17.5										
Chloramben		ND	10.0										
Acifluorfen		ND	40.0										
3,5-Dichlorobenzoic acid		ND	20.0										
4-Nitrophenol		ND	15.0										
Dacthal (DCPA)		ND	15.0										
Surr: 2,4-Dichlorophenylacetic acid		79.2		100.0		79.2	20.1	168					

Sample ID	LCS-11961	SampType: LCS		Units: µg/Kg		Prep Date: 9/25/2015			RunNo: 25219		
Client ID:	LCSS	Batch ID: 11961		Analysis Date: 9/30/2015					SeqNo: 475624		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	131	17.5	200.0	0	65.4	32.1	135				
2,4-D	137	15.0	200.0	0	68.7	22.4	130				
2,4-DP	145	12.5	200.0	0	72.3	26.4	130				
2,4,5-TP (Silvex)	123	10.0	200.0	0	61.3	21.2	138				
2,4,5-T	127	25.0	200.0	0	63.3	39	117				
Dinoseb	129	15.0	200.0	0	64.7	5	165				
Dalapon	13,000	100	20,000	0	65.0	18.4	162				
2,4-DB	159	12.5	200.0	0	79.6	5	164				



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QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	LCS-11961	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25219		
Client ID:	LCSS	Batch ID:	11961			Analysis Date:	9/30/2015	SeqNo:	475624		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MCPP	1560	2,200	2,000	0	78.1	22.2	157				
MCPA	2,200	140	2,000	0	110	47.4	128				
Picloram	140	25.0	200.0	0	70.2	5	175				
Bentazon	146	17.5	200.0	0	72.8	7.59	162				
Chloramben	93.0	10.0	200.0	0	46.5	5	147				
Acifluorfen	161	40.0	200.0	0	80.6	5	163				
3,5-Dichlorobenzoic acid	150	20.0	200.0	0	74.8	18.7	139				
4-Nitrophenol	65.6	15.0	200.0	0	32.8	5	163				
Dacthal (DCPA)	131	15.0	200.0	0	65.6	5	164				
Surr: 2,4-Dichlorophenylacetic acid	125		100.0		125	20.1	168				

Sample ID	1509311-010ADUP	SampType:	DUP			Units:	µg/Kg-dry			Prep Date:	9/25/2015			RunNo:	25219		
Client ID:	BATCH	Batch ID:	11961							Analysis Date:	9/30/2015			SeqNo:	475616		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val				%RPD	RPDLimit	Qual		
Dicamba		ND	20.1						0					30			
2,4-D		ND	17.2						0					30			
2,4-DP		ND	14.3						0					30			
2,4,5-TP (Silvex)		ND	11.5						0					30			
2,4,5-T		ND	28.7						0					30			
Dinoseb		ND	17.2						0					30			
Dalapon		ND	115						0					30			
2,4-DB		19.0	14.3						18.66			1.58		30			
MCPP		ND	2,520						0					30			
MCPA		ND	160						0					30			
Picloram		28.8	28.7						28.31			1.64		30			
Bentazon		ND	20.1						0					30			
Chloramben		20.6	11.5						20.73			0.505		30			
Acifluorfen		ND	45.9						0					30			
3,5-Dichlorobenzoic acid		ND	22.9						0					30			
4-Nitrophenol		ND	17.2						0					30			



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	1509311-010ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25219		
Client ID:	BATCH	Batch ID:	11961	Analysis Date:				9/30/2015	SeqNo:	475616	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dacthal (DCPA)	17.6	17.2						16.26	7.76	30	
Surr: 2,4-Dichlorophenylacetic acid	141		114.6		123	20.1	168		0		

Sample ID	1509311-013AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25219		
Client ID:	BATCH	Batch ID:	11961	Analysis Date:				9/30/2015	SeqNo:	475618	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	170	20.7	236.2	0	72.2	31.9	118				
2,4-D	178	17.7	236.2	8.476	71.7	12.4	134				
2,4-DP	166	14.8	236.2	0	70.2	27.2	129				
2,4,5-TP (Silvex)	197	11.8	236.2	38.15	67.2	28.6	134				
2,4,5-T	182	29.5	236.2	71.24	47.0	13.1	147				
Dinoseb	168	17.7	236.2	49.23	50.3	10	179				
Dalapon	9,230	118	23,620	0	39.1	24.9	139				
2,4-DB	204	14.8	236.2	21.92	77.1	50.2	152				
MCP	1770	2,600	2,362	0	74.9	37.8	140				
MCPA	2,920	165	2,362	0	124	13.7	147				
Picloram	169	29.5	236.2	40.36	54.6	5	153				
Bentazon	159	20.7	236.2	0	67.3	15	140				
Chloramben	110	11.8	236.2	28.62	34.4	5	162				
Acifluorfen	250	47.2	236.2	0	106	15	140				
3,5-Dichlorobenzoic acid	172	23.6	236.2	13.32	67.2	10	164				
4-Nitrophenol	184	17.7	236.2	18.34	70.3	44.8	125				
Dacthal (DCPA)	110	17.7	236.2	16.68	39.6	5	132				
Surr: 2,4-Dichlorophenylacetic acid	145		118.1		122	20.1	168				



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Organochlorine Pesticides by EPA Method 8081

Sample ID	MB-11962	SampType:	MBLK		Units:	mg/Kg			Prep Date:	9/25/2015		RunNo:	25268	
Client ID:	MBLKS	Batch ID:	11962		Analysis Date:					9/25/2015		SeqNo:	476442	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Toxaphene		ND	0.100											
Alpha BHC		ND	0.0100											
Beta BHC		ND	0.0100											
Gamma BHC (Lindane)		ND	0.0100											
Delta BHC		ND	0.0100											
Heptachlor		ND	0.0100											
Aldrin		ND	0.0100											
Heptachlor epoxide		ND	0.0100											
gamma-Chlordane		ND	0.0100											
Endosulfan I		ND	0.0100											
alpha-Chlordane		ND	0.0100											
Dieldrin		ND	0.0100											
4,4'-DDE		ND	0.0200											
Endrin		ND	0.0200											
Endosulfan II		ND	0.0200											
4,4'-DDD		ND	0.0200											
Endrin aldehyde		ND	0.0200											
Endosulfan sulfate		ND	0.0200											
4,4'-DDT		ND	0.0200											
Endrin ketone		ND	0.0200											
Methoxychlor		ND	0.0500											
Surr: Decachlorobiphenyl		0.0615		0.1000		61.5	26.5	158						
Surr: Tetrachloro-m-xylene		0.0327		0.05000		65.4	11	150						

Sample ID	LCS-11962	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	LCSS	Batch ID:	11962			Analysis Date:	9/25/2015	SeqNo:	476441		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.175	0.0100	0.2000	0	87.3	54.2	139				
Beta BHC	0.183	0.0100	0.2000	0	91.6	56.5	142				
Gamma BHC (Lindane)	0.180	0.0100	0.2000	0	90.2	55.5	142				



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QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	LCS-11962	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	LCSS	Batch ID:	11962			Analysis Date:	9/25/2015	SeqNo:	476441		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Delta BHC	0.173	0.0100	0.2000	0	86.4	47.4	157				
Heptachlor	0.197	0.0100	0.2000	0	98.4	54	141				
Aldrin	0.179	0.0100	0.2000	0	89.5	43.7	147				
Heptachlor epoxide	0.191	0.0100	0.2000	0	95.4	56.2	137				
gamma-Chlordane	0.194	0.0100	0.2000	0	96.8	58.5	136				
Endosulfan I	0.195	0.0100	0.2000	0	97.4	60	132				
alpha-Chlordane	0.196	0.0100	0.2000	0	98.2	46.1	140				
Dieldrin	0.191	0.0100	0.2000	0	95.3	61.2	133				
4,4´-DDE	0.191	0.0200	0.2000	0	95.6	55.4	142				
Endrin	0.201	0.0200	0.2000	0	100	56.5	143				
Endosulfan II	0.223	0.0200	0.2000	0	112	62	143				
4,4´-DDD	0.220	0.0200	0.2000	0	110	53.3	145				
Endrin aldehyde	0.186	0.0200	0.2000	0	93.2	39.5	153				
Endosulfan sulfate	0.219	0.0200	0.2000	0	109	53.8	148				
4,4´-DDT	0.215	0.0200	0.2000	0	108	48.2	152				
Endrin ketone	0.228	0.0200	0.2000	0	114	28.5	162				
Methoxychlor	0.250	0.0500	0.2000	0	125	34.6	159				
Surr: Decachlorobiphenyl	0.0757		0.1000		75.7	26.5	158				
Surr: Tetrachloro-m-xylene	0.0395		0.05000		79.0	11	150				

Sample ID	1509311-007ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	BATCH	Batch ID:	11962			Analysis Date:	9/25/2015	SeqNo:	476428		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.114						0		30	
Alpha BHC	ND	0.0114						0		30	
Beta BHC	ND	0.0114						0		30	
Gamma BHC (Lindane)	ND	0.0114						0		30	
Delta BHC	ND	0.0114						0		30	
Heptachlor	ND	0.0114						0		30	
Aldrin	ND	0.0114						0		30	



Date: 10/9/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	1509311-007ADUP	SampType:	DUP		Units:	mg/Kg-dry		Prep Date:	9/25/2015		RunNo:	25268	
Client ID:	BATCH	Batch ID:	11962		Analysis Date:				9/25/2015		SeqNo:	476428	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Heptachlor epoxide	ND	0.0114						0			30		
gamma-Chlordane	ND	0.0114						0			30		
Endosulfan I	ND	0.0114						0			30		
alpha-Chlordane	ND	0.0114						0			30		
Dieldrin	ND	0.0114						0			30		
4,4'-DDE	ND	0.0228						0			30		
Endrin	ND	0.0228						0			30		
Endosulfan II	ND	0.0228						0			30		
4,4'-DDD	ND	0.0228						0			30		
Endrin aldehyde	ND	0.0228						0			30		
Endosulfan sulfate	ND	0.0228						0			30		
4,4'-DDT	ND	0.0228						0			30		
Endrin ketone	ND	0.0228						0			30		
Methoxychlor	ND	0.0570						0			30		
Surr: Decachlorobiphenyl	0.0661		0.1139		58.0	26.5	158		0				
Surr: Tetrachloro-m-xylene	0.0332		0.05697		58.3	11	150		0				

Sample ID	1509311-008AMS	SampType:	MS		Units:	µg/Kg-dry		Prep Date:	9/25/2015		RunNo:	25268		
Client ID:	BATCH	Batch ID:	11962						Analysis Date:	9/25/2015		SeqNo:	476430	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Alpha BHC		0.173	0.0113	0.2257	0	76.6	49.1	158						
Beta BHC		0.184	0.0113	0.2257	0	81.3	50.9	160						
Gamma BHC (Lindane)		0.181	0.0113	0.2257	0	80.2	55.3	157						
Delta BHC		0.176	0.0113	0.2257	0	77.9	55.8	160						
Heptachlor		0.195	0.0113	0.2257	0	86.3	59.1	150						
Aldrin		0.178	0.0113	0.2257	0	78.8	46.4	145						
Heptachlor epoxide		0.189	0.0113	0.2257	0	83.6	48.5	151						
gamma-Chlordane		0.190	0.0113	0.2257	0	84.1	50.9	143						
Endosulfan I		0.187	0.0113	0.2257	0	83.0	46.4	149						
alpha-Chlordane		0.194	0.0113	0.2257	0	86.0	46.3	153						

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	1509311-008AMS	SampType:	MS			Units:	µg/Kg-dry		Prep Date:	9/25/2015		RunNo:	25268			
Client ID:	BATCH	Batch ID:	11962			Analysis Date:					9/25/2015		SeqNo:		476430	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual			
Dieldrin		0.186	0.0113	0.2257	0	82.6	51	147								
4,4'-DDE		0.190	0.0226	0.2257	0	84.1	39.9	162								
Endrin		0.198	0.0226	0.2257	0	87.8	51.3	151								
Endosulfan II		0.223	0.0226	0.2257	0	99.0	51	152								
4,4'-DDD		0.208	0.0226	0.2257	0	92.0	45.8	160								
Endrin aldehyde		0.189	0.0226	0.2257	0	83.6	38.3	156								
Endosulfan sulfate		0.222	0.0226	0.2257	0	98.4	53.2	154								
4,4'-DDT		0.201	0.0226	0.2257	0	89.0	45.7	168								
Endrin ketone		0.223	0.0226	0.2257	0	98.9	68.3	144								
Methoxychlor		0.243	0.0564	0.2257	0	108	43.4	178								
Surr: Decachlorobiphenyl		0.0652		0.1129		57.8	26.5	158								
Surr: Tetrachloro-m-xylene		0.0327		0.05643		58.0	11	150								



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11985	SampType:	MBLK	Units:	µg/Kg	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	MBLKS	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476486		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	ND	200									
Bis(2-chloroethyl) ether	ND	200									
2-Chlorophenol	ND	100									
1,3-Dichlorobenzene	ND	100									
1,4-Dichlorobenzene	ND	100									
1,2-Dichlorobenzene	ND	100									
Benzyl alcohol	ND	100									
2-Methylphenol (o-cresol)	ND	100									
Hexachloroethane	ND	100									
N-Nitrosodi-n-propylamine	ND	100									
Nitrobenzene	ND	200									
Isophorone	ND	100									
4-Methylphenol (p-cresol)	ND	100									
2-Nitrophenol	ND	200									
2,4-Dimethylphenol	ND	100									
Bis(2-chloroethoxy)methane	ND	100									
2,4-Dichlorophenol	ND	200									
1,2,4-Trichlorobenzene	ND	100									
Naphthalene	ND	80.0									
4-Chloroaniline	ND	500									
Hexachlorobutadiene	ND	100									
4-Chloro-3-methylphenol	ND	500									
2-Methylnaphthalene	ND	80.0									
1-Methylnaphthalene	ND	80.0									
Hexachlorocyclopentadiene	ND	100									
2,4,6-Trichlorophenol	ND	200									
2,4,5-Trichlorophenol	ND	200									
2-Chloronaphthalene	ND	100									
2-Nitroaniline	ND	500									
Acenaphthene	ND	80.0									
Dimethylphthalate	ND	100									



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11985	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/29/2015		RunNo:	25270	
Client ID:	MBLKS	Batch ID:	11985					Analysis Date:	10/2/2015		SeqNo:	476486	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
2,6-Dinitrotoluene		ND	100										
Acenaphthylene		ND	80.0										
2,4-Dinitrophenol		ND	200										*
Dibenzofuran		ND	100										
2,4-Dinitrotoluene		ND	100										
4-Nitrophenol		ND	500										*
Fluorene		ND	80.0										
4-Chlorophenyl phenyl ether		ND	100										
Diethylphthalate		ND	100										
4,6-Dinitro-2-methylphenol		ND	200										
4-Bromophenyl phenyl ether		ND	100										
Hexachlorobenzene		ND	100										
Pentachlorophenol		ND	100										
Phenanthrene		ND	80.0										
Anthracene		ND	80.0										
Carbazole		ND	500										
Di-n-butylphthalate		ND	100										
Fluoranthene		ND	80.0										
Pyrene		ND	80.0										
Butyl Benzylphthalate		ND	100										
bis(2-Ethylhexyl)adipate		ND	100										
Benz (a) anthracene		ND	80.0										
Chrysene		ND	80.0										
bis (2-Ethylhexyl) phthalate		ND	100										
Di-n-octyl phthalate		ND	100										
Benzo (b) fluoranthene		ND	80.0										
Benzo (k) fluoranthene		ND	80.0										
Benzo (a) pyrene		ND	80.0										
Indeno (1,2,3-cd) pyrene		ND	80.0										
Dibenz (a,h) anthracene		ND	80.0										
Benzo (g,h,i) perylene		ND	80.0										



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11985	SampType:	MBLK		Units:	µg/Kg			Prep Date:	9/29/2015		RunNo:	25270	
Client ID:	MBLKS	Batch ID:	11985						Analysis Date:	10/2/2015		SeqNo:	476486	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Surr: 2,4,6-Tribromophenol		165		1,000		16.5	11.1	127						
Surr: 2-Fluorobiphenyl		511		500.0		102	16.1	150						
Surr: Nitrobenzene-d5		466		500.0		93.2	13.1	124						
Surr: Phenol-d6		771		1,000		77.1	11.6	133						
Surr: p-Terphenyl		487		500.0		97.4	21.8	150						

NOTES:

* - Flagged value is not within established control limits.

Sample ID	LCS-11985	SampType: LCS		Units: µg/Kg		Prep Date: 9/29/2015			RunNo: 25270		
Client ID:	LCSS	Batch ID: 11985					Analysis Date: 10/2/2015			SeqNo: 476487	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	885	200	1,000	0	88.5	41.8	138				
Bis(2-chloroethyl) ether	957	200	1,000	0	95.7	65	116				
2-Chlorophenol	912	100	1,000	0	91.2	49.3	132				
1,3-Dichlorobenzene	866	100	1,000	0	86.6	50.9	133				
1,4-Dichlorobenzene	780	100	1,000	0	78.0	51.3	133				
1,2-Dichlorobenzene	903	100	1,000	0	90.3	54.2	129				
Benzyl alcohol	2,140	100	1,000	0	214	42.4	131				S
2-Methylphenol (o-cresol)	824	100	1,000	0	82.4	47.2	134				
Hexachloroethane	891	100	1,000	0	89.1	48.9	133				
N-Nitrosodi-n-propylamine	945	100	1,000	0	94.5	39.8	135				
Nitrobenzene	958	200	1,000	0	95.8	62.3	126				
Isophorone	951	100	1,000	0	95.1	62.7	131				
4-Methylphenol (p-cresol)	775	100	1,000	0	77.5	57.4	131				
2-Nitrophenol	665	200	1,000	0	66.5	44.2	129				
2,4-Dimethylphenol	603	100	1,000	0	60.3	57.8	121				
Bis(2-chloroethoxy)methane	962	100	1,000	0	96.2	67.5	124				
2,4-Dichlorophenol	835	200	1,000	0	83.5	57.1	128				
1,2,4-Trichlorobenzene	976	100	1,000	0	97.6	36.2	140				
Naphthalene	981	80.0	1,000	0	98.1	56.8	130				
4-Chloroaniline	881	500	1,000	0	88.1	50.2	139				



Date: 10/9/2015

Work Order: 1509353
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	LCS-11985	SampType: LCS		Units: µg/Kg		Prep Date: 9/29/2015			RunNo: 25270		
Client ID:	LCSS	Batch ID: 11985		Analysis Date: 10/2/2015					SeqNo: 476487		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobutadiene	927	100	1,000	0	92.7	55.9	131				
4-Chloro-3-methylphenol	669	500	1,000	0	66.9	49.4	138				
2-Methylnaphthalene	945	80.0	1,000	0	94.5	68.3	121				
1-Methylnaphthalene	944	80.0	1,000	0	94.4	64.1	126				
Hexachlorocyclopentadiene	775	100	1,000	0	77.5	36.7	128				
2,4,6-Trichlorophenol	558	200	1,000	0	55.8	36.4	132				
2,4,5-Trichlorophenol	762	200	1,000	0	76.2	52.3	128				
2-Chloronaphthalene	951	100	1,000	0	95.1	67.1	123				
2-Nitroaniline	874	500	1,000	0	87.4	43.9	135				
Acenaphthene	956	80.0	1,000	0	95.6	49.2	127				
Dimethylphthalate	893	100	1,000	0	89.3	62.4	130				
2,6-Dinitrotoluene	905	100	1,000	0	90.5	54.6	127				
Acenaphthylene	941	80.0	1,000	0	94.1	64.8	127				
2,4-Dinitrophenol	ND	200	1,000	0	0	7.9	119				S
Dibenzofuran	983	100	1,000	0	98.3	67.5	123				
2,4-Dinitrotoluene	845	100	1,000	0	84.5	21.9	136				
4-Nitrophenol	ND	500	1,000	0	0	25.4	138				S
Fluorene	961	80.0	1,000	0	96.1	64.8	126				
4-Chlorophenyl phenyl ether	997	100	1,000	0	99.7	66.6	124				
Diethylphthalate	943	100	1,000	0	94.3	42.9	132				
4,6-Dinitro-2-methylphenol	638	200	1,000	0	63.8	12.9	110				
4-Bromophenyl phenyl ether	964	100	1,000	0	96.4	61.8	128				
Hexachlorobenzene	962	100	1,000	0	96.2	66.8	124				
Pentachlorophenol	339	100	1,000	0	33.9	10	123				
Phenanthrene	961	80.0	1,000	0	96.1	61.2	130				
Anthracene	960	80.0	1,000	0	96.0	68.9	122				
Carbazole	919	500	1,000	0	91.9	64.5	135				
Di-n-butylphthalate	923	100	1,000	0	92.3	50.6	130				
Fluoranthene	965	80.0	1,000	0	96.5	66	129				
Pyrene	959	80.0	1,000	0	95.9	45.4	140				
Butyl Benzylphthalate	903	100	1,000	0	90.3	31.1	157				



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	LCS-11985	SampType: LCS		Units: µg/Kg	Prep Date: 9/29/2015			RunNo: 25270			
Client ID:	LCSS	Batch ID: 11985			Analysis Date: 10/2/2015			SeqNo: 476487			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
bis(2-Ethylhexyl)adipate	933	100	1,000	0	93.3	28.7	160				
Benz (a) anthracene	891	80.0	1,000	0	89.1	44	150				
Chrysene	1,070	80.0	1,000	0	107	65.8	128				
bis (2-Ethylhexyl) phthalate	946	100	1,000	0	94.6	36.3	149				
Di-n-octyl phthalate	944	100	1,000	0	94.4	37.2	135				
Benzo (b) fluoranthene	811	80.0	1,000	0	81.1	45.6	146				
Benzo (k) fluoranthene	836	80.0	1,000	0	83.6	45.5	138				
Benzo (a) pyrene	775	80.0	1,000	0	77.5	49.2	137				
Indeno (1,2,3-cd) pyrene	706	80.0	1,000	0	70.6	44.2	146				
Dibenz (a,h) anthracene	772	80.0	1,000	0	77.2	37.5	152				
Benzo (g,h,l) perylene	707	80.0	1,000	0	70.7	24.1	156				
Surr: 2,4,6-Tribromophenol	630		1,000		63.0	11.1	127				
Surr: 2-Fluorobiphenyl	487		500.0		97.5	16.1	150				
Surr: Nitrobenzene-d5	476		500.0		95.1	13.1	124				
Surr: Phenol-d6	889		1,000		88.9	11.6	133				
Surr: p-Terphenyl	480		500.0		96.1	21.8	150				

NOTES:

S - Outlying spike recoveries observed (2,4-Dinitrophenol and 4-Nitrophenol; low bias). Samples will be qualified with an *.

S - Outlying spike recovery observed (Benzyl alcohol; high bias). Samples are non-detect for this analyte, no further action required.

Sample ID	1509353-001ADUP	SampType:	DUP			Units:	µg/Kg-dry			Prep Date:	9/29/2015			RunNo:	25270		
Client ID:	TP-1:5.5	Batch ID:	11985							Analysis Date:	10/2/2015			SeqNo:	476489		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val				%RPD	RPDLimit	Qual		
Phenol		ND	279						0					50			
Bis(2-chloroethyl) ether		ND	279						0					50			
2-Chlorophenol		ND	140						0					50			
1,3-Dichlorobenzene		ND	140						0					50			
1,4-Dichlorobenzene		ND	140						0					50			
1,2-Dichlorobenzene		ND	140						0					50			
Benzyl alcohol		ND	140						0					50			
2-Methylphenol (o-cresol)		ND	140						0					50			



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	TP-1:5.5	Batch ID:	11985	Analysis Date:				10/2/2015	SeqNo:	476489	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloroethane	ND	140						0		50	
N-Nitrosodi-n-propylamine	ND	140						0		50	
Nitrobenzene	ND	279						0		50	
Isophorone	ND	140						0		50	
4-Methylphenol (p-cresol)	ND	140						0		50	
2-Nitrophenol	ND	279						0		50	
2,4-Dimethylphenol	ND	140						0		50	
Bis(2-chloroethoxy)methane	ND	140						0		50	
2,4-Dichlorophenol	ND	279						0		50	
1,2,4-Trichlorobenzene	ND	140						0		50	
Naphthalene	ND	112						0		50	
4-Chloroaniline	ND	698						0		50	
Hexachlorobutadiene	ND	140						0		50	
4-Chloro-3-methylphenol	ND	698						0		50	
2-Methylnaphthalene	ND	112						0		50	
1-Methylnaphthalene	ND	112						0		50	
Hexachlorocyclopentadiene	ND	140						0		50	
2,4,6-Trichlorophenol	ND	279						0		50	
2,4,5-Trichlorophenol	ND	279						0		50	
2-Chloronaphthalene	ND	140						0		50	
2-Nitroaniline	ND	698						0		50	
Acenaphthene	ND	112						0		50	
Dimethylphthalate	ND	140						0		50	
2,6-Dinitrotoluene	ND	140						0		50	
Acenaphthylene	ND	112						0		50	
2,4-Dinitrophenol	ND	279						0		50	*
Dibenzofuran	ND	140						0		50	
2,4-Dinitrotoluene	ND	140						0		50	
4-Nitrophenol	ND	698						0		50	*
Fluorene	ND	112						0		50	
4-Chlorophenyl phenyl ether	ND	140						0		50	



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	TP-1:5.5	Batch ID:	11985	Analysis Date:				10/2/2015	SeqNo:	476489	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diethylphthalate	ND	140						0		50	
4,6-Dinitro-2-methylphenol	ND	279						0		50	
4-Bromophenyl phenyl ether	ND	140						0		50	
Hexachlorobenzene	ND	140						0		50	
Pentachlorophenol	ND	140						0		50	
Phenanthrene	ND	112						0		50	
Anthracene	ND	112						0		50	
Carbazole	ND	698						0		50	
Di-n-butylphthalate	289	140						312.5	7.65	50	
Fluoranthene	ND	112						0		50	
Pyrene	ND	112						0		50	
Butyl Benzylphthalate	ND	140						180.5	200	50	R
bis(2-Ethylhexyl)adipate	ND	140						0		50	
Benz (a) anthracene	151	112						156.3	3.66	50	
Chrysene	ND	112						0		50	
bis (2-Ethylhexyl) phthalate	195	140						160.6	19.2	50	
Di-n-octyl phthalate	ND	140						0		50	
Benzo (b) fluoranthene	ND	112						0		50	
Benzo (k) fluoranthene	ND	112						0		50	
Benzo (a) pyrene	ND	112						0		50	
Indeno (1,2,3-cd) pyrene	ND	112						0		50	
Dibenz (a,h) anthracene	ND	112						0		50	
Benzo (g,h,i) perylene	ND	112						0		50	
Surr: 2,4,6-Tribromophenol	646		1,396		46.3	11.1	127		0		
Surr: 2-Fluorobiphenyl	613		697.8		87.8	16.1	150		0		
Surr: Nitrobenzene-d5	523		697.8		75.0	13.1	124		0		
Surr: Phenol-d6	657		1,396		47.0	11.6	133		0		
Surr: p-Terphenyl	690		697.8		98.9	21.8	150		0		

NOTES:

* - Flagged value is not within established control limits.

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-002AMS	SampType: MS	Units: µg/Kg-dry			Prep Date: 9/29/2015			RunNo: 25270		
Client ID:	TP-3:6.0	Batch ID: 11985				Analysis Date: 10/2/2015			SeqNo: 476491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	394	244	1,218	0	32.4	29.2	146				
Bis(2-chloroethyl) ether	759	244	1,218	0	62.4	65.4	115				S
2-Chlorophenol	725	122	1,218	0	59.5	44	134				
1,3-Dichlorobenzene	724	122	1,218	0	59.4	69.1	117				S
1,4-Dichlorobenzene	643	122	1,218	0	52.8	44.5	134				
1,2-Dichlorobenzene	729	122	1,218	0	59.9	35	131				
Benzyl alcohol	898	122	1,218	0	73.8	30.8	159				
2-Methylphenol (o-cresol)	388	122	1,218	0	31.9	57.7	125				S
Hexachloroethane	667	122	1,218	0	54.8	67.1	118				S
N-Nitrosodi-n-propylamine	985	122	1,218	0	80.9	26.4	151				
Nitrobenzene	762	244	1,218	0	62.6	61.4	130				
Isophorone	1,050	122	1,218	0	85.9	61.8	132				
4-Methylphenol (p-cresol)	341	122	1,218	0	28.0	65.5	127				S
2-Nitrophenol	886	244	1,218	0	72.7	46.3	118				
2,4-Dimethylphenol	243	122	1,218	0	20.0	46	158				S
Bis(2-chloroethoxy)methane	916	122	1,218	0	75.2	66.8	124				
2,4-Dichlorophenol	740	244	1,218	0	60.7	56.2	128				
1,2,4-Trichlorobenzene	860	122	1,218	0	70.7	29.2	140				
Naphthalene	855	97.4	1,218	50.51	66.1	44.4	136				
4-Chloroaniline	412	609	1,218	0	33.8	27	126				
Hexachlorobutadiene	892	122	1,218	0	73.3	38.2	138				
4-Chloro-3-methylphenol	ND	609	1,218	0	0	36.8	159				S
2-Methylnaphthalene	971	97.4	1,218	57.31	75.0	51.7	138				
1-Methylnaphthalene	983	97.4	1,218	48.77	76.7	70.4	124				
Hexachlorocyclopentadiene	189	122	1,218	0	15.5	37.5	129				S
2,4,6-Trichlorophenol	833	244	1,218	0	68.4	62.7	122				
2,4,5-Trichlorophenol	826	244	1,218	0	67.8	54.7	127				
2-Chloronaphthalene	999	122	1,218	0	82.1	69.8	126				
2-Nitroaniline	1,050	609	1,218	0	85.9	39.3	145				
Acenaphthene	1,060	97.4	1,218	0	87.1	49.6	129				
Dimethylphthalate	1,040	122	1,218	0	85.7	61.5	131				



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	TP-3:6.0	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,6-Dinitrotoluene	1,000	122	1,218	0	82.3	56.8	137				
Acenaphthylene	982	97.4	1,218	51.91	76.4	64	128				
2,4-Dinitrophenol	1,140	244	1,218	0	93.5	35.3	144				
Dibenzofuran	1,020	122	1,218	0	83.8	64.7	131				
2,4-Dinitrotoluene	941	122	1,218	0	77.3	30.9	139				
4-Nitrophenol	ND	609	1,218	0	0	48.6	137				S
Fluorene	1,060	97.4	1,218	57.45	82.2	64.2	127				
4-Chlorophenyl phenyl ether	1,040	122	1,218	0	85.8	70.9	128				
Diethylphthalate	1,070	122	1,218	89.58	80.5	61.7	129				
4,6-Dinitro-2-methylphenol	596	244	1,218	0	48.9	21.9	143				
4-Bromophenyl phenyl ether	1,050	122	1,218	0	85.9	69.6	136				
Hexachlorobenzene	1,030	122	1,218	0	84.3	66.5	123				
Pentachlorophenol	495	122	1,218	0	40.7	28.2	156				
Phenanthrene	1,060	97.4	1,218	73.19	80.9	57	134				
Anthracene	1,030	97.4	1,218	0	84.6	68.2	123				
Carbazole	1,040	609	1,218	0	85.7	64.1	152				
Di-n-butylphthalate	1,120	122	1,218	135.4	80.6	52.4	130				
Fluoranthene	1,100	97.4	1,218	147.8	77.8	46.5	165				
Pyrene	1,120	97.4	1,218	135.8	81.0	31.4	151				
Butyl Benzylphthalate	1,300	122	1,218	155.5	93.7	30.4	138				
bis(2-Ethylhexyl)adipate	1,350	122	1,218	0	111	32	136				
Benz (a) anthracene	1,070	97.4	1,218	0	88.0	43.9	151				
Chrysene	1,150	97.4	1,218	63.14	89.2	71.1	126				
bis (2-Ethylhexyl) phthalate	1,280	122	1,218	132.9	94.0	40.8	170				
Di-n-octyl phthalate	1,920	122	1,218	0	158	34.6	142				S
Benzo (b) fluoranthene	1,250	97.4	1,218	214.7	85.3	52.1	136				
Benzo (k) fluoranthene	934	97.4	1,218	0	76.7	64.5	135				
Benzo (a) pyrene	1,050	97.4	1,218	0	85.9	50.5	137				
Indeno (1,2,3-cd) pyrene	1,290	97.4	1,218	184.3	90.7	49.7	143				
Dibenz (a,h) anthracene	1,500	97.4	1,218	0	123	40.7	152				
Benzo (g,h,i) perylene	1,080	97.4	1,218	150.9	76.4	34	157				



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-002AMS	SampType: MS			Units: µg/Kg-dry		Prep Date: 9/29/2015			RunNo: 25270		
Client ID:	TP-3:6.0	Batch ID: 11985			Analysis Date: 10/2/2015					SeqNo: 476491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Surr: 2,4,6-Tribromophenol	1,010		1,218		83.0	11.1	127				
Surr: 2-Fluorobiphenyl	496		608.8		81.4	16.1	150				
Surr: Nitrobenzene-d5	381		608.8		62.6	13.1	124				
Surr: Phenol-d6	538		1,218		44.2	11.6	133				
Surr: p-Terphenyl	547		608.8		89.9	21.8	150				

NOTES:

S - Spike recovery indicates a possible matrix effect.



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Gasoline by NWTPH-Gx**

Sample ID	LCS-11979	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/29/2015	RunNo:	25194		
Client ID:	LCSS	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475070		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	21.3	5.00	25.00	0	85.2	65	135				
Surr: Toluene-d8	1.23		1.250		98.0	65	135				
Surr: 4-Bromofluorobenzene	1.32		1.250		106	65	135				

Sample ID	MB-11979	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/29/2015		RunNo:	25194	
Client ID:	MBLKS	Batch ID:	11979						Analysis Date:	9/29/2015			SeqNo:	475071	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Gasoline	ND	5.00									
Surr: Toluene-d8	1.21		1.250		96.6	65	135				
Surr: 4-Bromofluorobenzene	1.30		1.250		104	65	135				

Sample ID	1509387-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25194		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475063		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	3.59						0		30	
Surr: Toluene-d8	0.868		0.8976		96.7	65	135		0		
Surr: 4-Bromofluorobenzene	0.940		0.8976		105	65	135		0		

Sample ID	1509385-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25194		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475174		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.59						0		30	
Surr: Toluene-d8	1.36		1.397		97.2	65	135		0		
Surr: 4-Bromofluorobenzene	1.48		1.397		106	65	135		0		



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Sample ID	LCS-11979	SampType: LCS		Units: mg/Kg		Prep Date: 9/29/2015			RunNo: 25193		
Client ID:	LCSS	Batch ID: 11979					Analysis Date: 9/29/2015			SeqNo: 475058	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.841	0.0600	1.000	0	84.1	34.5	141				
Chloromethane	0.876	0.0600	1.000	0	87.6	38.8	132				
Vinyl chloride	0.995	0.00200	1.000	0	99.5	56.1	130				
Bromomethane	1.10	0.0900	1.000	0	110	41.3	148				
Trichlorofluoromethane (CFC-11)	1.40	0.0500	1.000	0	140	42.9	147				
Chloroethane	0.955	0.0600	1.000	0	95.5	37.1	144				
1,1-Dichloroethene	1.12	0.0500	1.000	0	112	49.7	142				
Methylene chloride	0.938	0.0200	1.000	0	93.8	46.3	140				
trans-1,2-Dichloroethene	1.12	0.0200	1.000	0	112	68	130				
Methyl tert-butyl ether (MTBE)	0.907	0.0500	1.000	0	90.7	59.1	138				
1,1-Dichloroethane	1.10	0.0200	1.000	0	110	61.9	137				
2,2-Dichloropropane	1.56	0.0500	1.000	0	156	28.1	149				S
cis-1,2-Dichloroethene	1.09	0.0200	1.000	0	109	71.3	135				
Chloroform	1.04	0.0200	1.000	0	104	67.5	129				
1,1,1-Trichloroethane (TCA)	1.21	0.0200	1.000	0	121	69	132				
1,1-Dichloropropene	1.05	0.0200	1.000	0	105	72.7	131				
Carbon tetrachloride	1.09	0.0200	1.000	0	109	63.4	137				
1,2-Dichloroethane (EDC)	0.999	0.0300	1.000	0	99.9	61.9	136				
Benzene	1.00	0.0200	1.000	0	100	64.3	133				
Trichloroethene (TCE)	1.07	0.0200	1.000	0	107	65.5	137				
1,2-Dichloropropane	1.05	0.0200	1.000	0	105	63.2	142				
Bromodichloromethane	0.967	0.0200	1.000	0	96.7	73.2	131				
Dibromomethane	1.17	0.0400	1.000	0	117	70	130				
cis-1,3-Dichloropropene	1.00	0.0200	1.000	0	100	59.1	143				
Toluene	1.01	0.0200	1.000	0	101	67.3	138				
trans-1,3-Dichloropropylene	1.05	0.0300	1.000	0	105	49.2	149				
1,1,2-Trichloroethane	1.12	0.0300	1.000	0	112	74.5	129				
1,3-Dichloropropane	1.06	0.0500	1.000	0	106	70	130				
Tetrachloroethene (PCE)	1.11	0.0200	1.000	0	111	52.7	150				
Dibromochloromethane	1.10	0.0300	1.000	0	110	70.6	144				
1,2-Dibromoethane (EDB)	1.19	0.00500	1.000	0	119	70	130				



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Sample ID	LCS-11979	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	LCSS	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475058		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	1.07	0.0200	1.000	0	107	76.1	123				
1,1,1,2-Tetrachloroethane	1.09	0.0300	1.000	0	109	74.8	131				
Ethylbenzene	0.993	0.0300	1.000	0	99.3	74	129				
m,p-Xylene	1.99	0.0200	2.000	0	99.3	79.8	128				
o-Xylene	0.968	0.0200	1.000	0	96.8	72.7	124				
Styrene	1.14	0.0200	1.000	0	114	76.8	130				
Isopropylbenzene	1.11	0.0800	1.000	0	111	70	130				
Bromoform	1.14	0.0200	1.000	0	114	67	154				
1,1,2,2-Tetrachloroethane	1.22	0.0200	1.000	0	122	60	130				
n-Propylbenzene	1.10	0.0200	1.000	0	110	74.8	125				
Bromobenzene	1.11	0.0300	1.000	0	111	49.2	144				
1,3,5-Trimethylbenzene	1.07	0.0200	1.000	0	107	74.6	123				
2-Chlorotoluene	1.08	0.0200	1.000	0	108	76.7	129				
4-Chlorotoluene	1.11	0.0200	1.000	0	111	77.5	125				
tert-Butylbenzene	1.13	0.0200	1.000	0	113	66.2	130				
1,2,3-Trichloropropane	1.19	0.0200	1.000	0	119	67.9	136				
1,2,4-Trichlorobenzene	1.09	0.0500	1.000	0	109	65.6	137				
sec-Butylbenzene	1.15	0.0200	1.000	0	115	75.6	133				
4-Isopropyltoluene	1.15	0.0200	1.000	0	115	76.8	131				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	128				
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	72.6	126				
n-Butylbenzene	1.08	0.0200	1.000	0	108	65.3	136				
1,2-Dichlorobenzene	1.01	0.0200	1.000	0	101	72.8	126				
1,2-Dibromo-3-chloropropane	1.13	0.500	1.000	0	113	61.2	139				
1,2,4-Trimethylbenzene	0.984	0.0200	1.000	0	98.4	77.5	129				
Hexachlorobutadiene	1.14	0.100	1.000	0	114	42	151				
Naphthalene	0.966	0.0300	1.000	0	96.6	62.3	134				
1,2,3-Trichlorobenzene	1.04	0.0200	1.000	0	104	62.1	140				
Surr: Dibromofluoromethane	1.31		1.250		104	56.5	129				
Surr: Toluene-d8	1.24		1.250		99.1	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.29		1.250		103	63.1	141				



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Sample ID	LCS-11979	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	LCSS	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475058		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:

S - Outlying spike recovery observed (2,2-Dichloropropane; high bias). There were no detections of this analyte in the following samples. No further action is required.

Sample ID	MB-11979	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/29/2015			RunNo:	25193		
Client ID:	MBLKS	Batch ID:	11979							Analysis Date:	9/29/2015			SeqNo:	475059		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual				

Dichlorodifluoromethane (CFC-12)	ND	0.0600									
Chloromethane	ND	0.0600									
Vinyl chloride	ND	0.00200									
Bromomethane	ND	0.0900									
Trichlorofluoromethane (CFC-11)	ND	0.0500									
Chloroethane	ND	0.0600									
1,1-Dichloroethene	ND	0.0500									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
Methyl tert-butyl ether (MTBE)	ND	0.0500									
1,1-Dichloroethane	ND	0.0200									
2,2-Dichloropropane	ND	0.0500									
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0200									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0200									
1,2-Dichloroethane (EDC)	ND	0.0300									
Benzene	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0400									
cis-1,3-Dichloropropene	ND	0.0200									
Toluene	ND	0.0200									



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Sample ID	MB-11979	SampType:	MBLK	Units:	mg/Kg	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	MBLKS	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475059		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

trans-1,3-Dichloropropylene	ND	0.0300
1,1,2-Trichloroethane	ND	0.0300
1,3-Dichloropropane	ND	0.0500
Tetrachloroethene (PCE)	ND	0.0200
Dibromochloromethane	ND	0.0300
1,2-Dibromoethane (EDB)	ND	0.00500
Chlorobenzene	ND	0.0200
1,1,1,2-Tetrachloroethane	ND	0.0300
Ethylbenzene	ND	0.0300
m,p-Xylene	ND	0.0200
o-Xylene	ND	0.0200
Styrene	ND	0.0200
Isopropylbenzene	ND	0.0800
Bromoform	ND	0.0200
1,1,2,2-Tetrachloroethane	ND	0.0200
n-Propylbenzene	ND	0.0200
Bromobenzene	ND	0.0300
1,3,5-Trimethylbenzene	ND	0.0200
2-Chlorotoluene	ND	0.0200
4-Chlorotoluene	ND	0.0200
tert-Butylbenzene	ND	0.0200
1,2,3-Trichloropropane	ND	0.0200
1,2,4-Trichlorobenzene	ND	0.0500
sec-Butylbenzene	ND	0.0200
4-Isopropyltoluene	ND	0.0200
1,3-Dichlorobenzene	ND	0.0200
1,4-Dichlorobenzene	ND	0.0200
n-Butylbenzene	ND	0.0200
1,2-Dichlorobenzene	ND	0.0200
1,2-Dibromo-3-chloropropane	ND	0.500
1,2,4-Trimethylbenzene	ND	0.0200



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Sample ID	MB-11979	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/29/2015			RunNo:	25193		
Client ID:	MBLKS	Batch ID:	11979							Analysis Date:	9/29/2015			SeqNo:	475059		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual				

Hexachlorobutadiene	ND	0.100									
Naphthalene	ND	0.0300									
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.21		1.250		97.2	56.5	129				
Surr: Toluene-d8	1.25		1.250		100	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		100	63.1	141				

Sample ID	1509387-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475050		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	0.0431						0		30	
Chloromethane	ND	0.0431						0		30	
Vinyl chloride	ND	0.00144						0		30	
Bromomethane	ND	0.0646						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0359						0		30	
Chloroethane	ND	0.0431						0		30	
1,1-Dichloroethene	ND	0.0359						0		30	
Methylene chloride	ND	0.0144						0		30	
trans-1,2-Dichloroethene	ND	0.0144						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0359						0		30	
1,1-Dichloroethane	ND	0.0144						0		30	
2,2-Dichloropropane	ND	0.0359						0		30	
cis-1,2-Dichloroethene	ND	0.0144						0		30	
Chloroform	ND	0.0144						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0144						0		30	
1,1-Dichloropropene	ND	0.0144						0		30	
Carbon tetrachloride	ND	0.0144						0		30	
1,2-Dichloroethane (EDC)	ND	0.0215						0		30	
Benzene	ND	0.0144						0		30	
Trichloroethene (TCE)	ND	0.0144						0		30	



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Sample ID	1509387-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475050		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dichloropropane	ND	0.0144						0		30	
Bromodichloromethane	ND	0.0144						0		30	
Dibromomethane	ND	0.0287						0		30	
cis-1,3-Dichloropropene	ND	0.0144						0		30	
Toluene	ND	0.0144						0		30	
trans-1,3-Dichloropropylene	ND	0.0215						0		30	
1,1,2-Trichloroethane	ND	0.0215						0		30	
1,3-Dichloropropane	ND	0.0359						0		30	
Tetrachloroethene (PCE)	ND	0.0144						0		30	
Dibromochloromethane	ND	0.0215						0		30	
1,2-Dibromoethane (EDB)	ND	0.00359						0		30	
Chlorobenzene	ND	0.0144						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0215						0		30	
Ethylbenzene	ND	0.0215						0		30	
m,p-Xylene	ND	0.0144						0		30	
o-Xylene	ND	0.0144						0		30	
Styrene	ND	0.0144						0		30	
Isopropylbenzene	ND	0.0574						0		30	
Bromoform	ND	0.0144						0		30	
1,1,1,2,2-Tetrachloroethane	ND	0.0144						0		30	
n-Propylbenzene	ND	0.0144						0		30	
Bromobenzene	ND	0.0215						0		30	
1,3,5-Trimethylbenzene	ND	0.0144						0		30	
2-Chlorotoluene	ND	0.0144						0		30	
4-Chlorotoluene	ND	0.0144						0		30	
tert-Butylbenzene	ND	0.0144						0		30	
1,2,3-Trichloropropane	ND	0.0144						0		30	
1,2,4-Trichlorobenzene	ND	0.0359						0		30	
sec-Butylbenzene	ND	0.0144						0		30	
4-Isopropyltoluene	ND	0.0144						0		30	
1,3-Dichlorobenzene	ND	0.0144						0		30	



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Sample ID	1509387-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475050		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.0144						0		30	
n-Butylbenzene	ND	0.0144						0		30	
1,2-Dichlorobenzene	ND	0.0144						0		30	
1,2-Dibromo-3-chloropropane	ND	0.359						0		30	
1,2,4-Trimethylbenzene	ND	0.0144						0		30	
Hexachlorobutadiene	ND	0.0718						0		30	
Naphthalene	ND	0.0215						0		30	
1,2,3-Trichlorobenzene	ND	0.0144						0		30	
Surr: Dibromofluoromethane	0.863		0.8976		96.1	56.5	129		0		
Surr: Toluene-d8	0.892		0.8976		99.4	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.906		0.8976		101	63.1	141		0		

Sample ID	1509387-005BMS	SampType:	MS		Units:	mg/Kg-dry		Prep Date:	9/29/2015		RunNo:	25193
Client ID:	BATCH	Batch ID:	11979		Analysis Date:				9/29/2015		SeqNo:	475055
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Dichlorodifluoromethane (CFC-12)	1.01	0.0583	0.9721	0	104	43.5	121					
Chloromethane	0.999	0.0583	0.9721	0.01014	102	45	130					
Vinyl chloride	1.16	0.00194	0.9721	0	120	51.2	146					
Bromomethane	1.19	0.0875	0.9721	0	122	21.3	120				S	
Trichlorofluoromethane (CFC-11)	0.974	0.0486	0.9721	0	100	35	131					
Chloroethane	1.08	0.0583	0.9721	0	111	43.8	117					
1,1-Dichloroethene	1.23	0.0486	0.9721	0	127	61.9	141					
Methylene chloride	1.03	0.0194	0.9721	0.07724	98.1	54.7	142					
trans-1,2-Dichloroethene	1.19	0.0194	0.9721	0	122	52	136					
Methyl tert-butyl ether (MTBE)	0.965	0.0486	0.9721	0	99.3	54.4	132					
1,1-Dichloroethane	1.16	0.0194	0.9721	0.004647	119	51.8	141					
2,2-Dichloropropane	1.37	0.0486	0.9721	0	141	36	123				S	
cis-1,2-Dichloroethene	1.12	0.0194	0.9721	0	116	58.6	136					
Chloroform	1.06	0.0194	0.9721	0.01447	108	53.2	129					
1,1,1-Trichloroethane (TCA)	1.28	0.0194	0.9721	0	131	58.3	145					

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Sample ID	1509387-005BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475055		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloropropene	1.07	0.0194	0.9721	0	110	55.1	138				
Carbon tetrachloride	1.09	0.0194	0.9721	0	112	53.3	144				
1,2-Dichloroethane (EDC)	0.998	0.0292	0.9721	0.04981	97.5	51.3	139				
Benzene	1.51	0.0194	0.9721	0.5396	99.5	63.5	133				
Trichloroethene (TCE)	1.08	0.0194	0.9721	0.03136	108	68.6	132				
1,2-Dichloropropane	1.04	0.0194	0.9721	0.003577	107	59	136				
Bromodichloromethane	0.936	0.0194	0.9721	0.08723	87.4	50.7	141				
Dibromomethane	1.14	0.0389	0.9721	0.006323	116	50.6	137				
cis-1,3-Dichloropropene	1.02	0.0194	0.9721	0.05260	99.6	50.4	138				
Toluene	4.51	0.0194	0.9721	3.490	105	63.4	132				
trans-1,3-Dichloropropylene	1.13	0.0292	0.9721	0.02254	114	44.1	147				
1,1,2-Trichloroethane	1.32	0.0292	0.9721	0.1854	117	51.6	137				
1,3-Dichloropropane	1.13	0.0486	0.9721	0	116	53.1	134				
Tetrachloroethene (PCE)	1.18	0.0194	0.9721	0	121	35.6	158				
Dibromochloromethane	1.07	0.0292	0.9721	0.007957	110	55.3	140				
1,2-Dibromoethane (EDB)	1.25	0.00486	0.9721	0.01268	128	50.4	136				
Chlorobenzene	1.08	0.0194	0.9721	0.004540	111	60	133				
1,1,1,2-Tetrachloroethane	1.06	0.0292	0.9721	0.01428	108	53.1	142				
Ethylbenzene	2.49	0.0292	0.9721	1.502	102	54.5	134				
m,p-Xylene	8.08	0.0194	1.944	6.227	95.5	53.1	132				E
o-Xylene	3.48	0.0194	0.9721	2.520	98.9	53.3	139				
Styrene	1.27	0.0194	0.9721	0.09711	121	51.1	132				
Isopropylbenzene	1.62	0.0778	0.9721	0.4642	119	58.9	138				
Bromoform	1.10	0.0194	0.9721	0	113	57.9	130				
1,1,1,2,2-Tetrachloroethane	2.39	0.0194	0.9721	1.284	114	51.9	131				
n-Propylbenzene	2.12	0.0194	0.9721	0.9704	118	53.6	140				
Bromobenzene	1.15	0.0292	0.9721	0	118	54.2	140				
1,3,5-Trimethylbenzene	3.02	0.0194	0.9721	1.938	112	51.8	136				
2-Chlorotoluene	1.49	0.0194	0.9721	0.4387	108	51.6	136				
4-Chlorotoluene	1.35	0.0194	0.9721	0.1999	119	50.1	139				
tert-Butylbenzene	1.21	0.0194	0.9721	0.01467	123	50.5	135				



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509387-005BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475055		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichloropropane	1.26	0.0194	0.9721	0.03448	126	50.5	131				
1,2,4-Trichlorobenzene	1.17	0.0486	0.9721	0	121	50.8	130				
sec-Butylbenzene	1.49	0.0194	0.9721	0.2766	125	52.6	141				
4-Isopropyltoluene	1.68	0.0194	0.9721	0.4629	125	52.9	134				
1,3-Dichlorobenzene	1.04	0.0194	0.9721	0	107	52.6	131				
1,4-Dichlorobenzene	1.03	0.0194	0.9721	0	106	52.9	129				
n-Butylbenzene	1.92	0.0194	0.9721	0.8108	114	52.6	130				
1,2-Dichlorobenzene	1.02	0.0194	0.9721	0	105	55.8	129				
1,2-Dibromo-3-chloropropane	1.51	0.486	0.9721	0.2608	128	40.5	131				
1,2,4-Trimethylbenzene	5.04	0.0194	0.9721	4.590	45.8	50.6	137				SE
Hexachlorobutadiene	1.29	0.0972	0.9721	0	132	40.6	158				
Naphthalene	2.81	0.0292	0.9721	1.746	109	52.3	124				
1,2,3-Trichlorobenzene	1.14	0.0194	0.9721	0.008243	116	54.4	124				
Surr: Dibromofluoromethane	1.24		1.215		102	56.5	129				
Surr: Toluene-d8	1.32		1.215		109	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.215		105	63.1	141				

NOTES:

S - Outlying QC recoveries were observed. The method is in control as indicated by the LCS.

Sample ID	1509385-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475201		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0671						0		30	
Chloromethane	ND	0.0671						0		30	
Vinyl chloride	ND	0.00224						0		30	
Bromomethane	ND	0.101						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0559						0		30	
Chloroethane	ND	0.0671						0		30	
1,1-Dichloroethene	ND	0.0559						0		30	
Methylene chloride	ND	0.0224						0		30	
trans-1,2-Dichloroethene	ND	0.0224						0		30	



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509385-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475201		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE)	ND	0.0559						0		30	
1,1-Dichloroethane	ND	0.0224						0		30	
2,2-Dichloropropane	ND	0.0559						0		30	
cis-1,2-Dichloroethene	ND	0.0224						0		30	
Chloroform	ND	0.0224						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0224						0		30	
1,1-Dichloropropene	ND	0.0224						0		30	
Carbon tetrachloride	ND	0.0224						0		30	
1,2-Dichloroethane (EDC)	ND	0.0335						0		30	
Benzene	ND	0.0224						0		30	
Trichloroethene (TCE)	ND	0.0224						0		30	
1,2-Dichloropropane	ND	0.0224						0		30	
Bromodichloromethane	ND	0.0224						0		30	
Dibromomethane	ND	0.0447						0		30	
cis-1,3-Dichloropropene	ND	0.0224						0		30	
Toluene	ND	0.0224						0		30	
trans-1,3-Dichloropropylene	ND	0.0335						0		30	
1,1,2-Trichloroethane	ND	0.0335						0		30	
1,3-Dichloropropane	ND	0.0559						0		30	
Tetrachloroethene (PCE)	ND	0.0224						0		30	
Dibromochloromethane	ND	0.0335						0		30	
1,2-Dibromoethane (EDB)	ND	0.00559						0		30	
Chlorobenzene	ND	0.0224						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0335						0		30	
Ethylbenzene	ND	0.0335						0		30	
m,p-Xylene	ND	0.0224						0		30	
o-Xylene	ND	0.0224						0		30	
Styrene	ND	0.0224						0		30	
Isopropylbenzene	ND	0.0894						0		30	
Bromoform	ND	0.0224						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0224						0		30	



Date: 10/9/2015

Work Order: 1509353
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509385-001BDUP	SampType:	DUP		Units:	mg/Kg-dry			Prep Date:	9/29/2015		RunNo:	25193	
Client ID:	BATCH	Batch ID:	11979						Analysis Date:	9/29/2015		SeqNo:	475201	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val			%RPD	RPDLimit	Qual
n-Propylbenzene		ND	0.0224						0				30	
Bromobenzene		ND	0.0335						0				30	
1,3,5-Trimethylbenzene		ND	0.0224						0				30	
2-Chlorotoluene		ND	0.0224						0				30	
4-Chlorotoluene		ND	0.0224						0				30	
tert-Butylbenzene		ND	0.0224						0				30	
1,2,3-Trichloropropane		ND	0.0224						0				30	
1,2,4-Trichlorobenzene		ND	0.0559						0				30	
sec-Butylbenzene		ND	0.0224						0				30	
4-Isopropyltoluene		ND	0.0224						0				30	
1,3-Dichlorobenzene		ND	0.0224						0				30	
1,4-Dichlorobenzene		ND	0.0224						0				30	
n-Butylbenzene		ND	0.0224						0				30	
1,2-Dichlorobenzene		ND	0.0224						0				30	
1,2-Dibromo-3-chloropropane		ND	0.559						0				30	
1,2,4-Trimethylbenzene		ND	0.0224						0				30	
Hexachlorobutadiene		ND	0.112						0				30	
Naphthalene		ND	0.0335						0				30	
1,2,3-Trichlorobenzene		ND	0.0224						0				30	
Surr: Dibromofluoromethane		1.33		1.397		95.1	56.5	129				0		
Surr: Toluene-d8		1.38		1.397		99.0	64.3	131				0		
Surr: 1-Bromo-4-fluorobenzene		1.43		1.397		102	63.1	141				0		



Date: 10/9/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID	1509276-018ADUP	SampType:	DUP	Units:	wt%	Prep Date:	9/29/2015	RunNo:	25189		
Client ID:	BATCH	Batch ID:	R25189			Analysis Date:	9/29/2015	SeqNo:	474938		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	13.2	0.500						10.34	24.3	20	R

Sample ID	1509401-001ADUP	SampType:	DUP	Units:	wt%	Prep Date:	9/29/2015	RunNo:	25189		
Client ID:	BATCH	Batch ID:	R25189			Analysis Date:	9/29/2015	SeqNo:	474956		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	14.6	0.500						16.55	12.7	20	

Client Name: **SW**

 Work Order Number: **1509353**

 Logged by: **Erica Silva**

 Date Received: **9/25/2015 12:20:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of >0°C to 10.0°C * Yes ☒ No ☐ NA ☐
8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

Item #	Temp °C
Cooler	4.2
Sample	2.5



Fremont

Analytical

Chain of Custody Record

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/25/15

Page: 1 of 1

Laboratory Project No (Internal): 1509353

Client: Shannon & Wilson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-9020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 211-2055-006
Location: City of Pacific WA
Report To (PM): Edwin Park
PM Email: edp@shwml.com
Collected by: EVP

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GV/8TEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DHR)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)**	EDS (8011)	Herbicides 819A	Pesticides 801B	Comments
1 TP-1:5.5	9/23/15	0900	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
2 TP-3:6.0	9/23/15	1130	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

**Metals Analysis (Circle): MTCA-5 PCBA Priority Pollutants: TAL Individual: Ag Al As B Ba Be Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide C-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (A fee may be assessed if samples are returned after 30 days.)

Relinquished: [Signature] Date/Time: 9/25/15 1200 Received: [Signature] Date/Time: 9/25/15 1220

Relinquished: X Received: X

TAT → SameDaySM NextDaySM 2 Day 3 Day STD

Please coordinate with the lab in advance

Distribution: White - Lab, Yellow - File, Pink - Originator

www.fremontanalytical.com



3600 Fremont Ave. N.

Seattle, WA 98103

T: (206) 352-3790

F: (206) 352-7178

info@fremontanalytical.com

Shannon & Wilson

Ed Ptak

400 N. 34th Street, Suite 100

Seattle, WA 98103

RE: Pacific Park

Lab ID: 1509353

October 21, 2015

Attention Ed Ptak:

Fremont Analytical, Inc. received 2 sample(s) on 9/25/2015 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Gasoline by NWTPH-Gx

Herbicides by EPA Method 8151A

Mercury by EPA Method 7471

Organochlorine Pesticides by EPA Method 8081

Sample Moisture (Percent Moisture)

Semi-Volatile Organic Compounds by EPA Method 8270

Total Metals by EPA Method 6020

Volatile Organic Compounds by EPA Method 8260

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
President



Date: 10/21/2015

CLIENT: Shannon & Wilson
Project: Pacific Park
Lab Order: 1509353

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1509353-001	TP-1-15:5.5	09/23/2015 9:00 AM	09/25/2015 12:20 PM
1509353-002	TP-3-15:6.0	09/23/2015 11:30 AM	09/25/2015 12:20 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: Shannon & Wilson**Project:** Pacific Park

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

WO#: 1509353

Date Reported: 10/21/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11961

Analyst: MD

Dicamba	ND	23.6		µg/Kg-dry	1	9/30/2015 2:47:00 AM
2,4-D	ND	20.3		µg/Kg-dry	1	9/30/2015 2:47:00 AM
2,4-DP	ND	16.9		µg/Kg-dry	1	9/30/2015 2:47:00 AM
2,4,5-TP (Silvex)	ND	13.5		µg/Kg-dry	1	9/30/2015 2:47:00 AM
2,4,5-T	ND	33.8		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Dinoseb	41.9	20.3		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Dalapon	118,000	135		µg/Kg-dry	1	9/30/2015 2:47:00 AM
2,4-DB	23.6	16.9		µg/Kg-dry	1	9/30/2015 2:47:00 AM
MCPP	ND	2,970		µg/Kg-dry	1	9/30/2015 2:47:00 AM
MCPA	ND	189		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Picloram	44.6	33.8		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Bentazon	25.4	23.6		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Chloramben	77.3	13.5		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Acifluorfen	ND	54.0		µg/Kg-dry	1	9/30/2015 2:47:00 AM
3,5-Dichlorobenzoic acid	ND	27.0		µg/Kg-dry	1	9/30/2015 2:47:00 AM
4-Nitrophenol	40.8	20.3		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Dacthal (DCPA)	20.4	20.3		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Surr: 2,4-Dichlorophenylacetic acid	119	20.1-168		%REC	1	9/30/2015 2:47:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Toxaphene	ND	0.118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Alpha BHC	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Beta BHC	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Gamma BHC (Lindane)	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Delta BHC	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Heptachlor	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Aldrin	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Heptachlor epoxide	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
gamma-Chlordane	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endosulfan I	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
alpha-Chlordane	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Dieldrin	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
4,4'-DDE	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endrin	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endosulfan II	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
4,4'-DDD	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endrin aldehyde	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endosulfan sulfate	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM



Analytical Report

WO#: 1509353

Date Reported: 10/21/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11962		Analyst: MD
4,4'-DDT	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endrin ketone	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Methoxychlor	ND	0.0591		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Surr: Decachlorobiphenyl	73.9	26.5-158		%REC	1	9/25/2015 10:18:00 PM
Surr: Tetrachloro-m-xylene	58.6	11-150		%REC	1	9/25/2015 10:18:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957

Analyst: AK

Diesel (Fuel Oil)	ND	26.7		mg/Kg-dry	1	9/30/2015 12:19:00 AM
Heavy Oil	895	66.7		mg/Kg-dry	1	9/30/2015 12:19:00 AM
Surr: 2-Fluorobiphenyl	114	50-150		%REC	1	9/30/2015 12:19:00 AM
Surr: o-Terphenyl	116	50-150		%REC	1	9/30/2015 12:19:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Bis(2-chloroethyl) ether	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Chlorophenol	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
1,3-Dichlorobenzene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
1,4-Dichlorobenzene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
1,2-Dichlorobenzene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benzyl alcohol	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Methylphenol (o-cresol)	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Hexachloroethane	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
N-Nitrosodi-n-propylamine	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Nitrobenzene	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Isophorone	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Methylphenol (p-cresol)	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Nitrophenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4-Dimethylphenol	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Bis(2-chloroethoxy)methane	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4-Dichlorophenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
1,2,4-Trichlorobenzene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Naphthalene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Chloroaniline	ND	689		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Hexachlorobutadiene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Chloro-3-methylphenol	ND	689		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Methylnaphthalene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
1-Methylnaphthalene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/21/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Hexachlorocyclopentadiene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4,6-Trichlorophenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4,5-Trichlorophenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Chloronaphthalene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Nitroaniline	ND	689		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Acenaphthene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Dimethylphthalate	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,6-Dinitrotoluene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Acenaphthylene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4-Dinitrophenol	ND	276	*	µg/Kg-dry	1	10/2/2015 4:26:00 AM
Dibenzofuran	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4-Dinitrotoluene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Nitrophenol	ND	689	*	µg/Kg-dry	1	10/2/2015 4:26:00 AM
Fluorene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Chlorophenyl phenyl ether	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Diethylphthalate	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4,6-Dinitro-2-methylphenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Bromophenyl phenyl ether	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Hexachlorobenzene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Pentachlorophenol	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Phenanthrene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Anthracene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Carbazole	ND	689		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Di-n-butylphthalate	312	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Fluoranthene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Pyrene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Butyl Benzylphthalate	181	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
bis(2-Ethylhexyl)adipate	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benz (a) anthracene	156	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Chrysene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
bis (2-Ethylhexyl) phthalate	161	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Di-n-octyl phthalate	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benzo (b) fluoranthene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benzo (k) fluoranthene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benzo (a) pyrene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Indeno (1,2,3-cd) pyrene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Dibenz (a,h) anthracene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benzo (g,h,i) perylene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Surr: 2,4,6-Tribromophenol	19.3	11.1-127		%REC	1	10/2/2015 4:26:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/21/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Surr: 2-Fluorobiphenyl	76.9	16.1-150	%REC	1	10/2/2015 4:26:00 AM
Surr: Nitrobenzene-d5	63.7	13.1-124	%REC	1	10/2/2015 4:26:00 AM
Surr: Phenol-d6	41.7	11.6-133	%REC	1	10/2/2015 4:26:00 AM
Surr: p-Terphenyl	92.4	21.8-150	%REC	1	10/2/2015 4:26:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11979

Analyst: EM

Gasoline	ND	5.83	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Surr: Toluene-d8	98.1	65-135	%REC	1	9/30/2015 1:21:00 AM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/30/2015 1:21:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11979

Analyst: EM

Dichlorodifluoromethane (CFC-12)	ND	0.0700	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Chloromethane	ND	0.0700	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Vinyl chloride	ND	0.00233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Bromomethane	ND	0.105	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0583	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Chloroethane	ND	0.0700	mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1-Dichloroethene	ND	0.0583	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Methylene chloride	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
trans-1,2-Dichloroethene	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0583	mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1-Dichloroethane	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
2,2-Dichloropropane	ND	0.0583	mg/Kg-dry	1	9/30/2015 1:21:00 AM
cis-1,2-Dichloroethene	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Chloroform	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1-Dichloropropene	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Carbon tetrachloride	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2-Dichloroethane (EDC)	ND	0.0350	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Benzene	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Trichloroethene (TCE)	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2-Dichloropropane	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Bromodichloromethane	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM
Dibromomethane	ND	0.0466	mg/Kg-dry	1	9/30/2015 1:21:00 AM
cis-1,3-Dichloropropene	ND	0.0233	mg/Kg-dry	1	9/30/2015 1:21:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/21/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11979

Analyst: EM

Toluene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
trans-1,3-Dichloropropylene	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1,2-Trichloroethane	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,3-Dichloropropane	ND	0.0583		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Tetrachloroethene (PCE)	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Dibromochloromethane	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2-Dibromoethane (EDB)	ND	0.00583		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Chlorobenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Ethylbenzene	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
m,p-Xylene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
o-Xylene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Styrene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Isopropylbenzene	ND	0.0933		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Bromoform	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
n-Propylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Bromobenzene	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,3,5-Trimethylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
2-Chlorotoluene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
4-Chlorotoluene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
tert-Butylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2,3-Trichloropropane	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2,4-Trichlorobenzene	ND	0.0583		mg/Kg-dry	1	9/30/2015 1:21:00 AM
sec-Butylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
4-Isopropyltoluene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,3-Dichlorobenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,4-Dichlorobenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
n-Butylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2-Dichlorobenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2-Dibromo-3-chloropropane	ND	0.583		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2,4-Trimethylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Hexachlorobutadiene	ND	0.117		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Naphthalene	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2,3-Trichlorobenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Surr: Dibromofluoromethane	93.8	56.5-129		%REC	1	9/30/2015 1:21:00 AM
Surr: Toluene-d8	96.2	64.3-131		%REC	1	9/30/2015 1:21:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/30/2015 1:21:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/21/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11964		Analyst: MW
Mercury	ND	0.345		mg/Kg-dry	1	9/28/2015 12:32:53 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11982		Analyst: TN
Arsenic	5.24	0.109		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Barium	77.8	0.546		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Cadmium	0.605	0.219		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Chromium	22.2	0.109		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Lead	88.4	0.219		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Selenium	1.03	0.546		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Silver	0.196	0.109		mg/Kg-dry	1	9/29/2015 3:21:27 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25189		Analyst: SB
Percent Moisture	29.1			wt%	1	9/29/2015 4:04:42 PM



Analytical Report

WO#: 1509353

Date Reported: 10/21/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11961

Analyst: MD

Dicamba	ND	21.6		µg/Kg-dry	1	9/30/2015 3:04:00 AM
2,4-D	ND	18.5		µg/Kg-dry	1	9/30/2015 3:04:00 AM
2,4-DP	ND	15.4		µg/Kg-dry	1	9/30/2015 3:04:00 AM
2,4,5-TP (Silvex)	ND	12.3		µg/Kg-dry	1	9/30/2015 3:04:00 AM
2,4,5-T	ND	30.8		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Dinoseb	ND	18.5		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Dalapon	42,100	123		µg/Kg-dry	1	9/30/2015 3:04:00 AM
2,4-DB	ND	15.4		µg/Kg-dry	1	9/30/2015 3:04:00 AM
MCPP	ND	2,710		µg/Kg-dry	1	9/30/2015 3:04:00 AM
MCPA	ND	173		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Picloram	32.2	30.8		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Bentazon	ND	21.6		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Chloramben	105	12.3		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Acifluorfen	ND	49.3		µg/Kg-dry	1	9/30/2015 3:04:00 AM
3,5-Dichlorobenzoic acid	ND	24.7		µg/Kg-dry	1	9/30/2015 3:04:00 AM
4-Nitrophenol	49.3	18.5		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Dacthal (DCPA)	19.4	18.5		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Surr: 2,4-Dichlorophenylacetic acid	116	20.1-168		%REC	1	9/30/2015 3:04:00 AM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Toxaphene	ND	0.115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Alpha BHC	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Beta BHC	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Gamma BHC (Lindane)	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Delta BHC	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Heptachlor	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Aldrin	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Heptachlor epoxide	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
gamma-Chlordane	0.0150	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endosulfan I	0.0218	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
alpha-Chlordane	0.0207	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Dieldrin	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
4,4'-DDE	0.0355	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endrin	ND	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endosulfan II	0.141	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
4,4'-DDD	0.138	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endrin aldehyde	ND	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endosulfan sulfate	ND	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM



Analytical Report

WO#: 1509353

Date Reported: 10/21/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11962		Analyst: MD
4,4'-DDT	ND	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endrin ketone	ND	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Methoxychlor	ND	0.0577		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Surr: Decachlorobiphenyl	74.5	26.5-158		%REC	1	9/25/2015 10:28:00 PM
Surr: Tetrachloro-m-xylene	68.4	11-150		%REC	1	9/25/2015 10:28:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957

Analyst: AK

Diesel (Fuel Oil)	ND	23.9		mg/Kg-dry	1	9/30/2015 12:52:00 AM
Heavy Oil	267	59.7		mg/Kg-dry	1	9/30/2015 12:52:00 AM
Surr: 2-Fluorobiphenyl	135	50-150		%REC	1	9/30/2015 12:52:00 AM
Surr: o-Terphenyl	139	50-150		%REC	1	9/30/2015 12:52:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Bis(2-chloroethyl) ether	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Chlorophenol	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
1,3-Dichlorobenzene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
1,4-Dichlorobenzene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
1,2-Dichlorobenzene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benzyl alcohol	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Methylphenol (o-cresol)	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Hexachloroethane	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
N-Nitrosodi-n-propylamine	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Nitrobenzene	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Isophorone	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Methylphenol (p-cresol)	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Nitrophenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4-Dimethylphenol	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Bis(2-chloroethoxy)methane	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4-Dichlorophenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
1,2,4-Trichlorobenzene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Naphthalene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Chloroaniline	ND	611		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Hexachlorobutadiene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Chloro-3-methylphenol	ND	611		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Methylnaphthalene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
1-Methylnaphthalene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/21/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Hexachlorocyclopentadiene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4,6-Trichlorophenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4,5-Trichlorophenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Chloronaphthalene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Nitroaniline	ND	611		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Acenaphthene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Dimethylphthalate	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,6-Dinitrotoluene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Acenaphthylene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4-Dinitrophenol	ND	244	*	µg/Kg-dry	1	10/2/2015 5:10:00 AM
Dibenzofuran	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4-Dinitrotoluene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Nitrophenol	ND	611	*	µg/Kg-dry	1	10/2/2015 5:10:00 AM
Fluorene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Chlorophenyl phenyl ether	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Diethylphthalate	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4,6-Dinitro-2-methylphenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Bromophenyl phenyl ether	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Hexachlorobenzene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Pentachlorophenol	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Phenanthrene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Anthracene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Carbazole	ND	611		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Di-n-butylphthalate	135	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Fluoranthene	148	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Pyrene	136	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Butyl Benzylphthalate	156	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
bis(2-Ethylhexyl)adipate	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benz (a) anthracene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Chrysene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
bis (2-Ethylhexyl) phthalate	133	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Di-n-octyl phthalate	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benzo (b) fluoranthene	215	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benzo (k) fluoranthene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benzo (a) pyrene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Indeno (1,2,3-cd) pyrene	184	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Dibenz (a,h) anthracene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benzo (g,h,i) perylene	151	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Surr: 2,4,6-Tribromophenol	80.9	11.1-127		%REC	1	10/2/2015 5:10:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/21/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Surr: 2-Fluorobiphenyl	82.5	16.1-150	%REC	1	10/2/2015 5:10:00 AM
Surr: Nitrobenzene-d5	75.5	13.1-124	%REC	1	10/2/2015 5:10:00 AM
Surr: Phenol-d6	46.6	11.6-133	%REC	1	10/2/2015 5:10:00 AM
Surr: p-Terphenyl	87.2	21.8-150	%REC	1	10/2/2015 5:10:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11979

Analyst: EM

Gasoline	ND	3.66	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Surr: Toluene-d8	98.7	65-135	%REC	1	9/30/2015 1:50:00 AM
Surr: 4-Bromofluorobenzene	104	65-135	%REC	1	9/30/2015 1:50:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11979

Analyst: EM

Dichlorodifluoromethane (CFC-12)	ND	0.0439	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Chloromethane	ND	0.0439	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Vinyl chloride	ND	0.00146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Bromomethane	ND	0.0658	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0366	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Chloroethane	ND	0.0439	mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1-Dichloroethene	ND	0.0366	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Methylene chloride	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
trans-1,2-Dichloroethene	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0366	mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1-Dichloroethane	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
2,2-Dichloropropane	ND	0.0366	mg/Kg-dry	1	9/30/2015 1:50:00 AM
cis-1,2-Dichloroethene	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Chloroform	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1-Dichloropropene	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Carbon tetrachloride	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2-Dichloroethane (EDC)	ND	0.0219	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Benzene	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Trichloroethene (TCE)	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2-Dichloropropane	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Bromodichloromethane	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM
Dibromomethane	ND	0.0293	mg/Kg-dry	1	9/30/2015 1:50:00 AM
cis-1,3-Dichloropropene	ND	0.0146	mg/Kg-dry	1	9/30/2015 1:50:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/21/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11979

Analyst: EM

Toluene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
trans-1,3-Dichloropropylene	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1,2-Trichloroethane	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,3-Dichloropropane	ND	0.0366		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Tetrachloroethene (PCE)	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Dibromochloromethane	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2-Dibromoethane (EDB)	ND	0.00366		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Chlorobenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Ethylbenzene	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
m,p-Xylene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
o-Xylene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Styrene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Isopropylbenzene	ND	0.0585		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Bromoform	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
n-Propylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Bromobenzene	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,3,5-Trimethylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
2-Chlorotoluene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
4-Chlorotoluene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
tert-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2,3-Trichloropropane	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2,4-Trichlorobenzene	ND	0.0366		mg/Kg-dry	1	9/30/2015 1:50:00 AM
sec-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
4-Isopropyltoluene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,3-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,4-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
n-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2-Dibromo-3-chloropropane	ND	0.366		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2,4-Trimethylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Hexachlorobutadiene	ND	0.0732		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Naphthalene	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2,3-Trichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Surr: Dibromofluoromethane	94.8	56.5-129		%REC	1	9/30/2015 1:50:00 AM
Surr: Toluene-d8	98.0	64.3-131		%REC	1	9/30/2015 1:50:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/30/2015 1:50:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/21/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471</u>				Batch ID: 11964		Analyst: MW
Mercury	ND	0.301		mg/Kg-dry	1	9/28/2015 12:34:29 PM
<u>Total Metals by EPA Method 6020</u>				Batch ID: 11982		Analyst: TN
Arsenic	16.9	0.100		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Barium	315	0.501		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Cadmium	1.35	0.200		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Chromium	30.1	0.100		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Lead	364	0.200		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Selenium	1.18	0.501		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Silver	0.465	0.100		mg/Kg-dry	1	9/29/2015 3:42:34 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R25189		Analyst: SB
Percent Moisture	20.2			wt%	1	9/29/2015 4:04:42 PM



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	MB-11982	SampType: MBLK		Units: mg/Kg		Prep Date: 9/29/2015			RunNo: 25190		
Client ID:	MBLKS	Batch ID: 11982		Analysis Date: 9/29/2015						SeqNo: 474985	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.100									
Barium	ND	0.500									
Cadmium	ND	0.200									
Chromium	ND	0.100									
Lead	ND	0.200									
Selenium	ND	0.500									
Silver	ND	0.100									

Sample ID	LCS-11982	SampType: LCS		Units: mg/Kg		Prep Date: 9/29/2015			RunNo: 25190		
Client ID:	LCSS	Batch ID: 11982		Analysis Date: 9/29/2015					SeqNo: 474986		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	48.0	0.100	50.00	0	96.1	80	120				
Barium	47.9	0.500	50.00	0	95.7	80	120				
Cadmium	2.48	0.200	2.500	0	99.3	80	120				
Chromium	54.1	0.100	50.00	0	108	80	120				
Lead	23.9	0.200	25.00	0	95.7	80	120				
Selenium	4.39	0.500	5.000	0	87.9	80	120				
Silver	2.39	0.100	2.500	0	95.4	80	120				

Sample ID	1509353-001ADUP	SampType:	DUP	Units:			mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25190
Client ID:	TP-1-15:5.5	Batch ID:	11982	Analysis Date:					9/29/2015	SeqNo:	474988
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	5.41	0.108						5.242	3.07	20	
Barium	81.2	0.542						77.84	4.22	20	
Cadmium	1.15	0.217						0.6051	62.0	20	R
Chromium	24.2	0.108						22.25	8.40	20	
Lead	95.3	0.217						88.44	7.48	20	
Selenium	0.950	0.542						1.033	8.35	20	



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509353-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25190		
Client ID:	TP-1-15:5.5	Batch ID:	11982			Analysis Date:	9/29/2015	SeqNo:	474988		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.213	0.108						0.1957	8.21	20	

NOTES:

R - High RPD observed. The method is in control as indicated by the LCS.

Sample ID	1509353-001AMS	SampType: MS		Units: mg/Kg-dry		Prep Date: 9/29/2015			RunNo: 25190		
Client ID:	TP-1-15:5.5	Batch ID: 11982		Analysis Date: 9/29/2015					SeqNo: 474990		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	57.4	0.108	54.21	5.242	96.2	75	125				
Barium	112	0.542	54.21	77.84	62.5	75	125				S
Cadmium	3.39	0.217	2.711	0.6051	103	75	125				
Chromium	80.1	0.108	54.21	22.25	107	75	125				
Lead	131	0.217	27.11	88.44	158	75	125				S
Selenium	5.83	0.542	5.421	1.033	88.5	75	125				
Silver	2.55	0.108	2.711	0.1957	86.7	75	125				

NOTES:

S - Outlying spike recoveries observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID	1509353-001AMSD	SampType:	MSD		Units:	mg/Kg-dry		Prep Date:	9/29/2015		RunNo:	25190
Client ID:	TP-1-15:5.5	Batch ID:	11982					Analysis Date:	9/29/2015		SeqNo:	474991
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic	66.6	0.108	54.21	5.242	113	75	125	57.41	14.8	20		
Barium	237	0.542	54.21	77.84	294	75	125	111.7	71.9	20	RS	
Cadmium	3.52	0.217	2.711	0.6051	108	75	125	3.385	3.92	20		
Chromium	117	0.108	54.21	22.25	175	75	125	80.12	37.6	20	RS	
Lead	162	0.217	27.11	88.44	271	75	125	131.1	21.0	20	RS	
Selenium	6.09	0.542	5.421	1.033	93.3	75	125	5.830	4.39	20		
Silver	2.65	0.108	2.711	0.1957	90.4	75	125	2.546	3.85	20		

NOTES:

SR - Outlying spike recoveries and high RPD due to suspected sample inhomogeneity. The method is in control as indicated by the LCS.



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509353-001APDS	SampType:	PDS	Units:			mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25190
Client ID:	TP-1-15:5.5	Batch ID:	11982					Analysis Date:	9/29/2015	SeqNo:	474992
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	245	0.546	50.0	142	103	80	120				
Lead	247	0.219	25.0	162	171	80	120				S

NOTES:

S - Outlying spike recovery observed for Pb.



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 7471

Sample ID	MB-11964	SampType:	MBLK	Units:	mg/Kg	Prep Date:	9/28/2015	RunNo:	25155			
Client ID:	MBLKS	Batch ID:	11964			Analysis Date:	9/28/2015	SeqNo:	474258			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.250										
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Sample ID	LCS-11964	SampType: LCS			Units: mg/Kg		Prep Date: 9/28/2015			RunNo: 25155		
Client ID:	LCSS	Batch ID: 11964			Analysis Date: 9/28/2015					SeqNo: 474259		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.505	0.250	0.5000	0	101	80	120					
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Sample ID	1509346-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/28/2015	RunNo:	25155			
Client ID:	BATCH	Batch ID:	11964			Analysis Date:	9/28/2015	SeqNo:	474261			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.254							0		20	
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Sample ID	1509346-001AMS	SampType: MS			Units: mg/Kg-dry		Prep Date: 9/28/2015			RunNo: 25155		
Client ID:	BATCH	Batch ID: 11964			Analysis Date: 9/28/2015					SeqNo: 474262		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.512	0.254	0.5080	0.02889	95.1	70	130					
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Sample ID	1509346-001AMSD	SampType: MSD			Units: mg/Kg-dry		Prep Date: 9/28/2015			RunNo: 25155		
Client ID:	BATCH	Batch ID: 11964			Analysis Date: 9/28/2015					SeqNo: 474263		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.536	0.258	0.5169	0.02889	98.0	70	130	0.5118	4.57	20		
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Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	MB-11957	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/25/2015		RunNo:	25165	
Client ID:	MBLKS	Batch ID:	11957						Analysis Date:	9/28/2015			SeqNo:	474432	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	17.1		20.00		85.7	50	150				
Surr: o-Terphenyl	15.7		20.00		78.7	50	150				

Sample ID	LCS-11957	SampType: LCS			Units: mg/Kg		Prep Date: 9/25/2015			RunNo: 25165		
Client ID:	LCSS	Batch ID: 11957			Analysis Date: 9/28/2015					SeqNo: 474431		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	411	20.0	500.0	0	82.2	65	135				
Surr: 2-Fluorobiphenyl	17.8		20.00		89.0	50	150				
Surr: o-Terphenyl	16.1		20.00		80.5	50	150				

Sample ID	1509311-006ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25165		
Client ID:	BATCH	Batch ID:	11957			Analysis Date:	9/28/2015	SeqNo:	474684		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	21.6						0		30	
Heavy Oil	ND	53.9						0		30	
Surr: 2-Fluorobiphenyl	19.6		21.56		91.1	50	150		0		
Surr: o-Terphenyl	20.0		21.56		92.6	50	150		0		

Sample ID	1509340-003ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25165		
Client ID:	BATCH	Batch ID:	11957			Analysis Date:	9/29/2015	SeqNo:	475638		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.2						0		30	
Heavy Oil	ND	50.6						0		30	
Surr: 2-Fluorobiphenyl	25.8		20.23		128	50	150		0		
Surr: o-Terphenyl	26.5		20.23		131	50	150		0		



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Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	1509340-003ADUP	SampType: DUP			Units: mg/Kg-dry	Prep Date: 9/25/2015			RunNo: 25165		
Client ID:	BATCH	Batch ID: 11957			Analysis Date: 9/29/2015			SeqNo: 475638			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual



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Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	MB-11961	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/25/2015		RunNo:	25219	
Client ID:	MBLKS	Batch ID:	11961					Analysis Date:	9/30/2015		SeqNo:	475626	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Dicamba	ND	17.5											
2,4-D	ND	15.0											
2,4-DP	ND	12.5											
2,4,5-TP (Silvex)	ND	10.0											
2,4,5-T	ND	25.0											
Dinoseb	ND	15.0											
Dalapon	ND	100											
2,4-DB	ND	12.5											
MCPP	ND	2,200											
MCPA	ND	140											
Picloram	ND	25.0											
Bentazon	ND	17.5											
Chloramben	ND	10.0											
Acifluorfen	ND	40.0											
3,5-Dichlorobenzoic acid	ND	20.0											
4-Nitrophenol	ND	15.0											
Dacthal (DCPA)	ND	15.0											
Surr: 2,4-Dichlorophenylacetic acid	79.2		100.0		79.2	20.1	168						

Sample ID	LCS-11961	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25219		
Client ID:	LCSS	Batch ID:	11961			Analysis Date:	9/30/2015	SeqNo:	475624		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	131	17.5	200.0	0	65.4	32.1	135				
2,4-D	137	15.0	200.0	0	68.7	22.4	130				
2,4-DP	145	12.5	200.0	0	72.3	26.4	130				
2,4,5-TP (Silvex)	123	10.0	200.0	0	61.3	21.2	138				
2,4,5-T	127	25.0	200.0	0	63.3	39	117				
Dinoseb	129	15.0	200.0	0	64.7	5	165				
Dalapon	13,000	100	20,000	0	65.0	18.4	162				
2,4-DB	159	12.5	200.0	0	79.6	5	164				



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
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QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	LCS-11961	SampType: LCS		Units: µg/Kg		Prep Date: 9/25/2015			RunNo: 25219		
Client ID:	LCSS	Batch ID: 11961					Analysis Date: 9/30/2015			SeqNo: 475624	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MCPP	1560	2,200	2,000	0	78.1	22.2	157				
MCPA	2,200	140	2,000	0	110	47.4	128				
Picloram	140	25.0	200.0	0	70.2	5	175				
Bentazon	146	17.5	200.0	0	72.8	7.59	162				
Chloramben	93.0	10.0	200.0	0	46.5	5	147				
Acifluorfen	161	40.0	200.0	0	80.6	5	163				
3,5-Dichlorobenzoic acid	150	20.0	200.0	0	74.8	18.7	139				
4-Nitrophenol	65.6	15.0	200.0	0	32.8	5	163				
Dacthal (DCPA)	131	15.0	200.0	0	65.6	5	164				
Surr: 2,4-Dichlorophenylacetic acid	125		100.0		125	20.1	168				

Sample ID	1509311-010ADUP	SampType:	DUP			Units:	µg/Kg-dry			Prep Date:	9/25/2015			RunNo:	25219	
Client ID:	BATCH	Batch ID:	11961							Analysis Date:	9/30/2015			SeqNo:	475616	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual				
Dicamba	ND	20.1						0			30					
2,4-D	ND	17.2						0			30					
2,4-DP	ND	14.3						0			30					
2,4,5-TP (Silvex)	ND	11.5						0			30					
2,4,5-T	ND	28.7						0			30					
Dinoseb	ND	17.2						0			30					
Dalapon	ND	115						0			30					
2,4-DB	19.0	14.3						18.66		1.58	30					
MCP	ND	2,520						0			30					
MCPA	ND	160						0			30					
Picloram	28.8	28.7						28.31		1.64	30					
Bentazon	ND	20.1						0			30					
Chloramben	20.6	11.5						20.73		0.505	30					
Acifluorfen	ND	45.9						0			30					
3,5-Dichlorobenzoic acid	ND	22.9						0			30					
4-Nitrophenol	ND	17.2						0			30					



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	1509311-010ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25219		
Client ID:	BATCH	Batch ID:	11961			Analysis Date:	9/30/2015	SeqNo:	475616		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dacthal (DCPA)	17.6	17.2						16.26	7.76	30	
Surr: 2,4-Dichlorophenylacetic acid	141		114.6		123	20.1	168		0		

Sample ID	1509311-013AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25219		
Client ID:	BATCH	Batch ID:	11961			Analysis Date:	9/30/2015	SeqNo:	475618		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	170	20.7	236.2	0	72.2	31.9	118				
2,4-D	178	17.7	236.2	8.476	71.7	12.4	134				
2,4-DP	166	14.8	236.2	0	70.2	27.2	129				
2,4,5-TP (Silvex)	197	11.8	236.2	38.15	67.2	28.6	134				
2,4,5-T	182	29.5	236.2	71.24	47.0	13.1	147				
Dinoseb	168	17.7	236.2	49.23	50.3	10	179				
Dalapon	9,230	118	23,620	0	39.1	24.9	139				
2,4-DB	204	14.8	236.2	21.92	77.1	50.2	152				
MCPD	1770	2,600	2,362	0	74.9	37.8	140				
MCPA	2,920	165	2,362	0	124	13.7	147				
Picloram	169	29.5	236.2	40.36	54.6	5	153				
Bentazon	159	20.7	236.2	0	67.3	15	140				
Chloramben	110	11.8	236.2	28.62	34.4	5	162				
Acifluorfen	250	47.2	236.2	0	106	15	140				
3,5-Dichlorobenzoic acid	172	23.6	236.2	13.32	67.2	10	164				
4-Nitrophenol	184	17.7	236.2	18.34	70.3	44.8	125				
Dacthal (DCPA)	110	17.7	236.2	16.68	39.6	5	132				
Surr: 2,4-Dichlorophenylacetic acid	145		118.1		122	20.1	168				



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Organochlorine Pesticides by EPA Method 8081

Sample ID	MB-11962	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/25/2015			RunNo:	25268		
Client ID:	MBLKS	Batch ID:	11962							Analysis Date:	9/25/2015			SeqNo:	476442		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual				
Toxaphene		ND	0.100														
Alpha BHC		ND	0.0100														
Beta BHC		ND	0.0100														
Gamma BHC (Lindane)		ND	0.0100														
Delta BHC		ND	0.0100														
Heptachlor		ND	0.0100														
Aldrin		ND	0.0100														
Heptachlor epoxide		ND	0.0100														
gamma-Chlordane		ND	0.0100														
Endosulfan I		ND	0.0100														
alpha-Chlordane		ND	0.0100														
Dieldrin		ND	0.0100														
4,4'-DDE		ND	0.0200														
Endrin		ND	0.0200														
Endosulfan II		ND	0.0200														
4,4'-DDD		ND	0.0200														
Endrin aldehyde		ND	0.0200														
Endosulfan sulfate		ND	0.0200														
4,4'-DDT		ND	0.0200														
Endrin ketone		ND	0.0200														
Methoxychlor		ND	0.0500														
Surr: Decachlorobiphenyl		0.0615		0.1000		61.5	26.5	158									
Surr: Tetrachloro-m-xylene		0.0327		0.05000		65.4	11	150									

Sample ID	LCS-11962	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	LCSS	Batch ID:	11962			Analysis Date:	9/25/2015	SeqNo:	476441		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.175	0.0100	0.2000	0	87.3	54.2	139				
Beta BHC	0.183	0.0100	0.2000	0	91.6	56.5	142				
Gamma BHC (Lindane)	0.180	0.0100	0.2000	0	90.2	55.5	142				



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	LCS-11962	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	LCSS	Batch ID:	11962			Analysis Date:	9/25/2015	SeqNo:	476441		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Delta BHC	0.173	0.0100	0.2000	0	86.4	47.4	157				
Heptachlor	0.197	0.0100	0.2000	0	98.4	54	141				
Aldrin	0.179	0.0100	0.2000	0	89.5	43.7	147				
Heptachlor epoxide	0.191	0.0100	0.2000	0	95.4	56.2	137				
gamma-Chlordane	0.194	0.0100	0.2000	0	96.8	58.5	136				
Endosulfan I	0.195	0.0100	0.2000	0	97.4	60	132				
alpha-Chlordane	0.196	0.0100	0.2000	0	98.2	46.1	140				
Dieldrin	0.191	0.0100	0.2000	0	95.3	61.2	133				
4,4´-DDE	0.191	0.0200	0.2000	0	95.6	55.4	142				
Endrin	0.201	0.0200	0.2000	0	100	56.5	143				
Endosulfan II	0.223	0.0200	0.2000	0	112	62	143				
4,4´-DDD	0.220	0.0200	0.2000	0	110	53.3	145				
Endrin aldehyde	0.186	0.0200	0.2000	0	93.2	39.5	153				
Endosulfan sulfate	0.219	0.0200	0.2000	0	109	53.8	148				
4,4´-DDT	0.215	0.0200	0.2000	0	108	48.2	152				
Endrin ketone	0.228	0.0200	0.2000	0	114	28.5	162				
Methoxychlor	0.250	0.0500	0.2000	0	125	34.6	159				
Surr: Decachlorobiphenyl	0.0757		0.1000		75.7	26.5	158				
Surr: Tetrachloro-m-xylene	0.0395		0.05000		79.0	11	150				

Sample ID	1509311-007ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	BATCH	Batch ID:	11962			Analysis Date:	9/25/2015	SeqNo:	476428		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.114						0		30	
Alpha BHC	ND	0.0114						0		30	
Beta BHC	ND	0.0114						0		30	
Gamma BHC (Lindane)	ND	0.0114						0		30	
Delta BHC	ND	0.0114						0		30	
Heptachlor	ND	0.0114						0		30	
Aldrin	ND	0.0114						0		30	



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID 1509311-007ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/25/2015			RunNo: 25268		
Client ID: BATCH		Batch ID: 11962		Analysis Date: 9/25/2015			SeqNo: 476428				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Heptachlor epoxide	ND	0.0114						0		30	
gamma-Chlordane	ND	0.0114						0		30	
Endosulfan I	ND	0.0114						0		30	
alpha-Chlordane	ND	0.0114						0		30	
Dieldrin	ND	0.0114						0		30	
4,4'-DDE	ND	0.0228						0		30	
Endrin	ND	0.0228						0		30	
Endosulfan II	ND	0.0228						0		30	
4,4'-DDD	ND	0.0228						0		30	
Endrin aldehyde	ND	0.0228						0		30	
Endosulfan sulfate	ND	0.0228						0		30	
4,4'-DDT	ND	0.0228						0		30	
Endrin ketone	ND	0.0228						0		30	
Methoxychlor	ND	0.0570						0		30	
Surr: Decachlorobiphenyl	0.0661		0.1139		58.0	26.5	158		0		
Surr: Tetrachloro-m-xylene	0.0332		0.05697		58.3	11	150		0		

Sample ID	1509311-008AMS	SampType:	MS		Units:	µg/Kg-dry		Prep Date:	9/25/2015		RunNo:	25268	
Client ID:	BATCH	Batch ID:	11962					Analysis Date:	9/25/2015		SeqNo:	476430	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Alpha BHC		0.173	0.0113	0.2257	0	76.6	49.1	158					
Beta BHC		0.184	0.0113	0.2257	0	81.3	50.9	160					
Gamma BHC (Lindane)		0.181	0.0113	0.2257	0	80.2	55.3	157					
Delta BHC		0.176	0.0113	0.2257	0	77.9	55.8	160					
Heptachlor		0.195	0.0113	0.2257	0	86.3	59.1	150					
Aldrin		0.178	0.0113	0.2257	0	78.8	46.4	145					
Heptachlor epoxide		0.189	0.0113	0.2257	0	83.6	48.5	151					
gamma-Chlordane		0.190	0.0113	0.2257	0	84.1	50.9	143					
Endosulfan I		0.187	0.0113	0.2257	0	83.0	46.4	149					
alpha-Chlordane		0.194	0.0113	0.2257	0	86.0	46.3	153					

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	1509311-008AMS	SampType:	MS		Units:	µg/Kg-dry		Prep Date:	9/25/2015		RunNo:	25268
Client ID:	BATCH	Batch ID:	11962		Analysis Date:				9/25/2015		SeqNo:	476430
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Dieldrin	0.186	0.0113	0.2257	0	82.6	51	147					
4,4'-DDE	0.190	0.0226	0.2257	0	84.1	39.9	162					
Endrin	0.198	0.0226	0.2257	0	87.8	51.3	151					
Endosulfan II	0.223	0.0226	0.2257	0	99.0	51	152					
4,4'-DDD	0.208	0.0226	0.2257	0	92.0	45.8	160					
Endrin aldehyde	0.189	0.0226	0.2257	0	83.6	38.3	156					
Endosulfan sulfate	0.222	0.0226	0.2257	0	98.4	53.2	154					
4,4'-DDT	0.201	0.0226	0.2257	0	89.0	45.7	168					
Endrin ketone	0.223	0.0226	0.2257	0	98.9	68.3	144					
Methoxychlor	0.243	0.0564	0.2257	0	108	43.4	178					
Surr: Decachlorobiphenyl	0.0652		0.1129		57.8	26.5	158					
Surr: Tetrachloro-m-xylene	0.0327		0.05643		58.0	11	150					



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11985	SampType:	MBLK	Units:	µg/Kg	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	MBLKS	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476486		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	ND	200									
Bis(2-chloroethyl) ether	ND	200									
2-Chlorophenol	ND	100									
1,3-Dichlorobenzene	ND	100									
1,4-Dichlorobenzene	ND	100									
1,2-Dichlorobenzene	ND	100									
Benzyl alcohol	ND	100									
2-Methylphenol (o-cresol)	ND	100									
Hexachloroethane	ND	100									
N-Nitrosodi-n-propylamine	ND	100									
Nitrobenzene	ND	200									
Isophorone	ND	100									
4-Methylphenol (p-cresol)	ND	100									
2-Nitrophenol	ND	200									
2,4-Dimethylphenol	ND	100									
Bis(2-chloroethoxy)methane	ND	100									
2,4-Dichlorophenol	ND	200									
1,2,4-Trichlorobenzene	ND	100									
Naphthalene	ND	80.0									
4-Chloroaniline	ND	500									
Hexachlorobutadiene	ND	100									
4-Chloro-3-methylphenol	ND	500									
2-Methylnaphthalene	ND	80.0									
1-Methylnaphthalene	ND	80.0									
Hexachlorocyclopentadiene	ND	100									
2,4,6-Trichlorophenol	ND	200									
2,4,5-Trichlorophenol	ND	200									
2-Chloronaphthalene	ND	100									
2-Nitroaniline	ND	500									
Acenaphthene	ND	80.0									
Dimethylphthalate	ND	100									



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11985	SampType:	MBLK	Units:	µg/Kg	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	MBLKS	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476486		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

2,6-Dinitrotoluene	ND	100									
Acenaphthylene	ND	80.0									
2,4-Dinitrophenol	ND	200									*
Dibenzofuran	ND	100									
2,4-Dinitrotoluene	ND	100									
4-Nitrophenol	ND	500									*
Fluorene	ND	80.0									
4-Chlorophenyl phenyl ether	ND	100									
Diethylphthalate	ND	100									
4,6-Dinitro-2-methylphenol	ND	200									
4-Bromophenyl phenyl ether	ND	100									
Hexachlorobenzene	ND	100									
Pentachlorophenol	ND	100									
Phenanthrene	ND	80.0									
Anthracene	ND	80.0									
Carbazole	ND	500									
Di-n-butylphthalate	ND	100									
Fluoranthene	ND	80.0									
Pyrene	ND	80.0									
Butyl Benzylphthalate	ND	100									
bis(2-Ethylhexyl)adipate	ND	100									
Benz (a) anthracene	ND	80.0									
Chrysene	ND	80.0									
bis (2-Ethylhexyl) phthalate	ND	100									
Di-n-octyl phthalate	ND	100									
Benzo (b) fluoranthene	ND	80.0									
Benzo (k) fluoranthene	ND	80.0									
Benzo (a) pyrene	ND	80.0									
Indeno (1,2,3-cd) pyrene	ND	80.0									
Dibenz (a,h) anthracene	ND	80.0									
Benzo (g,h,i) perylene	ND	80.0									



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Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11985	SampType:	MBLK		Units:	µg/Kg			Prep Date:	9/29/2015		RunNo:	25270	
Client ID:	MBLKS	Batch ID:	11985						Analysis Date:	10/2/2015		SeqNo:	476486	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Surr: 2,4,6-Tribromophenol		165		1,000		16.5	11.1	127						
Surr: 2-Fluorobiphenyl		511		500.0		102	16.1	150						
Surr: Nitrobenzene-d5		466		500.0		93.2	13.1	124						
Surr: Phenol-d6		771		1,000		77.1	11.6	133						
Surr: p-Terphenyl		487		500.0		97.4	21.8	150						

NOTES:

* - Flagged value is not within established control limits.

Sample ID	LCS-11985	SampType: LCS		Units: µg/Kg		Prep Date: 9/29/2015			RunNo: 25270		
Client ID:	LCSS	Batch ID: 11985					Analysis Date: 10/2/2015			SeqNo: 476487	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	885	200	1,000	0	88.5	41.8	138				
Bis(2-chloroethyl) ether	957	200	1,000	0	95.7	65	116				
2-Chlorophenol	912	100	1,000	0	91.2	49.3	132				
1,3-Dichlorobenzene	866	100	1,000	0	86.6	50.9	133				
1,4-Dichlorobenzene	780	100	1,000	0	78.0	51.3	133				
1,2-Dichlorobenzene	903	100	1,000	0	90.3	54.2	129				
Benzyl alcohol	2,140	100	1,000	0	214	42.4	131				S
2-Methylphenol (o-cresol)	824	100	1,000	0	82.4	47.2	134				
Hexachloroethane	891	100	1,000	0	89.1	48.9	133				
N-Nitrosodi-n-propylamine	945	100	1,000	0	94.5	39.8	135				
Nitrobenzene	958	200	1,000	0	95.8	62.3	126				
Isophorone	951	100	1,000	0	95.1	62.7	131				
4-Methylphenol (p-cresol)	775	100	1,000	0	77.5	57.4	131				
2-Nitrophenol	665	200	1,000	0	66.5	44.2	129				
2,4-Dimethylphenol	603	100	1,000	0	60.3	57.8	121				
Bis(2-chloroethoxy)methane	962	100	1,000	0	96.2	67.5	124				
2,4-Dichlorophenol	835	200	1,000	0	83.5	57.1	128				
1,2,4-Trichlorobenzene	976	100	1,000	0	97.6	36.2	140				
Naphthalene	981	80.0	1,000	0	98.1	56.8	130				
4-Chloroaniline	881	500	1,000	0	88.1	50.2	139				



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Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	LCS-11985	SampType: LCS		Units: µg/Kg		Prep Date: 9/29/2015			RunNo: 25270		
Client ID:	LCSS	Batch ID: 11985					Analysis Date: 10/2/2015			SeqNo: 476487	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobutadiene	927	100	1,000	0	92.7	55.9	131				
4-Chloro-3-methylphenol	669	500	1,000	0	66.9	49.4	138				
2-Methylnaphthalene	945	80.0	1,000	0	94.5	68.3	121				
1-Methylnaphthalene	944	80.0	1,000	0	94.4	64.1	126				
Hexachlorocyclopentadiene	775	100	1,000	0	77.5	36.7	128				
2,4,6-Trichlorophenol	558	200	1,000	0	55.8	36.4	132				
2,4,5-Trichlorophenol	762	200	1,000	0	76.2	52.3	128				
2-Chloronaphthalene	951	100	1,000	0	95.1	67.1	123				
2-Nitroaniline	874	500	1,000	0	87.4	43.9	135				
Acenaphthene	956	80.0	1,000	0	95.6	49.2	127				
Dimethylphthalate	893	100	1,000	0	89.3	62.4	130				
2,6-Dinitrotoluene	905	100	1,000	0	90.5	54.6	127				
Acenaphthylene	941	80.0	1,000	0	94.1	64.8	127				
2,4-Dinitrophenol	ND	200	1,000	0	0	7.9	119				S
Dibenzofuran	983	100	1,000	0	98.3	67.5	123				
2,4-Dinitrotoluene	845	100	1,000	0	84.5	21.9	136				
4-Nitrophenol	ND	500	1,000	0	0	25.4	138				S
Fluorene	961	80.0	1,000	0	96.1	64.8	126				
4-Chlorophenyl phenyl ether	997	100	1,000	0	99.7	66.6	124				
Diethylphthalate	943	100	1,000	0	94.3	42.9	132				
4,6-Dinitro-2-methylphenol	638	200	1,000	0	63.8	12.9	110				
4-Bromophenyl phenyl ether	964	100	1,000	0	96.4	61.8	128				
Hexachlorobenzene	962	100	1,000	0	96.2	66.8	124				
Pentachlorophenol	339	100	1,000	0	33.9	10	123				
Phenanthrene	961	80.0	1,000	0	96.1	61.2	130				
Anthracene	960	80.0	1,000	0	96.0	68.9	122				
Carbazole	919	500	1,000	0	91.9	64.5	135				
Di-n-butylphthalate	923	100	1,000	0	92.3	50.6	130				
Fluoranthene	965	80.0	1,000	0	96.5	66	129				
Pyrene	959	80.0	1,000	0	95.9	45.4	140				
Butyl Benzylphthalate	903	100	1,000	0	90.3	31.1	157				



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Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	LCS-11985	SampType: LCS		Units: µg/Kg		Prep Date: 9/29/2015			RunNo: 25270		
Client ID:	LCSS	Batch ID: 11985		Analysis Date: 10/2/2015					SeqNo: 476487		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
bis(2-Ethylhexyl)adipate	933	100	1,000	0	93.3	28.7	160				
Benz (a) anthracene	891	80.0	1,000	0	89.1	44	150				
Chrysene	1,070	80.0	1,000	0	107	65.8	128				
bis (2-Ethylhexyl) phthalate	946	100	1,000	0	94.6	36.3	149				
Di-n-octyl phthalate	944	100	1,000	0	94.4	37.2	135				
Benzo (b) fluoranthene	811	80.0	1,000	0	81.1	45.6	146				
Benzo (k) fluoranthene	836	80.0	1,000	0	83.6	45.5	138				
Benzo (a) pyrene	775	80.0	1,000	0	77.5	49.2	137				
Indeno (1,2,3-cd) pyrene	706	80.0	1,000	0	70.6	44.2	146				
Dibenz (a,h) anthracene	772	80.0	1,000	0	77.2	37.5	152				
Benzo (g,h,i) perylene	707	80.0	1,000	0	70.7	24.1	156				
Surr: 2,4,6-Tribromophenol	630		1,000		63.0	11.1	127				
Surr: 2-Fluorobiphenyl	487		500.0		97.5	16.1	150				
Surr: Nitrobenzene-d5	476		500.0		95.1	13.1	124				
Surr: Phenol-d6	889		1,000		88.9	11.6	133				
Surr: p-Terphenyl	480		500.0		96.1	21.8	150				

NOTES:

S - Outlying spike recoveries observed (2,4-Dinitrophenol and 4-Nitrophenol; low bias). Samples will be qualified with an *.

S - Outlying spike recovery observed (Benzyl alcohol; high bias). Samples are non-detect for this analyte, no further action required.

Sample ID	1509353-001ADUP	SampType:	DUP			Units:	µg/Kg-dry			Prep Date:	9/29/2015			RunNo:	25270		
Client ID:	TP-1-15:5.5	Batch ID:	11985							Analysis Date:	10/2/2015			SeqNo:	476489		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val				%RPD	RPDLimit	Qual		
Phenol		ND	279						0					50			
Bis(2-chloroethyl) ether		ND	279						0					50			
2-Chlorophenol		ND	140						0					50			
1,3-Dichlorobenzene		ND	140						0					50			
1,4-Dichlorobenzene		ND	140						0					50			
1,2-Dichlorobenzene		ND	140						0					50			
Benzyl alcohol		ND	140						0					50			
2-Methylphenol (o-cresol)		ND	140						0					50			



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Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	TP-1-15:5.5	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476489		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloroethane	ND	140						0		50	
N-Nitrosodi-n-propylamine	ND	140						0		50	
Nitrobenzene	ND	279						0		50	
Isophorone	ND	140						0		50	
4-Methylphenol (p-cresol)	ND	140						0		50	
2-Nitrophenol	ND	279						0		50	
2,4-Dimethylphenol	ND	140						0		50	
Bis(2-chloroethoxy)methane	ND	140						0		50	
2,4-Dichlorophenol	ND	279						0		50	
1,2,4-Trichlorobenzene	ND	140						0		50	
Naphthalene	ND	112						0		50	
4-Chloroaniline	ND	698						0		50	
Hexachlorobutadiene	ND	140						0		50	
4-Chloro-3-methylphenol	ND	698						0		50	
2-Methylnaphthalene	ND	112						0		50	
1-Methylnaphthalene	ND	112						0		50	
Hexachlorocyclopentadiene	ND	140						0		50	
2,4,6-Trichlorophenol	ND	279						0		50	
2,4,5-Trichlorophenol	ND	279						0		50	
2-Chloronaphthalene	ND	140						0		50	
2-Nitroaniline	ND	698						0		50	
Acenaphthene	ND	112						0		50	
Dimethylphthalate	ND	140						0		50	
2,6-Dinitrotoluene	ND	140						0		50	
Acenaphthylene	ND	112						0		50	
2,4-Dinitrophenol	ND	279						0		50	*
Dibenzofuran	ND	140						0		50	
2,4-Dinitrotoluene	ND	140						0		50	
4-Nitrophenol	ND	698						0		50	*
Fluorene	ND	112						0		50	
4-Chlorophenyl phenyl ether	ND	140						0		50	



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Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	TP-1-15:5.5	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476489		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diethylphthalate	ND	140						0		50	
4,6-Dinitro-2-methylphenol	ND	279						0		50	
4-Bromophenyl phenyl ether	ND	140						0		50	
Hexachlorobenzene	ND	140						0		50	
Pentachlorophenol	ND	140						0		50	
Phenanthrene	ND	112						0		50	
Anthracene	ND	112						0		50	
Carbazole	ND	698						0		50	
Di-n-butylphthalate	289	140						312.5	7.65	50	
Fluoranthene	ND	112						0		50	
Pyrene	ND	112						0		50	
Butyl Benzylphthalate	ND	140						180.5	200	50	R
bis(2-Ethylhexyl)adipate	ND	140						0		50	
Benz (a) anthracene	151	112						156.3	3.66	50	
Chrysene	ND	112						0		50	
bis (2-Ethylhexyl) phthalate	195	140						160.6	19.2	50	
Di-n-octyl phthalate	ND	140						0		50	
Benzo (b) fluoranthene	ND	112						0		50	
Benzo (k) fluoranthene	ND	112						0		50	
Benzo (a) pyrene	ND	112						0		50	
Indeno (1,2,3-cd) pyrene	ND	112						0		50	
Dibenz (a,h) anthracene	ND	112						0		50	
Benzo (g,h,l) perylene	ND	112						0		50	
Surr: 2,4,6-Tribromophenol	646		1,396		46.3	11.1	127		0		
Surr: 2-Fluorobiphenyl	613		697.8		87.8	16.1	150		0		
Surr: Nitrobenzene-d5	523		697.8		75.0	13.1	124		0		
Surr: Phenol-d6	657		1,396		47.0	11.6	133		0		
Surr: p-Terphenyl	690		697.8		98.9	21.8	150		0		

NOTES:

* - Flagged value is not within established control limits.

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).



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CLIENT: Shannon & Wilson
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QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	TP-3-15:6.0	Batch ID:	11985	Analysis Date:				10/2/2015	SeqNo:	476491	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	394	244	1,218	0	32.4	29.2	146				
Bis(2-chloroethyl) ether	759	244	1,218	0	62.4	65.4	115				S
2-Chlorophenol	725	122	1,218	0	59.5	44	134				
1,3-Dichlorobenzene	724	122	1,218	0	59.4	69.1	117				S
1,4-Dichlorobenzene	643	122	1,218	0	52.8	44.5	134				
1,2-Dichlorobenzene	729	122	1,218	0	59.9	35	131				
Benzyl alcohol	898	122	1,218	0	73.8	30.8	159				
2-Methylphenol (o-cresol)	388	122	1,218	0	31.9	57.7	125				S
Hexachloroethane	667	122	1,218	0	54.8	67.1	118				S
N-Nitrosodi-n-propylamine	985	122	1,218	0	80.9	26.4	151				
Nitrobenzene	762	244	1,218	0	62.6	61.4	130				
Isophorone	1,050	122	1,218	0	85.9	61.8	132				
4-Methylphenol (p-cresol)	341	122	1,218	0	28.0	65.5	127				S
2-Nitrophenol	886	244	1,218	0	72.7	46.3	118				
2,4-Dimethylphenol	243	122	1,218	0	20.0	46	158				S
Bis(2-chloroethoxy)methane	916	122	1,218	0	75.2	66.8	124				
2,4-Dichlorophenol	740	244	1,218	0	60.7	56.2	128				
1,2,4-Trichlorobenzene	860	122	1,218	0	70.7	29.2	140				
Naphthalene	855	97.4	1,218	50.51	66.1	44.4	136				
4-Chloroaniline	412	609	1,218	0	33.8	27	126				
Hexachlorobutadiene	892	122	1,218	0	73.3	38.2	138				
4-Chloro-3-methylphenol	ND	609	1,218	0	0	36.8	159				S
2-Methylnaphthalene	971	97.4	1,218	57.31	75.0	51.7	138				
1-Methylnaphthalene	983	97.4	1,218	48.77	76.7	70.4	124				
Hexachlorocyclopentadiene	189	122	1,218	0	15.5	37.5	129				S
2,4,6-Trichlorophenol	833	244	1,218	0	68.4	62.7	122				
2,4,5-Trichlorophenol	826	244	1,218	0	67.8	54.7	127				
2-Chloronaphthalene	999	122	1,218	0	82.1	69.8	126				
2-Nitroaniline	1,050	609	1,218	0	85.9	39.3	145				
Acenaphthene	1,060	97.4	1,218	0	87.1	49.6	129				
Dimethylphthalate	1,040	122	1,218	0	85.7	61.5	131				



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Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	TP-3-15:6.0	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,6-Dinitrotoluene	1,000	122	1,218	0	82.3	56.8	137				
Acenaphthylene	982	97.4	1,218	51.91	76.4	64	128				
2,4-Dinitrophenol	1,140	244	1,218	0	93.5	35.3	144				
Dibenzofuran	1,020	122	1,218	0	83.8	64.7	131				
2,4-Dinitrotoluene	941	122	1,218	0	77.3	30.9	139				
4-Nitrophenol	ND	609	1,218	0	0	48.6	137				S
Fluorene	1,060	97.4	1,218	57.45	82.2	64.2	127				
4-Chlorophenyl phenyl ether	1,040	122	1,218	0	85.8	70.9	128				
Diethylphthalate	1,070	122	1,218	89.58	80.5	61.7	129				
4,6-Dinitro-2-methylphenol	596	244	1,218	0	48.9	21.9	143				
4-Bromophenyl phenyl ether	1,050	122	1,218	0	85.9	69.6	136				
Hexachlorobenzene	1,030	122	1,218	0	84.3	66.5	123				
Pentachlorophenol	495	122	1,218	0	40.7	28.2	156				
Phenanthrene	1,060	97.4	1,218	73.19	80.9	57	134				
Anthracene	1,030	97.4	1,218	0	84.6	68.2	123				
Carbazole	1,040	609	1,218	0	85.7	64.1	152				
Di-n-butylphthalate	1,120	122	1,218	135.4	80.6	52.4	130				
Fluoranthene	1,100	97.4	1,218	147.8	77.8	46.5	165				
Pyrene	1,120	97.4	1,218	135.8	81.0	31.4	151				
Butyl Benzylphthalate	1,300	122	1,218	155.5	93.7	30.4	138				
bis(2-Ethylhexyl)adipate	1,350	122	1,218	0	111	32	136				
Benz (a) anthracene	1,070	97.4	1,218	0	88.0	43.9	151				
Chrysene	1,150	97.4	1,218	63.14	89.2	71.1	126				
bis (2-Ethylhexyl) phthalate	1,280	122	1,218	132.9	94.0	40.8	170				
Di-n-octyl phthalate	1,920	122	1,218	0	158	34.6	142				S
Benzo (b) fluoranthene	1,250	97.4	1,218	214.7	85.3	52.1	136				
Benzo (k) fluoranthene	934	97.4	1,218	0	76.7	64.5	135				
Benzo (a) pyrene	1,050	97.4	1,218	0	85.9	50.5	137				
Indeno (1,2,3-cd) pyrene	1,290	97.4	1,218	184.3	90.7	49.7	143				
Dibenz (a,h) anthracene	1,500	97.4	1,218	0	123	40.7	152				
Benzo (g,h,i) perylene	1,080	97.4	1,218	150.9	76.4	34	157				



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-002AMS	SampType: MS			Units: µg/Kg-dry		Prep Date: 9/29/2015			RunNo: 25270		
Client ID:	TP-3-15:6.0	Batch ID: 11985			Analysis Date: 10/2/2015					SeqNo: 476491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Surr: 2,4,6-Tribromophenol	1,010		1,218		83.0	11.1	127				
Surr: 2-Fluorobiphenyl	496		608.8		81.4	16.1	150				
Surr: Nitrobenzene-d5	381		608.8		62.6	13.1	124				
Surr: Phenol-d6	538		1,218		44.2	11.6	133				
Surr: p-Terphenyl	547		608.8		89.9	21.8	150				

NOTES:

S - Spike recovery indicates a possible matrix effect.



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Gasoline by NWTPH-Gx**

Sample ID	LCS-11979	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/29/2015	RunNo:	25194		
Client ID:	LCSS	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475070		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	21.3	5.00	25.00	0	85.2	65	135				
Surr: Toluene-d8	1.23		1.250		98.0	65	135				
Surr: 4-Bromofluorobenzene	1.32		1.250		106	65	135				

Sample ID	MB-11979	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/29/2015		RunNo:	25194	
Client ID:	MBLKS	Batch ID:	11979						Analysis Date:	9/29/2015			SeqNo:	475071	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Gasoline	ND	5.00									
Surr: Toluene-d8	1.21		1.250		96.6	65	135				
Surr: 4-Bromofluorobenzene	1.30		1.250		104	65	135				

Sample ID	1509387-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25194		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475063		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	3.59						0		30	
Surr: Toluene-d8	0.868		0.8976		96.7	65	135		0		
Surr: 4-Bromofluorobenzene	0.940		0.8976		105	65	135		0		

Sample ID	1509385-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25194		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475174		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.59						0		30	
Surr: Toluene-d8	1.36		1.397		97.2	65	135		0		
Surr: 4-Bromofluorobenzene	1.48		1.397		106	65	135		0		



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Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11979	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	LCSS	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475058		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.841	0.0600	1.000	0	84.1	34.5	141				
Chloromethane	0.876	0.0600	1.000	0	87.6	38.8	132				
Vinyl chloride	0.995	0.00200	1.000	0	99.5	56.1	130				
Bromomethane	1.10	0.0900	1.000	0	110	41.3	148				
Trichlorofluoromethane (CFC-11)	1.40	0.0500	1.000	0	140	42.9	147				
Chloroethane	0.955	0.0600	1.000	0	95.5	37.1	144				
1,1-Dichloroethene	1.12	0.0500	1.000	0	112	49.7	142				
Methylene chloride	0.938	0.0200	1.000	0	93.8	46.3	140				
trans-1,2-Dichloroethene	1.12	0.0200	1.000	0	112	68	130				
Methyl tert-butyl ether (MTBE)	0.907	0.0500	1.000	0	90.7	59.1	138				
1,1-Dichloroethane	1.10	0.0200	1.000	0	110	61.9	137				
2,2-Dichloropropane	1.56	0.0500	1.000	0	156	28.1	149				S
cis-1,2-Dichloroethene	1.09	0.0200	1.000	0	109	71.3	135				
Chloroform	1.04	0.0200	1.000	0	104	67.5	129				
1,1,1-Trichloroethane (TCA)	1.21	0.0200	1.000	0	121	69	132				
1,1-Dichloropropene	1.05	0.0200	1.000	0	105	72.7	131				
Carbon tetrachloride	1.09	0.0200	1.000	0	109	63.4	137				
1,2-Dichloroethane (EDC)	0.999	0.0300	1.000	0	99.9	61.9	136				
Benzene	1.00	0.0200	1.000	0	100	64.3	133				
Trichloroethene (TCE)	1.07	0.0200	1.000	0	107	65.5	137				
1,2-Dichloropropane	1.05	0.0200	1.000	0	105	63.2	142				
Bromodichloromethane	0.967	0.0200	1.000	0	96.7	73.2	131				
Dibromomethane	1.17	0.0400	1.000	0	117	70	130				
cis-1,3-Dichloropropene	1.00	0.0200	1.000	0	100	59.1	143				
Toluene	1.01	0.0200	1.000	0	101	67.3	138				
trans-1,3-Dichloropropylene	1.05	0.0300	1.000	0	105	49.2	149				
1,1,2-Trichloroethane	1.12	0.0300	1.000	0	112	74.5	129				
1,3-Dichloropropane	1.06	0.0500	1.000	0	106	70	130				
Tetrachloroethene (PCE)	1.11	0.0200	1.000	0	111	52.7	150				
Dibromochloromethane	1.10	0.0300	1.000	0	110	70.6	144				
1,2-Dibromoethane (EDB)	1.19	0.00500	1.000	0	119	70	130				



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11979	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	LCSS	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475058		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	1.07	0.0200	1.000	0	107	76.1	123				
1,1,1,2-Tetrachloroethane	1.09	0.0300	1.000	0	109	74.8	131				
Ethylbenzene	0.993	0.0300	1.000	0	99.3	74	129				
m,p-Xylene	1.99	0.0200	2.000	0	99.3	79.8	128				
o-Xylene	0.968	0.0200	1.000	0	96.8	72.7	124				
Styrene	1.14	0.0200	1.000	0	114	76.8	130				
Isopropylbenzene	1.11	0.0800	1.000	0	111	70	130				
Bromoform	1.14	0.0200	1.000	0	114	67	154				
1,1,2,2-Tetrachloroethane	1.22	0.0200	1.000	0	122	60	130				
n-Propylbenzene	1.10	0.0200	1.000	0	110	74.8	125				
Bromobenzene	1.11	0.0300	1.000	0	111	49.2	144				
1,3,5-Trimethylbenzene	1.07	0.0200	1.000	0	107	74.6	123				
2-Chlorotoluene	1.08	0.0200	1.000	0	108	76.7	129				
4-Chlorotoluene	1.11	0.0200	1.000	0	111	77.5	125				
tert-Butylbenzene	1.13	0.0200	1.000	0	113	66.2	130				
1,2,3-Trichloropropane	1.19	0.0200	1.000	0	119	67.9	136				
1,2,4-Trichlorobenzene	1.09	0.0500	1.000	0	109	65.6	137				
sec-Butylbenzene	1.15	0.0200	1.000	0	115	75.6	133				
4-Isopropyltoluene	1.15	0.0200	1.000	0	115	76.8	131				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	128				
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	72.6	126				
n-Butylbenzene	1.08	0.0200	1.000	0	108	65.3	136				
1,2-Dichlorobenzene	1.01	0.0200	1.000	0	101	72.8	126				
1,2-Dibromo-3-chloropropane	1.13	0.500	1.000	0	113	61.2	139				
1,2,4-Trimethylbenzene	0.984	0.0200	1.000	0	98.4	77.5	129				
Hexachlorobutadiene	1.14	0.100	1.000	0	114	42	151				
Naphthalene	0.966	0.0300	1.000	0	96.6	62.3	134				
1,2,3-Trichlorobenzene	1.04	0.0200	1.000	0	104	62.1	140				
Surr: Dibromofluoromethane	1.31		1.250		104	56.5	129				
Surr: Toluene-d8	1.24		1.250		99.1	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.29		1.250		103	63.1	141				



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11979	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	LCSS	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475058		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:

S - Outlying spike recovery observed (2,2-Dichloropropane; high bias). There were no detections of this analyte in the following samples. No further action is required.

Sample ID	MB-11979	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/29/2015		RunNo:	25193	
Client ID:	MBLKS	Batch ID:	11979						Analysis Date:	9/29/2015			SeqNo:	475059	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Dichlorodifluoromethane (CFC-12)	ND	0.0600									
Chloromethane	ND	0.0600									
Vinyl chloride	ND	0.00200									
Bromomethane	ND	0.0900									
Trichlorofluoromethane (CFC-11)	ND	0.0500									
Chloroethane	ND	0.0600									
1,1-Dichloroethene	ND	0.0500									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
Methyl tert-butyl ether (MTBE)	ND	0.0500									
1,1-Dichloroethane	ND	0.0200									
2,2-Dichloropropane	ND	0.0500									
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0200									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0200									
1,2-Dichloroethane (EDC)	ND	0.0300									
Benzene	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0400									
cis-1,3-Dichloropropene	ND	0.0200									
Toluene	ND	0.0200									



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11979	SampType:	MBLK	Units:	mg/Kg	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	MBLKS	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475059		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

trans-1,3-Dichloropropylene	ND	0.0300									
1,1,2-Trichloroethane	ND	0.0300									
1,3-Dichloropropane	ND	0.0500									
Tetrachloroethene (PCE)	ND	0.0200									
Dibromochloromethane	ND	0.0300									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0200									
1,1,1,2-Tetrachloroethane	ND	0.0300									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Styrene	ND	0.0200									
Isopropylbenzene	ND	0.0800									
Bromoform	ND	0.0200									
1,1,2,2-Tetrachloroethane	ND	0.0200									
n-Propylbenzene	ND	0.0200									
Bromobenzene	ND	0.0300									
1,3,5-Trimethylbenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0200									
4-Chlorotoluene	ND	0.0200									
tert-Butylbenzene	ND	0.0200									
1,2,3-Trichloropropane	ND	0.0200									
1,2,4-Trichlorobenzene	ND	0.0500									
sec-Butylbenzene	ND	0.0200									
4-Isopropyltoluene	ND	0.0200									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
n-Butylbenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
1,2,4-Trimethylbenzene	ND	0.0200									



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11979	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/29/2015			RunNo:	25193		
Client ID:	MBLKS	Batch ID:	11979							Analysis Date:	9/29/2015			SeqNo:	475059		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual				

Hexachlorobutadiene	ND	0.100									
Naphthalene	ND	0.0300									
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.21		1.250		97.2	56.5	129				
Surr: Toluene-d8	1.25		1.250		100	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		100	63.1	141				

Sample ID	1509387-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475050		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	ND	0.0431						0		30	
Chloromethane	ND	0.0431						0		30	
Vinyl chloride	ND	0.00144						0		30	
Bromomethane	ND	0.0646						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0359						0		30	
Chloroethane	ND	0.0431						0		30	
1,1-Dichloroethene	ND	0.0359						0		30	
Methylene chloride	ND	0.0144						0		30	
trans-1,2-Dichloroethene	ND	0.0144						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0359						0		30	
1,1-Dichloroethane	ND	0.0144						0		30	
2,2-Dichloropropane	ND	0.0359						0		30	
cis-1,2-Dichloroethene	ND	0.0144						0		30	
Chloroform	ND	0.0144						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0144						0		30	
1,1-Dichloropropene	ND	0.0144						0		30	
Carbon tetrachloride	ND	0.0144						0		30	
1,2-Dichloroethane (EDC)	ND	0.0215						0		30	
Benzene	ND	0.0144						0		30	
Trichloroethene (TCE)	ND	0.0144						0		30	



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509387-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475050		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	0.0144						0		30	
Bromodichloromethane	ND	0.0144						0		30	
Dibromomethane	ND	0.0287						0		30	
cis-1,3-Dichloropropene	ND	0.0144						0		30	
Toluene	ND	0.0144						0		30	
trans-1,3-Dichloropropylene	ND	0.0215						0		30	
1,1,2-Trichloroethane	ND	0.0215						0		30	
1,3-Dichloropropane	ND	0.0359						0		30	
Tetrachloroethene (PCE)	ND	0.0144						0		30	
Dibromochloromethane	ND	0.0215						0		30	
1,2-Dibromoethane (EDB)	ND	0.00359						0		30	
Chlorobenzene	ND	0.0144						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0215						0		30	
Ethylbenzene	ND	0.0215						0		30	
m,p-Xylene	ND	0.0144						0		30	
o-Xylene	ND	0.0144						0		30	
Styrene	ND	0.0144						0		30	
Isopropylbenzene	ND	0.0574						0		30	
Bromoform	ND	0.0144						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0144						0		30	
n-Propylbenzene	ND	0.0144						0		30	
Bromobenzene	ND	0.0215						0		30	
1,3,5-Trimethylbenzene	ND	0.0144						0		30	
2-Chlorotoluene	ND	0.0144						0		30	
4-Chlorotoluene	ND	0.0144						0		30	
tert-Butylbenzene	ND	0.0144						0		30	
1,2,3-Trichloropropane	ND	0.0144						0		30	
1,2,4-Trichlorobenzene	ND	0.0359						0		30	
sec-Butylbenzene	ND	0.0144						0		30	
4-Isopropyltoluene	ND	0.0144						0		30	
1,3-Dichlorobenzene	ND	0.0144						0		30	



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Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509387-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475050		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.0144						0		30	
n-Butylbenzene	ND	0.0144						0		30	
1,2-Dichlorobenzene	ND	0.0144						0		30	
1,2-Dibromo-3-chloropropane	ND	0.359						0		30	
1,2,4-Trimethylbenzene	ND	0.0144						0		30	
Hexachlorobutadiene	ND	0.0718						0		30	
Naphthalene	ND	0.0215						0		30	
1,2,3-Trichlorobenzene	ND	0.0144						0		30	
Surr: Dibromofluoromethane	0.863		0.8976		96.1	56.5	129		0		
Surr: Toluene-d8	0.892		0.8976		99.4	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	0.906		0.8976		101	63.1	141		0		

Sample ID	1509387-005BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475055		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.01	0.0583	0.9721	0	104	43.5	121				
Chloromethane	0.999	0.0583	0.9721	0.01014	102	45	130				
Vinyl chloride	1.16	0.00194	0.9721	0	120	51.2	146				
Bromomethane	1.19	0.0875	0.9721	0	122	21.3	120				S
Trichlorofluoromethane (CFC-11)	0.974	0.0486	0.9721	0	100	35	131				
Chloroethane	1.08	0.0583	0.9721	0	111	43.8	117				
1,1-Dichloroethene	1.23	0.0486	0.9721	0	127	61.9	141				
Methylene chloride	1.03	0.0194	0.9721	0.07724	98.1	54.7	142				
trans-1,2-Dichloroethene	1.19	0.0194	0.9721	0	122	52	136				
Methyl tert-butyl ether (MTBE)	0.965	0.0486	0.9721	0	99.3	54.4	132				
1,1-Dichloroethane	1.16	0.0194	0.9721	0.004647	119	51.8	141				
2,2-Dichloropropane	1.37	0.0486	0.9721	0	141	36	123				S
cis-1,2-Dichloroethene	1.12	0.0194	0.9721	0	116	58.6	136				
Chloroform	1.06	0.0194	0.9721	0.01447	108	53.2	129				
1,1,1-Trichloroethane (TCA)	1.28	0.0194	0.9721	0	131	58.3	145				



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509387-005BMS	SampType: MS	Units: mg/Kg-dry			Prep Date: 9/29/2015			RunNo: 25193		
Client ID:	BATCH	Batch ID:	11979	Analysis Date: 9/29/2015					SeqNo: 475055		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	1.07	0.0194	0.9721	0	110	55.1	138				
Carbon tetrachloride	1.09	0.0194	0.9721	0	112	53.3	144				
1,2-Dichloroethane (EDC)	0.998	0.0292	0.9721	0.04981	97.5	51.3	139				
Benzene	1.51	0.0194	0.9721	0.5396	99.5	63.5	133				
Trichloroethene (TCE)	1.08	0.0194	0.9721	0.03136	108	68.6	132				
1,2-Dichloropropane	1.04	0.0194	0.9721	0.003577	107	59	136				
Bromodichloromethane	0.936	0.0194	0.9721	0.08723	87.4	50.7	141				
Dibromomethane	1.14	0.0389	0.9721	0.006323	116	50.6	137				
cis-1,3-Dichloropropene	1.02	0.0194	0.9721	0.05260	99.6	50.4	138				
Toluene	4.51	0.0194	0.9721	3.490	105	63.4	132				
trans-1,3-Dichloropropylene	1.13	0.0292	0.9721	0.02254	114	44.1	147				
1,1,2-Trichloroethane	1.32	0.0292	0.9721	0.1854	117	51.6	137				
1,3-Dichloropropane	1.13	0.0486	0.9721	0	116	53.1	134				
Tetrachloroethene (PCE)	1.18	0.0194	0.9721	0	121	35.6	158				
Dibromochloromethane	1.07	0.0292	0.9721	0.007957	110	55.3	140				
1,2-Dibromoethane (EDB)	1.25	0.00486	0.9721	0.01268	128	50.4	136				
Chlorobenzene	1.08	0.0194	0.9721	0.004540	111	60	133				
1,1,1,2-Tetrachloroethane	1.06	0.0292	0.9721	0.01428	108	53.1	142				
Ethylbenzene	2.49	0.0292	0.9721	1.502	102	54.5	134				
m,p-Xylene	8.08	0.0194	1.944	6.227	95.5	53.1	132				E
o-Xylene	3.48	0.0194	0.9721	2.520	98.9	53.3	139				
Styrene	1.27	0.0194	0.9721	0.09711	121	51.1	132				
Isopropylbenzene	1.62	0.0778	0.9721	0.4642	119	58.9	138				
Bromoform	1.10	0.0194	0.9721	0	113	57.9	130				
1,1,2,2-Tetrachloroethane	2.39	0.0194	0.9721	1.284	114	51.9	131				
n-Propylbenzene	2.12	0.0194	0.9721	0.9704	118	53.6	140				
Bromobenzene	1.15	0.0292	0.9721	0	118	54.2	140				
1,3,5-Trimethylbenzene	3.02	0.0194	0.9721	1.938	112	51.8	136				
2-Chlorotoluene	1.49	0.0194	0.9721	0.4387	108	51.6	136				
4-Chlorotoluene	1.35	0.0194	0.9721	0.1999	119	50.1	139				
tert-Butylbenzene	1.21	0.0194	0.9721	0.01467	123	50.5	135				



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509387-005BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475055		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichloropropane	1.26	0.0194	0.9721	0.03448	126	50.5	131				
1,2,4-Trichlorobenzene	1.17	0.0486	0.9721	0	121	50.8	130				
sec-Butylbenzene	1.49	0.0194	0.9721	0.2766	125	52.6	141				
4-Isopropyltoluene	1.68	0.0194	0.9721	0.4629	125	52.9	134				
1,3-Dichlorobenzene	1.04	0.0194	0.9721	0	107	52.6	131				
1,4-Dichlorobenzene	1.03	0.0194	0.9721	0	106	52.9	129				
n-Butylbenzene	1.92	0.0194	0.9721	0.8108	114	52.6	130				
1,2-Dichlorobenzene	1.02	0.0194	0.9721	0	105	55.8	129				
1,2-Dibromo-3-chloropropane	1.51	0.486	0.9721	0.2608	128	40.5	131				
1,2,4-Trimethylbenzene	5.04	0.0194	0.9721	4.590	45.8	50.6	137				SE
Hexachlorobutadiene	1.29	0.0972	0.9721	0	132	40.6	158				
Naphthalene	2.81	0.0292	0.9721	1.746	109	52.3	124				
1,2,3-Trichlorobenzene	1.14	0.0194	0.9721	0.008243	116	54.4	124				
Surr: Dibromofluoromethane	1.24		1.215		102	56.5	129				
Surr: Toluene-d8	1.32		1.215		109	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.215		105	63.1	141				

NOTES:

S - Outlying QC recoveries were observed. The method is in control as indicated by the LCS.

Sample ID	1509385-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475201		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0671						0		30	
Chloromethane	ND	0.0671						0		30	
Vinyl chloride	ND	0.00224						0		30	
Bromomethane	ND	0.101						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0559						0		30	
Chloroethane	ND	0.0671						0		30	
1,1-Dichloroethene	ND	0.0559						0		30	
Methylene chloride	ND	0.0224						0		30	
trans-1,2-Dichloroethene	ND	0.0224						0		30	



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509385-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475201		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methyl tert-butyl ether (MTBE)	ND	0.0559						0		30	
1,1-Dichloroethane	ND	0.0224						0		30	
2,2-Dichloropropane	ND	0.0559						0		30	
cis-1,2-Dichloroethene	ND	0.0224						0		30	
Chloroform	ND	0.0224						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0224						0		30	
1,1-Dichloropropene	ND	0.0224						0		30	
Carbon tetrachloride	ND	0.0224						0		30	
1,2-Dichloroethane (EDC)	ND	0.0335						0		30	
Benzene	ND	0.0224						0		30	
Trichloroethene (TCE)	ND	0.0224						0		30	
1,2-Dichloropropane	ND	0.0224						0		30	
Bromodichloromethane	ND	0.0224						0		30	
Dibromomethane	ND	0.0447						0		30	
cis-1,3-Dichloropropene	ND	0.0224						0		30	
Toluene	ND	0.0224						0		30	
trans-1,3-Dichloropropylene	ND	0.0335						0		30	
1,1,2-Trichloroethane	ND	0.0335						0		30	
1,3-Dichloropropane	ND	0.0559						0		30	
Tetrachloroethene (PCE)	ND	0.0224						0		30	
Dibromochloromethane	ND	0.0335						0		30	
1,2-Dibromoethane (EDB)	ND	0.00559						0		30	
Chlorobenzene	ND	0.0224						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0335						0		30	
Ethylbenzene	ND	0.0335						0		30	
m,p-Xylene	ND	0.0224						0		30	
o-Xylene	ND	0.0224						0		30	
Styrene	ND	0.0224						0		30	
Isopropylbenzene	ND	0.0894						0		30	
Bromoform	ND	0.0224						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0224						0		30	



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509385-001BDUP	SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/29/2015			RunNo: 25193		
Client ID:	BATCH	Batch ID: 11979		Analysis Date: 9/29/2015						SeqNo: 475201	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Propylbenzene	ND	0.0224						0		30	
Bromobenzene	ND	0.0335						0		30	
1,3,5-Trimethylbenzene	ND	0.0224						0		30	
2-Chlorotoluene	ND	0.0224						0		30	
4-Chlorotoluene	ND	0.0224						0		30	
tert-Butylbenzene	ND	0.0224						0		30	
1,2,3-Trichloropropane	ND	0.0224						0		30	
1,2,4-Trichlorobenzene	ND	0.0559						0		30	
sec-Butylbenzene	ND	0.0224						0		30	
4-Isopropyltoluene	ND	0.0224						0		30	
1,3-Dichlorobenzene	ND	0.0224						0		30	
1,4-Dichlorobenzene	ND	0.0224						0		30	
n-Butylbenzene	ND	0.0224						0		30	
1,2-Dichlorobenzene	ND	0.0224						0		30	
1,2-Dibromo-3-chloropropane	ND	0.559						0		30	
1,2,4-Trimethylbenzene	ND	0.0224						0		30	
Hexachlorobutadiene	ND	0.112						0		30	
Naphthalene	ND	0.0335						0		30	
1,2,3-Trichlorobenzene	ND	0.0224						0		30	
Surr: Dibromofluoromethane	1.33		1.397		95.1	56.5	129		0		
Surr: Toluene-d8	1.38		1.397		99.0	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	1.43		1.397		102	63.1	141		0		



Date: 10/21/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID	1509276-018ADUP	SampType:	DUP	Units:	wt%	Prep Date:	9/29/2015	RunNo:	25189		
Client ID:	BATCH	Batch ID:	R25189			Analysis Date:	9/29/2015	SeqNo:	474938		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	13.2	0.500						10.34	24.3	20	R

Sample ID	1509401-001ADUP	SampType:	DUP	Units:	wt%	Prep Date:	9/29/2015	RunNo:	25189		
Client ID:	BATCH	Batch ID:	R25189			Analysis Date:	9/29/2015	SeqNo:	474956		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	14.6	0.500						16.55	12.7	20	

Client Name: **SW**

 Work Order Number: **1509353**

 Logged by: **Erica Silva**

 Date Received: **9/25/2015 12:20:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of >0°C to 10.0°C * Yes ☒ No ☐ NA ☐
8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

Item #	Temp °C
Cooler	4.2
Sample	2.5



Fremont

ANALYTICAL

Chain of Custody Record

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/25/15

Page: 1 of: 1

Laboratory Project No (internal):

1509353

Client: Shannon & Wilson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-692-8820 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 211-2055-006
Location: City of Pacific WA
Report To (PM): Edwin Park
PM Email: epesherwin1.com
Collected by: ENV

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GY/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/heavy Oil range Organics (DX)	SVOCs (EPA 8270 / 825)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	ECB (8011)	Herbicides 813A	Pesticides 801B	Comments
1 TP-1:5.5	9/23/15	0900	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 TP-3:6.0	9/23/15	1130	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

**Metals Analysis (Circle): MTCA-5 MTCA-5 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti U V Zn

**Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (A fee may be assessed if samples are retained after 90 days.)

Relinquished: 9/25/15 1200 Date/Time Received: 9/25/15 1220 Date/Time

Relinquished: 9/25/15 1200 Date/Time Received: 9/25/15 1220 Date/Time

TAT → SameDay^ NextDay^ 2 Day 3 Day STB

*Please coordinate with the lab in advance



Chain of Custody Record

Laboratory Project No (Internal): 1509353

3500 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/23/15

Page 1 of 1

Client: Shannon & Wilson Inc.
Address: 400 N 34th St, Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-9020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 21-2035-00C
Location: City of Pacific WA
Report To (PM): Edvin Dyak
PM Email: edvdisham1.com
Collected by: EMP

*Natura Center) N = Air, AD = Adjacent, B = BuA, O = Olive, P = Prefect, S = Soil, SP = Sparring, SA = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

[illegible]



3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Shannon & Wilson
Ed Ptak
400 N. 34th Street, Suite 100
Seattle, WA 98103

RE: Pacific Park
Lab ID: 1509353

October 29, 2015

Attention Ed Ptak:

Fremont Analytical, Inc. received 2 sample(s) on 9/25/2015 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Gasoline by NWTPH-Gx
Herbicides by EPA Method 8151A
Mercury by EPA Method 7471
Metals (SW6020) with TCLP Extraction (EPA 1311)
Organochlorine Pesticides by EPA Method 8081
Polychlorinated Biphenyls (PCB) by EPA 8082
Sample Moisture (Percent Moisture)
Semi-Volatile Organic Compounds by EPA Method 8270
Total Metals by EPA Method 6020
Volatile Organic Compounds by EPA Method 8260

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
President



Date: 10/29/2015

CLIENT: Shannon & Wilson
Project: Pacific Park
Lab Order: 1509353

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1509353-001	TP-1-15:5.5	09/23/2015 9:00 AM	09/25/2015 12:20 PM
1509353-002	TP-3-15:6.0	09/23/2015 11:30 AM	09/25/2015 12:20 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: Shannon & Wilson**Project:** Pacific Park

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

WO#: 1509353

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11961

Analyst: MD

Dicamba	ND	23.6		µg/Kg-dry	1	9/30/2015 2:47:00 AM
2,4-D	ND	20.3		µg/Kg-dry	1	9/30/2015 2:47:00 AM
2,4-DP	ND	16.9		µg/Kg-dry	1	9/30/2015 2:47:00 AM
2,4,5-TP (Silvex)	ND	13.5		µg/Kg-dry	1	9/30/2015 2:47:00 AM
2,4,5-T	ND	33.8		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Dinoseb	41.9	20.3		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Dalapon	118,000	135		µg/Kg-dry	1	9/30/2015 2:47:00 AM
2,4-DB	23.6	16.9		µg/Kg-dry	1	9/30/2015 2:47:00 AM
MCPP	ND	2,970		µg/Kg-dry	1	9/30/2015 2:47:00 AM
MCPA	ND	189		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Picloram	44.6	33.8		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Bentazon	25.4	23.6		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Chloramben	77.3	13.5		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Acifluorfen	ND	54.0		µg/Kg-dry	1	9/30/2015 2:47:00 AM
3,5-Dichlorobenzoic acid	ND	27.0		µg/Kg-dry	1	9/30/2015 2:47:00 AM
4-Nitrophenol	40.8	20.3		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Dacthal (DCPA)	20.4	20.3		µg/Kg-dry	1	9/30/2015 2:47:00 AM
Surr: 2,4-Dichlorophenylacetic acid	119	20.1-168		%REC	1	9/30/2015 2:47:00 AM

Polychlorinated Biphenyls (PCB) by EPA 8082

Batch ID: 12180

Analyst: CM

Aroclor 1016	ND	0.132		mg/Kg-dry	1	10/22/2015 7:33:00 PM
Aroclor 1221	ND	0.132		mg/Kg-dry	1	10/22/2015 7:33:00 PM
Aroclor 1232	ND	0.132		mg/Kg-dry	1	10/22/2015 7:33:00 PM
Aroclor 1242	ND	0.132		mg/Kg-dry	1	10/22/2015 7:33:00 PM
Aroclor 1248	ND	0.132		mg/Kg-dry	1	10/22/2015 7:33:00 PM
Aroclor 1254	ND	0.132		mg/Kg-dry	1	10/22/2015 7:33:00 PM
Aroclor 1260	ND	0.132		mg/Kg-dry	1	10/22/2015 7:33:00 PM
Aroclor 1262	ND	0.132		mg/Kg-dry	1	10/22/2015 7:33:00 PM
Aroclor 1268	ND	0.132		mg/Kg-dry	1	10/22/2015 7:33:00 PM
Total PCBs	ND	0.132		mg/Kg-dry	1	10/22/2015 7:33:00 PM
Surr: Decachlorobiphenyl	85.8	41.2-143		%REC	1	10/22/2015 7:33:00 PM
Surr: Tetrachloro-m-xylene	78.0	26-140		%REC	1	10/22/2015 7:33:00 PM

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Toxaphene	ND	0.118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Alpha BHC	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Beta BHC	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM



Analytical Report

WO#: 1509353

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Organochlorine Pesticides by EPA Method 8081				Batch ID: 11962		Analyst: MD
Gamma BHC (Lindane)	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Delta BHC	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Heptachlor	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Aldrin	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Heptachlor epoxide	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
gamma-Chlordane	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endosulfan I	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
alpha-Chlordane	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Dieldrin	ND	0.0118		mg/Kg-dry	1	9/25/2015 10:18:00 PM
4,4'-DDE	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endrin	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endosulfan II	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
4,4'-DDD	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endrin aldehyde	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endosulfan sulfate	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
4,4'-DDT	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Endrin ketone	ND	0.0236		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Methoxychlor	ND	0.0591		mg/Kg-dry	1	9/25/2015 10:18:00 PM
Surr: Decachlorobiphenyl	73.9	26.5-158		%REC	1	9/25/2015 10:18:00 PM
Surr: Tetrachloro-m-xylene	58.6	11-150		%REC	1	9/25/2015 10:18:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957

Analyst: AK

Diesel (Fuel Oil)	ND	26.7		mg/Kg-dry	1	9/30/2015 12:19:00 AM
Heavy Oil	895	66.7		mg/Kg-dry	1	9/30/2015 12:19:00 AM
Surr: 2-Fluorobiphenyl	114	50-150		%REC	1	9/30/2015 12:19:00 AM
Surr: o-Terphenyl	116	50-150		%REC	1	9/30/2015 12:19:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Bis(2-chloroethyl) ether	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Chlorophenol	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
1,3-Dichlorobenzene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
1,4-Dichlorobenzene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
1,2-Dichlorobenzene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benzyl alcohol	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Methylphenol (o-cresol)	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Hexachloroethane	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

N-Nitrosodi-n-propylamine	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Nitrobenzene	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Isophorone	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Methylphenol (p-cresol)	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Nitrophenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4-Dimethylphenol	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Bis(2-chloroethoxy)methane	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4-Dichlorophenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
1,2,4-Trichlorobenzene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Naphthalene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Chloroaniline	ND	689		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Hexachlorobutadiene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Chloro-3-methylphenol	ND	689		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Methylnaphthalene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
1-Methylnaphthalene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Hexachlorocyclopentadiene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4,6-Trichlorophenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4,5-Trichlorophenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Chloronaphthalene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2-Nitroaniline	ND	689		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Acenaphthene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Dimethylphthalate	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,6-Dinitrotoluene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Acenaphthylene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4-Dinitrophenol	ND	276	*	µg/Kg-dry	1	10/2/2015 4:26:00 AM
Dibenzofuran	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
2,4-Dinitrotoluene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Nitrophenol	ND	689	*	µg/Kg-dry	1	10/2/2015 4:26:00 AM
Fluorene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Chlorophenyl phenyl ether	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Diethylphthalate	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4,6-Dinitro-2-methylphenol	ND	276		µg/Kg-dry	1	10/2/2015 4:26:00 AM
4-Bromophenyl phenyl ether	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Hexachlorobenzene	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Pentachlorophenol	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Phenanthrene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Anthracene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Carbazole	ND	689		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Di-n-butylphthalate	312	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Fluoranthene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Pyrene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Butyl Benzylphthalate	181	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
bis(2-Ethylhexyl)adipate	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benz (a) anthracene	156	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Chrysene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
bis (2-Ethylhexyl) phthalate	161	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Di-n-octyl phthalate	ND	138		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benzo (b) fluoranthene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benzo (k) fluoranthene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benzo (a) pyrene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Indeno (1,2,3-cd) pyrene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Dibenz (a,h) anthracene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Benzo (g,h,i) perylene	ND	110		µg/Kg-dry	1	10/2/2015 4:26:00 AM
Surr: 2,4,6-Tribromophenol	19.3	11.1-127		%REC	1	10/2/2015 4:26:00 AM
Surr: 2-Fluorobiphenyl	76.9	16.1-150		%REC	1	10/2/2015 4:26:00 AM
Surr: Nitrobenzene-d5	63.7	13.1-124		%REC	1	10/2/2015 4:26:00 AM
Surr: Phenol-d6	41.7	11.6-133		%REC	1	10/2/2015 4:26:00 AM
Surr: p-Terphenyl	92.4	21.8-150		%REC	1	10/2/2015 4:26:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11979

Analyst: EM

Gasoline	ND	5.83		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Surr: Toluene-d8	98.1	65-135		%REC	1	9/30/2015 1:21:00 AM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/30/2015 1:21:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11979

Analyst: EM

Dichlorodifluoromethane (CFC-12)	ND	0.0700		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Chloromethane	ND	0.0700		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Vinyl chloride	ND	0.00233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Bromomethane	ND	0.105		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0583		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Chloroethane	ND	0.0700		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1-Dichloroethene	ND	0.0583		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Methylene chloride	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
trans-1,2-Dichloroethene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11979

Analyst: EM

Methyl tert-butyl ether (MTBE)	ND	0.0583		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1-Dichloroethane	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
2,2-Dichloropropane	ND	0.0583		mg/Kg-dry	1	9/30/2015 1:21:00 AM
cis-1,2-Dichloroethene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Chloroform	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1-Dichloropropene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Carbon tetrachloride	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2-Dichloroethane (EDC)	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Benzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Trichloroethene (TCE)	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2-Dichloropropane	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Bromodichloromethane	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Dibromomethane	ND	0.0466		mg/Kg-dry	1	9/30/2015 1:21:00 AM
cis-1,3-Dichloropropene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Toluene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
trans-1,3-Dichloropropylene	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1,2-Trichloroethane	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,3-Dichloropropane	ND	0.0583		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Tetrachloroethene (PCE)	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Dibromochloromethane	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2-Dibromoethane (EDB)	ND	0.00583		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Chlorobenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Ethylbenzene	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
m,p-Xylene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
o-Xylene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Styrene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Isopropylbenzene	ND	0.0933		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Bromoform	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
n-Propylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Bromobenzene	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,3,5-Trimethylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
2-Chlorotoluene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
4-Chlorotoluene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
tert-Butylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2,3-Trichloropropane	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2,4-Trichlorobenzene	ND	0.0583		mg/Kg-dry	1	9/30/2015 1:21:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1509353-001

Matrix: Soil

Client Sample ID: TP-1-15:5.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11979

Analyst: EM

sec-Butylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
4-Isopropyltoluene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,3-Dichlorobenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,4-Dichlorobenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
n-Butylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2-Dichlorobenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2-Dibromo-3-chloropropane	ND	0.583		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2,4-Trimethylbenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Hexachlorobutadiene	ND	0.117		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Naphthalene	ND	0.0350		mg/Kg-dry	1	9/30/2015 1:21:00 AM
1,2,3-Trichlorobenzene	ND	0.0233		mg/Kg-dry	1	9/30/2015 1:21:00 AM
Surr: Dibromofluoromethane	93.8	56.5-129		%REC	1	9/30/2015 1:21:00 AM
Surr: Toluene-d8	96.2	64.3-131		%REC	1	9/30/2015 1:21:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/30/2015 1:21:00 AM

Mercury by EPA Method 7471

Batch ID: 11964

Analyst: MW

Mercury	ND	0.345		mg/Kg-dry	1	9/28/2015 12:32:53 PM
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Total Metals by EPA Method 6020

Batch ID: 11982

Analyst: TN

Arsenic	5.24	0.109		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Barium	77.8	0.546		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Cadmium	0.605	0.219		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Chromium	22.2	0.109		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Lead	88.4	0.219		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Selenium	1.03	0.546		mg/Kg-dry	1	9/29/2015 3:21:27 PM
Silver	0.196	0.109		mg/Kg-dry	1	9/29/2015 3:21:27 PM

Sample Moisture (Percent Moisture)

Batch ID: R25189

Analyst: SB

Percent Moisture	29.1			wt%	1	9/29/2015 4:04:42 PM
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Analytical Report

WO#: 1509353

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Herbicides by EPA Method 8151A

Batch ID: 11961

Analyst: MD

Dicamba	ND	21.6		µg/Kg-dry	1	9/30/2015 3:04:00 AM
2,4-D	ND	18.5		µg/Kg-dry	1	9/30/2015 3:04:00 AM
2,4-DP	ND	15.4		µg/Kg-dry	1	9/30/2015 3:04:00 AM
2,4,5-TP (Silvex)	ND	12.3		µg/Kg-dry	1	9/30/2015 3:04:00 AM
2,4,5-T	ND	30.8		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Dinoseb	ND	18.5		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Dalapon	42,100	123		µg/Kg-dry	1	9/30/2015 3:04:00 AM
2,4-DB	ND	15.4		µg/Kg-dry	1	9/30/2015 3:04:00 AM
MCPP	ND	2,710		µg/Kg-dry	1	9/30/2015 3:04:00 AM
MCPA	ND	173		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Picloram	32.2	30.8		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Bentazon	ND	21.6		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Chloramben	105	12.3		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Acifluorfen	ND	49.3		µg/Kg-dry	1	9/30/2015 3:04:00 AM
3,5-Dichlorobenzoic acid	ND	24.7		µg/Kg-dry	1	9/30/2015 3:04:00 AM
4-Nitrophenol	49.3	18.5		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Dacthal (DCPA)	19.4	18.5		µg/Kg-dry	1	9/30/2015 3:04:00 AM
Surr: 2,4-Dichlorophenylacetic acid	116	20.1-168		%REC	1	9/30/2015 3:04:00 AM

Polychlorinated Biphenyls (PCB) by EPA 8082

Batch ID: 12180

Analyst: CM

Aroclor 1016	ND	0.120		mg/Kg-dry	1	10/22/2015 7:44:00 PM
Aroclor 1221	ND	0.120		mg/Kg-dry	1	10/22/2015 7:44:00 PM
Aroclor 1232	ND	0.120		mg/Kg-dry	1	10/22/2015 7:44:00 PM
Aroclor 1242	ND	0.120		mg/Kg-dry	1	10/22/2015 7:44:00 PM
Aroclor 1248	ND	0.120		mg/Kg-dry	1	10/22/2015 7:44:00 PM
Aroclor 1254	0.231	0.120		mg/Kg-dry	1	10/28/2015 12:21:00 PM
Aroclor 1260	ND	0.120		mg/Kg-dry	1	10/22/2015 7:44:00 PM
Aroclor 1262	ND	0.120		mg/Kg-dry	1	10/22/2015 7:44:00 PM
Aroclor 1268	ND	0.120		mg/Kg-dry	1	10/22/2015 7:44:00 PM
Total PCBs	0.231	0.120		mg/Kg-dry	1	10/28/2015 12:21:00 PM
Surr: Decachlorobiphenyl	88.0	41.2-143		%REC	1	10/22/2015 7:44:00 PM
Surr: Tetrachloro-m-xylene	70.2	26-140		%REC	1	10/22/2015 7:44:00 PM

NOTES:

* - Flagged value is not within established control limits.

Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Toxaphene	ND	0.115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
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Analytical Report

WO#: 1509353

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Organochlorine Pesticides by EPA Method 8081

Batch ID: 11962

Analyst: MD

Alpha BHC	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Beta BHC	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Gamma BHC (Lindane)	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Delta BHC	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Heptachlor	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Aldrin	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Heptachlor epoxide	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
gamma-Chlordane	0.0150	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endosulfan I	0.0218	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
alpha-Chlordane	0.0207	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Dieldrin	ND	0.0115		mg/Kg-dry	1	9/25/2015 10:28:00 PM
4,4' -DDE	0.0355	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endrin	ND	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endosulfan II	0.141	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
4,4' -DDD	0.138	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endrin aldehyde	ND	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endosulfan sulfate	ND	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
4,4' -DDT	ND	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Endrin ketone	ND	0.0231		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Methoxychlor	ND	0.0577		mg/Kg-dry	1	9/25/2015 10:28:00 PM
Surr: Decachlorobiphenyl	74.5	26.5-158		%REC	1	9/25/2015 10:28:00 PM
Surr: Tetrachloro-m-xylene	68.4	11-150		%REC	1	9/25/2015 10:28:00 PM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 11957

Analyst: AK

Diesel (Fuel Oil)	ND	23.9		mg/Kg-dry	1	9/30/2015 12:52:00 AM
Heavy Oil	267	59.7		mg/Kg-dry	1	9/30/2015 12:52:00 AM
Surr: 2-Fluorobiphenyl	135	50-150		%REC	1	9/30/2015 12:52:00 AM
Surr: o-Terphenyl	139	50-150		%REC	1	9/30/2015 12:52:00 AM

Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Phenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Bis(2-chloroethyl) ether	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Chlorophenol	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
1,3-Dichlorobenzene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
1,4-Dichlorobenzene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
1,2-Dichlorobenzene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benzyl alcohol	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

2-Methylphenol (o-cresol)	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Hexachloroethane	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
N-Nitrosodi-n-propylamine	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Nitrobenzene	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Isophorone	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Methylphenol (p-cresol)	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Nitrophenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4-Dimethylphenol	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Bis(2-chloroethoxy)methane	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4-Dichlorophenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
1,2,4-Trichlorobenzene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Naphthalene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Chloroaniline	ND	611		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Hexachlorobutadiene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Chloro-3-methylphenol	ND	611		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Methylnaphthalene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
1-Methylnaphthalene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Hexachlorocyclopentadiene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4,6-Trichlorophenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4,5-Trichlorophenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Chloronaphthalene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2-Nitroaniline	ND	611		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Acenaphthene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Dimethylphthalate	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,6-Dinitrotoluene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Acenaphthylene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4-Dinitrophenol	ND	244	*	µg/Kg-dry	1	10/2/2015 5:10:00 AM
Dibenzofuran	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
2,4-Dinitrotoluene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Nitrophenol	ND	611	*	µg/Kg-dry	1	10/2/2015 5:10:00 AM
Fluorene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Chlorophenyl phenyl ether	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Diethylphthalate	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4,6-Dinitro-2-methylphenol	ND	244		µg/Kg-dry	1	10/2/2015 5:10:00 AM
4-Bromophenyl phenyl ether	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Hexachlorobenzene	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Pentachlorophenol	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Phenanthrene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Anthracene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Semi-Volatile Organic Compounds by EPA Method 8270

Batch ID: 11985

Analyst: NG

Carbazole	ND	611		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Di-n-butylphthalate	135	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Fluoranthene	148	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Pyrene	136	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Butyl Benzylphthalate	156	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
bis(2-Ethylhexyl)adipate	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benz (a) anthracene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Chrysene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
bis (2-Ethylhexyl) phthalate	133	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Di-n-octyl phthalate	ND	122		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benzo (b) fluoranthene	215	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benzo (k) fluoranthene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benzo (a) pyrene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Indeno (1,2,3-cd) pyrene	184	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Dibenz (a,h) anthracene	ND	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Benzo (g,h,i) perylene	151	97.7		µg/Kg-dry	1	10/2/2015 5:10:00 AM
Surr: 2,4,6-Tribromophenol	80.9	11.1-127		%REC	1	10/2/2015 5:10:00 AM
Surr: 2-Fluorobiphenyl	82.5	16.1-150		%REC	1	10/2/2015 5:10:00 AM
Surr: Nitrobenzene-d5	75.5	13.1-124		%REC	1	10/2/2015 5:10:00 AM
Surr: Phenol-d6	46.6	11.6-133		%REC	1	10/2/2015 5:10:00 AM
Surr: p-Terphenyl	87.2	21.8-150		%REC	1	10/2/2015 5:10:00 AM

NOTES:

* - Flagged value is not within established control limits.

Gasoline by NWTPH-Gx

Batch ID: 11979

Analyst: EM

Gasoline	ND	3.66		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Surr: Toluene-d8	98.7	65-135		%REC	1	9/30/2015 1:50:00 AM
Surr: 4-Bromofluorobenzene	104	65-135		%REC	1	9/30/2015 1:50:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: 11979

Analyst: EM

Dichlorodifluoromethane (CFC-12)	ND	0.0439		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Chloromethane	ND	0.0439		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Vinyl chloride	ND	0.00146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Bromomethane	ND	0.0658		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0366		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Chloroethane	ND	0.0439		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1-Dichloroethene	ND	0.0366		mg/Kg-dry	1	9/30/2015 1:50:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11979

Analyst: EM

Methylene chloride	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
trans-1,2-Dichloroethene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0366		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1-Dichloroethane	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
2,2-Dichloropropane	ND	0.0366		mg/Kg-dry	1	9/30/2015 1:50:00 AM
cis-1,2-Dichloroethene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Chloroform	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1-Dichloropropene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Carbon tetrachloride	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2-Dichloroethane (EDC)	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Benzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Trichloroethene (TCE)	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2-Dichloropropane	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Bromodichloromethane	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Dibromomethane	ND	0.0293		mg/Kg-dry	1	9/30/2015 1:50:00 AM
cis-1,3-Dichloropropene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Toluene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
trans-1,3-Dichloropropylene	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1,2-Trichloroethane	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,3-Dichloropropane	ND	0.0366		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Tetrachloroethene (PCE)	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Dibromochloromethane	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2-Dibromoethane (EDB)	ND	0.00366		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Chlorobenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Ethylbenzene	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
m,p-Xylene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
o-Xylene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Styrene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Isopropylbenzene	ND	0.0585		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Bromoform	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
n-Propylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Bromobenzene	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,3,5-Trimethylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
2-Chlorotoluene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
4-Chlorotoluene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
tert-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM



Analytical Report

WO#: 1509353

Date Reported: 10/29/2015

Client: Shannon & Wilson

Collection Date: 9/23/2015 11:30:00 AM

Project: Pacific Park

Lab ID: 1509353-002

Matrix: Soil

Client Sample ID: TP-3-15:6.0

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: 11979

Analyst: EM

1,2,3-Trichloropropane	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2,4-Trichlorobenzene	ND	0.0366		mg/Kg-dry	1	9/30/2015 1:50:00 AM
sec-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
4-Isopropyltoluene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,3-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,4-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
n-Butylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2-Dichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2-Dibromo-3-chloropropane	ND	0.366		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2,4-Trimethylbenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Hexachlorobutadiene	ND	0.0732		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Naphthalene	ND	0.0219		mg/Kg-dry	1	9/30/2015 1:50:00 AM
1,2,3-Trichlorobenzene	ND	0.0146		mg/Kg-dry	1	9/30/2015 1:50:00 AM
Surr: Dibromofluoromethane	94.8	56.5-129		%REC	1	9/30/2015 1:50:00 AM
Surr: Toluene-d8	98.0	64.3-131		%REC	1	9/30/2015 1:50:00 AM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%REC	1	9/30/2015 1:50:00 AM

Mercury by EPA Method 7471

Batch ID: 11964

Analyst: MW

Mercury	ND	0.301		mg/Kg-dry	1	9/28/2015 12:34:29 PM
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Total Metals by EPA Method 6020

Batch ID: 11982

Analyst: TN

Arsenic	16.9	0.100		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Barium	315	0.501		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Cadmium	1.35	0.200		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Chromium	30.1	0.100		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Lead	364	0.200		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Selenium	1.18	0.501		mg/Kg-dry	1	9/29/2015 3:42:34 PM
Silver	0.465	0.100		mg/Kg-dry	1	9/29/2015 3:42:34 PM

Metals (SW6020) with TCLP Extraction (EPA 1311)

Batch ID: 12222

Analyst: TN

Lead	ND	0.500		mg/L	1	10/26/2015 7:20:27 PM
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Sample Moisture (Percent Moisture)

Batch ID: R25189

Analyst: SB

Percent Moisture	20.2			wt%	1	9/29/2015 4:04:42 PM
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Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	MB-11982	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/29/2015			RunNo:	25190		
Client ID:	MBLKS	Batch ID:	11982							Analysis Date:	9/29/2015			SeqNo:	474985		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual				
Arsenic		ND	0.100														
Barium		ND	0.500														
Cadmium		ND	0.200														
Chromium		ND	0.100														
Lead		ND	0.200														
Selenium		ND	0.500														
Silver		ND	0.100														

Sample ID	LCS-11982	SampType: LCS		Units: mg/Kg		Prep Date: 9/29/2015			RunNo: 25190		
Client ID:	LCSS	Batch ID: 11982		Analysis Date: 9/29/2015						SeqNo: 474986	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	48.0	0.100	50.00	0	96.1	80	120				
Barium	47.9	0.500	50.00	0	95.7	80	120				
Cadmium	2.48	0.200	2.500	0	99.3	80	120				
Chromium	54.1	0.100	50.00	0	108	80	120				
Lead	23.9	0.200	25.00	0	95.7	80	120				
Selenium	4.39	0.500	5.000	0	87.9	80	120				
Silver	2.39	0.100	2.500	0	95.4	80	120				

Sample ID	1509353-001ADUP	SampType:	DUP			Units:	mg/Kg-dry			Prep Date:	9/29/2015			RunNo:	25190			
Client ID:	TP-1-15:5.5	Batch ID:	11982			Analysis Date:						9/29/2015			SeqNo:	474988		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual					
Arsenic		5.41	0.108						5.242		3.07	20						
Barium		81.2	0.542						77.84		4.22	20						
Cadmium		1.15	0.217						0.6051		62.0	20	R					
Chromium		24.2	0.108						22.25		8.40	20						
Lead		95.3	0.217						88.44		7.48	20						
Selenium		0.950	0.542						1.033		8.35	20						



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509353-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25190		
Client ID:	TP-1-15:5.5	Batch ID:	11982			Analysis Date:	9/29/2015	SeqNo:	474988		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.213	0.108						0.1957	8.21	20	

NOTES:

R - High RPD observed. The method is in control as indicated by the LCS.

Sample ID	1509353-001AMS	SampType: MS		Units: mg/Kg-dry		Prep Date: 9/29/2015			RunNo: 25190		
Client ID:	TP-1-15:5.5	Batch ID: 11982		Analysis Date: 9/29/2015					SeqNo: 474990		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	57.4	0.108	54.21	5.242	96.2	75	125				
Barium	112	0.542	54.21	77.84	62.5	75	125				S
Cadmium	3.39	0.217	2.711	0.6051	103	75	125				
Chromium	80.1	0.108	54.21	22.25	107	75	125				
Lead	131	0.217	27.11	88.44	158	75	125				S
Selenium	5.83	0.542	5.421	1.033	88.5	75	125				
Silver	2.55	0.108	2.711	0.1957	86.7	75	125				

NOTES:

S - Outlying spike recoveries observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID	1509353-001AMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25190		
Client ID:	TP-1-15:5.5	Batch ID:	11982			Analysis Date:	9/29/2015	SeqNo:	474991		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	66.6	0.108	54.21	5.242	113	75	125	57.41	14.8	20	
Barium	237	0.542	54.21	77.84	294	75	125	111.7	71.9	20	RS
Cadmium	3.52	0.217	2.711	0.6051	108	75	125	3.385	3.92	20	
Chromium	117	0.108	54.21	22.25	175	75	125	80.12	37.6	20	RS
Lead	162	0.217	27.11	88.44	271	75	125	131.1	21.0	20	RS
Selenium	6.09	0.542	5.421	1.033	93.3	75	125	5.830	4.39	20	
Silver	2.65	0.108	2.711	0.1957	90.4	75	125	2.546	3.85	20	

NOTES:

SR - Outlying spike recoveries and high RPD due to suspected sample inhomogeneity. The method is in control as indicated by the LCS.



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 6020

Sample ID	1509353-001APDS	SampType:	PDS	Units:			mg/Kg-dry	Prep Date:	9/29/2015	RunNo:			25190
Client ID:	TP-1-15:5.5	Batch ID:	11982					Analysis Date:	9/29/2015	SeqNo:			474992
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Barium	245	0.546	50.0	142	103	80	120						
Lead	247	0.219	25.0	162	171	80	120				S		

NOTES:

S - Outlying spike recovery observed for Pb.



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 7471

Sample ID	MB-11964	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/28/2015		RunNo:	25155	
Client ID:	MBLKS	Batch ID:	11964						Analysis Date:	9/28/2015			SeqNo:	474258	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Mercury	ND	0.250										
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Sample ID	LCS-11964	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/28/2015	RunNo:	25155			
Client ID:	LCSS	Batch ID:	11964			Analysis Date:	9/28/2015	SeqNo:	474259			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.505	0.250	0.5000	0	101	80	120					
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Sample ID	1509346-001ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/28/2015	RunNo:	25155			
Client ID:	BATCH	Batch ID:	11964			Analysis Date:	9/28/2015	SeqNo:	474261			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.254							0		20	
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Sample ID	1509346-001AMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	9/28/2015	RunNo:	25155			
Client ID:	BATCH	Batch ID:	11964			Analysis Date:	9/28/2015	SeqNo:	474262			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.512	0.254	0.5080	0.02889	95.1	70	130					
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Sample ID	1509346-001AMSD	SampType:	MSD	Units:	mg/Kg-dry	Prep Date:	9/28/2015	RunNo:	25155			
Client ID:	BATCH	Batch ID:	11964			Analysis Date:	9/28/2015	SeqNo:	474263			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.536	0.258	0.5169	0.02889	98.0	70	130	0.5118	4.57	20		
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Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Metals (SW6020) with TCLP Extraction (EPA 1311)

Sample ID	MB-12198FB	SampType:	MBLK	Units:	mg/L	Prep Date:	10/26/2015	RunNo:	25734			
Client ID:	MBLKS	Batch ID:	12222			Analysis Date:	10/26/2015	SeqNo:	485915			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.200

NOTES:
Filter Blank

Sample ID	MB-12222	SampType:	MBLK	Units:	mg/L	Prep Date:	10/26/2015	RunNo:	25734			
Client ID:	MBLKS	Batch ID:	12222			Analysis Date:	10/26/2015	SeqNo:	485916			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 0.200

Sample ID	LCS-12222	SampType:	LCS	Units:	mg/L	Prep Date:	10/26/2015	RunNo:	25734			
Client ID:	LCSS	Batch ID:	12222			Analysis Date:	10/26/2015	SeqNo:	485917			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 2.45 0.200 2.500 0 98.0 65 135

Sample ID	1509270-006ADUP	SampType:	DUP	Units:	mg/L	Prep Date:	10/26/2015	RunNo:	25734			
Client ID:	BATCH	Batch ID:	12222			Analysis Date:	10/26/2015	SeqNo:	485919			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 0.685 0.200 0.7188 4.76 30

Sample ID	1509270-006AMS	SampType:	MS	Units:	mg/L	Prep Date:	10/26/2015	RunNo:	25734			
Client ID:	BATCH	Batch ID:	12222			Analysis Date:	10/26/2015	SeqNo:	485920			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 3.08 0.200 2.500 0.7188 94.5 65 135



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Metals (SW6020) with TCLP Extraction (EPA 1311)

Sample ID	1509270-006AMSD	SampType:	MSD	Units:	mg/L	Prep Date:	10/26/2015	RunNo:	25734		
Client ID:	BATCH	Batch ID:	12222			Analysis Date:	10/26/2015	SeqNo:	485921		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	3.08	0.200	2.500	0.7188	94.3	65	135	3.081	0.145	30	



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	MB-11957	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/25/2015		RunNo:	25165	
Client ID:	MBLKS	Batch ID:	11957						Analysis Date:	9/28/2015		SeqNo:	474432		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	17.1		20.00		85.7	50	150				
Surr: o-Terphenyl	15.7		20.00		78.7	50	150				

Sample ID	LCS-11957	SampType: LCS			Units: mg/Kg		Prep Date: 9/25/2015			RunNo: 25165		
Client ID:	LCSS	Batch ID: 11957			Analysis Date: 9/28/2015					SeqNo: 474431		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	411	20.0	500.0	0	82.2	65	135				
Surr: 2-Fluorobiphenyl	17.8		20.00		89.0	50	150				
Surr: o-Terphenyl	16.1		20.00		80.5	50	150				

Sample ID	1509311-006ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25165		
Client ID:	BATCH	Batch ID:	11957			Analysis Date:	9/28/2015	SeqNo:	474684		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	21.6						0		30	
Heavy Oil	ND	53.9						0		30	
Surr: 2-Fluorobiphenyl	19.6		21.56		91.1	50	150		0		
Surr: o-Terphenyl	20.0		21.56		92.6	50	150		0		

Sample ID	1509340-003ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25165		
Client ID:	BATCH	Batch ID:	11957			Analysis Date:	9/29/2015	SeqNo:	475638		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.2						0		30	
Heavy Oil	ND	50.6						0		30	
Surr: 2-Fluorobiphenyl	25.8		20.23		128	50	150		0		
Surr: o-Terphenyl	26.5		20.23		131	50	150		0		



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	1509340-003ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25165		
Client ID:	BATCH	Batch ID:	11957			Analysis Date:	9/29/2015	SeqNo:	475638		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	MB-11961	SampType:	MBLK		Units:	µg/Kg		Prep Date:	9/25/2015		RunNo:	25219	
Client ID:	MBLKS	Batch ID:	11961					Analysis Date:	9/30/2015		SeqNo:	475626	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Dicamba	ND	17.5											
2,4-D	ND	15.0											
2,4-DP	ND	12.5											
2,4,5-TP (Silvex)	ND	10.0											
2,4,5-T	ND	25.0											
Dinoseb	ND	15.0											
Dalapon	ND	100											
2,4-DB	ND	12.5											
MCPP	ND	2,200											
MCPA	ND	140											
Picloram	ND	25.0											
Bentazon	ND	17.5											
Chloramben	ND	10.0											
Acifluorfen	ND	40.0											
3,5-Dichlorobenzoic acid	ND	20.0											
4-Nitrophenol	ND	15.0											
Dacthal (DCPA)	ND	15.0											
Surr: 2,4-Dichlorophenylacetic acid	79.2		100.0		79.2	20.1	168						

Sample ID	LCS-11961	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25219		
Client ID:	LCSS	Batch ID:	11961			Analysis Date:	9/30/2015	SeqNo:	475624		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	131	17.5	200.0	0	65.4	32.1	135				
2,4-D	137	15.0	200.0	0	68.7	22.4	130				
2,4-DP	145	12.5	200.0	0	72.3	26.4	130				
2,4,5-TP (Silvex)	123	10.0	200.0	0	61.3	21.2	138				
2,4,5-T	127	25.0	200.0	0	63.3	39	117				
Dinoseb	129	15.0	200.0	0	64.7	5	165				
Dalapon	13,000	100	20,000	0	65.0	18.4	162				
2,4-DB	159	12.5	200.0	0	79.6	5	164				



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	LCS-11961	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25219		
Client ID:	LCSS	Batch ID:	11961			Analysis Date:	9/30/2015	SeqNo:	475624		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MCPP	1560	2,200	2,000	0	78.1	22.2	157				
MCPA	2,200	140	2,000	0	110	47.4	128				
Picloram	140	25.0	200.0	0	70.2	5	175				
Bentazon	146	17.5	200.0	0	72.8	7.59	162				
Chloramben	93.0	10.0	200.0	0	46.5	5	147				
Acifluorfen	161	40.0	200.0	0	80.6	5	163				
3,5-Dichlorobenzoic acid	150	20.0	200.0	0	74.8	18.7	139				
4-Nitrophenol	65.6	15.0	200.0	0	32.8	5	163				
Dacthal (DCPA)	131	15.0	200.0	0	65.6	5	164				
Surr: 2,4-Dichlorophenylacetic acid	125		100.0		125	20.1	168				

Sample ID	1509311-010ADUP	SampType: DUP		Units: µg/Kg-dry		Prep Date: 9/25/2015			RunNo: 25219		
Client ID:	BATCH	Batch ID: 11961		Analysis Date: 9/30/2015						SeqNo: 475616	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	ND	20.1						0		30	
2,4-D	ND	17.2						0		30	
2,4-DP	ND	14.3						0		30	
2,4,5-TP (Silvex)	ND	11.5						0		30	
2,4,5-T	ND	28.7						0		30	
Dinoseb	ND	17.2						0		30	
Dalapon	ND	115						0		30	
2,4-DB	19.0	14.3						18.66	1.58	30	
MCPP	ND	2,520						0		30	
MCPA	ND	160						0		30	
Picloram	28.8	28.7						28.31	1.64	30	
Bentazon	ND	20.1						0		30	
Chloramben	20.6	11.5						20.73	0.505	30	
Acifluorfen	ND	45.9						0		30	
3,5-Dichlorobenzoic acid	ND	22.9						0		30	
4-Nitrophenol	ND	17.2						0		30	



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Herbicides by EPA Method 8151A

Sample ID	1509311-010ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25219		
Client ID:	BATCH	Batch ID:	11961	Analysis Date:	9/30/2015	SeqNo:	475616				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dacthal (DCPA)	17.6	17.2						16.26	7.76	30	
Surr: 2,4-Dichlorophenylacetic acid	141		114.6		123	20.1	168		0		

Sample ID	1509311-013AMS	SampType: MS			Units: µg/Kg-dry		Prep Date: 9/25/2015		RunNo: 25219		
Client ID:	BATCH	Batch ID: 11961			Analysis Date: 9/30/2015				SeqNo: 475618		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dicamba	170	20.7	236.2	0	72.2	31.9	118				
2,4-D	178	17.7	236.2	8.476	71.7	12.4	134				
2,4-DP	166	14.8	236.2	0	70.2	27.2	129				
2,4,5-TP (Silvex)	197	11.8	236.2	38.15	67.2	28.6	134				
2,4,5-T	182	29.5	236.2	71.24	47.0	13.1	147				
Dinoseb	168	17.7	236.2	49.23	50.3	10	179				
Dalapon	9,230	118	23,620	0	39.1	24.9	139				
2,4-DB	204	14.8	236.2	21.92	77.1	50.2	152				
MCP	1770	2,600	2,362	0	74.9	37.8	140				
MCPA	2,920	165	2,362	0	124	13.7	147				
Picloram	169	29.5	236.2	40.36	54.6	5	153				
Bentazon	159	20.7	236.2	0	67.3	15	140				
Chloramben	110	11.8	236.2	28.62	34.4	5	162				
Acifluorfen	250	47.2	236.2	0	106	15	140				
3,5-Dichlorobenzoic acid	172	23.6	236.2	13.32	67.2	10	164				
4-Nitrophenol	184	17.7	236.2	18.34	70.3	44.8	125				
Dacthal (DCPA)	110	17.7	236.2	16.68	39.6	5	132				
Surr: 2,4-Dichlorophenylacetic acid	145		118.1		122	20.1	168				



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID	MB-12180	SampType:	MBLK		Units:	mg/Kg		Prep Date:	10/21/2015		RunNo:	25736	
Client ID:	MBLKS	Batch ID:	12180					Analysis Date:	10/22/2015		SeqNo:	485995	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual
Aroclor 1016		ND	0.100										
Aroclor 1221		ND	0.100										
Aroclor 1232		ND	0.100										
Aroclor 1242		ND	0.100										
Aroclor 1248		ND	0.100										
Aroclor 1254		ND	0.100										
Aroclor 1260		ND	0.100										
Aroclor 1262		ND	0.100										
Aroclor 1268		ND	0.100										
Total PCBs		ND	0.100										
Surr: Decachlorobiphenyl		26.0		50.00		52.0	41.2	143					
Surr: Tetrachloro-m-xylene		24.5		50.00		49.0	26	140					

Sample ID	LCS1-12180	SampType:	LCS	Units:	mg/Kg	Prep Date:	10/21/2015	RunNo:	25736		
Client ID:	LCSS	Batch ID:	12180			Analysis Date:	10/22/2015	SeqNo:	486035		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.648	0.100	1.000	0	64.8	42.3	147				
Aroclor 1260	0.621	0.100	1.000	0	62.1	45.2	151				
Surr: Decachlorobiphenyl	25.0		50.00		49.9	41.2	143				
Surr: Tetrachloro-m-xylene	27.5		50.00		55.0	26	140				

Sample ID	1509270-006AMS	SampType:	MS			Units:	mg/Kg-dry			Prep Date:	10/21/2015			RunNo:	25736		
Client ID:	BATCH	Batch ID:	12180						Analysis Date:	10/22/2015			SeqNo:	485986			
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual				
Aroclor 1016		1.78	0.197	1.970	0	90.4	61.7	139									
Aroclor 1260		1.55	0.197	1.970	0.1414	71.4	63.1	138									
Surr: Decachlorobiphenyl		70.1		98.49		71.2	41.2	143									
Surr: Tetrachloro-m-xylene		86.4		98.49		87.7	26	140									

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID	1509270-006AMS	SampType: MS			Units: mg/Kg-dry		Prep Date: 10/21/2015		RunNo: 25736		
Client ID:	BATCH	Batch ID: 12180			Analysis Date: 10/22/2015				SeqNo: 485986		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	1509270-006AMSD	SampType:	MSD			Units:	mg/Kg-dry			Prep Date:	10/21/2015		RunNo:	25736	
Client ID:	BATCH	Batch ID:	12180						Analysis Date:	10/22/2015		SeqNo:	485987		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		
Aroclor 1016		1.86	0.186	1.862	0	100	61.7	139	1.780		4.49	30			
Aroclor 1260		1.69	0.186	1.862	0.1414	83.3	63.1	138	1.547		8.92	30			
Surr: Decachlorobiphenyl		75.7		93.10		81.3	41.2	143			0				
Surr: Tetrachloro-m-xylene		86.9		93.10		93.4	26	140			0				



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Organochlorine Pesticides by EPA Method 8081

Sample ID	MB-11962	SampType:	MBLK		Units:	mg/Kg		Prep Date:	9/25/2015		RunNo:	25268	
Client ID:	MBLKS	Batch ID:	11962					Analysis Date:	9/25/2015		SeqNo:	476442	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Toxaphene	ND	0.100											
Alpha BHC	ND	0.0100											
Beta BHC	ND	0.0100											
Gamma BHC (Lindane)	ND	0.0100											
Delta BHC	ND	0.0100											
Heptachlor	ND	0.0100											
Aldrin	ND	0.0100											
Heptachlor epoxide	ND	0.0100											
gamma-Chlordane	ND	0.0100											
Endosulfan I	ND	0.0100											
alpha-Chlordane	ND	0.0100											
Dieldrin	ND	0.0100											
4,4´-DDE	ND	0.0200											
Endrin	ND	0.0200											
Endosulfan II	ND	0.0200											
4,4´-DDD	ND	0.0200											
Endrin aldehyde	ND	0.0200											
Endosulfan sulfate	ND	0.0200											
4,4´-DDT	ND	0.0200											
Endrin ketone	ND	0.0200											
Methoxychlor	ND	0.0500											
Surr: Decachlorobiphenyl	0.0615		0.1000		61.5	26.5	158						
Surr: Tetrachloro-m-xylene	0.0327		0.05000		65.4	11	150						

Sample ID	LCS-11962	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	LCSS	Batch ID:	11962			Analysis Date:	9/25/2015	SeqNo:	476441		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.175	0.0100	0.2000	0	87.3	54.2	139				
Beta BHC	0.183	0.0100	0.2000	0	91.6	56.5	142				
Gamma BHC (Lindane)	0.180	0.0100	0.2000	0	90.2	55.5	142				



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	LCS-11962	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	LCSS	Batch ID:	11962			Analysis Date:	9/25/2015	SeqNo:	476441		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Delta BHC	0.173	0.0100	0.2000	0	86.4	47.4	157				
Heptachlor	0.197	0.0100	0.2000	0	98.4	54	141				
Aldrin	0.179	0.0100	0.2000	0	89.5	43.7	147				
Heptachlor epoxide	0.191	0.0100	0.2000	0	95.4	56.2	137				
gamma-Chlordane	0.194	0.0100	0.2000	0	96.8	58.5	136				
Endosulfan I	0.195	0.0100	0.2000	0	97.4	60	132				
alpha-Chlordane	0.196	0.0100	0.2000	0	98.2	46.1	140				
Dieldrin	0.191	0.0100	0.2000	0	95.3	61.2	133				
4,4´-DDE	0.191	0.0200	0.2000	0	95.6	55.4	142				
Endrin	0.201	0.0200	0.2000	0	100	56.5	143				
Endosulfan II	0.223	0.0200	0.2000	0	112	62	143				
4,4´-DDD	0.220	0.0200	0.2000	0	110	53.3	145				
Endrin aldehyde	0.186	0.0200	0.2000	0	93.2	39.5	153				
Endosulfan sulfate	0.219	0.0200	0.2000	0	109	53.8	148				
4,4´-DDT	0.215	0.0200	0.2000	0	108	48.2	152				
Endrin ketone	0.228	0.0200	0.2000	0	114	28.5	162				
Methoxychlor	0.250	0.0500	0.2000	0	125	34.6	159				
Surr: Decachlorobiphenyl	0.0757		0.1000		75.7	26.5	158				
Surr: Tetrachloro-m-xylene	0.0395		0.05000		79.0	11	150				

Sample ID	1509311-007ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/25/2015	RunNo:	25268		
Client ID:	BATCH	Batch ID:	11962			Analysis Date:	9/25/2015	SeqNo:	476428		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.114						0		30	
Alpha BHC	ND	0.0114						0		30	
Beta BHC	ND	0.0114						0		30	
Gamma BHC (Lindane)	ND	0.0114						0		30	
Delta BHC	ND	0.0114						0		30	
Heptachlor	ND	0.0114						0		30	
Aldrin	ND	0.0114						0		30	



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Work Order: 1509353
CLIENT: Shannon & Wilson
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QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	1509311-007ADUP	SampType:	DUP		Units:	mg/Kg-dry			Prep Date:	9/25/2015		RunNo:	25268	
Client ID:	BATCH	Batch ID:	11962						Analysis Date:	9/25/2015		SeqNo:	476428	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual			
Heptachlor epoxide	ND	0.0114						0		30				
gamma-Chlordane	ND	0.0114						0		30				
Endosulfan I	ND	0.0114						0		30				
alpha-Chlordane	ND	0.0114						0		30				
Dieldrin	ND	0.0114						0		30				
4,4'-DDE	ND	0.0228						0		30				
Endrin	ND	0.0228						0		30				
Endosulfan II	ND	0.0228						0		30				
4,4'-DDD	ND	0.0228						0		30				
Endrin aldehyde	ND	0.0228						0		30				
Endosulfan sulfate	ND	0.0228						0		30				
4,4'-DDT	ND	0.0228						0		30				
Endrin ketone	ND	0.0228						0		30				
Methoxychlor	ND	0.0570						0		30				
Surr: Decachlorobiphenyl	0.0661		0.1139		58.0	26.5	158		0					
Surr: Tetrachloro-m-xylene	0.0332		0.05697		58.3	11	150		0					

Sample ID	1509311-008AMS	SampType:	MS		Units:	µg/Kg-dry		Prep Date:	9/25/2015		RunNo:	25268		
Client ID:	BATCH	Batch ID:	11962						Analysis Date:	9/25/2015		SeqNo:	476430	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Alpha BHC		0.173	0.0113	0.2257	0	76.6	49.1	158						
Beta BHC		0.184	0.0113	0.2257	0	81.3	50.9	160						
Gamma BHC (Lindane)		0.181	0.0113	0.2257	0	80.2	55.3	157						
Delta BHC		0.176	0.0113	0.2257	0	77.9	55.8	160						
Heptachlor		0.195	0.0113	0.2257	0	86.3	59.1	150						
Aldrin		0.178	0.0113	0.2257	0	78.8	46.4	145						
Heptachlor epoxide		0.189	0.0113	0.2257	0	83.6	48.5	151						
gamma-Chlordane		0.190	0.0113	0.2257	0	84.1	50.9	143						
Endosulfan I		0.187	0.0113	0.2257	0	83.0	46.4	149						
alpha-Chlordane		0.194	0.0113	0.2257	0	86.0	46.3	153						

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Organochlorine Pesticides by EPA Method 8081

Sample ID	1509311-008AMS	SampType:	MS		Units:	µg/Kg-dry		Prep Date:	9/25/2015		RunNo:	25268
Client ID:	BATCH	Batch ID:	11962		Analysis Date:				9/25/2015		SeqNo:	476430
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Dieldrin	0.186	0.0113	0.2257	0	82.6	51	147					
4,4'-DDE	0.190	0.0226	0.2257	0	84.1	39.9	162					
Endrin	0.198	0.0226	0.2257	0	87.8	51.3	151					
Endosulfan II	0.223	0.0226	0.2257	0	99.0	51	152					
4,4'-DDD	0.208	0.0226	0.2257	0	92.0	45.8	160					
Endrin aldehyde	0.189	0.0226	0.2257	0	83.6	38.3	156					
Endosulfan sulfate	0.222	0.0226	0.2257	0	98.4	53.2	154					
4,4'-DDT	0.201	0.0226	0.2257	0	89.0	45.7	168					
Endrin ketone	0.223	0.0226	0.2257	0	98.9	68.3	144					
Methoxychlor	0.243	0.0564	0.2257	0	108	43.4	178					
Surr: Decachlorobiphenyl	0.0652		0.1129		57.8	26.5	158					
Surr: Tetrachloro-m-xylene	0.0327		0.05643		58.0	11	150					



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11985	SampType:	MBLK	Units:	µg/Kg	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	MBLKS	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476486		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	ND	200									
Bis(2-chloroethyl) ether	ND	200									
2-Chlorophenol	ND	100									
1,3-Dichlorobenzene	ND	100									
1,4-Dichlorobenzene	ND	100									
1,2-Dichlorobenzene	ND	100									
Benzyl alcohol	ND	100									
2-Methylphenol (o-cresol)	ND	100									
Hexachloroethane	ND	100									
N-Nitrosodi-n-propylamine	ND	100									
Nitrobenzene	ND	200									
Isophorone	ND	100									
4-Methylphenol (p-cresol)	ND	100									
2-Nitrophenol	ND	200									
2,4-Dimethylphenol	ND	100									
Bis(2-chloroethoxy)methane	ND	100									
2,4-Dichlorophenol	ND	200									
1,2,4-Trichlorobenzene	ND	100									
Naphthalene	ND	80.0									
4-Chloroaniline	ND	500									
Hexachlorobutadiene	ND	100									
4-Chloro-3-methylphenol	ND	500									
2-Methylnaphthalene	ND	80.0									
1-Methylnaphthalene	ND	80.0									
Hexachlorocyclopentadiene	ND	100									
2,4,6-Trichlorophenol	ND	200									
2,4,5-Trichlorophenol	ND	200									
2-Chloronaphthalene	ND	100									
2-Nitroaniline	ND	500									
Acenaphthene	ND	80.0									
Dimethylphthalate	ND	100									



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11985	SampType:	MBLK			Units:	µg/Kg			Prep Date:	9/29/2015			RunNo:	25270		
Client ID:	MBLKS	Batch ID:	11985							Analysis Date:	10/2/2015			SeqNo:	476486		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual				
2,6-Dinitrotoluene		ND	100														
Acenaphthylene		ND	80.0														
2,4-Dinitrophenol		ND	200										*				
Dibenzofuran		ND	100														
2,4-Dinitrotoluene		ND	100														
4-Nitrophenol		ND	500										*				
Fluorene		ND	80.0														
4-Chlorophenyl phenyl ether		ND	100														
Diethylphthalate		ND	100														
4,6-Dinitro-2-methylphenol		ND	200														
4-Bromophenyl phenyl ether		ND	100														
Hexachlorobenzene		ND	100														
Pentachlorophenol		ND	100														
Phenanthrene		ND	80.0														
Anthracene		ND	80.0														
Carbazole		ND	500														
Di-n-butylphthalate		ND	100														
Fluoranthene		ND	80.0														
Pyrene		ND	80.0														
Butyl Benzylphthalate		ND	100														
bis(2-Ethylhexyl)adipate		ND	100														
Benz (a) anthracene		ND	80.0														
Chrysene		ND	80.0														
bis (2-Ethylhexyl) phthalate		ND	100														
Di-n-octyl phthalate		ND	100														
Benzo (b) fluoranthene		ND	80.0														
Benzo (k) fluoranthene		ND	80.0														
Benzo (a) pyrene		ND	80.0														
Indeno (1,2,3-cd) pyrene		ND	80.0														
Dibenz (a,h) anthracene		ND	80.0														
Benzo (g,h,i) perylene		ND	80.0														



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
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QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	MB-11985	SampType:	MBLK		Units:	µg/Kg			Prep Date:	9/29/2015		RunNo:	25270	
Client ID:	MBLKS	Batch ID:	11985						Analysis Date:	10/2/2015		SeqNo:	476486	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Surr: 2,4,6-Tribromophenol		165		1,000		16.5	11.1	127						
Surr: 2-Fluorobiphenyl		511		500.0		102	16.1	150						
Surr: Nitrobenzene-d5		466		500.0		93.2	13.1	124						
Surr: Phenol-d6		771		1,000		77.1	11.6	133						
Surr: p-Terphenyl		487		500.0		97.4	21.8	150						

NOTES:

* - Flagged value is not within established control limits.

Sample ID	LCS-11985	SampType: LCS		Units: µg/Kg		Prep Date: 9/29/2015			RunNo: 25270		
Client ID:	LCSS	Batch ID: 11985		Analysis Date: 10/2/2015					SeqNo: 476487		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	885	200	1,000	0	88.5	41.8	138				
Bis(2-chloroethyl) ether	957	200	1,000	0	95.7	65	116				
2-Chlorophenol	912	100	1,000	0	91.2	49.3	132				
1,3-Dichlorobenzene	866	100	1,000	0	86.6	50.9	133				
1,4-Dichlorobenzene	780	100	1,000	0	78.0	51.3	133				
1,2-Dichlorobenzene	903	100	1,000	0	90.3	54.2	129				
Benzyl alcohol	2,140	100	1,000	0	214	42.4	131				S
2-Methylphenol (o-cresol)	824	100	1,000	0	82.4	47.2	134				
Hexachloroethane	891	100	1,000	0	89.1	48.9	133				
N-Nitrosodi-n-propylamine	945	100	1,000	0	94.5	39.8	135				
Nitrobenzene	958	200	1,000	0	95.8	62.3	126				
Isophorone	951	100	1,000	0	95.1	62.7	131				
4-Methylphenol (p-cresol)	775	100	1,000	0	77.5	57.4	131				
2-Nitrophenol	665	200	1,000	0	66.5	44.2	129				
2,4-Dimethylphenol	603	100	1,000	0	60.3	57.8	121				
Bis(2-chloroethoxy)methane	962	100	1,000	0	96.2	67.5	124				
2,4-Dichlorophenol	835	200	1,000	0	83.5	57.1	128				
1,2,4-Trichlorobenzene	976	100	1,000	0	97.6	36.2	140				
Naphthalene	981	80.0	1,000	0	98.1	56.8	130				
4-Chloroaniline	881	500	1,000	0	88.1	50.2	139				



Date: 10/29/2015

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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	LCS-11985	SampType:	LCS	Units:	µg/Kg	Prep Date:	9/29/2015	RunNo:	25270			
Client ID:	LCSS	Batch ID:	11985	Analysis Date:				10/2/2015	SeqNo:	476487		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Hexachlorobutadiene	927	100	1,000	0	92.7	55.9	131					
4-Chloro-3-methylphenol	669	500	1,000	0	66.9	49.4	138					
2-Methylnaphthalene	945	80.0	1,000	0	94.5	68.3	121					
1-Methylnaphthalene	944	80.0	1,000	0	94.4	64.1	126					
Hexachlorocyclopentadiene	775	100	1,000	0	77.5	36.7	128					
2,4,6-Trichlorophenol	558	200	1,000	0	55.8	36.4	132					
2,4,5-Trichlorophenol	762	200	1,000	0	76.2	52.3	128					
2-Chloronaphthalene	951	100	1,000	0	95.1	67.1	123					
2-Nitroaniline	874	500	1,000	0	87.4	43.9	135					
Acenaphthene	956	80.0	1,000	0	95.6	49.2	127					
Dimethylphthalate	893	100	1,000	0	89.3	62.4	130					
2,6-Dinitrotoluene	905	100	1,000	0	90.5	54.6	127					
Acenaphthylene	941	80.0	1,000	0	94.1	64.8	127					
2,4-Dinitrophenol	ND	200	1,000	0	0	7.9	119				S	
Dibenzofuran	983	100	1,000	0	98.3	67.5	123					
2,4-Dinitrotoluene	845	100	1,000	0	84.5	21.9	136					
4-Nitrophenol	ND	500	1,000	0	0	25.4	138				S	
Fluorene	961	80.0	1,000	0	96.1	64.8	126					
4-Chlorophenyl phenyl ether	997	100	1,000	0	99.7	66.6	124					
Diethylphthalate	943	100	1,000	0	94.3	42.9	132					
4,6-Dinitro-2-methylphenol	638	200	1,000	0	63.8	12.9	110					
4-Bromophenyl phenyl ether	964	100	1,000	0	96.4	61.8	128					
Hexachlorobenzene	962	100	1,000	0	96.2	66.8	124					
Pentachlorophenol	339	100	1,000	0	33.9	10	123					
Phenanthrene	961	80.0	1,000	0	96.1	61.2	130					
Anthracene	960	80.0	1,000	0	96.0	68.9	122					
Carbazole	919	500	1,000	0	91.9	64.5	135					
Di-n-butylphthalate	923	100	1,000	0	92.3	50.6	130					
Fluoranthene	965	80.0	1,000	0	96.5	66	129					
Pyrene	959	80.0	1,000	0	95.9	45.4	140					
Butyl Benzylphthalate	903	100	1,000	0	90.3	31.1	157					



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	LCS-11985	SampType: LCS		Units: µg/Kg	Prep Date: 9/29/2015			RunNo: 25270			
Client ID:	LCSS	Batch ID: 11985			Analysis Date: 10/2/2015			SeqNo: 476487			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
bis(2-Ethylhexyl)adipate	933	100	1,000	0	93.3	28.7	160				
Benz (a) anthracene	891	80.0	1,000	0	89.1	44	150				
Chrysene	1,070	80.0	1,000	0	107	65.8	128				
bis (2-Ethylhexyl) phthalate	946	100	1,000	0	94.6	36.3	149				
Di-n-octyl phthalate	944	100	1,000	0	94.4	37.2	135				
Benzo (b) fluoranthene	811	80.0	1,000	0	81.1	45.6	146				
Benzo (k) fluoranthene	836	80.0	1,000	0	83.6	45.5	138				
Benzo (a) pyrene	775	80.0	1,000	0	77.5	49.2	137				
Indeno (1,2,3-cd) pyrene	706	80.0	1,000	0	70.6	44.2	146				
Dibenz (a,h) anthracene	772	80.0	1,000	0	77.2	37.5	152				
Benzo (g,h,i) perylene	707	80.0	1,000	0	70.7	24.1	156				
Surr: 2,4,6-Tribromophenol	630		1,000		63.0	11.1	127				
Surr: 2-Fluorobiphenyl	487		500.0		97.5	16.1	150				
Surr: Nitrobenzene-d5	476		500.0		95.1	13.1	124				
Surr: Phenol-d6	889		1,000		88.9	11.6	133				
Surr: p-Terphenyl	480		500.0		96.1	21.8	150				

NOTES:

S - Outlying spike recoveries observed (2,4-Dinitrophenol and 4-Nitrophenol; low bias). Samples will be qualified with an *.

S - Outlying spike recovery observed (Benzyl alcohol; high bias). Samples are non-detect for this analyte, no further action required.

Sample ID	1509353-001ADUP	SampType:	DUP			Units:	µg/Kg-dry			Prep Date:	9/29/2015			RunNo:	25270		
Client ID:	TP-1-15:5.5	Batch ID:	11985							Analysis Date:	10/2/2015			SeqNo:	476489		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val				%RPD	RPDLimit	Qual		
Phenol		ND	279						0					50			
Bis(2-chloroethyl) ether		ND	279						0					50			
2-Chlorophenol		ND	140						0					50			
1,3-Dichlorobenzene		ND	140						0					50			
1,4-Dichlorobenzene		ND	140						0					50			
1,2-Dichlorobenzene		ND	140						0					50			
Benzyl alcohol		ND	140						0					50			
2-Methylphenol (o-cresol)		ND	140						0					50			



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	TP-1-15:5.5	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476489		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloroethane	ND	140						0		50	
N-Nitrosodi-n-propylamine	ND	140						0		50	
Nitrobenzene	ND	279						0		50	
Isophorone	ND	140						0		50	
4-Methylphenol (p-cresol)	ND	140						0		50	
2-Nitrophenol	ND	279						0		50	
2,4-Dimethylphenol	ND	140						0		50	
Bis(2-chloroethoxy)methane	ND	140						0		50	
2,4-Dichlorophenol	ND	279						0		50	
1,2,4-Trichlorobenzene	ND	140						0		50	
Naphthalene	ND	112						0		50	
4-Chloroaniline	ND	698						0		50	
Hexachlorobutadiene	ND	140						0		50	
4-Chloro-3-methylphenol	ND	698						0		50	
2-Methylnaphthalene	ND	112						0		50	
1-Methylnaphthalene	ND	112						0		50	
Hexachlorocyclopentadiene	ND	140						0		50	
2,4,6-Trichlorophenol	ND	279						0		50	
2,4,5-Trichlorophenol	ND	279						0		50	
2-Chloronaphthalene	ND	140						0		50	
2-Nitroaniline	ND	698						0		50	
Acenaphthene	ND	112						0		50	
Dimethylphthalate	ND	140						0		50	
2,6-Dinitrotoluene	ND	140						0		50	
Acenaphthylene	ND	112						0		50	
2,4-Dinitrophenol	ND	279						0		50	*
Dibenzofuran	ND	140						0		50	
2,4-Dinitrotoluene	ND	140						0		50	
4-Nitrophenol	ND	698						0		50	*
Fluorene	ND	112						0		50	
4-Chlorophenyl phenyl ether	ND	140						0		50	



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-001ADUP	SampType:	DUP	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	TP-1-15:5.5	Batch ID:	11985	Analysis Date:				10/2/2015	SeqNo:	476489	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diethylphthalate	ND	140						0		50	
4,6-Dinitro-2-methylphenol	ND	279						0		50	
4-Bromophenyl phenyl ether	ND	140						0		50	
Hexachlorobenzene	ND	140						0		50	
Pentachlorophenol	ND	140						0		50	
Phenanthrene	ND	112						0		50	
Anthracene	ND	112						0		50	
Carbazole	ND	698						0		50	
Di-n-butylphthalate	289	140						312.5	7.65	50	
Fluoranthene	ND	112						0		50	
Pyrene	ND	112						0		50	
Butyl Benzylphthalate	ND	140						180.5	200	50	R
bis(2-Ethylhexyl)adipate	ND	140						0		50	
Benz (a) anthracene	151	112						156.3	3.66	50	
Chrysene	ND	112						0		50	
bis (2-Ethylhexyl) phthalate	195	140						160.6	19.2	50	
Di-n-octyl phthalate	ND	140						0		50	
Benzo (b) fluoranthene	ND	112						0		50	
Benzo (k) fluoranthene	ND	112						0		50	
Benzo (a) pyrene	ND	112						0		50	
Indeno (1,2,3-cd) pyrene	ND	112						0		50	
Dibenz (a,h) anthracene	ND	112						0		50	
Benzo (g,h,l) perylene	ND	112						0		50	
Surr: 2,4,6-Tribromophenol	646		1,396		46.3	11.1	127		0		
Surr: 2-Fluorobiphenyl	613		697.8		87.8	16.1	150		0		
Surr: Nitrobenzene-d5	523		697.8		75.0	13.1	124		0		
Surr: Phenol-d6	657		1,396		47.0	11.6	133		0		
Surr: p-Terphenyl	690		697.8		98.9	21.8	150		0		

NOTES:

* - Flagged value is not within established control limits.

R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270			
Client ID:	TP-3-15:6.0	Batch ID:	11985	Analysis Date:				10/2/2015	SeqNo:	476491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Phenol	394	244	1,218	0	32.4	29.2	146					
Bis(2-chloroethyl) ether	759	244	1,218	0	62.4	65.4	115				S	
2-Chlorophenol	725	122	1,218	0	59.5	44	134					
1,3-Dichlorobenzene	724	122	1,218	0	59.4	69.1	117				S	
1,4-Dichlorobenzene	643	122	1,218	0	52.8	44.5	134					
1,2-Dichlorobenzene	729	122	1,218	0	59.9	35	131					
Benzyl alcohol	898	122	1,218	0	73.8	30.8	159					
2-Methylphenol (o-cresol)	388	122	1,218	0	31.9	57.7	125				S	
Hexachloroethane	667	122	1,218	0	54.8	67.1	118				S	
N-Nitrosodi-n-propylamine	985	122	1,218	0	80.9	26.4	151					
Nitrobenzene	762	244	1,218	0	62.6	61.4	130					
Isophorone	1,050	122	1,218	0	85.9	61.8	132					
4-Methylphenol (p-cresol)	341	122	1,218	0	28.0	65.5	127				S	
2-Nitrophenol	886	244	1,218	0	72.7	46.3	118					
2,4-Dimethylphenol	243	122	1,218	0	20.0	46	158				S	
Bis(2-chloroethoxy)methane	916	122	1,218	0	75.2	66.8	124					
2,4-Dichlorophenol	740	244	1,218	0	60.7	56.2	128					
1,2,4-Trichlorobenzene	860	122	1,218	0	70.7	29.2	140					
Naphthalene	855	97.4	1,218	50.51	66.1	44.4	136					
4-Chloroaniline	412	609	1,218	0	33.8	27	126					
Hexachlorobutadiene	892	122	1,218	0	73.3	38.2	138					
4-Chloro-3-methylphenol	ND	609	1,218	0	0	36.8	159				S	
2-Methylnaphthalene	971	97.4	1,218	57.31	75.0	51.7	138					
1-Methylnaphthalene	983	97.4	1,218	48.77	76.7	70.4	124					
Hexachlorocyclopentadiene	189	122	1,218	0	15.5	37.5	129				S	
2,4,6-Trichlorophenol	833	244	1,218	0	68.4	62.7	122					
2,4,5-Trichlorophenol	826	244	1,218	0	67.8	54.7	127					
2-Chloronaphthalene	999	122	1,218	0	82.1	69.8	126					
2-Nitroaniline	1,050	609	1,218	0	85.9	39.3	145					
Acenaphthene	1,060	97.4	1,218	0	87.1	49.6	129					
Dimethylphthalate	1,040	122	1,218	0	85.7	61.5	131					



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	TP-3-15:6.0	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,6-Dinitrotoluene	1,000	122	1,218	0	82.3	56.8	137				
Acenaphthylene	982	97.4	1,218	51.91	76.4	64	128				
2,4-Dinitrophenol	1,140	244	1,218	0	93.5	35.3	144				
Dibenzofuran	1,020	122	1,218	0	83.8	64.7	131				
2,4-Dinitrotoluene	941	122	1,218	0	77.3	30.9	139				
4-Nitrophenol	ND	609	1,218	0	0	48.6	137				S
Fluorene	1,060	97.4	1,218	57.45	82.2	64.2	127				
4-Chlorophenyl phenyl ether	1,040	122	1,218	0	85.8	70.9	128				
Diethylphthalate	1,070	122	1,218	89.58	80.5	61.7	129				
4,6-Dinitro-2-methylphenol	596	244	1,218	0	48.9	21.9	143				
4-Bromophenyl phenyl ether	1,050	122	1,218	0	85.9	69.6	136				
Hexachlorobenzene	1,030	122	1,218	0	84.3	66.5	123				
Pentachlorophenol	495	122	1,218	0	40.7	28.2	156				
Phenanthrene	1,060	97.4	1,218	73.19	80.9	57	134				
Anthracene	1,030	97.4	1,218	0	84.6	68.2	123				
Carbazole	1,040	609	1,218	0	85.7	64.1	152				
Di-n-butylphthalate	1,120	122	1,218	135.4	80.6	52.4	130				
Fluoranthene	1,100	97.4	1,218	147.8	77.8	46.5	165				
Pyrene	1,120	97.4	1,218	135.8	81.0	31.4	151				
Butyl Benzylphthalate	1,300	122	1,218	155.5	93.7	30.4	138				
bis(2-Ethylhexyl)adipate	1,350	122	1,218	0	111	32	136				
Benz (a) anthracene	1,070	97.4	1,218	0	88.0	43.9	151				
Chrysene	1,150	97.4	1,218	63.14	89.2	71.1	126				
bis (2-Ethylhexyl) phthalate	1,280	122	1,218	132.9	94.0	40.8	170				
Di-n-octyl phthalate	1,920	122	1,218	0	158	34.6	142				S
Benzo (b) fluoranthene	1,250	97.4	1,218	214.7	85.3	52.1	136				
Benzo (k) fluoranthene	934	97.4	1,218	0	76.7	64.5	135				
Benzo (a) pyrene	1,050	97.4	1,218	0	85.9	50.5	137				
Indeno (1,2,3-cd) pyrene	1,290	97.4	1,218	184.3	90.7	49.7	143				
Dibenz (a,h) anthracene	1,500	97.4	1,218	0	123	40.7	152				
Benzo (g,h,i) perylene	1,080	97.4	1,218	150.9	76.4	34	157				



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Semi-Volatile Organic Compounds by EPA Method 8270

Sample ID	1509353-002AMS	SampType:	MS	Units:	µg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25270		
Client ID:	TP-3-15:6.0	Batch ID:	11985			Analysis Date:	10/2/2015	SeqNo:	476491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 2,4,6-Tribromophenol	1,010		1,218		83.0	11.1	127				
Surr: 2-Fluorobiphenyl	496		608.8		81.4	16.1	150				
Surr: Nitrobenzene-d5	381		608.8		62.6	13.1	124				
Surr: Phenol-d6	538		1,218		44.2	11.6	133				
Surr: p-Terphenyl	547		608.8		89.9	21.8	150				

NOTES:

S - Spike recovery indicates a possible matrix effect.



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Gasoline by NWTPH-Gx**

Sample ID	LCS-11979	SampType: LCS			Units: mg/Kg		Prep Date: 9/29/2015			RunNo: 25194		
Client ID:	LCSS	Batch ID: 11979			Analysis Date: 9/29/2015					SeqNo: 475070		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	21.3	5.00	25.00	0	85.2	65	135				
Surr: Toluene-d8	1.23		1.250		98.0	65	135				
Surr: 4-Bromofluorobenzene	1.32		1.250		106	65	135				

Sample ID	MB-11979	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/29/2015		RunNo:	25194	
Client ID:	MBLKS	Batch ID:	11979						Analysis Date:	9/29/2015		SeqNo:	475071		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Gasoline	ND	5.00									
Surr: Toluene-d8	1.21		1.250		96.6	65	135				
Surr: 4-Bromofluorobenzene	1.30		1.250		104	65	135				

Sample ID	1509387-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25194		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475063		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	3.59						0		30	
Surr: Toluene-d8	0.868		0.8976		96.7	65	135		0		
Surr: 4-Bromofluorobenzene	0.940		0.8976		105	65	135		0		

Sample ID	1509385-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25194		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475174		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.59						0		30	
Surr: Toluene-d8	1.36		1.397		97.2	65	135		0		
Surr: 4-Bromofluorobenzene	1.48		1.397		106	65	135		0		



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11979	SampType: LCS		Units: mg/Kg		Prep Date: 9/29/2015			RunNo: 25193		
Client ID:	LCSS	Batch ID: 11979					Analysis Date: 9/29/2015			SeqNo: 475058	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.841	0.0600	1.000	0	84.1	34.5	141				
Chloromethane	0.876	0.0600	1.000	0	87.6	38.8	132				
Vinyl chloride	0.995	0.00200	1.000	0	99.5	56.1	130				
Bromomethane	1.10	0.0900	1.000	0	110	41.3	148				
Trichlorofluoromethane (CFC-11)	1.40	0.0500	1.000	0	140	42.9	147				
Chloroethane	0.955	0.0600	1.000	0	95.5	37.1	144				
1,1-Dichloroethene	1.12	0.0500	1.000	0	112	49.7	142				
Methylene chloride	0.938	0.0200	1.000	0	93.8	46.3	140				
trans-1,2-Dichloroethene	1.12	0.0200	1.000	0	112	68	130				
Methyl tert-butyl ether (MTBE)	0.907	0.0500	1.000	0	90.7	59.1	138				
1,1-Dichloroethane	1.10	0.0200	1.000	0	110	61.9	137				
2,2-Dichloropropane	1.56	0.0500	1.000	0	156	28.1	149				S
cis-1,2-Dichloroethene	1.09	0.0200	1.000	0	109	71.3	135				
Chloroform	1.04	0.0200	1.000	0	104	67.5	129				
1,1,1-Trichloroethane (TCA)	1.21	0.0200	1.000	0	121	69	132				
1,1-Dichloropropene	1.05	0.0200	1.000	0	105	72.7	131				
Carbon tetrachloride	1.09	0.0200	1.000	0	109	63.4	137				
1,2-Dichloroethane (EDC)	0.999	0.0300	1.000	0	99.9	61.9	136				
Benzene	1.00	0.0200	1.000	0	100	64.3	133				
Trichloroethene (TCE)	1.07	0.0200	1.000	0	107	65.5	137				
1,2-Dichloropropane	1.05	0.0200	1.000	0	105	63.2	142				
Bromodichloromethane	0.967	0.0200	1.000	0	96.7	73.2	131				
Dibromomethane	1.17	0.0400	1.000	0	117	70	130				
cis-1,3-Dichloropropene	1.00	0.0200	1.000	0	100	59.1	143				
Toluene	1.01	0.0200	1.000	0	101	67.3	138				
trans-1,3-Dichloropropylene	1.05	0.0300	1.000	0	105	49.2	149				
1,1,2-Trichloroethane	1.12	0.0300	1.000	0	112	74.5	129				
1,3-Dichloropropane	1.06	0.0500	1.000	0	106	70	130				
Tetrachloroethene (PCE)	1.11	0.0200	1.000	0	111	52.7	150				
Dibromochloromethane	1.10	0.0300	1.000	0	110	70.6	144				
1,2-Dibromoethane (EDB)	1.19	0.00500	1.000	0	119	70	130				



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11979	SampType:	LCS	Units:	mg/Kg	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	LCSS	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475058		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	1.07	0.0200	1.000	0	107	76.1	123				
1,1,1,2-Tetrachloroethane	1.09	0.0300	1.000	0	109	74.8	131				
Ethylbenzene	0.993	0.0300	1.000	0	99.3	74	129				
m,p-Xylene	1.99	0.0200	2.000	0	99.3	79.8	128				
o-Xylene	0.968	0.0200	1.000	0	96.8	72.7	124				
Styrene	1.14	0.0200	1.000	0	114	76.8	130				
Isopropylbenzene	1.11	0.0800	1.000	0	111	70	130				
Bromoform	1.14	0.0200	1.000	0	114	67	154				
1,1,2,2-Tetrachloroethane	1.22	0.0200	1.000	0	122	60	130				
n-Propylbenzene	1.10	0.0200	1.000	0	110	74.8	125				
Bromobenzene	1.11	0.0300	1.000	0	111	49.2	144				
1,3,5-Trimethylbenzene	1.07	0.0200	1.000	0	107	74.6	123				
2-Chlorotoluene	1.08	0.0200	1.000	0	108	76.7	129				
4-Chlorotoluene	1.11	0.0200	1.000	0	111	77.5	125				
tert-Butylbenzene	1.13	0.0200	1.000	0	113	66.2	130				
1,2,3-Trichloropropane	1.19	0.0200	1.000	0	119	67.9	136				
1,2,4-Trichlorobenzene	1.09	0.0500	1.000	0	109	65.6	137				
sec-Butylbenzene	1.15	0.0200	1.000	0	115	75.6	133				
4-Isopropyltoluene	1.15	0.0200	1.000	0	115	76.8	131				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	72.8	128				
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	72.6	126				
n-Butylbenzene	1.08	0.0200	1.000	0	108	65.3	136				
1,2-Dichlorobenzene	1.01	0.0200	1.000	0	101	72.8	126				
1,2-Dibromo-3-chloropropane	1.13	0.500	1.000	0	113	61.2	139				
1,2,4-Trimethylbenzene	0.984	0.0200	1.000	0	98.4	77.5	129				
Hexachlorobutadiene	1.14	0.100	1.000	0	114	42	151				
Naphthalene	0.966	0.0300	1.000	0	96.6	62.3	134				
1,2,3-Trichlorobenzene	1.04	0.0200	1.000	0	104	62.1	140				
Surr: Dibromofluoromethane	1.31		1.250		104	56.5	129				
Surr: Toluene-d8	1.24		1.250		99.1	64.3	131				
Surr: 1-Bromo-4-fluorobenzene	1.29		1.250		103	63.1	141				



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	LCS-11979	SampType: LCS			Units: mg/Kg		Prep Date: 9/29/2015			RunNo: 25193		
Client ID:	LCSS	Batch ID: 11979			Analysis Date: 9/29/2015					SeqNo: 475058		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Sample ID	MB-11979	SampType:	MBLK			Units:	mg/Kg			Prep Date:	9/29/2015		RunNo:	25193	
Client ID:	MBLKS	Batch ID:	11979						Analysis Date:	9/29/2015			SeqNo:	475059	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual		

Dichlorodifluoromethane (CFC-12)	ND	0.0600
Chloromethane	ND	0.0600
Vinyl chloride	ND	0.00200
Bromomethane	ND	0.0900
Trichlorofluoromethane (CFC-11)	ND	0.0500
Chloroethane	ND	0.0600
1,1-Dichloroethene	ND	0.0500
Methylene chloride	ND	0.0200
trans-1,2-Dichloroethene	ND	0.0200
Methyl tert-butyl ether (MTBE)	ND	0.0500
1,1-Dichloroethane	ND	0.0200
2,2-Dichloropropane	ND	0.0500
cis-1,2-Dichloroethene	ND	0.0200
Chloroform	ND	0.0200
1,1,1-Trichloroethane (TCA)	ND	0.0200
1,1-Dichloropropene	ND	0.0200
Carbon tetrachloride	ND	0.0200
1,2-Dichloroethane (EDC)	ND	0.0300
Benzene	ND	0.0200
Trichloroethene (TCE)	ND	0.0200
1,2-Dichloropropane	ND	0.0200
Bromodichloromethane	ND	0.0200
Dibromomethane	ND	0.0400
cis-1,3-Dichloropropene	ND	0.0200
Toluene	ND	0.0200
trans-1,3-Dichloropropylene	ND	0.0300



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11979	SampType:	MBLK	Units:	mg/Kg	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	MBLKS	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475059		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,2-Trichloroethane	ND	0.0300									
1,3-Dichloropropane	ND	0.0500									
Tetrachloroethene (PCE)	ND	0.0200									
Dibromochloromethane	ND	0.0300									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0200									
1,1,1,2-Tetrachloroethane	ND	0.0300									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Styrene	ND	0.0200									
Isopropylbenzene	ND	0.0800									
Bromoform	ND	0.0200									
1,1,2,2-Tetrachloroethane	ND	0.0200									
n-Propylbenzene	ND	0.0200									
Bromobenzene	ND	0.0300									
1,3,5-Trimethylbenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0200									
4-Chlorotoluene	ND	0.0200									
tert-Butylbenzene	ND	0.0200									
1,2,3-Trichloropropane	ND	0.0200									
1,2,4-Trichlorobenzene	ND	0.0500									
sec-Butylbenzene	ND	0.0200									
4-Isopropyltoluene	ND	0.0200									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
n-Butylbenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
1,2,4-Trimethylbenzene	ND	0.0200									
Hexachlorobutadiene	ND	0.100									



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	MB-11979	SampType:	MBLK		Units:	mg/Kg			Prep Date:	9/29/2015		RunNo:	25193	
Client ID:	MBLKS	Batch ID:	11979						Analysis Date:	9/29/2015		SeqNo:	475059	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Naphthalene		ND	0.0300											
1,2,3-Trichlorobenzene		ND	0.0200											
Surr: Dibromofluoromethane		1.21		1.250		97.2	56.5	129						
Surr: Toluene-d8		1.25		1.250		100	64.3	131						
Surr: 1-Bromo-4-fluorobenzene		1.25		1.250		100	63.1	141						

Sample ID	1509387-001BDUP	SampType:	DUP		Units:	mg/Kg-dry		Prep Date:	9/29/2015		RunNo:	25193	
Client ID:	BATCH	Batch ID:	11979					Analysis Date:	9/29/2015		SeqNo:	475050	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
Dichlorodifluoromethane (CFC-12)	ND	0.0431						0			30		
Chloromethane	ND	0.0431						0			30		
Vinyl chloride	ND	0.00144						0			30		
Bromomethane	ND	0.0646						0			30		
Trichlorofluoromethane (CFC-11)	ND	0.0359						0			30		
Chloroethane	ND	0.0431						0			30		
1,1-Dichloroethene	ND	0.0359						0			30		
Methylene chloride	ND	0.0144						0			30		
trans-1,2-Dichloroethene	ND	0.0144						0			30		
Methyl tert-butyl ether (MTBE)	ND	0.0359						0			30		
1,1-Dichloroethane	ND	0.0144						0			30		
2,2-Dichloropropane	ND	0.0359						0			30		
cis-1,2-Dichloroethene	ND	0.0144						0			30		
Chloroform	ND	0.0144						0			30		
1,1,1-Trichloroethane (TCA)	ND	0.0144						0			30		
1,1-Dichloropropene	ND	0.0144						0			30		
Carbon tetrachloride	ND	0.0144						0			30		
1,2-Dichloroethane (EDC)	ND	0.0215						0			30		
Benzene	ND	0.0144						0			30		
Trichloroethene (TCE)	ND	0.0144						0			30		
1,2-Dichloropropane	ND	0.0144						0			30		



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509387-001BDUP	SampType:	DUP			Units:	mg/Kg-dry			Prep Date:	9/29/2015			RunNo:	25193	
Client ID:	BATCH	Batch ID:	11979							Analysis Date:	9/29/2015			SeqNo:	475050	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val				%RPD	RPDLimit	Qual	
Bromodichloromethane		ND	0.0144						0					30		
Dibromomethane		ND	0.0287						0					30		
cis-1,3-Dichloropropene		ND	0.0144						0					30		
Toluene		ND	0.0144						0					30		
trans-1,3-Dichloropropylene		ND	0.0215						0					30		
1,1,2-Trichloroethane		ND	0.0215						0					30		
1,3-Dichloropropane		ND	0.0359						0					30		
Tetrachloroethene (PCE)		ND	0.0144						0					30		
Dibromochloromethane		ND	0.0215						0					30		
1,2-Dibromoethane (EDB)		ND	0.00359						0					30		
Chlorobenzene		ND	0.0144						0					30		
1,1,1,2-Tetrachloroethane		ND	0.0215						0					30		
Ethylbenzene		ND	0.0215						0					30		
m,p-Xylene		ND	0.0144						0					30		
o-Xylene		ND	0.0144						0					30		
Styrene		ND	0.0144						0					30		
Isopropylbenzene		ND	0.0574						0					30		
Bromoform		ND	0.0144						0					30		
1,1,1,2,2-Tetrachloroethane		ND	0.0144						0					30		
n-Propylbenzene		ND	0.0144						0					30		
Bromobenzene		ND	0.0215						0					30		
1,3,5-Trimethylbenzene		ND	0.0144						0					30		
2-Chlorotoluene		ND	0.0144						0					30		
4-Chlorotoluene		ND	0.0144						0					30		
tert-Butylbenzene		ND	0.0144						0					30		
1,2,3-Trichloropropane		ND	0.0144						0					30		
1,2,4-Trichlorobenzene		ND	0.0359						0					30		
sec-Butylbenzene		ND	0.0144						0					30		
4-Isopropyltoluene		ND	0.0144						0					30		
1,3-Dichlorobenzene		ND	0.0144						0					30		
1,4-Dichlorobenzene		ND	0.0144						0					30		



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509387-001BDUP	SampType:	DUP	Units:			mg/Kg-dry	Prep Date:		9/29/2015	RunNo:		25193
Client ID:	BATCH	Batch ID:	11979					Analysis Date:		9/29/2015	SeqNo:		475050
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual	
n-Butylbenzene	ND	0.0144						0			30		
1,2-Dichlorobenzene	ND	0.0144						0			30		
1,2-Dibromo-3-chloropropane	ND	0.359						0			30		
1,2,4-Trimethylbenzene	ND	0.0144						0			30		
Hexachlorobutadiene	ND	0.0718						0			30		
Naphthalene	ND	0.0215						0			30		
1,2,3-Trichlorobenzene	ND	0.0144						0			30		
Surr: Dibromofluoromethane	0.863		0.8976		96.1	56.5	129			0			
Surr: Toluene-d8	0.892		0.8976		99.4	64.3	131			0			
Surr: 1-Bromo-4-fluorobenzene	0.906		0.8976		101	63.1	141			0			

Sample ID	1509387-005BMS	SampType:	MS		Units:	mg/Kg-dry		Prep Date:	9/29/2015		RunNo:	25193
Client ID:	BATCH	Batch ID:	11979		Analysis Date:				9/29/2015		SeqNo:	475055
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Dichlorodifluoromethane (CFC-12)	1.01	0.0583	0.9721	0	104	43.5	121					
Chloromethane	0.999	0.0583	0.9721	0.01014	102	45	130					
Vinyl chloride	1.16	0.00194	0.9721	0	120	51.2	146					
Bromomethane	1.19	0.0875	0.9721	0	122	21.3	120				S	
Trichlorofluoromethane (CFC-11)	0.974	0.0486	0.9721	0	100	35	131					
Chloroethane	1.08	0.0583	0.9721	0	111	43.8	117					
1,1-Dichloroethene	1.23	0.0486	0.9721	0	127	61.9	141					
Methylene chloride	1.03	0.0194	0.9721	0.07724	98.1	54.7	142					
trans-1,2-Dichloroethene	1.19	0.0194	0.9721	0	122	52	136					
Methyl tert-butyl ether (MTBE)	0.965	0.0486	0.9721	0	99.3	54.4	132					
1,1-Dichloroethane	1.16	0.0194	0.9721	0.004647	119	51.8	141					
2,2-Dichloropropane	1.37	0.0486	0.9721	0	141	36	123				S	
cis-1,2-Dichloroethene	1.12	0.0194	0.9721	0	116	58.6	136					
Chloroform	1.06	0.0194	0.9721	0.01447	108	53.2	129					
1,1,1-Trichloroethane (TCA)	1.28	0.0194	0.9721	0	131	58.3	145					
1,1-Dichloropropene	1.07	0.0194	0.9721	0	110	55.1	138					



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509387-005BMS	SampType: MS	Units: mg/Kg-dry			Prep Date: 9/29/2015			RunNo: 25193		
Client ID:	BATCH	Batch ID: 11979	Analysis Date: 9/29/2015						SeqNo: 475055		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	1.09	0.0194	0.9721	0	112	53.3	144				
1,2-Dichloroethane (EDC)	0.998	0.0292	0.9721	0.04981	97.5	51.3	139				
Benzene	1.51	0.0194	0.9721	0.5396	99.5	63.5	133				
Trichloroethene (TCE)	1.08	0.0194	0.9721	0.03136	108	68.6	132				
1,2-Dichloropropane	1.04	0.0194	0.9721	0.003577	107	59	136				
Bromodichloromethane	0.936	0.0194	0.9721	0.08723	87.4	50.7	141				
Dibromomethane	1.14	0.0389	0.9721	0.006323	116	50.6	137				
cis-1,3-Dichloropropene	1.02	0.0194	0.9721	0.05260	99.6	50.4	138				
Toluene	4.51	0.0194	0.9721	3.490	105	63.4	132				
trans-1,3-Dichloropropylene	1.13	0.0292	0.9721	0.02254	114	44.1	147				
1,1,2-Trichloroethane	1.32	0.0292	0.9721	0.1854	117	51.6	137				
1,3-Dichloropropane	1.13	0.0486	0.9721	0	116	53.1	134				
Tetrachloroethene (PCE)	1.18	0.0194	0.9721	0	121	35.6	158				
Dibromochloromethane	1.07	0.0292	0.9721	0.007957	110	55.3	140				
1,2-Dibromoethane (EDB)	1.25	0.00486	0.9721	0.01268	128	50.4	136				
Chlorobenzene	1.08	0.0194	0.9721	0.004540	111	60	133				
1,1,1,2-Tetrachloroethane	1.06	0.0292	0.9721	0.01428	108	53.1	142				
Ethylbenzene	2.49	0.0292	0.9721	1.502	102	54.5	134				
m,p-Xylene	8.08	0.0194	1.944	6.227	95.5	53.1	132				E
o-Xylene	3.48	0.0194	0.9721	2.520	98.9	53.3	139				
Styrene	1.27	0.0194	0.9721	0.09711	121	51.1	132				
Isopropylbenzene	1.62	0.0778	0.9721	0.4642	119	58.9	138				
Bromoform	1.10	0.0194	0.9721	0	113	57.9	130				
1,1,2,2-Tetrachloroethane	2.39	0.0194	0.9721	1.284	114	51.9	131				
n-Propylbenzene	2.12	0.0194	0.9721	0.9704	118	53.6	140				
Bromobenzene	1.15	0.0292	0.9721	0	118	54.2	140				
1,3,5-Trimethylbenzene	3.02	0.0194	0.9721	1.938	112	51.8	136				
2-Chlorotoluene	1.49	0.0194	0.9721	0.4387	108	51.6	136				
4-Chlorotoluene	1.35	0.0194	0.9721	0.1999	119	50.1	139				
tert-Butylbenzene	1.21	0.0194	0.9721	0.01467	123	50.5	135				
1,2,3-Trichloropropane	1.26	0.0194	0.9721	0.03448	126	50.5	131				



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509387-005BMS	SampType:	MS		Units:	mg/Kg-dry		Prep Date:	9/29/2015		RunNo:	25193	
Client ID:	BATCH	Batch ID:	11979		Analysis Date:				9/29/2015		SeqNo:	475055	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
1,2,4-Trichlorobenzene	1.17	0.0486	0.9721	0	121	50.8	130						
sec-Butylbenzene	1.49	0.0194	0.9721	0.2766	125	52.6	141						
4-Isopropyltoluene	1.68	0.0194	0.9721	0.4629	125	52.9	134						
1,3-Dichlorobenzene	1.04	0.0194	0.9721	0	107	52.6	131						
1,4-Dichlorobenzene	1.03	0.0194	0.9721	0	106	52.9	129						
n-Butylbenzene	1.92	0.0194	0.9721	0.8108	114	52.6	130						
1,2-Dichlorobenzene	1.02	0.0194	0.9721	0	105	55.8	129						
1,2-Dibromo-3-chloropropane	1.51	0.486	0.9721	0.2608	128	40.5	131						
1,2,4-Trimethylbenzene	5.04	0.0194	0.9721	4.590	45.8	50.6	137					SE	
Hexachlorobutadiene	1.29	0.0972	0.9721	0	132	40.6	158						
Naphthalene	2.81	0.0292	0.9721	1.746	109	52.3	124						
1,2,3-Trichlorobenzene	1.14	0.0194	0.9721	0.008243	116	54.4	124						
Surr: Dibromofluoromethane	1.24		1.215		102	56.5	129						
Surr: Toluene-d8	1.32		1.215		109	64.3	131						
Surr: 1-Bromo-4-fluorobenzene	1.27		1.215		105	63.1	141						

NOTES:

S - Outlying QC recoveries were observed. The method is in control as indicated by the LCS.

Sample ID	1509385-001BDUP	SampType:	DUP			Units:	mg/Kg-dry			Prep Date:	9/29/2015			RunNo:	25193			
Client ID:	BATCH	Batch ID:	11979			Analysis Date:						9/29/2015			SeqNo:	475201		
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual					
Dichlorodifluoromethane (CFC-12)		ND	0.0671						0			30						
Chloromethane		ND	0.0671						0			30						
Vinyl chloride		ND	0.00224						0			30						
Bromomethane		ND	0.101						0			30						
Trichlorofluoromethane (CFC-11)		ND	0.0559						0			30						
Chloroethane		ND	0.0671						0			30						
1,1-Dichloroethene		ND	0.0559						0			30						
Methylene chloride		ND	0.0224						0			30						
trans-1,2-Dichloroethene		ND	0.0224						0			30						
Methyl tert-butyl ether (MTBE)		ND	0.0559						0			30						



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Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID	1509385-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	9/29/2015	RunNo:	25193		
Client ID:	BATCH	Batch ID:	11979			Analysis Date:	9/29/2015	SeqNo:	475201		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	ND	0.0224						0		30	
2,2-Dichloropropane	ND	0.0559						0		30	
cis-1,2-Dichloroethene	ND	0.0224						0		30	
Chloroform	ND	0.0224						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0224						0		30	
1,1-Dichloropropene	ND	0.0224						0		30	
Carbon tetrachloride	ND	0.0224						0		30	
1,2-Dichloroethane (EDC)	ND	0.0335						0		30	
Benzene	ND	0.0224						0		30	
Trichloroethene (TCE)	ND	0.0224						0		30	
1,2-Dichloropropane	ND	0.0224						0		30	
Bromodichloromethane	ND	0.0224						0		30	
Dibromomethane	ND	0.0447						0		30	
cis-1,3-Dichloropropene	ND	0.0224						0		30	
Toluene	ND	0.0224						0		30	
trans-1,3-Dichloropropylene	ND	0.0335						0		30	
1,1,2-Trichloroethane	ND	0.0335						0		30	
1,3-Dichloropropane	ND	0.0559						0		30	
Tetrachloroethene (PCE)	ND	0.0224						0		30	
Dibromochloromethane	ND	0.0335						0		30	
1,2-Dibromoethane (EDB)	ND	0.00559						0		30	
Chlorobenzene	ND	0.0224						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0335						0		30	
Ethylbenzene	ND	0.0335						0		30	
m,p-Xylene	ND	0.0224						0		30	
o-Xylene	ND	0.0224						0		30	
Styrene	ND	0.0224						0		30	
Isopropylbenzene	ND	0.0894						0		30	
Bromoform	ND	0.0224						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0224						0		30	
n-Propylbenzene	ND	0.0224						0		30	



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID	1509385-001BDUP	SampType: DUP			Units: mg/Kg-dry	Prep Date: 9/29/2015			RunNo: 25193		
Client ID:	BATCH	Batch ID: 11979			Analysis Date: 9/29/2015			SeqNo: 475201			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	ND	0.0335						0		30	
1,3,5-Trimethylbenzene	ND	0.0224						0		30	
2-Chlorotoluene	ND	0.0224						0		30	
4-Chlorotoluene	ND	0.0224						0		30	
tert-Butylbenzene	ND	0.0224						0		30	
1,2,3-Trichloropropane	ND	0.0224						0		30	
1,2,4-Trichlorobenzene	ND	0.0559						0		30	
sec-Butylbenzene	ND	0.0224						0		30	
4-Isopropyltoluene	ND	0.0224						0		30	
1,3-Dichlorobenzene	ND	0.0224						0		30	
1,4-Dichlorobenzene	ND	0.0224						0		30	
n-Butylbenzene	ND	0.0224						0		30	
1,2-Dichlorobenzene	ND	0.0224						0		30	
1,2-Dibromo-3-chloropropane	ND	0.559						0		30	
1,2,4-Trimethylbenzene	ND	0.0224						0		30	
Hexachlorobutadiene	ND	0.112						0		30	
Naphthalene	ND	0.0335						0		30	
1,2,3-Trichlorobenzene	ND	0.0224						0		30	
Surr: Dibromofluoromethane	1.33		1.397		95.1	56.5	129		0		
Surr: Toluene-d8	1.38		1.397		99.0	64.3	131		0		
Surr: 1-Bromo-4-fluorobenzene	1.43		1.397		102	63.1	141		0		



Date: 10/29/2015

Work Order: 1509353
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID	1509276-018ADUP	SampType:	DUP	Units:	wt%	Prep Date:	9/29/2015	RunNo:	25189		
Client ID:	BATCH	Batch ID:	R25189			Analysis Date:	9/29/2015	SeqNo:	474938		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	13.2	0.500						10.34	24.3	20	R

Sample ID	1509401-001ADUP	SampType:	DUP	Units:	wt%	Prep Date:	9/29/2015	RunNo:	25189		
Client ID:	BATCH	Batch ID:	R25189			Analysis Date:	9/29/2015	SeqNo:	474956		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	14.6	0.500						16.55	12.7	20	

Client Name: **SW**

 Work Order Number: **1509353**

 Logged by: **Erica Silva**

 Date Received: **9/25/2015 12:20:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of >0°C to 10.0°C * Yes ☒ No ☐ NA ☐
8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

Item #	Temp °C
Cooler	4.2
Sample	2.5



Fremont

Analytical

Chain of Custody Record

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/25/15

Page: 1 of 1

Laboratory Project No (Internal): 1509353

Client: Shannon & Wilson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-9020 Fax: 206-695-6777

Project Name: Pacific Park
Project No: 211-2055-006
Location: City of Pacific WA
Report To (PM): Edwin Park
PM Email: edp@shwml.com
Collected by: EVP

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GV/8TEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DHR)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)**	EDS (8011)	Herbicides 819A	Pesticides 801B	Comments
1 TP-1:5.5	9/23/15	0900	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
2 TP-3:6.0	9/23/15	1130	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

**Metals Analysis (Circle): MTCA-5 PCBA Priority Pollutants: TAL Individual: Ag Al As B Ba Be Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide C-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (A fee may be assessed if samples are returned after 30 days.)

Relinquished: [Signature] Date/Time: 9/25/15 1200 Received: [Signature] Date/Time: 9/25/15 1220

Relinquished: X Received: X

TAT → SameDaySM NextDaySM 2 Day 3 Day STD

*Please coordinate with the lab in advance

Distribution: White - Lab, Yellow - File, Pink - Originator

www.fremontanalytical.com



Date: 9/23/15

Laboratory Project No. (atoms) 1509353

Page 1 of 1

Chain of Custody Record

Client: Shannon & Wilkerson Inc.
Address: 400 N 34th St. Suite 100
City, State, Zip: Seattle WA 98103
Telephone: 206-632-9020 1-800-695-6777

Project Name: FACILITY PARK
Project No: 31-1-2025-006
Location: City of Pacific WA
Report To (PM): Edwin Park
PM Email: cnp@seawall.com
Collected by: Cnp

Abbreviations: A = Air, AD = Aboveground, B = Bulk, C = Chemical, P = Product, S = Soil, SD = Seawater, SL = Solids, W = Water, DW = Drinking Water, GW = Groundwater, SW = Storm Water, WW = Waste Water.

[illegible]

Distribution: White - Lab. Yellow - Felt. Pink - Original

www.fremontanalytical.com



3600 Fremont Ave. N.

Seattle, WA 98103

T: (206) 352-3790

F: (206) 352-7178

info@fremontanalytical.com

Shannon & Wilson

Ed Ptak

400 N. 34th Street, Suite 100

Seattle, WA 98103

RE: Pacific Park

Lab ID: 1510048

October 14, 2015

Attention Ed Ptak:

Fremont Analytical, Inc. received 8 sample(s) on 10/6/2015 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Dissolved Mercury by EPA Method 245.1

Dissolved Metals by EPA Method 200.8

Gasoline by NWTPH-Gx

Mercury by EPA Method 245.1

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Total Metals by EPA Method 200.8

Volatile Organic Compounds by EPA Method 8260

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
President



Date: 10/14/2015

CLIENT: Shannon & Wilson
Project: Pacific Park
Lab Order: 1510048

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1510048-001	MW-6-15:GW	10/05/2015 11:05 AM	10/06/2015 12:15 PM
1510048-002	MW-5-15:GW	10/05/2015 12:25 PM	10/06/2015 12:15 PM
1510048-003	MW-4-15:GW	10/05/2015 1:55 PM	10/06/2015 12:15 PM
1510048-004	MW-2-15:GW	10/05/2015 3:20 PM	10/06/2015 12:15 PM
1510048-005	MW-1-15:GW	10/06/2015 9:00 AM	10/06/2015 12:15 PM
1510048-006	MW-3-15:GW	10/06/2015 10:35 AM	10/06/2015 12:15 PM
1510048-007	MW-3-15:GW:DUP	10/06/2015 8:05 AM	10/06/2015 12:15 PM
1510048-008	Trip Blank	09/28/2015 3:00 PM	10/06/2015 12:15 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: Shannon & Wilson
Project: Pacific Park

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1510048-001

Matrix: Groundwater

Client Sample ID: MW-6-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 12067		Analyst: EC
Diesel (Fuel Oil)	ND	50.0		µg/L	1	10/8/2015 2:23:00 PM
Heavy Oil	ND	100		µg/L	1	10/8/2015 2:23:00 PM
Surr: 2-Fluorobiphenyl	56.9	50-150		%REC	1	10/8/2015 2:23:00 PM
Surr: o-Terphenyl	59.3	50-150		%REC	1	10/8/2015 2:23:00 PM
<u>Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)</u>				Batch ID: 12068		Analyst: NG
Naphthalene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
2-Methylnaphthalene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
1-Methylnaphthalene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Acenaphthylene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Acenaphthene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Fluorene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Phenanthrene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Anthracene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Fluoranthene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Pyrene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Benz(a)anthracene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Chrysene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Benzo(b)fluoranthene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Benzo(k)fluoranthene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Benzo(a)pyrene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Dibenz(a,h)anthracene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Benzo(g,h,i)perylene	ND	0.100		µg/L	1	10/8/2015 1:51:00 PM
Surr: 2-Fluorobiphenyl	92.7	23.9-122		%REC	1	10/8/2015 1:51:00 PM
Surr: Terphenyl-d14	91.6	33.4-135		%REC	1	10/8/2015 1:51:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: R25369		Analyst: BC
Gasoline	ND	50.0		µg/L	1	10/8/2015 3:28:00 AM
Surr: Toluene-d8	97.3	65-135		%REC	1	10/8/2015 3:28:00 AM
Surr: 4-Bromofluorobenzene	100	65-135		%REC	1	10/8/2015 3:28:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: R25366		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Chloromethane	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Vinyl chloride	ND	0.200		µg/L	1	10/8/2015 3:28:00 AM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1510048-001

Matrix: Groundwater

Client Sample ID: MW-6-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

Bromomethane	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Chloroethane	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Methylene chloride	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	10/8/2015 3:28:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Chloroform	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Benzene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	10/8/2015 3:28:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Dibromomethane	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Toluene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	10/8/2015 3:28:00 AM
Chlorobenzene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Ethylbenzene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
m,p-Xylene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
o-Xylene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Styrene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Bromoform	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Bromobenzene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1510048-001

Matrix: Groundwater

Client Sample ID: MW-6-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	10/8/2015 3:28:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	10/8/2015 3:28:00 AM
Naphthalene	ND	1.00		µg/L	1	10/8/2015 3:28:00 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	10/8/2015 3:28:00 AM
Surr: Dibromofluoromethane	101	45.4-152		%REC	1	10/8/2015 3:28:00 AM
Surr: Toluene-d8	95.9	40.1-139		%REC	1	10/8/2015 3:28:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.2	64.2-128		%REC	1	10/8/2015 3:28:00 AM

Mercury by EPA Method 245.1

Batch ID: 12064

Analyst: MW

Mercury	ND	0.100		µg/L	1	10/8/2015 11:24:04 AM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 12065

Analyst: MW

Mercury	ND	0.100		µg/L	1	10/8/2015 11:58:48 AM
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Dissolved Metals by EPA Method 200.8

Batch ID: 12061

Analyst: TN

Antimony	0.327	0.200		µg/L	1	10/7/2015 1:51:11 PM
Arsenic	2.05	1.00		µg/L	1	10/7/2015 1:51:11 PM
Beryllium	ND	0.200		µg/L	1	10/7/2015 1:51:11 PM
Cadmium	ND	0.200		µg/L	1	10/7/2015 1:51:11 PM
Chromium	ND	0.500		µg/L	1	10/7/2015 1:51:11 PM
Copper	ND	0.500		µg/L	1	10/7/2015 1:51:11 PM
Lead	ND	1.00		µg/L	1	10/7/2015 1:51:11 PM
Nickel	0.626	0.500		µg/L	1	10/7/2015 1:51:11 PM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 11:05:00 AM

Project: Pacific Park

Lab ID: 1510048-001

Matrix: Groundwater

Client Sample ID: MW-6-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 12061

Analyst: TN

Selenium	ND	1.00		µg/L	1	10/7/2015 1:51:11 PM
Silver	ND	0.200		µg/L	1	10/7/2015 1:51:11 PM
Thallium	ND	0.200		µg/L	1	10/7/2015 1:51:11 PM
Zinc	ND	1.50		µg/L	1	10/7/2015 1:51:11 PM

Total Metals by EPA Method 200.8

Batch ID: 12060

Analyst: TN

Antimony	ND	0.200		µg/L	1	10/7/2015 2:54:35 PM
Arsenic	1.93	1.00		µg/L	1	10/7/2015 2:54:35 PM
Beryllium	ND	0.200		µg/L	1	10/7/2015 2:54:35 PM
Cadmium	ND	0.200		µg/L	1	10/7/2015 2:54:35 PM
Chromium	0.740	0.500		µg/L	1	10/7/2015 2:54:35 PM
Copper	1.18	0.500		µg/L	1	10/7/2015 2:54:35 PM
Lead	1.52	1.00		µg/L	1	10/7/2015 2:54:35 PM
Nickel	0.763	0.500		µg/L	1	10/7/2015 2:54:35 PM
Selenium	ND	1.00		µg/L	1	10/7/2015 2:54:35 PM
Silver	ND	0.200		µg/L	1	10/7/2015 2:54:35 PM
Thallium	ND	0.200		µg/L	1	10/7/2015 2:54:35 PM
Zinc	8.01	1.50		µg/L	1	10/7/2015 2:54:35 PM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1510048-002

Matrix: Groundwater

Client Sample ID: MW-5-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 12067

Analyst: EC

Diesel (Fuel Oil)	ND	50.0		µg/L	1	10/8/2015 4:30:00 PM
Heavy Oil	ND	100		µg/L	1	10/8/2015 4:30:00 PM
Surr: 2-Fluorobiphenyl	64.0	50-150		%REC	1	10/8/2015 4:30:00 PM
Surr: o-Terphenyl	64.7	50-150		%REC	1	10/8/2015 4:30:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 12068

Analyst: NG

Naphthalene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
2-Methylnaphthalene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
1-Methylnaphthalene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Acenaphthylene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Acenaphthene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Fluorene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Phenanthrene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Anthracene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Fluoranthene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Pyrene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Benz(a)anthracene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Chrysene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Benzo(b)fluoranthene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Benzo(k)fluoranthene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Benzo(a)pyrene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Dibenz(a,h)anthracene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Benzo(g,h,i)perylene	ND	0.100		µg/L	1	10/8/2015 3:48:00 PM
Surr: 2-Fluorobiphenyl	70.9	23.9-122		%REC	1	10/8/2015 3:48:00 PM
Surr: Terphenyl-d14	73.0	33.4-135		%REC	1	10/8/2015 3:48:00 PM

Gasoline by NWTPH-Gx

Batch ID: R25369

Analyst: BC

Gasoline	ND	50.0		µg/L	1	10/8/2015 3:56:00 AM
Surr: Toluene-d8	99.0	65-135		%REC	1	10/8/2015 3:56:00 AM
Surr: 4-Bromofluorobenzene	99.9	65-135		%REC	1	10/8/2015 3:56:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Chloromethane	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Vinyl chloride	ND	0.200		µg/L	1	10/8/2015 3:56:00 AM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1510048-002

Matrix: Groundwater

Client Sample ID: MW-5-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

Bromomethane	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Chloroethane	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Methylene chloride	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	10/8/2015 3:56:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Chloroform	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Benzene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	10/8/2015 3:56:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Dibromomethane	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Toluene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	10/8/2015 3:56:00 AM
Chlorobenzene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Ethylbenzene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
m,p-Xylene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
o-Xylene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Styrene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Bromoform	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Bromobenzene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1510048-002

Matrix: Groundwater

Client Sample ID: MW-5-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	10/8/2015 3:56:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	10/8/2015 3:56:00 AM
Naphthalene	ND	1.00		µg/L	1	10/8/2015 3:56:00 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	10/8/2015 3:56:00 AM
Surr: Dibromofluoromethane	103	45.4-152		%REC	1	10/8/2015 3:56:00 AM
Surr: Toluene-d8	94.6	40.1-139		%REC	1	10/8/2015 3:56:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.3	64.2-128		%REC	1	10/8/2015 3:56:00 AM

Mercury by EPA Method 245.1

Batch ID: 12064

Analyst: MW

Mercury	ND	0.100		µg/L	1	10/8/2015 11:25:44 AM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 12065

Analyst: MW

Mercury	ND	0.100		µg/L	1	10/8/2015 12:05:35 PM
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Dissolved Metals by EPA Method 200.8

Batch ID: 12061

Analyst: TN

Antimony	ND	0.200		µg/L	1	10/7/2015 1:54:42 PM
Arsenic	ND	1.00		µg/L	1	10/7/2015 1:54:42 PM
Beryllium	ND	0.200		µg/L	1	10/7/2015 1:54:42 PM
Cadmium	ND	0.200		µg/L	1	10/7/2015 1:54:42 PM
Chromium	ND	0.500		µg/L	1	10/7/2015 1:54:42 PM
Copper	ND	0.500		µg/L	1	10/7/2015 1:54:42 PM
Lead	ND	1.00		µg/L	1	10/7/2015 1:54:42 PM
Nickel	0.568	0.500		µg/L	1	10/7/2015 1:54:42 PM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 12:25:00 PM

Project: Pacific Park

Lab ID: 1510048-002

Matrix: Groundwater

Client Sample ID: MW-5-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 12061

Analyst: TN

Selenium	ND	1.00		µg/L	1	10/7/2015 1:54:42 PM
Silver	ND	0.200		µg/L	1	10/7/2015 1:54:42 PM
Thallium	ND	0.200		µg/L	1	10/7/2015 1:54:42 PM
Zinc	ND	1.50		µg/L	1	10/7/2015 1:54:42 PM

Total Metals by EPA Method 200.8

Batch ID: 12060

Analyst: TN

Antimony	ND	0.200		µg/L	1	10/7/2015 2:58:06 PM
Arsenic	1.41	1.00		µg/L	1	10/7/2015 2:58:06 PM
Beryllium	ND	0.200		µg/L	1	10/7/2015 2:58:06 PM
Cadmium	ND	0.200		µg/L	1	10/7/2015 2:58:06 PM
Chromium	0.515	0.500		µg/L	1	10/7/2015 2:58:06 PM
Copper	ND	0.500		µg/L	1	10/7/2015 2:58:06 PM
Lead	ND	1.00		µg/L	1	10/7/2015 2:58:06 PM
Nickel	ND	0.500		µg/L	1	10/7/2015 2:58:06 PM
Selenium	ND	1.00		µg/L	1	10/7/2015 2:58:06 PM
Silver	ND	0.200		µg/L	1	10/7/2015 2:58:06 PM
Thallium	ND	0.200		µg/L	1	10/7/2015 2:58:06 PM
Zinc	ND	1.50		µg/L	1	10/7/2015 2:58:06 PM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1510048-003

Matrix: Groundwater

Client Sample ID: MW-4-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 12067

Analyst: EC

Diesel (Fuel Oil)	ND	50.1		µg/L	1	10/8/2015 5:02:00 PM
Heavy Oil	ND	100		µg/L	1	10/8/2015 5:02:00 PM
Surr: 2-Fluorobiphenyl	56.2	50-150		%REC	1	10/8/2015 5:02:00 PM
Surr: o-Terphenyl	60.7	50-150		%REC	1	10/8/2015 5:02:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 12068

Analyst: NG

Naphthalene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
2-Methylnaphthalene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
1-Methylnaphthalene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Acenaphthylene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Acenaphthene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Fluorene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Phenanthrene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Anthracene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Fluoranthene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Pyrene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Benz(a)anthracene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Chrysene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Benzo(b)fluoranthene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Benzo(k)fluoranthene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Benzo(a)pyrene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Dibenz(a,h)anthracene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Benzo(g,h,i)perylene	ND	0.100		µg/L	1	10/8/2015 5:26:00 PM
Surr: 2-Fluorobiphenyl	102	23.9-122		%REC	1	10/8/2015 5:26:00 PM
Surr: Terphenyl-d14	95.3	33.4-135		%REC	1	10/8/2015 5:26:00 PM

Gasoline by NWTPH-Gx

Batch ID: R25369

Analyst: BC

Gasoline	ND	50.0		µg/L	1	10/8/2015 4:25:00 AM
Surr: Toluene-d8	98.9	65-135		%REC	1	10/8/2015 4:25:00 AM
Surr: 4-Bromofluorobenzene	97.9	65-135		%REC	1	10/8/2015 4:25:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Chloromethane	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Vinyl chloride	ND	0.200		µg/L	1	10/8/2015 4:25:00 AM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1510048-003

Matrix: Groundwater

Client Sample ID: MW-4-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

Bromomethane	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Chloroethane	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Methylene chloride	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	10/8/2015 4:25:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Chloroform	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Benzene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	10/8/2015 4:25:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Dibromomethane	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Toluene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	10/8/2015 4:25:00 AM
Chlorobenzene	5.69	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Ethylbenzene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
m,p-Xylene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
o-Xylene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Styrene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Bromoform	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Bromobenzene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1510048-003

Matrix: Groundwater

Client Sample ID: MW-4-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	10/8/2015 4:25:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	10/8/2015 4:25:00 AM
Naphthalene	ND	1.00		µg/L	1	10/8/2015 4:25:00 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	10/8/2015 4:25:00 AM
Surr: Dibromofluoromethane	104	45.4-152		%REC	1	10/8/2015 4:25:00 AM
Surr: Toluene-d8	95.2	40.1-139		%REC	1	10/8/2015 4:25:00 AM
Surr: 1-Bromo-4-fluorobenzene	96.3	64.2-128		%REC	1	10/8/2015 4:25:00 AM

Mercury by EPA Method 245.1

Batch ID: 12064

Analyst: MW

Mercury	ND	0.100		µg/L	1	10/8/2015 11:27:25 AM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 12065

Analyst: MW

Mercury	ND	0.100		µg/L	1	10/8/2015 12:07:18 PM
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Dissolved Metals by EPA Method 200.8

Batch ID: 12061

Analyst: TN

Antimony	ND	0.200		µg/L	1	10/7/2015 1:58:13 PM
Arsenic	9.84	1.00		µg/L	1	10/7/2015 1:58:13 PM
Beryllium	ND	0.200		µg/L	1	10/7/2015 1:58:13 PM
Cadmium	ND	0.200		µg/L	1	10/7/2015 1:58:13 PM
Chromium	1.52	0.500		µg/L	1	10/7/2015 1:58:13 PM
Copper	ND	0.500		µg/L	1	10/7/2015 1:58:13 PM
Lead	ND	1.00		µg/L	1	10/7/2015 1:58:13 PM
Nickel	ND	0.500		µg/L	1	10/7/2015 1:58:13 PM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 1:55:00 PM

Project: Pacific Park

Lab ID: 1510048-003

Matrix: Groundwater

Client Sample ID: MW-4-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 12061

Analyst: TN

Selenium	ND	1.00		µg/L	1	10/7/2015 1:58:13 PM
Silver	ND	0.200		µg/L	1	10/7/2015 1:58:13 PM
Thallium	ND	0.200		µg/L	1	10/7/2015 1:58:13 PM
Zinc	ND	1.50		µg/L	1	10/7/2015 1:58:13 PM

Total Metals by EPA Method 200.8

Batch ID: 12060

Analyst: TN

Antimony	0.207	0.200		µg/L	1	10/7/2015 3:08:43 PM
Arsenic	13.3	1.00		µg/L	1	10/7/2015 3:08:43 PM
Beryllium	ND	0.200		µg/L	1	10/7/2015 3:08:43 PM
Cadmium	ND	0.200		µg/L	1	10/7/2015 3:08:43 PM
Chromium	2.68	0.500		µg/L	1	10/7/2015 3:08:43 PM
Copper	0.832	0.500		µg/L	1	10/7/2015 3:08:43 PM
Lead	ND	1.00		µg/L	1	10/7/2015 3:08:43 PM
Nickel	0.885	0.500		µg/L	1	10/7/2015 3:08:43 PM
Selenium	ND	1.00		µg/L	1	10/7/2015 3:08:43 PM
Silver	ND	0.200		µg/L	1	10/7/2015 3:08:43 PM
Thallium	ND	0.200		µg/L	1	10/7/2015 3:08:43 PM
Zinc	2.67	1.50		µg/L	1	10/7/2015 3:08:43 PM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1510048-004

Matrix: Groundwater

Client Sample ID: MW-2-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 12067

Analyst: EC

Diesel (Fuel Oil)	ND	50.1		µg/L	1	10/8/2015 5:34:00 PM
Heavy Oil	ND	100		µg/L	1	10/8/2015 5:34:00 PM
Surr: 2-Fluorobiphenyl	54.9	50-150		%REC	1	10/8/2015 5:34:00 PM
Surr: o-Terphenyl	39.7	50-150	S	%REC	1	10/8/2015 5:34:00 PM

NOTES:

S - Outlying QC recoveries were associated with this sample. The method is in control as indicated by the LCS.

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 12095

Analyst: AK

Naphthalene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
2-Methylnaphthalene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
1-Methylnaphthalene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Acenaphthylene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Acenaphthene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Fluorene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Phenanthrene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Anthracene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Fluoranthene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Pyrene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Benz(a)anthracene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Chrysene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Benzo(b)fluoranthene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Benzo(k)fluoranthene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Benzo(a)pyrene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Indeno(1,2,3-cd)pyrene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Dibenz(a,h)anthracene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Benzo(g,h,i)perylene	ND	0.100		µg/L	1	10/14/2015 1:46:00 AM
Surr: 2-Fluorobiphenyl	55.9	23.9-122		%REC	1	10/14/2015 1:46:00 AM
Surr: Terphenyl-d14	66.3	33.4-135		%REC	1	10/14/2015 1:46:00 AM

Gasoline by NWTPH-Gx

Batch ID: R25369

Analyst: BC

Gasoline	ND	50.0		µg/L	1	10/8/2015 4:54:00 AM
Surr: Toluene-d8	98.4	65-135		%REC	1	10/8/2015 4:54:00 AM
Surr: 4-Bromofluorobenzene	98.7	65-135		%REC	1	10/8/2015 4:54:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
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Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1510048-004

Matrix: Groundwater

Client Sample ID: MW-2-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

Chloromethane	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Vinyl chloride	ND	0.200		µg/L	1	10/8/2015 4:54:00 AM
Bromomethane	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Chloroethane	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Methylene chloride	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	10/8/2015 4:54:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Chloroform	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Benzene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	10/8/2015 4:54:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Dibromomethane	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Toluene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	10/8/2015 4:54:00 AM
Chlorobenzene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Ethylbenzene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
m,p-Xylene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
o-Xylene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Styrene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Bromoform	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1510048-004

Matrix: Groundwater

Client Sample ID: MW-2-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

n-Propylbenzene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Bromobenzene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	10/8/2015 4:54:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	10/8/2015 4:54:00 AM
Naphthalene	ND	1.00		µg/L	1	10/8/2015 4:54:00 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	10/8/2015 4:54:00 AM
Surr: Dibromofluoromethane	104	45.4-152		%REC	1	10/8/2015 4:54:00 AM
Surr: Toluene-d8	94.8	40.1-139		%REC	1	10/8/2015 4:54:00 AM
Surr: 1-Bromo-4-fluorobenzene	96.9	64.2-128		%REC	1	10/8/2015 4:54:00 AM

Mercury by EPA Method 245.1

Batch ID: 12064

Analyst: MW

Mercury	ND	0.100		µg/L	1	10/8/2015 11:29:06 AM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 12065

Analyst: MW

Mercury	ND	0.100		µg/L	1	10/8/2015 12:09:01 PM
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Dissolved Metals by EPA Method 200.8

Batch ID: 12061

Analyst: TN

Antimony	ND	0.200		µg/L	1	10/7/2015 2:01:44 PM
Arsenic	5.10	1.00		µg/L	1	10/7/2015 2:01:44 PM
Beryllium	ND	0.200		µg/L	1	10/7/2015 2:01:44 PM
Cadmium	ND	0.200		µg/L	1	10/7/2015 2:01:44 PM
Chromium	1.64	0.500		µg/L	1	10/7/2015 2:01:44 PM
Copper	1.03	0.500		µg/L	1	10/7/2015 2:01:44 PM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/5/2015 3:20:00 PM

Project: Pacific Park

Lab ID: 1510048-004

Matrix: Groundwater

Client Sample ID: MW-2-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 12061

Analyst: TN

Lead	ND	1.00		µg/L	1	10/7/2015 2:01:44 PM
Nickel	2.80	0.500		µg/L	1	10/7/2015 2:01:44 PM
Selenium	ND	1.00		µg/L	1	10/7/2015 2:01:44 PM
Silver	ND	0.200		µg/L	1	10/7/2015 2:01:44 PM
Thallium	ND	0.200		µg/L	1	10/7/2015 2:01:44 PM
Zinc	3.52	1.50		µg/L	1	10/7/2015 2:01:44 PM

Total Metals by EPA Method 200.8

Batch ID: 12060

Analyst: TN

Antimony	ND	0.200		µg/L	1	10/7/2015 3:12:15 PM
Arsenic	5.67	1.00		µg/L	1	10/7/2015 3:12:15 PM
Beryllium	ND	0.200		µg/L	1	10/7/2015 3:12:15 PM
Cadmium	ND	0.200		µg/L	1	10/7/2015 3:12:15 PM
Chromium	2.32	0.500		µg/L	1	10/7/2015 3:12:15 PM
Copper	2.16	0.500		µg/L	1	10/7/2015 3:12:15 PM
Lead	ND	1.00		µg/L	1	10/7/2015 3:12:15 PM
Nickel	3.33	0.500		µg/L	1	10/7/2015 3:12:15 PM
Selenium	1.06	1.00		µg/L	1	10/7/2015 3:12:15 PM
Silver	ND	0.200		µg/L	1	10/7/2015 3:12:15 PM
Thallium	ND	0.200		µg/L	1	10/7/2015 3:12:15 PM
Zinc	4.56	1.50		µg/L	1	10/7/2015 3:12:15 PM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/6/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1510048-005

Matrix: Groundwater

Client Sample ID: MW-1-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 12067		Analyst: EC
Diesel (Fuel Oil)	ND	50.0		µg/L	1	10/8/2015 6:05:00 PM
Heavy Oil	ND	99.9		µg/L	1	10/8/2015 6:05:00 PM
Surr: 2-Fluorobiphenyl	62.6	50-150		%REC	1	10/8/2015 6:05:00 PM
Surr: o-Terphenyl	66.4	50-150		%REC	1	10/8/2015 6:05:00 PM
<u>Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)</u>				Batch ID: 12068		Analyst: NG
Naphthalene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
2-Methylnaphthalene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
1-Methylnaphthalene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Acenaphthylene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Acenaphthene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Fluorene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Phenanthrene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Anthracene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Fluoranthene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Pyrene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Benz(a)anthracene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Chrysene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Benzo(b)fluoranthene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Benzo(k)fluoranthene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Benzo(a)pyrene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Dibenz(a,h)anthracene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Benzo(g,h,i)perylene	ND	0.100		µg/L	1	10/8/2015 6:11:00 PM
Surr: 2-Fluorobiphenyl	58.3	23.9-122		%REC	1	10/8/2015 6:11:00 PM
Surr: Terphenyl-d14	56.1	33.4-135		%REC	1	10/8/2015 6:11:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: R25439		Analyst: BC
Gasoline	ND	50.0		µg/L	1	10/10/2015 10:43:00 AM
Surr: Toluene-d8	96.1	65-135		%REC	1	10/10/2015 10:43:00 AM
Surr: 4-Bromofluorobenzene	92.7	65-135		%REC	1	10/10/2015 10:43:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: R25423		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Chloromethane	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Vinyl chloride	ND	0.200		µg/L	1	10/10/2015 10:43:00 AM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/6/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1510048-005

Matrix: Groundwater

Client Sample ID: MW-1-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R25423		Analyst: BC
Bromomethane	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Chloroethane	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Methylene chloride	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	10/10/2015 10:43:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Chloroform	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Benzene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	10/10/2015 10:43:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Dibromomethane	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Toluene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	10/10/2015 10:43:00 AM
Chlorobenzene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Ethylbenzene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
m,p-Xylene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
o-Xylene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Styrene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Bromoform	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Bromobenzene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/6/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1510048-005

Matrix: Groundwater

Client Sample ID: MW-1-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R25423		Analyst: BC
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	10/10/2015 10:43:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	10/10/2015 10:43:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	10/10/2015 10:43:00 AM
Naphthalene	ND	1.00	Q	µg/L	1	10/10/2015 10:43:00 AM
1,2,3-Trichlorobenzene	ND	4.00	Q	µg/L	1	10/10/2015 10:43:00 AM
Surr: Dibromofluoromethane	102	45.4-152		%REC	1	10/10/2015 10:43:00 AM
Surr: Toluene-d8	99.8	40.1-139		%REC	1	10/10/2015 10:43:00 AM
Surr: 1-Bromo-4-fluorobenzene	96.1	64.2-128		%REC	1	10/10/2015 10:43:00 AM

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Mercury by EPA Method 245.1

Batch ID: 12064

Analyst: MW

Mercury	ND	0.100	µg/L	1	10/8/2015 11:34:13 AM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 12065

Analyst: MW

Mercury	ND	0.100	µg/L	1	10/8/2015 12:10:43 PM
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Dissolved Metals by EPA Method 200.8

Batch ID: 12061

Analyst: TN

Antimony	ND	0.200	µg/L	1	10/7/2015 2:05:15 PM
Arsenic	1.15	1.00	µg/L	1	10/7/2015 2:05:15 PM
Beryllium	ND	0.200	µg/L	1	10/7/2015 2:05:15 PM
Cadmium	ND	0.200	µg/L	1	10/7/2015 2:05:15 PM
Chromium	ND	0.500	µg/L	1	10/7/2015 2:05:15 PM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/6/2015 9:00:00 AM

Project: Pacific Park

Lab ID: 1510048-005

Matrix: Groundwater

Client Sample ID: MW-1-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 12061

Analyst: TN

Copper	ND	0.500		µg/L	1	10/7/2015 2:05:15 PM
Lead	ND	1.00		µg/L	1	10/7/2015 2:05:15 PM
Nickel	3.80	0.500		µg/L	1	10/7/2015 2:05:15 PM
Selenium	ND	1.00		µg/L	1	10/7/2015 2:05:15 PM
Silver	ND	0.200		µg/L	1	10/7/2015 2:05:15 PM
Thallium	ND	0.200		µg/L	1	10/7/2015 2:05:15 PM
Zinc	87.3	1.50		µg/L	1	10/7/2015 2:05:15 PM

Total Metals by EPA Method 200.8

Batch ID: 12060

Analyst: TN

Antimony	ND	0.200		µg/L	1	10/7/2015 3:15:46 PM
Arsenic	1.11	1.00		µg/L	1	10/7/2015 3:15:46 PM
Beryllium	ND	0.200		µg/L	1	10/7/2015 3:15:46 PM
Cadmium	ND	0.200		µg/L	1	10/7/2015 3:15:46 PM
Chromium	ND	0.500		µg/L	1	10/7/2015 3:15:46 PM
Copper	1.21	0.500		µg/L	1	10/7/2015 3:15:46 PM
Lead	1.06	1.00		µg/L	1	10/7/2015 3:15:46 PM
Nickel	4.52	0.500		µg/L	1	10/7/2015 3:15:46 PM
Selenium	ND	1.00		µg/L	1	10/7/2015 3:15:46 PM
Silver	ND	0.200		µg/L	1	10/7/2015 3:15:46 PM
Thallium	ND	0.200		µg/L	1	10/7/2015 3:15:46 PM
Zinc	95.6	1.50		µg/L	1	10/7/2015 3:15:46 PM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/6/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1510048-006

Matrix: Groundwater

Client Sample ID: MW-3-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 12067		Analyst: EC
Diesel (Fuel Oil)	ND	49.9		µg/L	1	10/8/2015 6:37:00 PM
Heavy Oil	ND	99.9		µg/L	1	10/8/2015 6:37:00 PM
Surr: 2-Fluorobiphenyl	57.4	50-150		%REC	1	10/8/2015 6:37:00 PM
Surr: o-Terphenyl	55.8	50-150		%REC	1	10/8/2015 6:37:00 PM
<u>Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)</u>				Batch ID: 12068		Analyst: NG
Naphthalene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
2-Methylnaphthalene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
1-Methylnaphthalene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Acenaphthylene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Acenaphthene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Fluorene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Phenanthrene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Anthracene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Fluoranthene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Pyrene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Benz(a)anthracene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Chrysene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Benzo(b)fluoranthene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Benzo(k)fluoranthene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Benzo(a)pyrene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Dibenz(a,h)anthracene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Benzo(g,h,i)perylene	ND	0.100		µg/L	1	10/8/2015 6:34:00 PM
Surr: 2-Fluorobiphenyl	67.6	23.9-122		%REC	1	10/8/2015 6:34:00 PM
Surr: Terphenyl-d14	67.4	33.4-135		%REC	1	10/8/2015 6:34:00 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: R25369		Analyst: BC
Gasoline	ND	50.0		µg/L	1	10/8/2015 5:22:00 AM
Surr: Toluene-d8	97.3	65-135		%REC	1	10/8/2015 5:22:00 AM
Surr: 4-Bromofluorobenzene	101	65-135		%REC	1	10/8/2015 5:22:00 AM
<u>Volatile Organic Compounds by EPA Method 8260</u>				Batch ID: R25366		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Chloromethane	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Vinyl chloride	ND	0.200		µg/L	1	10/8/2015 5:22:00 AM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/6/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1510048-006

Matrix: Groundwater

Client Sample ID: MW-3-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

Bromomethane	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Chloroethane	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Methylene chloride	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	10/8/2015 5:22:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Chloroform	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Benzene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	10/8/2015 5:22:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Dibromomethane	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Toluene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	10/8/2015 5:22:00 AM
Chlorobenzene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Ethylbenzene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
m,p-Xylene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
o-Xylene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Styrene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Bromoform	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Bromobenzene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/6/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1510048-006

Matrix: Groundwater

Client Sample ID: MW-3-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	10/8/2015 5:22:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	10/8/2015 5:22:00 AM
Naphthalene	ND	1.00		µg/L	1	10/8/2015 5:22:00 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	10/8/2015 5:22:00 AM
Surr: Dibromofluoromethane	103	45.4-152		%REC	1	10/8/2015 5:22:00 AM
Surr: Toluene-d8	96.0	40.1-139		%REC	1	10/8/2015 5:22:00 AM
Surr: 1-Bromo-4-fluorobenzene	99.1	64.2-128		%REC	1	10/8/2015 5:22:00 AM

Mercury by EPA Method 245.1

Batch ID: 12064

Analyst: MW

Mercury	ND	0.100		µg/L	1	10/8/2015 11:35:55 AM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 12065

Analyst: MW

Mercury	ND	0.100		µg/L	1	10/8/2015 12:15:50 PM
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Dissolved Metals by EPA Method 200.8

Batch ID: 12061

Analyst: TN

Antimony	ND	0.200		µg/L	1	10/7/2015 2:08:47 PM
Arsenic	3.80	1.00		µg/L	1	10/7/2015 2:08:47 PM
Beryllium	ND	0.200		µg/L	1	10/7/2015 2:08:47 PM
Cadmium	ND	0.200		µg/L	1	10/7/2015 2:08:47 PM
Chromium	1.46	0.500		µg/L	1	10/7/2015 2:08:47 PM
Copper	ND	0.500		µg/L	1	10/7/2015 2:08:47 PM
Lead	ND	1.00		µg/L	1	10/7/2015 2:08:47 PM
Nickel	0.897	0.500		µg/L	1	10/7/2015 2:08:47 PM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/6/2015 10:35:00 AM

Project: Pacific Park

Lab ID: 1510048-006

Matrix: Groundwater

Client Sample ID: MW-3-15:GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 12061

Analyst: TN

Selenium	ND	1.00		µg/L	1	10/7/2015 2:08:47 PM
Silver	ND	0.200		µg/L	1	10/7/2015 2:08:47 PM
Thallium	ND	0.200		µg/L	1	10/7/2015 2:08:47 PM
Zinc	54.7	1.50		µg/L	1	10/7/2015 2:08:47 PM

Total Metals by EPA Method 200.8

Batch ID: 12060

Analyst: TN

Antimony	0.242	0.200		µg/L	1	10/7/2015 3:22:52 PM
Arsenic	3.70	1.00		µg/L	1	10/7/2015 3:22:52 PM
Beryllium	ND	0.200		µg/L	1	10/7/2015 3:22:52 PM
Cadmium	ND	0.200		µg/L	1	10/7/2015 3:22:52 PM
Chromium	2.84	0.500		µg/L	1	10/7/2015 3:22:52 PM
Copper	0.877	0.500		µg/L	1	10/7/2015 3:22:52 PM
Lead	ND	1.00		µg/L	1	10/7/2015 3:22:52 PM
Nickel	1.65	0.500		µg/L	1	10/7/2015 3:22:52 PM
Selenium	ND	1.00		µg/L	1	10/7/2015 3:22:52 PM
Silver	ND	0.200		µg/L	1	10/7/2015 3:22:52 PM
Thallium	ND	0.200		µg/L	1	10/7/2015 3:22:52 PM
Zinc	56.0	1.50		µg/L	1	10/7/2015 3:22:52 PM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/6/2015 8:05:00 AM

Project: Pacific Park

Lab ID: 1510048-007

Matrix: Groundwater

Client Sample ID: MW-3-15:GW:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 12067

Analyst: EC

Diesel (Fuel Oil)	ND	49.9		µg/L	1	10/8/2015 7:09:00 PM
Heavy Oil	ND	99.9		µg/L	1	10/8/2015 7:09:00 PM
Surr: 2-Fluorobiphenyl	56.7	50-150		%REC	1	10/8/2015 7:09:00 PM
Surr: o-Terphenyl	57.7	50-150		%REC	1	10/8/2015 7:09:00 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 12068

Analyst: NG

Naphthalene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
2-Methylnaphthalene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
1-Methylnaphthalene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Acenaphthylene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Acenaphthene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Fluorene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Phenanthrene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Anthracene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Fluoranthene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Pyrene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Benz(a)anthracene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Chrysene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Benzo(b)fluoranthene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Benzo(k)fluoranthene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Benzo(a)pyrene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Dibenz(a,h)anthracene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Benzo(g,h,i)perylene	ND	0.0999		µg/L	1	10/8/2015 6:57:00 PM
Surr: 2-Fluorobiphenyl	70.2	23.9-122		%REC	1	10/8/2015 6:57:00 PM
Surr: Terphenyl-d14	64.7	33.4-135		%REC	1	10/8/2015 6:57:00 PM

Gasoline by NWTPH-Gx

Batch ID: R25369

Analyst: BC

Gasoline	ND	50.0		µg/L	1	10/8/2015 5:51:00 AM
Surr: Toluene-d8	99.0	65-135		%REC	1	10/8/2015 5:51:00 AM
Surr: 4-Bromofluorobenzene	98.6	65-135		%REC	1	10/8/2015 5:51:00 AM

Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Chloromethane	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Vinyl chloride	ND	0.200		µg/L	1	10/8/2015 5:51:00 AM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/6/2015 8:05:00 AM

Project: Pacific Park

Lab ID: 1510048-007

Matrix: Groundwater

Client Sample ID: MW-3-15:GW:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

Bromomethane	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Chloroethane	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Methylene chloride	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	10/8/2015 5:51:00 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Chloroform	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Carbon tetrachloride	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Benzene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	10/8/2015 5:51:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Bromodichloromethane	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Dibromomethane	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Toluene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	10/8/2015 5:51:00 AM
Chlorobenzene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Ethylbenzene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
m,p-Xylene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
o-Xylene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Styrene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Isopropylbenzene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Bromoform	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
n-Propylbenzene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Bromobenzene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/6/2015 8:05:00 AM

Project: Pacific Park

Lab ID: 1510048-007

Matrix: Groundwater

Client Sample ID: MW-3-15:GW:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
2-Chlorotoluene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
4-Chlorotoluene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
tert-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	10/8/2015 5:51:00 AM
sec-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
4-Isopropyltoluene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
n-Butylbenzene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
Hexachlorobutadiene	ND	4.00		µg/L	1	10/8/2015 5:51:00 AM
Naphthalene	ND	1.00		µg/L	1	10/8/2015 5:51:00 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	10/8/2015 5:51:00 AM
Surr: Dibromofluoromethane	103	45.4-152		%REC	1	10/8/2015 5:51:00 AM
Surr: Toluene-d8	94.5	40.1-139		%REC	1	10/8/2015 5:51:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.0	64.2-128		%REC	1	10/8/2015 5:51:00 AM

Mercury by EPA Method 245.1

Batch ID: 12064

Analyst: MW

Mercury	ND	0.100		µg/L	1	10/8/2015 11:37:38 AM
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Dissolved Mercury by EPA Method 245.1

Batch ID: 12065

Analyst: MW

Mercury	ND	0.100		µg/L	1	10/8/2015 12:17:32 PM
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Dissolved Metals by EPA Method 200.8

Batch ID: 12061

Analyst: TN

Antimony	ND	0.200		µg/L	1	10/7/2015 2:12:18 PM
Arsenic	4.77	1.00		µg/L	1	10/7/2015 2:12:18 PM
Beryllium	ND	0.200		µg/L	1	10/7/2015 2:12:18 PM
Cadmium	ND	0.200		µg/L	1	10/7/2015 2:12:18 PM
Chromium	1.29	0.500		µg/L	1	10/7/2015 2:12:18 PM
Copper	ND	0.500		µg/L	1	10/7/2015 2:12:18 PM
Lead	ND	1.00		µg/L	1	10/7/2015 2:12:18 PM
Nickel	0.964	0.500		µg/L	1	10/7/2015 2:12:18 PM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 10/6/2015 8:05:00 AM

Project: Pacific Park

Lab ID: 1510048-007

Matrix: Groundwater

Client Sample ID: MW-3-15:GW:DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Dissolved Metals by EPA Method 200.8

Batch ID: 12061

Analyst: TN

Selenium	1.76	1.00		µg/L	1	10/7/2015 2:12:18 PM
Silver	ND	0.200		µg/L	1	10/7/2015 2:12:18 PM
Thallium	ND	0.200		µg/L	1	10/7/2015 2:12:18 PM
Zinc	55.5	1.50		µg/L	1	10/7/2015 2:12:18 PM

Total Metals by EPA Method 200.8

Batch ID: 12060

Analyst: TN

Antimony	0.220	0.200		µg/L	1	10/7/2015 3:26:23 PM
Arsenic	4.12	1.00		µg/L	1	10/7/2015 3:26:23 PM
Beryllium	ND	0.200		µg/L	1	10/7/2015 3:26:23 PM
Cadmium	ND	0.200		µg/L	1	10/7/2015 3:26:23 PM
Chromium	2.29	0.500		µg/L	1	10/7/2015 3:26:23 PM
Copper	1.22	0.500		µg/L	1	10/7/2015 3:26:23 PM
Lead	ND	1.00		µg/L	1	10/7/2015 3:26:23 PM
Nickel	1.06	0.500		µg/L	1	10/7/2015 3:26:23 PM
Selenium	ND	1.00		µg/L	1	10/7/2015 3:26:23 PM
Silver	ND	0.200		µg/L	1	10/7/2015 3:26:23 PM
Thallium	ND	0.200		µg/L	1	10/7/2015 3:26:23 PM
Zinc	57.7	1.50		µg/L	1	10/7/2015 3:26:23 PM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 9/28/2015 3:00:00 PM

Project: Pacific Park

Lab ID: 1510048-008

Matrix: Water

Client Sample ID: Trip Blank

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260				Batch ID: R25366		Analyst: BC
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Chloromethane	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Vinyl chloride	ND	0.200		µg/L	1	10/7/2015 8:47:00 PM
Bromomethane	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Chloroethane	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Methylene chloride	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
2,2-Dichloropropane	ND	2.00		µg/L	1	10/7/2015 8:47:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Chloroform	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Benzene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	10/7/2015 8:47:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Dibromomethane	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Toluene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,2-Dibromoethane (EDB)	ND	0.0600		µg/L	1	10/7/2015 8:47:00 PM
Chlorobenzene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Ethylbenzene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
m,p-Xylene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
o-Xylene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Styrene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Bromoform	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM



Analytical Report

WO#: 1510048

Date Reported: 10/14/2015

Client: Shannon & Wilson

Collection Date: 9/28/2015 3:00:00 PM

Project: Pacific Park

Lab ID: 1510048-008

Matrix: Water

Client Sample ID: Trip Blank

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260

Batch ID: R25366

Analyst: BC

1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Bromobenzene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	10/7/2015 8:47:00 PM
sec-Butylbenzene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
n-Butylbenzene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
Hexachlorobutadiene	ND	4.00		µg/L	1	10/7/2015 8:47:00 PM
Naphthalene	ND	1.00		µg/L	1	10/7/2015 8:47:00 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	10/7/2015 8:47:00 PM
Surr: Dibromofluoromethane	102	45.4-152		%REC	1	10/7/2015 8:47:00 PM
Surr: Toluene-d8	95.8	40.1-139		%REC	1	10/7/2015 8:47:00 PM
Surr: 1-Bromo-4-fluorobenzene	97.7	64.2-128		%REC	1	10/7/2015 8:47:00 PM



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID: MB-12061	SampType: MBLK	Units: µg/L			Prep Date: 10/7/2015				RunNo: 25351		
Client ID: MBLKW	Batch ID: 12061	Analysis Date: 10/7/2015							SeqNo: 478146		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.200									
Arsenic	ND	1.00									
Beryllium	ND	0.200									
Cadmium	ND	0.200									
Chromium	ND	0.500									
Copper	ND	0.500									
Lead	ND	1.00									
Nickel	ND	0.500									
Selenium	ND	1.00									
Silver	ND	0.200									
Thallium	ND	0.200									
Zinc	ND	1.50									

Sample ID: MB-12051FB	SampType: MBLK	Units: µg/L			Prep Date: 10/7/2015			RunNo: 25351			
Client ID: MBLKW	Batch ID: 12061				Analysis Date: 10/7/2015			SeqNo: 478147			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.200									
Arsenic	ND	1.00									
Beryllium	ND	0.200									
Cadmium	ND	0.200									
Chromium	ND	0.500									
Copper	ND	0.500									
Lead	ND	1.00									
Nickel	ND	0.500									
Selenium	ND	1.00									
Silver	ND	0.200									
Thallium	ND	0.200									
Zinc	ND	1.50									

NOTES:
Filter Blank



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID: LCS-12061	SampType: LCS	Units: µg/L			Prep Date: 10/7/2015			RunNo: 25351			
Client ID: LCSW	Batch ID: 12061	Analysis Date: 10/7/2015						SeqNo: 478148			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	4.93	0.200	5.000	0	98.5	85	115				
Arsenic	95.5	1.00	100.0	0	95.5	85	115				
Beryllium	5.26	0.200	5.000	0	105	85	115				
Cadmium	5.26	0.200	5.000	0	105	85	115				
Chromium	100	0.500	100.0	0	100	85	115				
Copper	98.6	0.500	100.0	0	98.6	85	115				
Lead	49.7	1.00	50.00	0	99.3	85	115				
Nickel	102	0.500	100.0	0	102	85	115				
Selenium	9.59	1.00	10.00	0	95.9	85	115				
Silver	5.01	0.200	5.000	0	100	85	115				
Thallium	2.61	0.200	2.500	0	105	85	115				
Zinc	107	1.50	100.0	0	107	85	115				

Sample ID: 1510047-001BDUP		SampType: DUP		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25351		
Client ID: BATCH		Batch ID: 12061					Analysis Date: 10/7/2015			SeqNo: 478150	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.200						0.2010	98.9	30	
Arsenic	ND	1.00						0		30	
Beryllium	0.448	0.200						0.4595	2.42	30	
Cadmium	ND	0.200						0		30	
Chromium	ND	0.500						0		30	
Copper	1.02	0.500						1.099	7.75	30	
Lead	ND	1.00						0		30	
Nickel	1.23	0.500						1.407	13.3	30	
Selenium	ND	1.00						0		30	
Silver	ND	0.200						0		30	
Thallium	ND	0.200						0		30	
Zinc	6.08	1.50						4.272	34.9	30	R

NOTES:

R - High RPD observed. The method is in control as indicated by the laboratory control sample (LCS).



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Metals by EPA Method 200.8

Sample ID: 1510047-001BMS	SampType: MS	Units: µg/L			Prep Date: 10/7/2015			RunNo: 25351			
Client ID: BATCH	Batch ID: 12061	Analysis Date: 10/7/2015						SeqNo: 478153			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	24.9	0.200	25.00	0.2010	98.8	70	130				
Arsenic	506	1.00	500.0	0.9630	101	70	130				
Beryllium	26.0	0.200	25.00	0.4595	102	70	130				
Cadmium	25.4	0.200	25.00	0.08100	101	70	130				
Chromium	506	0.500	500.0	0.1630	101	70	130				
Copper	499	0.500	500.0	1.099	99.6	70	130				
Lead	246	1.00	250.0	0.09400	98.3	70	130				
Nickel	509	0.500	500.0	1.407	101	70	130				
Selenium	53.4	1.00	50.00	0.5855	106	70	130				
Silver	24.5	0.200	25.00	0.07900	97.6	70	130				
Thallium	13.0	0.200	12.50	0.1470	103	70	130				
Zinc	535	1.50	500.0	4.272	106	70	130				

Sample ID: 1510047-001BMSD		SampType: MSD		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25351		
Client ID: BATCH		Batch ID: 12061					Analysis Date: 10/7/2015			SeqNo: 478154	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	24.9	0.200	25.00	0.2010	98.8	70	130	24.91	0.0803	30	
Arsenic	503	1.00	500.0	0.9630	100	70	130	506.2	0.650	30	
Beryllium	27.6	0.200	25.00	0.4595	109	70	130	25.95	6.17	30	
Cadmium	26.2	0.200	25.00	0.08100	104	70	130	25.37	3.17	30	
Chromium	488	0.500	500.0	0.1630	97.6	70	130	505.7	3.52	30	
Copper	498	0.500	500.0	1.099	99.4	70	130	499.1	0.192	30	
Lead	244	1.00	250.0	0.09400	97.7	70	130	245.8	0.589	30	
Nickel	516	0.500	500.0	1.407	103	70	130	508.5	1.46	30	
Selenium	53.2	1.00	50.00	0.5855	105	70	130	53.41	0.363	30	
Silver	25.3	0.200	25.00	0.07900	101	70	130	24.47	3.39	30	
Thallium	13.1	0.200	12.50	0.1470	103	70	130	12.97	0.646	30	
Zinc	540	1.50	500.0	4.272	107	70	130	535.0	0.898	30	



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID: MB-12060		SampType: MBLK		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25358		
Client ID: MBLKW		Batch ID: 12060					Analysis Date: 10/7/2015			SeqNo: 478320	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.200									
Arsenic	ND	1.00									
Beryllium	ND	0.200									
Cadmium	ND	0.200									
Chromium	ND	0.500									
Copper	ND	0.500									
Lead	ND	1.00									
Nickel	ND	0.500									
Selenium	ND	1.00									
Silver	ND	0.200									
Thallium	ND	0.200									
Zinc	ND	1.50									

Sample ID: LCS-12060	SampType: LCS	Units: µg/L			Prep Date: 10/7/2015			RunNo: 25358			
Client ID: LCSW	Batch ID: 12060				Analysis Date: 10/7/2015			SeqNo: 478321			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	4.92	0.200	5.000	0	98.4	85	115				
Arsenic	99.9	1.00	100.0	0	99.9	85	115				
Beryllium	5.42	0.200	5.000	0	108	85	115				
Cadmium	5.35	0.200	5.000	0	107	85	115				
Chromium	111	0.500	100.0	0	111	85	115				
Copper	105	0.500	100.0	0	105	85	115				
Lead	49.1	1.00	50.00	0	98.1	85	115				
Nickel	108	0.500	100.0	0	108	85	115				
Selenium	10.1	1.00	10.00	0	101	85	115				
Silver	4.39	0.200	5.000	0	87.7	85	115				
Thallium	2.50	0.200	2.500	0	100	85	115				
Zinc	107	1.50	100.0	0	107	85	115				



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Total Metals by EPA Method 200.8

Sample ID: 1510047-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25358		
Client ID: BATCH		Batch ID: 12060					Analysis Date: 10/7/2015			SeqNo: 478323	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.200						0		30	
Arsenic	1.99	1.00						2.831	34.8	30	
Beryllium	0.975	0.200						1.044	6.93	30	
Cadmium	ND	0.200						0		30	
Chromium	ND	0.500						0.7985	70.7	30	
Copper	0.899	0.500						0.9490	5.41	30	
Lead	1.11	1.00						1.097	1.54	30	
Nickel	1.40	0.500						1.943	32.2	30	R
Selenium	ND	1.00						0		30	
Silver	ND	0.200						0.3810	200	30	R
Thallium	ND	0.200						0		30	
Zinc	5.81	1.50						6.134	5.35	30	

NOTES:

R - High RPD due to low analyte concentration. In this range, high RPD's may be expected.

Sample ID: 1510047-001AMS		SampType: MS		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25358		
Client ID: BATCH		Batch ID: 12060					Analysis Date: 10/7/2015			SeqNo: 478324	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	24.6	0.200	25.00	0.1165	98.0	70	130				
Arsenic	511	1.00	500.0	2.831	102	70	130				
Beryllium	26.1	0.200	25.00	1.044	100	70	130				
Cadmium	27.0	0.200	25.00	0.1105	108	70	130				
Chromium	550	0.500	500.0	0.7985	110	70	130				
Copper	527	0.500	500.0	0.9490	105	70	130				
Lead	246	1.00	250.0	1.097	97.9	70	130				
Nickel	541	0.500	500.0	1.943	108	70	130				
Selenium	49.7	1.00	50.00	0.9650	97.5	70	130				
Silver	22.1	0.200	25.00	0.3810	86.7	70	130				
Thallium	12.7	0.200	12.50	0.1635	99.9	70	130				
Zinc	554	1.50	500.0	6.134	110	70	130				



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID: 1510047-001AMSD		SampType: MSD			Units: µg/L		Prep Date: 10/7/2015		RunNo: 25358		
Client ID: BATCH		Batch ID: 12060			Analysis Date: 10/7/2015				SeqNo: 478325		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	23.7	0.200	25.00	0.1165	94.3	70	130	24.62	3.87	30	
Arsenic	514	1.00	500.0	2.831	102	70	130	510.5	0.737	30	
Beryllium	26.2	0.200	25.00	1.044	101	70	130	26.08	0.537	30	
Cadmium	26.8	0.200	25.00	0.1105	107	70	130	27.05	1.05	30	
Chromium	546	0.500	500.0	0.7985	109	70	130	550.0	0.661	30	
Copper	521	0.500	500.0	0.9490	104	70	130	527.0	1.12	30	
Lead	236	1.00	250.0	1.097	94.1	70	130	245.9	4.00	30	
Nickel	535	0.500	500.0	1.943	107	70	130	541.2	1.21	30	
Selenium	50.5	1.00	50.00	0.9650	99.1	70	130	49.72	1.58	30	
Silver	21.8	0.200	25.00	0.3810	85.6	70	130	22.07	1.27	30	
Thallium	12.4	0.200	12.50	0.1635	97.9	70	130	12.65	2.05	30	
Zinc	525	1.50	500.0	6.134	104	70	130	554.3	5.42	30	



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Mercury by EPA Method 245.1

Sample ID: MB-12064	SampType: MBLK	Units: µg/L			Prep Date: 10/7/2015			RunNo: 25376			
Client ID: MBLKW	Batch ID: 12064				Analysis Date: 10/8/2015			SeqNo: 478788			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.100									

Sample ID: LCS-12064		SampType: LCS		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25376		
Client ID: LCSW		Batch ID: 12064					Analysis Date: 10/8/2015			SeqNo: 478789	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.33	0.100	2.500	0	93.2	85	115				

Sample ID: 1510064-002EDUP		SampType: DUP		Units: µg/L		Prep Date: 10/7/2015		RunNo: 25376			
Client ID: BATCH		Batch ID: 12064				Analysis Date: 10/8/2015		SeqNo: 478791			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.100						0		20	

Sample ID: 1510064-002EMS		SampType: MS		Units: µg/L		Prep Date: 10/7/2015		RunNo: 25376			
Client ID: BATCH		Batch ID: 12064				Analysis Date: 10/8/2015		SeqNo: 478792			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.24	0.100	2.500	0	89.6	80	120				

Sample ID: 1510064-002EMSD	SampType: MSD	Units: µg/L				Prep Date: 10/7/2015			RunNo: 25376		
Client ID: BATCH	Batch ID: 12064	Analysis Date: 10/8/2015							SeqNo: 478793		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.25	0.100	2.500	0	90.0	80	120	2.240	0.445	20	



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Mercury by EPA Method 245.1

Sample ID: MB-12065	SampType: MBLK	Units: µg/L		Prep Date: 10/7/2015	RunNo: 25378
Client ID: MBLKW	Batch ID: 12065			Analysis Date: 10/8/2015	SeqNo: 478909
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury ND 0.100

Sample ID: LCS-12065	SampType: LCS	Units: µg/L		Prep Date: 10/7/2015	RunNo: 25378
Client ID: LCSW	Batch ID: 12065			Analysis Date: 10/8/2015	SeqNo: 478910
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury 2.37 0.100 2.500 0 94.8 85 115

Sample ID: 1510048-001EDUP	SampType: DUP	Units: µg/L		Prep Date: 10/7/2015	RunNo: 25378
Client ID: MW-6-15:GW	Batch ID: 12065			Analysis Date: 10/8/2015	SeqNo: 478912
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury ND 0.100 0 20

Sample ID: 1510048-001EMS	SampType: MS	Units: µg/L		Prep Date: 10/7/2015	RunNo: 25378
Client ID: MW-6-15:GW	Batch ID: 12065			Analysis Date: 10/8/2015	SeqNo: 478913
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury 2.29 0.100 2.500 0 91.6 80 120

Sample ID: 1510048-001EMSD	SampType: MSD	Units: µg/L		Prep Date: 10/7/2015	RunNo: 25378
Client ID: MW-6-15:GW	Batch ID: 12065			Analysis Date: 10/8/2015	SeqNo: 478914
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury 2.28 0.100 2.500 0 91.2 80 120 2.290 0.438 20



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Dissolved Mercury by EPA Method 245.1

Sample ID: MB-12051FB	SampType: MBLK	Units: µg/L			Prep Date: 10/7/2015			RunNo: 25378			
Client ID: MBLKW	Batch ID: 12065				Analysis Date: 10/8/2015			SeqNo: 478923			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury ND 0.100

NOTES:
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Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: MB-12067		SampType: MBLK			Units: µg/L		Prep Date: 10/7/2015			RunNo: 25382		
Client ID: MBLKW		Batch ID: 12067			Analysis Date: 10/8/2015					SeqNo: 478977		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	ND	50.0									
Heavy Oil	ND	100									
Surr: 2-Fluorobiphenyl	52.4		80.00		65.4	50	150				
Surr: o-Terphenyl	55.1		80.00		68.9	50	150				

Sample ID: LCS-12067		SampType: LCS			Units: µg/L		Prep Date: 10/7/2015			RunNo: 25382		
Client ID: LCSW		Batch ID: 12067			Analysis Date: 10/8/2015					SeqNo: 478989		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	675	50.0	1,000	0	67.5	65	135				
Surr: 2-Fluorobiphenyl	49.4		80.00		61.7	50	150				
Surr: o-Terphenyl	49.1		80.00		61.3	50	150				

Sample ID: 1510048-001BDUP		SampType: DUP			Units: µg/L		Prep Date: 10/7/2015			RunNo: 25382		
Client ID: MW-6-15:GW		Batch ID: 12067			Analysis Date: 10/8/2015			SeqNo: 479188				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	ND	50.0						0		30	
Heavy Oil	ND	100						0		30	
Surr: 2-Fluorobiphenyl	52.7		79.97		65.9	50	150		0		
Surr: o-Terphenyl	55.8		79.97		69.8	50	150		0		



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: MB-12068	SampType: MBLK	Units: µg/L			Prep Date: 10/7/2015			RunNo: 25427			
Client ID: MBLKW	Batch ID: 12068	Analysis Date: 10/8/2015						SeqNo: 479806			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.100									
2-Methylnaphthalene	ND	0.100									
1-Methylnaphthalene	ND	0.100									
Acenaphthylene	ND	0.100									
Acenaphthene	ND	0.100									
Fluorene	ND	0.100									
Phenanthrene	ND	0.100									
Anthracene	ND	0.100									
Fluoranthene	ND	0.100									
Pyrene	ND	0.100									
Benz(a)anthracene	ND	0.100									
Chrysene	ND	0.100									
Benzo(b)fluoranthene	ND	0.100									
Benzo(k)fluoranthene	ND	0.100									
Benzo(a)pyrene	ND	0.100									
Indeno(1,2,3-cd)pyrene	ND	0.100									
Dibenz(a,h)anthracene	ND	0.100									
Benzo(g,h,i)perylene	ND	0.100									
Surr: 2-Fluorobiphenyl	1.72		2.000		86.0	23.9	122				
Surr: Terphenyl-d14	1.76		2.000		87.9	33.4	135				

Sample ID: LCS-12068	SampType: LCS	Units: µg/L			Prep Date: 10/7/2015			RunNo: 25427			
Client ID: LCSW	Batch ID: 12068	Analysis Date: 10/8/2015						SeqNo: 479807			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.03	0.100	4.000	0	50.7	26.7	106				
2-Methylnaphthalene	2.16	0.100	4.000	0	54.0	35.4	110				
1-Methylnaphthalene	2.12	0.100	4.000	0	53.1	37.5	116				
Acenaphthylene	2.22	0.100	4.000	0	55.6	39.2	114				
Acenaphthene	2.17	0.100	4.000	0	54.2	37	113				
Fluorene	2.26	0.100	4.000	0	56.4	40.3	117				



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: LCS-12068		SampType: LCS		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25427		
Client ID: LCSW		Batch ID: 12068					Analysis Date: 10/8/2015			SeqNo: 479807	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	2.02	0.100	4.000	0	50.5	35.1	118				
Anthracene	2.02	0.100	4.000	0	50.6	45.4	115				
Fluoranthene	2.24	0.100	4.000	0	56.1	47.1	123				
Pyrene	2.25	0.100	4.000	0	56.3	47.6	123				
Benz(a)anthracene	2.34	0.100	4.000	0	58.4	48.7	126				
Chrysene	1.76	0.100	4.000	0	43.9	40.7	120				
Benzo(b)fluoranthene	2.33	0.100	4.000	0	58.2	52.2	126				
Benzo(k)fluoranthene	2.14	0.100	4.000	0	53.6	45.5	121				
Benzo(a)pyrene	2.15	0.100	4.000	0	53.8	38.4	121				
Indeno(1,2,3-cd)pyrene	1.85	0.100	4.000	0	46.3	23.9	143				
Dibenz(a,h)anthracene	1.85	0.100	4.000	0	46.3	24.9	141				
Benzo(g,h,i)perylene	1.59	0.100	4.000	0	39.8	35.9	139				
Surr: 2-Fluorobiphenyl	1.29		2.000		64.6	23.9	122				
Surr: Terphenyl-d14	1.27		2.000		63.7	33.4	135				

Sample ID: 1510048-001CDUP		SampType: DUP		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25427		
Client ID: MW-6-15:GW		Batch ID: 12068				Analysis Date: 10/8/2015			SeqNo: 479811		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.100						0		30	
2-Methylnaphthalene	ND	0.100						0		30	
1-Methylnaphthalene	ND	0.100						0		30	
Acenaphthylene	ND	0.100						0		30	
Acenaphthene	ND	0.100						0		30	
Fluorene	ND	0.100						0		30	
Phenanthrene	ND	0.100						0		30	
Anthracene	ND	0.100						0		30	
Fluoranthene	ND	0.100						0		30	
Pyrene	ND	0.100						0		30	
Benz(a)anthracene	ND	0.100						0		30	
Chrysene	ND	0.100						0		30	



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 1510048-001CDUP		SampType: DUP		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25427		
Client ID: MW-6-15:GW		Batch ID: 12068				Analysis Date: 10/8/2015			SeqNo: 479811		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	ND	0.100						0		30	
Benzo(k)fluoranthene	ND	0.100						0		30	
Benzo(a)pyrene	ND	0.100						0		30	
Indeno(1,2,3-cd)pyrene	ND	0.100						0		30	
Dibenz(a,h)anthracene	ND	0.100						0		30	
Benzo(g,h,i)perylene	ND	0.100						0		30	
Surr: 2-Fluorobiphenyl	1.82		2.001		90.9	23.9	122		0		
Surr: Terphenyl-d14	1.81		2.001		90.4	33.4	135		0		

Sample ID: 1510048-002CMS		SampType: MS		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25427		
Client ID: MW-5-15:GW		Batch ID: 12068					Analysis Date: 10/8/2015			SeqNo: 479798	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.00	0.100	4.007	0	50.0	31.2	104				
2-Methylnaphthalene	2.22	0.100	4.007	0	55.4	33.9	109				
1-Methylnaphthalene	2.19	0.100	4.007	0	54.5	33.2	110				
Acenaphthylene	1.31	0.100	4.007	0	32.7	40.5	98.7				S
Acenaphthene	2.13	0.100	4.007	0.04841	51.9	30.6	117				
Fluorene	2.42	0.100	4.007	0	60.4	35.2	99.1				
Phenanthrene	2.08	0.100	4.007	0	52.0	42.7	111				
Anthracene	1.35	0.100	4.007	0	33.8	43.9	103				S
Fluoranthene	2.34	0.100	4.007	0	58.4	56.1	115				
Pyrene	1.93	0.100	4.007	0	48.1	44.2	134				
Benz(a)anthracene	1.78	0.100	4.007	0	44.4	50.4	128				S
Chrysene	1.73	0.100	4.007	0	43.1	41.4	118				
Benzo(b)fluoranthene	2.24	0.100	4.007	0.07575	54.0	50.8	121				
Benzo(k)fluoranthene	1.91	0.100	4.007	0	47.7	43.4	113				
Benzo(a)pyrene	1.71	0.100	4.007	0	42.7	40.8	128				
Indeno(1,2,3-cd)pyrene	1.59	0.100	4.007	0	39.6	29.5	126				
Dibenz(a,h)anthracene	1.50	0.100	4.007	0	37.4	31.4	120				
Benzo(g,h,i)perylene	1.34	0.100	4.007	0	33.4	30	116				



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 1510048-002CMS		SampType: MS		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25427		
Client ID: MW-5-15:GW		Batch ID: 12068					Analysis Date: 10/8/2015			SeqNo: 479798	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 2-Fluorobiphenyl

1.27

2.003

63.2

23.9

122

Surr: Terphenyl-d14

1.24

2.003

61.7

33.4

135

NOTES:

S - Outlying spike recoveries observed.

Sample ID: MB-12095	SampType: MBLK	Units: µg/L			Prep Date: 10/12/2015			RunNo: 25474			
Client ID: MBLKW	Batch ID: 12095				Analysis Date: 10/13/2015			SeqNo: 480727			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Naphthalene

ND

0.100

2-Methylnaphthalene

ND

0.100

1-Methylnaphthalene

ND

0.100

Acenaphthylene

ND

0.100

Acenaphthene

ND

0.100

Fluorene

ND

0.100

Phenanthrene

ND

0.100

Anthracene

ND

0.100

Fluoranthene

ND

0.100

Pyrene

ND

0.100

Benz(a)anthracene

ND

0.100

Chrysene

ND

0.100

Benzo(b)fluoranthene

ND

0.100

Benzo(k)fluoranthene

ND

0.100

Benzo(a)pyrene

ND

0.100

Indeno(1,2,3-cd)pyrene

ND

0.100

Dibenz(a,h)anthracene

ND

0.100

Benzo(g,h,i)perylene

ND

0.100

Surr: 2-Fluorobiphenyl

1.22

2.000

60.8

23.9

122

Surr: Terphenyl-d14

1.65

2.000

82.4

33.4

135



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT**Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)**

Sample ID: LCS-12095	SampType: LCS			Units: µg/L	Prep Date: 10/12/2015			RunNo: 25474			
Client ID: LCSW	Batch ID: 12095			Analysis Date: 10/13/2015					SeqNo: 480726		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1.89	0.100	4.000	0	47.4	26.7	106				
2-Methylnaphthalene	1.88	0.100	4.000	0	46.9	35.4	110				
1-Methylnaphthalene	1.85	0.100	4.000	0	46.2	37.5	116				
Acenaphthylene	1.80	0.100	4.000	0	44.9	39.2	114				
Acenaphthene	1.87	0.100	4.000	0	46.7	37	113				
Fluorene	1.80	0.100	4.000	0	45.1	40.3	117				
Phenanthrene	1.82	0.100	4.000	0	45.6	35.1	118				
Anthracene	1.75	0.100	4.000	0	43.9	36.6	120				
Fluoranthene	2.02	0.100	4.000	0	50.4	47.1	123				
Pyrene	2.01	0.100	4.000	0	50.1	47.6	123				
Benz(a)anthracene	2.22	0.100	4.000	0	55.5	48.7	126				
Chrysene	1.86	0.100	4.000	0	46.4	40.7	120				
Benzo(b)fluoranthene	2.87	0.100	4.000	0	71.7	52.2	126				
Benzo(k)fluoranthene	1.99	0.100	4.000	0	49.8	45.5	121				
Benzo(a)pyrene	2.01	0.100	4.000	0	50.2	38.4	121				
Indeno(1,2,3-cd)pyrene	1.76	0.100	4.000	0	44.0	23.9	143				
Dibenz(a,h)anthracene	2.04	0.100	4.000	0	50.9	24.9	141				
Benzo(g,h,i)perylene	1.61	0.100	4.000	0	40.3	35.9	139				
Surr: 2-Fluorobiphenyl	1.02		2.000		51.0	23.9	122				
Surr: Terphenyl-d14	1.40		2.000		70.1	33.4	135				

Sample ID: 1510098-001BDUP		SampType: DUP		Units: µg/L		Prep Date: 10/12/2015			RunNo: 25474		
Client ID: BATCH		Batch ID: 12095		Analysis Date: 10/13/2015						SeqNo: 480713	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0999						0		30	
2-Methylnaphthalene	ND	0.0999						0		30	
1-Methylnaphthalene	ND	0.0999						0		30	
Acenaphthylene	ND	0.0999						0		30	
Acenaphthene	ND	0.0999						0		30	
Fluorene	ND	0.0999						0		30	



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 1510098-001BDUP		SampType: DUP		Units: µg/L		Prep Date: 10/12/2015			RunNo: 25474		
Client ID: BATCH		Batch ID: 12095		Analysis Date: 10/13/2015						SeqNo: 480713	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	ND	0.0999						0		30	
Anthracene	ND	0.0999						0		30	
Fluoranthene	ND	0.0999						0		30	
Pyrene	ND	0.0999						0		30	
Benz(a)anthracene	ND	0.0999						0		30	
Chrysene	ND	0.0999						0		30	
Benzo(b)fluoranthene	ND	0.0999						0		30	
Benzo(k)fluoranthene	ND	0.0999						0		30	
Benzo(a)pyrene	ND	0.0999						0		30	
Indeno(1,2,3-cd)pyrene	ND	0.0999						0		30	I
Dibenz(a,h)anthracene	ND	0.0999						0		30	I
Benzo(g,h,i)perylene	ND	0.0999						0		30	I
Surr: 2-Fluorobiphenyl	0.921		1.997		46.1	23.9	122		0		
Surr: Terphenyl-d14	0.672		1.997		33.7	33.4	135		0		

NOTES:

I - Indicates an analyte with an internal standard that does not meet established acceptance criteria

Sample ID: 1510098-002BMS		SampType: MS		Units: µg/L		Prep Date: 10/12/2015			RunNo: 25474		
Client ID: BATCH		Batch ID: 12095		Analysis Date: 10/13/2015					SeqNo: 480715		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1.79	0.0998	3.993	0	44.8	31.2	104				
2-Methylnaphthalene	1.73	0.0998	3.993	0	43.3	33.9	109				
1-Methylnaphthalene	1.74	0.0998	3.993	0	43.6	33.2	110				
Acenaphthylene	1.72	0.0998	3.993	0	43.1	40.5	98.7				
Acenaphthene	1.77	0.0998	3.993	0	44.4	30.6	117				
Fluorene	1.72	0.0998	3.993	0	43.1	35.2	99.1				
Phenanthrene	1.73	0.0998	3.993	0	43.3	42.7	111				
Anthracene	1.79	0.0998	3.993	0	44.9	43.9	103				
Fluoranthene	1.95	0.0998	3.993	0	48.8	40.7	122				
Pyrene	1.90	0.0998	3.993	0	47.5	44.2	134				
Benz(a)anthracene	2.29	0.0998	3.993	0.01793	56.8	50.4	128				

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 1510098-002BMS		SampType: MS		Units: µg/L		Prep Date: 10/12/2015			RunNo: 25474		
Client ID: BATCH		Batch ID: 12095		Analysis Date: 10/13/2015					SeqNo: 480715		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chrysene	1.69	0.0998	3.993	0	42.4	41.4	118				
Benzo(b)fluoranthene	2.06	0.0998	3.993	0	51.7	50.8	121				
Benzo(k)fluoranthene	1.61	0.0998	3.993	0	40.3	37	122				
Benzo(a)pyrene	1.46	0.0998	3.993	0	36.6	34.5	131				
Indeno(1,2,3-cd)pyrene	0.872	0.0998	3.993	0	21.8	21.1	136				
Dibenz(a,h)anthracene	0.962	0.0998	3.993	0	24.1	31.4	120				S
Benzo(g,h,i)perylene	0.747	0.0998	3.993	0	18.7	30	116				S
Surr: 2-Fluorobiphenyl	0.999		1.996		50.1	23.9	122				
Surr: Terphenyl-d14	1.33		1.996		66.4	33.4	135				

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a matrix effect.



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-R25369		SampType: LCS			Units: µg/L		Prep Date: 10/7/2015			RunNo: 25369		
Client ID: LCSW		Batch ID: R25369			Analysis Date: 10/7/2015			SeqNo: 478690				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	486	50.0	500.0	0	97.2	65	135				
Surr: Toluene-d8	24.6		25.00		98.4	65	135				
Surr: 4-Bromofluorobenzene	25.0		25.00		100	65	135				

Sample ID: MB-R25369		SampType: MBLK			Units: µg/L		Prep Date: 10/7/2015			RunNo: 25369		
Client ID: MBLKW		Batch ID: R25369			Analysis Date: 10/7/2015			SeqNo: 478691				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	50.0									
Surr: Toluene-d8	24.9		25.00		99.5	65	135				
Surr: 4-Bromofluorobenzene	25.0		25.00		100	65	135				

Sample ID: 1510039-001BDUP		SampType: DUP			Units: µg/L		Prep Date: 10/7/2015			RunNo: 25369		
Client ID: BATCH		Batch ID: R25369			Analysis Date: 10/7/2015					SeqNo: 478672		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	24.7		25.00		98.8	65	135		0	0	
Surr: 4-Bromofluorobenzene	24.8		25.00		99.0	65	135		0	0	

Sample ID: 1510027-001ADUP		SampType: DUP			Units: µg/L		Prep Date: 10/7/2015			RunNo: 25369		
Client ID: BATCH		Batch ID: R25369			Analysis Date: 10/7/2015			SeqNo: 478669				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	50.0						0		30	
Surr: Toluene-d8	24.8		25.00		99.2	65	135		0	0	
Surr: 4-Bromofluorobenzene	24.7		25.00		98.8	65	135		0	0	



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-R25439	SampType: LCS	Units: µg/L		Prep Date: 10/10/2015	RunNo: 25439
Client ID: LCSW	Batch ID: R25439	Analysis Date: 10/10/2015		SeqNo: 480130	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Gasoline	496	50.0	500.0	0	99.2	65	135
Surr: Toluene-d8	24.4		25.00		97.6	65	135
Surr: 4-Bromofluorobenzene	25.0		25.00		100	65	135

Sample ID: MB-R25439	SampType: MBLK	Units: µg/L		Prep Date: 10/10/2015	RunNo: 25439
Client ID: MBLKW	Batch ID: R25439	Analysis Date: 10/10/2015		SeqNo: 480131	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Gasoline	ND	50.0					
Surr: Toluene-d8	24.1		25.00		96.4	65	135
Surr: 4-Bromofluorobenzene	23.9		25.00		95.6	65	135

Sample ID: 1510131-001ADUP	SampType: DUP	Units: µg/L		Prep Date: 10/10/2015	RunNo: 25439
Client ID: BATCH	Batch ID: R25439	Analysis Date: 10/10/2015		SeqNo: 480120	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Gasoline	ND	50.0					0	30
Surr: Toluene-d8	23.9		25.00		95.4	65	135	0
Surr: 4-Bromofluorobenzene	23.4		25.00		93.7	65	135	0

Sample ID: 1510059-002ADUP	SampType: DUP	Units: µg/L		Prep Date: 10/10/2015	RunNo: 25439
Client ID: BATCH	Batch ID: R25439	Analysis Date: 10/10/2015		SeqNo: 480108	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Gasoline	ND	50.0					0	30
Surr: Toluene-d8	23.8		25.00		95.4	65	135	0
Surr: 4-Bromofluorobenzene	23.2		25.00		92.8	65	135	0



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-R25366	SampType: LCS	Units: µg/L				Prep Date: 10/7/2015			RunNo: 25366		
Client ID: LCSW	Batch ID: R25366	Analysis Date: 10/7/2015							SeqNo: 478633		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	17.6	1.00	20.00	0	88.0	43	136				
Chloromethane	16.5	1.00	20.00	0	82.4	43.9	139				
Vinyl chloride	17.8	0.200	20.00	0	89.1	53.6	139				
Bromomethane	29.7	1.00	20.00	0	149	42.5	152				
Trichlorofluoromethane (CFC-11)	35.8	1.00	20.00	0	179	63.7	133				S
Chloroethane	31.6	1.00	20.00	0	158	53	141				S
1,1-Dichloroethene	18.5	1.00	20.00	0	92.4	65.6	136				
Methylene chloride	14.8	1.00	20.00	0	73.8	67.1	131				
trans-1,2-Dichloroethene	18.7	1.00	20.00	0	93.7	71.7	129				
Methyl tert-butyl ether (MTBE)	16.8	1.00	20.00	0	84.0	67.7	131				
1,1-Dichloroethane	16.6	1.00	20.00	0	83.2	67.9	134				
2,2-Dichloropropane	22.4	2.00	20.00	0	112	33.7	152				
cis-1,2-Dichloroethene	17.5	1.00	20.00	0	87.5	71.1	130				
Chloroform	17.5	1.00	20.00	0	87.3	66.3	131				
1,1,1-Trichloroethane (TCA)	21.0	1.00	20.00	0	105	71	131				
1,1-Dichloropropene	17.8	1.00	20.00	0	88.9	74.5	126				
Carbon tetrachloride	21.7	1.00	20.00	0	109	66.2	134				
1,2-Dichloroethane (EDC)	16.7	1.00	20.00	0	83.4	68.8	123				
Benzene	16.9	1.00	20.00	0	84.5	69.3	132				
Trichloroethene (TCE)	18.1	0.500	20.00	0	90.3	65.2	136				
1,2-Dichloropropane	17.3	1.00	20.00	0	86.5	70.5	130				
Bromodichloromethane	18.9	1.00	20.00	0	94.5	67.2	137				
Dibromomethane	17.9	1.00	20.00	0	89.4	75.5	126				
cis-1,3-Dichloropropene	18.3	1.00	20.00	0	91.7	62.6	137				
Toluene	17.9	1.00	20.00	0	89.4	61.3	145				
trans-1,3-Dichloropropene	18.1	1.00	20.00	0	90.4	58.5	142				
1,1,2-Trichloroethane	16.6	1.00	20.00	0	83.0	71.7	131				
1,3-Dichloropropane	16.0	1.00	20.00	0	80.1	73.5	127				
Tetrachloroethene (PCE)	18.7	1.00	20.00	0	93.6	47.5	147				
Dibromochloromethane	19.2	1.00	20.00	0	95.8	67.2	134				
1,2-Dibromoethane (EDB)	18.4	0.0600	20.00	0	92.1	73.6	125				



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-R25366	SampType: LCS	Units: µg/L				Prep Date: 10/7/2015			RunNo: 25366		
Client ID: LCSW	Batch ID: R25366	Analysis Date: 10/7/2015						SeqNo: 478633			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	18.1	1.00	20.00	0	90.7	73.9	126				
1,1,1,2-Tetrachloroethane	19.0	1.00	20.00	0	95.2	76.8	124				
Ethylbenzene	17.8	1.00	20.00	0	89.0	72	130				
m,p-Xylene	34.6	1.00	40.00	0	86.6	70.3	134				
o-Xylene	17.6	1.00	20.00	0	87.9	72.1	131				
Styrene	17.8	1.00	20.00	0	89.0	64.3	140				
Isopropylbenzene	18.3	1.00	20.00	0	91.5	73.9	128				
Bromoform	20.9	1.00	20.00	0	105	63.8	135				
1,1,2,2-Tetrachloroethane	18.5	1.00	20.00	0	92.3	62.9	132				
n-Propylbenzene	18.3	1.00	20.00	0	91.5	74.5	127				
Bromobenzene	17.6	1.00	20.00	0	87.8	71	131				
1,3,5-Trimethylbenzene	17.8	1.00	20.00	0	89.1	73.1	128				
2-Chlorotoluene	17.6	1.00	20.00	0	87.8	70.8	130				
4-Chlorotoluene	17.3	1.00	20.00	0	86.7	70.1	131				
tert-Butylbenzene	17.8	1.00	20.00	0	89.2	68.2	131				
1,2,3-Trichloropropane	17.4	1.00	20.00	0	87.2	67.7	131				
1,2,4-Trichlorobenzene	17.5	2.00	20.00	0	87.5	51.8	152				
sec-Butylbenzene	18.2	1.00	20.00	0	91.1	72	129				
4-Isopropyltoluene	18.5	1.00	20.00	0	92.3	69.2	130				
1,3-Dichlorobenzene	17.0	1.00	20.00	0	84.9	72.4	129				
1,4-Dichlorobenzene	19.0	1.00	20.00	0	94.8	70.6	128				
n-Butylbenzene	19.2	1.00	20.00	0	95.9	73.8	127				
1,2-Dichlorobenzene	17.0	1.00	20.00	0	84.8	74.2	129				
1,2-Dibromo-3-chloropropane	18.5	1.00	20.00	0	92.3	63.1	136				
1,2,4-Trimethylbenzene	17.6	1.00	20.00	0	87.9	73.4	127				
Hexachlorobutadiene	18.8	4.00	20.00	0	94.0	58.6	138				
Naphthalene	16.9	1.00	20.00	0	84.3	41.8	165				
1,2,3-Trichlorobenzene	16.8	4.00	20.00	0	84.1	48.7	156				
Surr: Dibromofluoromethane	25.8		25.00		103	45.4	152				
Surr: Toluene-d8	24.1		25.00		96.5	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.0		25.00		100	64.2	128				



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-R25366		SampType: LCS		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25366		
Client ID: LCSW		Batch ID: R25366					Analysis Date: 10/7/2015			SeqNo: 478633	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:

S - Outlying QC recoveries were observed (high bias). There were no detections in the following samples. No further action is required.

Sample ID: MB-R25366	SampType: MBLK	Units: µg/L			Prep Date: 10/7/2015			RunNo: 25366			
Client ID: MBLKW	Batch ID: R25366	Analysis Date: 10/7/2015						SeqNo: 478634			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	1.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
2,2-Dichloropropane	ND	2.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: MB-R25366		SampType: MBLK		Units: µg/L		Prep Date: 10/7/2015		RunNo: 25366			
Client ID: MBLKW		Batch ID: R25366				Analysis Date: 10/7/2015		SeqNo: 478634			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

trans-1,3-Dichloropropene	ND	1.00
1,1,2-Trichloroethane	ND	1.00
1,3-Dichloropropane	ND	1.00
Tetrachloroethene (PCE)	ND	1.00
Dibromochloromethane	ND	1.00
1,2-Dibromoethane (EDB)	ND	0.0600
Chlorobenzene	ND	1.00
1,1,1,2-Tetrachloroethane	ND	1.00
Ethylbenzene	ND	1.00
m,p-Xylene	ND	1.00
o-Xylene	ND	1.00
Styrene	ND	1.00
Isopropylbenzene	ND	1.00
Bromoform	ND	1.00
1,1,2,2-Tetrachloroethane	ND	1.00
n-Propylbenzene	ND	1.00
Bromobenzene	ND	1.00
1,3,5-Trimethylbenzene	ND	1.00
2-Chlorotoluene	ND	1.00
4-Chlorotoluene	ND	1.00
tert-Butylbenzene	ND	1.00
1,2,3-Trichloropropane	ND	1.00
1,2,4-Trichlorobenzene	ND	2.00
sec-Butylbenzene	ND	1.00
4-Isopropyltoluene	ND	1.00
1,3-Dichlorobenzene	ND	1.00
1,4-Dichlorobenzene	ND	1.00
n-Butylbenzene	ND	1.00
1,2-Dichlorobenzene	ND	1.00
1,2-Dibromo-3-chloropropane	ND	1.00
1,2,4-Trimethylbenzene	ND	1.00



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Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: MB-R25366	SampType: MBLK	Units: µg/L				Prep Date: 10/7/2015			RunNo: 25366		
Client ID: MBLKW	Batch ID: R25366	Analysis Date: 10/7/2015						SeqNo: 478634			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	4.00									
Naphthalene	ND	1.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	25.2		25.00		101	45.4	152				
Surr: Toluene-d8	23.8		25.00		95.1	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.3	64.2	128				

Sample ID: 1510039-001BDUP	SampType: DUP	Units: µg/L			Prep Date: 10/7/2015			RunNo: 25366			
Client ID: BATCH	Batch ID: R25366				Analysis Date: 10/7/2015			SeqNo: 478614			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	1.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	



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CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1510039-001BDUP		SampType: DUP		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25366		
Client ID: BATCH		Batch ID: R25366				Analysis Date: 10/7/2015			SeqNo: 478614		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	1.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: 1510039-001BDUP		SampType: DUP		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25366		
Client ID: BATCH		Batch ID: R25366		Analysis Date: 10/7/2015			SeqNo: 478614				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachlorobutadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	25.8		25.00		103	45.4	152		0		
Surr: Toluene-d8	23.7		25.00		94.7	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.3		25.00		97.3	64.2	128		0		

Sample ID: 1510027-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25366		
Client ID: BATCH		Batch ID: R25366		Analysis Date: 10/7/2015			SeqNo: 478609				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	1.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1510027-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25366		
Client ID: BATCH		Batch ID: R25366					Analysis Date: 10/7/2015			SeqNo: 478609	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	1.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	



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CLIENT: Shannon & Wilson
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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: 1510027-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 10/7/2015			RunNo: 25366		
Client ID: BATCH		Batch ID: R25366		Analysis Date: 10/7/2015			SeqNo: 478609				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachlorobutadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	26.1		25.00		104	45.4	152		0		
Surr: Toluene-d8	23.9		25.00		95.7	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.3		25.00		97.1	64.2	128		0		

Sample ID: 1510027-002AMS		SampType: MS		Units: µg/L		Prep Date: 10/8/2015			RunNo: 25366		
Client ID: BATCH		Batch ID: R25366		Analysis Date: 10/8/2015			SeqNo: 478611				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	19.6	1.00	20.00	0	98.0	33.3	122				
Chloromethane	19.2	1.00	20.00	0	96.2	48.2	145				
Vinyl chloride	21.3	0.200	20.00	0	106	58.1	158				
Bromomethane	36.9	1.00	20.00	0	184	31.5	135				S
Trichlorofluoromethane (CFC-11)	44.5	1.00	20.00	0	223	54.7	138				S
Chloroethane	37.0	1.00	20.00	0	185	49.9	143				S
1,1-Dichloroethene	23.2	1.00	20.00	0	116	63	141				
Methylene chloride	17.3	1.00	20.00	0	86.5	61.6	135				
trans-1,2-Dichloroethene	22.5	1.00	20.00	0	113	63.5	138				
Methyl tert-butyl ether (MTBE)	20.4	1.00	20.00	0	102	60.9	132				



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: 1510027-002AMS		SampType: MS		Units: µg/L		Prep Date: 10/8/2015			RunNo: 25366		
Client ID: BATCH		Batch ID: R25366					Analysis Date: 10/8/2015			SeqNo: 478611	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethane	21.1	1.00	20.00	0.1587	105	67.8	136				
2,2-Dichloropropane	20.9	2.00	20.00	0	105	31.5	121				
cis-1,2-Dichloroethene	21.4	1.00	20.00	0	107	67.1	123				
Chloroform	21.8	1.00	20.00	0	109	66.7	136				
1,1,1-Trichloroethane (TCA)	26.7	1.00	20.00	0	134	64.2	146				
1,1-Dichloropropene	22.0	1.00	20.00	0	110	73.8	136				
Carbon tetrachloride	28.0	1.00	20.00	0	140	62.7	146				
1,2-Dichloroethane (EDC)	20.8	1.00	20.00	0	104	63.4	137				
Benzene	20.7	1.00	20.00	0	104	65.4	138				
Trichloroethene (TCE)	22.2	0.500	20.00	0	111	60.4	134				
1,2-Dichloropropane	21.1	1.00	20.00	0	105	62.6	138				
Bromodichloromethane	23.2	1.00	20.00	0	116	59.4	139				
Dibromomethane	22.3	1.00	20.00	0	111	63.6	139				
cis-1,3-Dichloropropene	20.7	1.00	20.00	0	104	63.8	132				
Toluene	21.1	1.00	20.00	0	106	64	139				
trans-1,3-Dichloropropene	19.8	1.00	20.00	0	99.2	57.7	125				
1,1,2-Trichloroethane	20.0	1.00	20.00	0	100	59.4	127				
1,3-Dichloropropane	19.4	1.00	20.00	0	97.0	64.3	135				
Tetrachloroethene (PCE)	22.3	1.00	20.00	0	111	50.3	133				
Dibromochloromethane	23.2	1.00	20.00	0	116	61.6	139				
1,2-Dibromoethane (EDB)	22.2	0.0600	20.00	0	111	63.2	134				
Chlorobenzene	21.8	1.00	20.00	0	109	65.8	134				
1,1,1,2-Tetrachloroethane	23.3	1.00	20.00	0	117	65.4	135				
Ethylbenzene	21.3	1.00	20.00	0	106	64.5	136				
m,p-Xylene	41.1	1.00	40.00	0	103	63.3	135				
o-Xylene	20.9	1.00	20.00	0	104	65.4	134				
Styrene	21.2	1.00	20.00	0	106	59.1	134				
Isopropylbenzene	21.5	1.00	20.00	0	107	56	147				
Bromoform	25.5	1.00	20.00	0	127	57.7	139				
1,1,2,2-Tetrachloroethane	22.4	1.00	20.00	0	112	59.8	146				
n-Propylbenzene	21.2	1.00	20.00	0	106	57.6	142				



Date: 10/14/2015

Work Order: 1510048
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: 1510027-002AMS		SampType: MS			Units: µg/L		Prep Date: 10/8/2015			RunNo: 25366		
Client ID: BATCH		Batch ID: R25366						Analysis Date: 10/8/2015			SeqNo: 478611	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Bromobenzene	20.6	1.00	20.00	0	103	63.6	130				
1,3,5-Trimethylbenzene	20.4	1.00	20.00	0	102	59.9	136				
2-Chlorotoluene	20.3	1.00	20.00	0	102	61.7	134				
4-Chlorotoluene	20.1	1.00	20.00	0	100	58.4	134				
tert-Butylbenzene	21.1	1.00	20.00	0	105	66.8	141				
1,2,3-Trichloropropane	20.3	1.00	20.00	0	101	62.4	129				
1,2,4-Trichlorobenzene	19.7	2.00	20.00	0	98.3	50.9	133				
sec-Butylbenzene	21.1	1.00	20.00	0	106	56	146				
4-Isopropyltoluene	21.1	1.00	20.00	0	106	56.4	136				
1,3-Dichlorobenzene	19.8	1.00	20.00	0	99.0	58.2	128				
1,4-Dichlorobenzene	22.6	1.00	20.00	0	113	60.1	123				
n-Butylbenzene	21.6	1.00	20.00	0	108	54.6	135				
1,2-Dichlorobenzene	19.9	1.00	20.00	0	99.5	65.4	133				
1,2-Dibromo-3-chloropropane	23.8	1.00	20.00	0	119	51.8	142				
1,2,4-Trimethylbenzene	20.0	1.00	20.00	0	100	63.7	132				
Hexachlorobutadiene	20.9	4.00	20.00	0	104	58.1	130				
Naphthalene	19.7	1.00	20.00	0	98.5	54.5	132				
1,2,3-Trichlorobenzene	19.5	4.00	20.00	0	97.6	57	131				
Surr: Dibromofluoromethane	26.6		25.00		106	45.4	152				
Surr: Toluene-d8	24.0		25.00		96.1	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.3	64.2	128				

NOTES:

S - Outlying QC recoveries were observed.

Sample ID: LCS-R25423		SampType: LCS			Units: µg/L		Prep Date: 10/10/2015			RunNo: 25423		
Client ID: LCSW		Batch ID: R25423			Analysis Date: 10/10/2015			SeqNo: 479754				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	15.0	1.00	20.00	0	74.8	43	136				
Chloromethane	17.5	1.00	20.00	0	87.4	43.9	139				
Vinyl chloride	16.6	0.200	20.00	0	82.8	53.6	139				
Bromomethane	21.8	1.00	20.00	0	109	42.5	152				



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-R25423	SampType: LCS	Units: µg/L				Prep Date: 10/10/2015			RunNo: 25423		
Client ID: LCSW	Batch ID: R25423	Analysis Date: 10/10/2015						SeqNo: 479754			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichlorofluoromethane (CFC-11)	21.2	1.00	20.00	0	106	63.7	133				
Chloroethane	18.5	1.00	20.00	0	92.5	53	141				
1,1-Dichloroethene	18.2	1.00	20.00	0	90.8	65.6	136				
Methylene chloride	18.7	1.00	20.00	0	93.5	67.1	131				
trans-1,2-Dichloroethene	20.3	1.00	20.00	0	101	71.7	129				
Methyl tert-butyl ether (MTBE)	21.4	1.00	20.00	0	107	67.7	131				
1,1-Dichloroethane	19.0	1.00	20.00	0	95.2	67.9	134				
2,2-Dichloropropane	21.2	2.00	20.00	0	106	33.7	152				
cis-1,2-Dichloroethene	20.7	1.00	20.00	0	103	71.1	130				
Chloroform	22.2	1.00	20.00	0	111	66.3	131				
1,1,1-Trichloroethane (TCA)	22.4	1.00	20.00	0	112	71	131				
1,1-Dichloropropene	21.0	1.00	20.00	0	105	74.5	126				
Carbon tetrachloride	23.8	1.00	20.00	0	119	66.2	134				
1,2-Dichloroethane (EDC)	23.1	1.00	20.00	0	115	68.8	123				
Benzene	18.6	1.00	20.00	0	93.2	69.3	132				
Trichloroethene (TCE)	21.2	0.500	20.00	0	106	65.2	136				
1,2-Dichloropropane	20.9	1.00	20.00	0	105	70.5	130				
Bromodichloromethane	22.6	1.00	20.00	0	113	67.2	137				
Dibromomethane	21.8	1.00	20.00	0	109	75.5	126				
cis-1,3-Dichloropropene	21.6	1.00	20.00	0	108	62.6	137				
Toluene	19.7	1.00	20.00	0	98.5	61.3	145				
trans-1,3-Dichloropropene	22.1	1.00	20.00	0	111	58.5	142				
1,1,2-Trichloroethane	21.5	1.00	20.00	0	108	71.7	131				
1,3-Dichloropropane	19.1	1.00	20.00	0	95.4	73.5	127				
Tetrachloroethene (PCE)	20.4	1.00	20.00	0	102	47.5	147				
Dibromochloromethane	20.1	1.00	20.00	0	101	67.2	134				
1,2-Dibromoethane (EDB)	18.1	0.0600	20.00	0	90.3	73.6	125				
Chlorobenzene	20.0	1.00	20.00	0	99.8	73.9	126				
1,1,1,2-Tetrachloroethane	20.8	1.00	20.00	0	104	76.8	124				
Ethylbenzene	20.2	1.00	20.00	0	101	72	130				
m,p-Xylene	41.8	1.00	40.00	0	104	70.3	134				



Date: 10/14/2015

Work Order: 1510048
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: LCS-R25423	SampType: LCS	Units: µg/L			Prep Date: 10/10/2015			RunNo: 25423			
Client ID: LCSW	Batch ID: R25423	Analysis Date: 10/10/2015							SeqNo: 479754		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	19.8	1.00	20.00	0	99.0	72.1	131				
Styrene	20.8	1.00	20.00	0	104	64.3	140				
Isopropylbenzene	20.4	1.00	20.00	0	102	73.9	128				
Bromoform	20.8	1.00	20.00	0	104	63.8	135				
1,1,2,2-Tetrachloroethane	21.6	1.00	20.00	0	108	62.9	132				
n-Propylbenzene	20.4	1.00	20.00	0	102	74.5	127				
Bromobenzene	18.9	1.00	20.00	0	94.6	71	131				
1,3,5-Trimethylbenzene	19.9	1.00	20.00	0	99.6	73.1	128				
2-Chlorotoluene	19.8	1.00	20.00	0	99.1	70.8	130				
4-Chlorotoluene	19.8	1.00	20.00	0	98.9	70.1	131				
tert-Butylbenzene	19.4	1.00	20.00	0	96.8	68.2	131				
1,2,3-Trichloropropane	21.2	1.00	20.00	0	106	67.7	131				
1,2,4-Trichlorobenzene	18.0	2.00	20.00	0	90.1	51.8	152				
sec-Butylbenzene	18.9	1.00	20.00	0	94.6	72	129				
4-Isopropyltoluene	19.5	1.00	20.00	0	97.4	69.2	130				
1,3-Dichlorobenzene	19.0	1.00	20.00	0	95.2	72.4	129				
1,4-Dichlorobenzene	20.0	1.00	20.00	0	99.9	70.6	128				
n-Butylbenzene	20.6	1.00	20.00	0	103	73.8	127				
1,2-Dichlorobenzene	19.3	1.00	20.00	0	96.7	74.2	129				
1,2-Dibromo-3-chloropropane	20.8	1.00	20.00	0	104	63.1	136				
1,2,4-Trimethylbenzene	19.2	1.00	20.00	0	96.2	73.4	127				
Hexachlorobutadiene	20.0	4.00	20.00	0	100	58.6	138				
Naphthalene	17.5	1.00	20.00	0	87.6	41.8	165				Q
1,2,3-Trichlorobenzene	19.1	4.00	20.00	0	95.4	48.7	156				Q
Surr: Dibromofluoromethane	25.2		25.00		101	45.4	152				
Surr: Toluene-d8	25.8		25.00		103	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.8		25.00		103	64.2	128				

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1510131-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 10/10/2015			RunNo: 25423		
Client ID: BATCH		Batch ID: R25423					Analysis Date: 10/10/2015			SeqNo: 479744	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	1.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.0600						0		30	



Date: 10/14/2015

Work Order: 1510048
 CLIENT: Shannon & Wilson
 Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: 1510131-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 10/10/2015			RunNo: 25423		
Client ID: BATCH		Batch ID: R25423					Analysis Date: 10/10/2015			SeqNo: 479744	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	1.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachlorobutadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	Q
1,2,3-Trichlorobenzene	ND	4.00						0		30	Q
Surr: Dibromofluoromethane	25.3		25.00		101	45.4	152		0		
Surr: Toluene-d8	25.1		25.00		100	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.3		25.00		97.1	64.2	128		0		



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: 1510131-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 10/10/2015			RunNo: 25423		
Client ID: BATCH		Batch ID: R25423					Analysis Date: 10/10/2015			SeqNo: 479744	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID: 1510059-002ADUP	SampType: DUP	Units: µg/L			Prep Date: 10/10/2015			RunNo: 25423			
Client ID: BATCH	Batch ID: R25423	Analysis Date: 10/10/2015						SeqNo: 479731			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	1.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
2,2-Dichloropropane	ND	2.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260

Sample ID: 1510059-002ADUP		SampType: DUP		Units: µg/L		Prep Date: 10/10/2015			RunNo: 25423			
Client ID: BATCH		Batch ID: R25423					Analysis Date: 10/10/2015			SeqNo: 479731		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
trans-1,3-Dichloropropene	ND	1.00						0		30		
1,1,2-Trichloroethane	ND	1.00						0		30		
1,3-Dichloropropane	ND	1.00						0		30		
Tetrachloroethene (PCE)	ND	1.00						0		30		
Dibromochloromethane	ND	1.00						0		30		
1,2-Dibromoethane (EDB)	ND	0.0600						0		30		
Chlorobenzene	ND	1.00						0		30		
1,1,1,2-Tetrachloroethane	ND	1.00						0		30		
Ethylbenzene	ND	1.00						0		30		
m,p-Xylene	ND	1.00						0		30		
o-Xylene	ND	1.00						0		30		
Styrene	ND	1.00						0		30		
Isopropylbenzene	ND	1.00						0		30		
Bromoform	ND	1.00						0		30		
1,1,2,2-Tetrachloroethane	ND	1.00						0		30		
n-Propylbenzene	ND	1.00						0		30		
Bromobenzene	ND	1.00						0		30		
1,3,5-Trimethylbenzene	ND	1.00						0		30		
2-Chlorotoluene	ND	1.00						0		30		
4-Chlorotoluene	ND	1.00						0		30		
tert-Butylbenzene	ND	1.00						0		30		
1,2,3-Trichloropropane	ND	1.00						0		30		
1,2,4-Trichlorobenzene	ND	2.00						0		30		
sec-Butylbenzene	ND	1.00						0		30		
4-Isopropyltoluene	ND	1.00						0		30		
1,3-Dichlorobenzene	ND	1.00						0		30		
1,4-Dichlorobenzene	ND	1.00						0		30		
n-Butylbenzene	ND	1.00						0		30		
1,2-Dichlorobenzene	ND	1.00						0		30		
1,2-Dibromo-3-chloropropane	ND	1.00						0		30		
1,2,4-Trimethylbenzene	ND	1.00						0		30		



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: 1510059-002ADUP	SampType: DUP	Units: µg/L				Prep Date: 10/10/2015			RunNo: 25423		
Client ID: BATCH	Batch ID: R25423	Analysis Date: 10/10/2015						SeqNo: 479731			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	Q
1,2,3-Trichlorobenzene	ND	4.00						0		30	Q
Surr: Dibromofluoromethane	25.3		25.00		101	45.4	152		0		
Surr: Toluene-d8	24.7		25.00		98.9	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	24.0		25.00		96.0	64.2	128		0		

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Sample ID: 1510059-003AMS	SampType: MS	Units: µg/L			Prep Date: 10/10/2015			RunNo: 25423			
Client ID: BATCH	Batch ID: R25423	Analysis Date: 10/10/2015						SeqNo: 479733			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	14.1	1.00	20.00	0	70.4	33.3	122				
Chloromethane	17.8	1.00	20.00	0	88.8	48.2	145				
Vinyl chloride	19.4	0.200	20.00	0	97.0	58.1	158				
Bromomethane	20.3	1.00	20.00	0	102	31.5	135				
Trichlorofluoromethane (CFC-11)	21.6	1.00	20.00	0	108	54.7	138				
Chloroethane	20.9	1.00	20.00	0	105	49.9	143				
1,1-Dichloroethene	20.1	1.00	20.00	0	101	63	141				
Methylene chloride	21.0	1.00	20.00	0	105	61.6	135				
trans-1,2-Dichloroethene	20.7	1.00	20.00	0	104	63.5	138				
Methyl tert-butyl ether (MTBE)	23.3	1.00	20.00	0	116	60.9	132				
1,1-Dichloroethane	19.5	1.00	20.00	0	97.5	67.8	136				
2,2-Dichloropropane	18.4	2.00	20.00	0	91.8	31.5	121				
cis-1,2-Dichloroethene	21.2	1.00	20.00	0	106	67.1	123				
Chloroform	21.7	1.00	20.00	0	109	66.7	136				
1,1,1-Trichloroethane (TCA)	21.7	1.00	20.00	0	108	64.2	146				
1,1-Dichloropropene	21.3	1.00	20.00	0	107	73.8	136				
Carbon tetrachloride	24.7	1.00	20.00	0	124	62.7	146				
1,2-Dichloroethane (EDC)	20.9	1.00	20.00	0	104	63.4	137				
Benzene	19.5	1.00	20.00	0	97.6	65.4	138				



Date: 10/14/2015

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: 1510059-003AMS	SampType: MS		Units: µg/L		Prep Date: 10/10/2015			RunNo: 25423			
Client ID: BATCH	Batch ID: R25423		Analysis Date: 10/10/2015						SeqNo: 479733		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	21.0	0.500	20.00	0	105	60.4	134				
1,2-Dichloropropane	21.1	1.00	20.00	0	106	62.6	138				
Bromodichloromethane	21.5	1.00	20.00	0	107	59.4	139				
Dibromomethane	22.8	1.00	20.00	0	114	63.6	139				
cis-1,3-Dichloropropene	22.2	1.00	20.00	0	111	63.8	132				
Toluene	19.4	1.00	20.00	0	96.9	64	139				
trans-1,3-Dichloropropene	21.5	1.00	20.00	0	108	57.7	125				
1,1,2-Trichloroethane	22.1	1.00	20.00	0	111	59.4	127				
1,3-Dichloropropane	20.1	1.00	20.00	0	100	64.3	135				
Tetrachloroethene (PCE)	20.0	1.00	20.00	0	100	50.3	133				
Dibromochloromethane	20.8	1.00	20.00	0	104	61.6	139				
1,2-Dibromoethane (EDB)	19.4	0.0600	20.00	0	96.9	63.2	134				
Chlorobenzene	19.3	1.00	20.00	0	96.6	65.8	134				
1,1,1,2-Tetrachloroethane	22.5	1.00	20.00	0	112	65.4	135				
Ethylbenzene	19.9	1.00	20.00	0	99.5	64.5	136				
m,p-Xylene	42.2	1.00	40.00	0.5000	104	63.3	135				
o-Xylene	20.2	1.00	20.00	0.1500	100	65.4	134				
Styrene	20.2	1.00	20.00	0	101	59.1	134				
Isopropylbenzene	20.5	1.00	20.00	0	103	56	147				
Bromoform	22.4	1.00	20.00	0	112	57.7	139				
1,1,2,2-Tetrachloroethane	22.9	1.00	20.00	0	114	59.8	146				
n-Propylbenzene	19.7	1.00	20.00	0	98.4	57.6	142				
Bromobenzene	18.7	1.00	20.00	0	93.5	63.6	130				
1,3,5-Trimethylbenzene	20.0	1.00	20.00	0	99.9	59.9	136				
2-Chlorotoluene	18.8	1.00	20.00	0	94.2	61.7	134				
4-Chlorotoluene	18.8	1.00	20.00	0	94.3	58.4	134				
tert-Butylbenzene	20.4	1.00	20.00	0	102	66.8	141				
1,2,3-Trichloropropane	23.8	1.00	20.00	0	119	62.4	129				
1,2,4-Trichlorobenzene	21.3	2.00	20.00	0	107	50.9	133				
sec-Butylbenzene	18.9	1.00	20.00	0	94.3	56	146				
4-Isopropyltoluene	20.1	1.00	20.00	0	101	56.4	136				

Work Order: 1510048
CLIENT: Shannon & Wilson
Project: Pacific Park

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260

Sample ID: 1510059-003AMS		SampType: MS		Units: µg/L		Prep Date: 10/10/2015			RunNo: 25423		
Client ID: BATCH		Batch ID: R25423					Analysis Date: 10/10/2015			SeqNo: 479733	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	19.6	1.00	20.00	0	98.2	58.2	128				
1,4-Dichlorobenzene	19.5	1.00	20.00	0	97.6	60.1	123				
n-Butylbenzene	19.2	1.00	20.00	0	96.2	54.6	135				
1,2-Dichlorobenzene	20.6	1.00	20.00	0	103	65.4	133				
1,2-Dibromo-3-chloropropane	22.7	1.00	20.00	0	114	51.8	142				
1,2,4-Trimethylbenzene	21.0	1.00	20.00	1.820	95.7	63.7	132				
Hexachlorobutadiene	19.3	4.00	20.00	0	96.7	58.1	130				
Naphthalene	24.1	1.00	20.00	0.9800	116	54.5	132				Q
1,2,3-Trichlorobenzene	21.4	4.00	20.00	0	107	57	131				Q
Surr: Dibromofluoromethane	24.6		25.00		98.6	45.4	152				
Surr: Toluene-d8	24.4		25.00		97.4	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.3		25.00		101	64.2	128				

NOTES:

Q - Indicates an analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF).

Client Name: **SW**
 Logged by: **Chelsea Ward**

Work Order Number: **1510048**
 Date Received: **10/6/2015 12:15:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
 2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
 4. Shipping container/cooler in good condition? Yes ☒ No ☐
 5. Custody Seals present on shipping container/cooler?
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
 6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
 7. Were all items received at a temperature of >0°C to 10.0°C * Yes ☒ No ☐ NA ☐
 8. Sample(s) in proper container(s)? Yes ☒ No ☐
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
 10. Are samples properly preserved? Yes ☒ No ☐
 11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
 12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
 14. Does paperwork match bottle labels? Yes ☒ No ☐
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
 16. Is it clear what analyses were requested? Yes ☒ No ☐
 17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: Date:
 By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
 Regarding:
 Client Instructions:

19. Additional remarks:

Item Information

Item #	Temp °C
Cooler 1	8.2
Cooler 2	7.8
Sample 1	7.5
Sample 2	8.2



Fremont

Chain of Custody Record

3600 Fremont Ave N.
Seattle, WA 98103

Tel: 206-352-3790
Fax: 206-352-7178

Date: 10/6/15

Page: 1 of 1

Laboratory Project No (Internal): 1510048

Client:

Address:

City, State, Zip:

Telephone:

Project Name:

Project No:

Location:

Report To (PM):

PM Email:

Pacific Park

21-1-22055-006

Pacific, WA

Paul RPK

cup@shawni.com

Collected by: EUP

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GV/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Dist/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 MW-6-15:GW	10/5/15	105	GW	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 MW-5-15:GW		1825		X	X	X	X	X	X	X	X	X	X	X	X	X	
3 MW-4-15:GW		1355		X	X	X	X	X	X	X	X	X	X	X	X	X	
4 MW-2-15:GW		1520		X	X	X	X	X	X	X	X	X	X	X	X	X	
5 MW-1-15:GW	10/6/15	0900		X	X	X	X	X	X	X	X	X	X	X	X	X	
6 MW-3-15:GW		1035		X	X	X	X	X	X	X	X	X	X	X	X	X	
7 MW-3-15:GW:DUP		0805		X	X	X	X	X	X	X	X	X	X	X	X	X	
8 trip blank																	
9																	
10																	

**Metals Analysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (A fee may be assessed. Samples are retained after 30 days.)

Relinquished ☒ Date/Time 10/6/15 12:15 Received ☒ Date/Time 10/6/15 12:15

Refiniquished ☒ Date/Time 10/6/15 12:15 Received ☒ Date/Time 10/6/15 12:15

Special Remarks: metals not field filtered

TAT → SameDay* NextDay* 2 Day 3 Day STD

*Please coordinate with the lab in advance.

Distribution: White - Lab, Yellow - File, Pink - Originator

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APPENDIX C

**IMPORTANT INFORMATION ABOUT YOUR
ENVIRONMENTAL SITE ASSESSMENT/EVALUATION REPORT**



Date: May 31, 2016
To: Mr. Chris Brummer
River and Floodplain Management Section
King County Water and Land Resources
Division

IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL/ENVIRONMENTAL REPORT

CONSULTING SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.

Consultants prepare reports to meet the specific needs of specific individuals. A report prepared for a civil engineer may not be adequate for a construction contractor or even another civil engineer. Unless indicated otherwise, your consultant prepared your report expressly for you and expressly for the purposes you indicated. No one other than you should apply this report for its intended purpose without first conferring with the consultant. No party should apply this report for any purpose other than that originally contemplated without first conferring with the consultant.

THE CONSULTANT'S REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.

A geotechnical/environmental report is based on a subsurface exploration plan designed to consider a unique set of project-specific factors. Depending on the project, these may include: the general nature of the structure and property involved; its size and configuration; its historical use and practice; the location of the structure on the site and its orientation; other improvements such as access roads, parking lots, and underground utilities; and the additional risk created by scope-of-service limitations imposed by the client. To help avoid costly problems, ask the consultant to evaluate how any factors that change subsequent to the date of the report may affect the recommendations. Unless your consultant indicates otherwise, your report should not be used: (1) when the nature of the proposed project is changed (for example, if an office building will be erected instead of a parking garage, or if a refrigerated warehouse will be built instead of an unrefrigerated one, or chemicals are discovered on or near the site); (2) when the size, elevation, or configuration of the proposed project is altered; (3) when the location or orientation of the proposed project is modified; (4) when there is a change of ownership; or (5) for application to an adjacent site. Consultants cannot accept responsibility for problems that may occur if they are not consulted after factors which were considered in the development of the report have changed.

SUBSURFACE CONDITIONS CAN CHANGE.

Subsurface conditions may be affected as a result of natural processes or human activity. Because a geotechnical/environmental report is based on conditions that existed at the time of subsurface exploration, construction decisions should not be based on a report whose adequacy may have been affected by time. Ask the consultant to advise if additional tests are desirable before construction starts; for example, groundwater conditions commonly vary seasonally.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or groundwater fluctuations may also affect subsurface conditions and, thus, the continuing adequacy of a geotechnical/environmental report. The consultant should be kept apprised of any such events, and should be consulted to determine if additional tests are necessary.

MOST RECOMMENDATIONS ARE PROFESSIONAL JUDGMENTS.

Site exploration and testing identifies actual surface and subsurface conditions only at those points where samples are taken. The data were extrapolated by your consultant, who then applied judgment to render an opinion about overall subsurface conditions. The actual interface between materials may be far more gradual or abrupt than your report indicates. Actual conditions in areas not sampled may differ from those predicted in your report. While nothing can be done to prevent such situations, you and your consultant can work together to help reduce their impacts. Retaining your consultant to observe subsurface construction operations can be particularly beneficial in this respect.

A REPORT'S CONCLUSIONS ARE PRELIMINARY.

The conclusions contained in your consultant's report are preliminary because they must be based on the assumption that conditions revealed through selective exploratory sampling are indicative of actual conditions throughout a site. Actual subsurface conditions can be discerned only during earthwork; therefore, you should retain your consultant to observe actual conditions and to provide conclusions. Only the consultant who prepared the report is fully familiar with the background information needed to determine whether or not the report's recommendations based on those conclusions are valid and whether or not the contractor is abiding by applicable recommendations. The consultant who developed your report cannot assume responsibility or liability for the adequacy of the report's recommendations if another party is retained to observe construction.

THE CONSULTANT'S REPORT IS SUBJECT TO MISINTERPRETATION.

Costly problems can occur when other design professionals develop their plans based on misinterpretation of a geotechnical/environmental report. To help avoid these problems, the consultant should be retained to work with other project design professionals to explain relevant geotechnical, geological, hydrogeological, and environmental findings, and to review the adequacy of their plans and specifications relative to these issues.

BORING LOGS AND/OR MONITORING WELL DATA SHOULD NOT BE SEPARATED FROM THE REPORT.

Final boring logs developed by the consultant are based upon interpretation of field logs (assembled by site personnel), field test results, and laboratory and/or office evaluation of field samples and data. Only final boring logs and data are customarily included in geotechnical/environmental reports. These final logs should not, under any circumstances, be redrawn for inclusion in architectural or other design drawings, because drafters may commit errors or omissions in the transfer process.

To reduce the likelihood of boring log or monitoring well misinterpretation, contractors should be given ready access to the complete geotechnical engineering/environmental report prepared or authorized for their use. If access is provided only to the report prepared for you, you should advise contractors of the report's limitations, assuming that a contractor was not one of the specific persons for whom the report was prepared, and that developing construction cost estimates was not one of the specific purposes for which it was prepared. While a contractor may gain important knowledge from a report prepared for another party, the contractor should discuss the report with your consultant and perform the additional or alternative work believed necessary to obtain the data specifically appropriate for construction cost estimating purposes. Some clients hold the mistaken impression that simply disclaiming responsibility for the accuracy of subsurface information always insulates them from attendant liability. Providing the best available information to contractors helps prevent costly construction problems and the adversarial attitudes that aggravate them to a disproportionate scale.

READ RESPONSIBILITY CLAUSES CLOSELY.

Because geotechnical/environmental engineering is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, consultants have developed a number of clauses for use in their contracts, reports, and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where the consultant's responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

The preceding paragraphs are based on information provided by the
ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland