

APPENDIX C

Initial Draft RI Report ENPRO 2021

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Initial Draft RI Report, ENPRO, 2021



*Green Cove Park Development
Remedial Investigation Report – V.1*

Green Cove Park Development
2200 Cooper Point Road NW
Olympia, Washington
Parcels: 81700000000, 74202900000,
74202500200, and 74202500100

Ecology Facility Site ID No.: 82016954

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ENPRO Project Number 1903-00129-RI
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Acronyms

ENPRO	ENPRO Environmental
AMEC	AMEC Earth & Environmental, Inc.
AST	above-ground storage tank
bgs	below ground surface
BTEX	benzene, ethylbenzene, toluene, and xylenes
CARA	critical aquifer recharge area
CLARC	Cleanup Levels and Risk Calculation
Client	Green Cove Park, LLC/Westbrook Investments
COC	contaminant/chemical of concern
CSCS	confirmed or suspected contaminated sites
CSM	conceptual site model
CUL	cleanup levels
cy	cubic yards
DOH	Washington State Department of Health
Ecology	Washington State Department of Ecology
EIM	Environmental Information Management
ENPRO	ENPRO Environmental
EPA	U.S. Environmental Protection Agency
Phase I ESA	Phase I Environmental Site Assessment
FSID	facility site identification number
FSP	field sampling plan
IDW	investigation-derived waste
LEL	lower explosive limit
LNAPL	light non-aqueous phase liquid
mg/kg	milligrams/kilograms
mg/L	milligrams per liter
MTCA	Model Toxics Control Act
NACD 88	North American Vertical Datum of 1988
ORP	oxidation-reduction potential
PAH	polycyclic aromatic hydrocarbon

PCB	polychlorinated biphenyl
PID	photoionization detector
ppm	parts per million
PQL	practical quantitation limit
PCL	proposed cleanup level
PVC	polyvinyl chloride
QAPP	Quality Assurance Project Plan
QA/QC	quality assurance/quality control
RI	Remedial Investigation
RIWP	Remedial Investigation Work Plan
SVOC	semi-volatile organic compounds
TCE	trichloroethylene
TPH	total petroleum hydrocarbons
USDA	United States Department of Agriculture
USCS	Unified Soil Classification System
USGS	United States Geological Survey
UST	underground storage tank
VI	vapor intrusion
VCP	Voluntary Cleanup Program
VOA	volatile organic analysis
VOC	volatile organic compound
WAC	Washington Administrative Code

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1.0 INTRODUCTION

On behalf of Green Cove Park, LLC/Westbrook Investments (Client), ENPRO Environmental (ENPRO) has prepared this Remedial Investigation (RI) for the former Sundberg Gravel Pit at 2200 Cooper Point Road NW in Olympia, Washington (the Site).

The Site is listed in the Washington State Department of Ecology's (Ecology's) database of Confirmed or Suspected Contaminated Sites (CSCS) list as Facility Site Identification Number (FSID) 82016954 for the following reasons, as stated in Ecology's *Initial Investigation Field Report* dated March 5, 2020:

- Lack of information on final fate relating to petroleum contaminated soils removed from the underground storage tank (UST) excavation
- Lack of characterization and remediation of the two visually impacted areas relating to drum storage
- Lack of compliance with the Washington State Model Toxics Control Act (MTCA) Table 830-1 sampling for the test pit projects of 2007 and 2008
- A 2015 aerial map of the Site shows fill piles of unknown origin at multiple locations; no testing has been completed at the Site after 2015.

The primary objective of this RI is to address the above listed data gaps. This RI documents the nature and extent of contamination and defines and evaluates corrective action alternatives for any identified contamination.

Following this introductory section, the remaining sections of this document are organized as follows:

- Section 2 – Field Investigations
- Section 3 – Conceptual Site Model (CSM)
- Section 4 – Summary, Conclusions, and Recommendations
- Section 5 - References

The information presented in this document is organized in accordance with the 2020 checklist and suggested template prepared as guidance by the Ecology Voluntary Cleanup Program (VCP), with supplemental information added where appropriate.

Appendices to this report include:

- Appendix A – Site Figures

- Includes location map, aerial photographs, sample locations, laboratory results exceeding cleanup levels, surface soil map, groundwater contour map, geological cross-sections, and the CSM
- Appendix B – Photographs
Includes Site photographs and representative photographs of field work and sample collection
- Appendix C – Exploratory Logs
Includes copies of the logs for soil cores and monitoring wells completed during the RI
- Appendix D – Analytical Data for All Constituents
Presents laboratory analytical data for all constituents, including those not detected in soil or groundwater (note that data tables in the main body of the report present data only for constituents detected in Site media to improve readability)
- Appendix E – Remedial Investigation Work Plan (RIWP)
Provides background information and describes the soil and groundwater sampling and analysis plan
- Appendix F – Field Sampling Plan (FSP)
Presents the collection and handling methods for soil and groundwater samples
- Appendix G – Quality Assurance Project Plan (QAPP)
Describes quality assurance/quality control (QA/QC) procedures for the analytical laboratory
- Appendix H – Health and Safety Plan (HASP)
Provides an overview of health and safety procedures for field investigation activities

1.1 GENERAL SITE INFORMATION

Site Name:	Green Cove Park (Former Sundberg Gravel Pit) 2200 Cooper Point Road NW Olympia, Washington 08502
Parcels:	Parcel A: 8170000000 (27.4 acres) Parcel B: 7420290000 (6.79 acres) Parcel C: 74202500200 (4.66 acres) Parcel D: 74202500100 (7.27 acres)
FSID:	82016954
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The Site is zoned Rural Residential/Resource – One Unit per Five Acres (RRR 1/5).

The Site is in northern Olympia, near the west shore of Puget Sound's Budd Inlet (approximately 4,000 feet east of the Site) and is bordered to the north, south, and east by forested areas with rural residences beyond, and on the west by Cooper Point Road NW with a wooded area beyond (AMEC, 2004).

The Site is located between Grass Lake (approximately 6,000 feet southwest) and Kaufman Pond (approximately 2,000 feet northeast).

The Site generally slopes to the west, with regional topography sloping to the northwest. According to the United States Geological Survey (USGS) topographic map for the Tumwater Quadrangle, Washington, the Site is situated at an approximate elevation of 280 feet above mean sea level.

Stormwater runoff from the Site largely flows to the center of the Site (the former gravel pit) via drainage channels, and infiltrates into soil and the shallow most underlying perched aquifer. Stormwater does not recharge the deeper aquifer.

1.2 SITE HISTORY

AMEC Earth & Environmental, Inc. (AMEC) completed a Phase I Environmental Site Assessment (Phase I ESA) for the Site in 2004 (see Section 2.1). AMEC's report indicates the Site (Parcel A) had been used as a log storage yard and gravel pit since at least 1960 to the 1990s. During the time the Site operated as the Sundberg Gravel Pit, an UST and garage which supported vehicle maintenance activities had been located on the property (see Figure 3).

Following the end of the gravel pit operations, the UST was removed and assorted fill was placed at the Site, including construction debris (asphalt, concrete, wire, etc.) and wood debris.

Construction debris, wood debris, and random fill have also been reported on-site. The central portion of Parcel A was temporarily used to store lumber.

Parcel A (see Figure 2 and 3) was the location of the majority of the potential environmental concerns detailed in Section 2.1.

Previous investigations at the Site have indicated petroleum odors in two locations and diesel concentrations less than cleanup levels (CUL) in one discrete soil sample collected from the Site (see Section 2.1).

1.3 SITE USE

The Site is currently undeveloped and generally overgrown. The Client intends to develop the Site for residential use. Five wetlands have been identified at the Site (Soundview Consultants, 2020). No development is planned in the wetland areas.

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2.0 FIELD INVESTIGATIONS

This section summarizes:

- Previous environmental investigations conducted at the Site
- The scope of this Remedial Investigation (RI)
- Sampling and analysis procedures
- Site geology and hydrogeology
- Proposed cleanup standards
- Analytical results

2.1 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

Underground Storage Tank Removal (Stemen, 1993)

The report entitled, “*Underground Storage Tank Removal Located at 2200 Cooper Point Road NW, Olympia, Site #011500, County Plot 8170000000*”, prepared by Stemen Environmental, Inc. (Stemen) and dated March 18, 1993 documents the removal of a 12,000-gallon diesel UST from Parcel C on February 8, 1993 (see Figure 3). Stained soil observed around the fill pipe during removal was attributed to delivery overfills and spills. Approximately 25 cubic yards (cy) of impacted soil were excavated from around the fill pipe and placed in a separate stockpile just north of and in line with the eastern half of the excavation.

Analytical results of soil samples collected from the excavation pit and approximately 75 cy of non-impacted soil indicated concentrations of total petroleum hydrocarbons (TPH) less than Ecology’s 1993 CUL of 200 parts per million (ppm). Analytical results of a soil sample collected from the impacted soil stockpile indicated a concentration of 390 ppm for TPH. The final disposition of the impacted soil was not documented.

The report indicates a well 750 feet from the UST location, and notes that the water quality was “good.” The water table was reported as being below the 50-foot level. No additional information was provided, and the location of the well was not mapped.

Phase I ESA (AMEC, 2004)

The report entitled, “*Phase I ESA: 220 Cooper Point Road NW, Olympia, Washington*”, prepared by AMEC and dated April 2, 2004 assesses 6 parcels, including Parcels A and C of the Site; parcels B and D are not included in the Phase 1 ESA. Parcel A is documented as an industrial property used for gravel mining, with the address of 2200 Cooper Point Road NW. Parcel C was

listed as occupied by a mobile home, well, and septic system, with the address 2721 Park Street NW. However, maps included with the report indicate that the previously listed features were on either Parcel A, B (not included in the report's scope of work), or C of the Site.

AMEC's reconnaissance noted the following:

- One, 500-gallon above-ground storage tank (AST) located near the garage on Parcel C (see Figure 3). The AST was reported as appearing new and in good condition, though it was sitting on gravel without secondary containment. The contents were not identified.
- Eight, 55-gallon drums within the garage, with two additional drums located outside the garage. The drums were stored on gravel with no secondary containment. The contents were not identified.
- Two, 6-foot by 6-foot areas of stained gravel/soil; one within the garage and one outside to the north, near an equipment and truck parking area.

AMEC's report did not indicate on which parcel the garage and nearby AST/drums were located, though from Site knowledge it is on Parcel C (see Figure 3).

AMEC reported an historical recognized environmental condition (REC) related to the former 12,000-gallon diesel UST that had been removed in 1993. AMEC indicated that the contaminated soils described by Stemen in 1993 had been removed and disposed of off-site.

Soil Investigation (Pacific Rim, 2007)

The report entitled, "*Soils Investigation Preliminary*", prepared by Pacific Rim Soil & Water, Inc. (Pacific Rim) and dated November 2, 2007 applies to 11 parcels, including the four parcels associated with the Site, and documents information from 21 test pit locations. Thirty-three soil samples were collected during the investigation.

Fill material with a diesel or oil odor was noted in Pit 10 (0 – 10 feet below ground surface (bgs)), near the northwest corner of Parcel A. Fill material with a strong petroleum odor was also noted in Pit 17 (0 – 6 feet bgs) near the south-central portion of Parcel A.

The following fill material was noted at the Site:

- Construction debris, large logs, and lumber in Pit 10 near the northwestern property boundary of Parcel A
- Woody debris in the form of 12- to 18-inch diameter tree boles in Pit 11 on Parcel A
- "Random fill" in Pit 12 on Parcel A
- Structural fill including asphalt and concrete in Pit 13 on Parcel B
- Logs, asphalt, concrete, rebar, metal strips, and cedar planks in Pit 14 on Parcel B
- Woody debris, concrete, and burn debris in Pit 15 on Parcel C

- Construction debris, large logs, and lumber in Pit 17 on Parcel A
- Woody debris and minor amounts of wire in Pit 18 on Parcel A
- Significant amounts of bark in Pit 19 on Parcel A

Perched groundwater was encountered in several pits in concert with loose gravelly sandy native substrates at depths of 10 to 15 feet bgs.

Phase II ESA (Robinson Noble, 2008)

The report entitled, “*Sundberg Estates Subsurface Investigation (Phase II Environmental Site Assessment)*”, prepared by Robinson Noble Saltbush, Inc. (Robinson Noble), dated March 4, 2008, applies to 13 parcels, including the four parcels associated with the Site. This report documents information from 32 test pit locations. Thirty-three soil samples were collected during the investigation and analyzed for diesel-range hydrocarbons via the MWTPH-Dx/Dx-extended method.

Only one sample, collected from Test Pit 6 (near Pacific Rim’s Pit 17 on the south-central portion of Parcel A), contained a detectable concentration of diesel-range hydrocarbons. The analytical result of 370 mg/kg was significantly less than the 2008 Model Toxics Control Act (MTCA) Method A Soil CUL of 2,000 mg/kg.

Fill material consisting of approximately 70 percent reworked material from the surrounding region, was noted in all but two test pits. The fill material ranged from compact fine silt, fine sand with clay, silty sand and gravel, sand and gravel, and gravel. The remaining fill material consisted of wood debris in various forms and construction debris (e.g., concrete, asphalt, brick, and solid waste).

Groundwater at the Site was estimated to occur at a depth of 47 feet bgs based on the static water level in a nearby well.

Robinson Noble concluded that the data and evidence did not indicate a need for additional contaminant investigation on any of the parcels.

Geotechnical Report (Ages, 2015)

The report entitled, “*Preliminary Geotechnical Report: Sundberg Estates*”, prepared by Ages, LLC (Ages) and dated January 12, 2015, applies to four parcels, though parcel numbers were not included in the report. It was difficult to ascertain test pit locations in relation to the current Site based on the maps included in the Ages report.

Ages excavated 13 test pits during this investigation. Field exploration indicated the area was generally underlain by fill consisting of sand, silt, gravel, cobbles, and topsoil with varying amounts of tree roots, logs, native sand, sand with silt and gravel, and gravel with silt and sand consistent with glacial outwash. Depth of fill ranged from 1.0 to 12.0 feet bgs.

Groundwater seepage was observed in four of the test pits at depths ranging from 3.5 to 8.0 feet bgs. The groundwater was reported as a seasonally perched water table that develops during the wet winter season.

Phase I ESA (Ages, 2015)

The report entitled, “*Phase I Environmental Site Assessment: Sundberg Estates*”, prepared by Ages and dated January 30, 2015 included the Site and no additional parcels.

Ages’ assessment revealed no evidence of RECs in connection with the Site except for:

- The presence of a 500-gallon AST with unidentified contents and no secondary containment near a detached garage located on the southwestern portion of the Site (previously noted in AMEC 2004)
- Ground staining in the vicinity of 55-gallon drums of unidentified contents within the aforementioned garage and in a parking area near the garage (previously noted in AMEC 2004)
- Fuel odor in two test pits reported by Pacific Rim in their 2007 preliminary soils investigation

Ages noted one water well present on Parcel C and no evidence of the septic system reported in AMEC’s 2004 Phase I ESA.

Soil Sampling (Ages, 2015)

The report entitled, “*Environmental Soil Sampling*”, prepared by Ages and dated July 20, 2015 included the Site and no additional parcels. The objective of the investigation was to obtain representative samples of soil and tree debris at the Site (the “fill piles” referred to in Ecology’s 2020 *Initial Investigation* report, detailed later in this section) following the Ages 2015 Phase I ESA. Samples were analyzed for petroleum and heavy metals.

Eight samples were collected from the soil and tree debris stockpiles. A minor amount of heavy oil (140 mg/kg) was detected in one surface sample from the center of Parcel A (see Figure 2). The following metals were detected in minor concentrations at sample locations on Parcel A:

- Barium: 32.1 – 38.4 µg/g
- Chromium: 16.1 – 25.4 µg/g
- Lead: 5.99 – 7.29 µg/g

Solid Waste Letter (Thurston PH, 2015)

A letter entitled, “*Improper Solid Waste Handling – Former Sundberg Gravel Pit*”, prepared by Thurston County Public Health and Social Services Department (Thurston PH) and

dated November 16, 2015 affirms that waste materials previously stored at the Site had been removed or managed according to Thurston PH's directions as follows:

- Brick and concrete materials had been removed
- Wood waste piles had been chipped on-site and used to control soil erosion
- Stumps and root wads remained on-site to be used as a wetland buffer enhancement

Hydrogeologic Report (Earth Solutions, 2016)

Parcel numbers were not included in the *Revised Hydrogeologic Report: Proposed Green Cove Park Residential Development, Cooper Point Road Northwest, Olympia, Washington*, prepared by Earth Solutions NW, LLC (Earth Solutions) and dated October 11, 2016. Based on the map included in the Earth Solutions report, it is ENPRO's interpretation that this report applies to the Site and does not include additional parcels. The focus of the report was to evaluate potential impacts to surface and subsurface water resources that may result from the proposed development of the Site as a residential community.

Groundwater flow was reported to be to the northeast at a gradient of approximately 0.08 ft/ft. The Site was described as being in a high critical aquifer recharge area (CARA) zone and two potential aquifer conditions were assessed: shallow interflow and deep aquifer.

The report stated that the susceptibility to adversely impact CARA resources has been significantly lowered by replacing permeable native soils with non-permeable fill materials through historical use of the Site. Permeability of Site soils (fill and glacial till) that remain following permitted mining/extraction activities are much lower than the extracted soils. Remaining sandy soils are discontinuous and hydraulic communication is expected to be fairly low and sporadic. Furthermore, due to the mining of well-draining soils from the Site, the recharge potential for wetlands adjacent to the southeast and east of the Site from interflow is considered low.

The sporadic nature of the perched groundwater reported in Ages' 2015 *Preliminary Geotechnical Report* suggests these zones are relatively isolated and do not represent a defined groundwater table or a pervasive interflow regime.

The deeper aquifer is separated by a layer of glacial till and is effectively disconnected from direct recharge.

Based on a review of Ecology's well logs for the area, the static groundwater table is at depths of between 110 to 149 feet below existing grades. The soils overlying the groundwater table contain relatively thick, glacially consolidated, fine-grained deposits that do not transmit water readily to recharge the locally deep groundwater table.

Based on the depth of the local groundwater aquifer and the overlying soils, Earth Solutions concluded that the risk of affecting the functions and values of the deeper aquifer is negligible.

Phase I ESA Addendum (Ages, 2016)

The report entitled, “*Phase I ESA and Geotechnical Report Addendum*”, prepared by Ages and dated October 18, 2016, states that the staining noted in the vicinity of a dilapidated structure (previously indicated as a garage) in the Ages 2015 Phase I ESA appeared to be relatively minor and limited.

Additional empty and partially empty 5-gallon buckets were observed in the vicinity of the dilapidated structure. The labels on these buckets were faded, though a few were decipherable and indicated the contents to include motor oil, hydraulic oil, and paint. The staining and containers were localized in one flat area which appeared to be related to the typical maintenance and repair of motorized vehicles.

The AST referenced in the 2015 Ages Phase I ESA appeared to coincide with the location of the dilapidated structure.

Ages explored subsurface conditions in the existing drain field to the west of the dilapidated structure and did not observe any indication of contamination. Ages concluded the drain field was not used to dump hazardous waste.

Wetlands and Fish and Wildlife Habitat (Soundview Consultants, 2017)

A report entitled, “*Wetlands and Fish and Wildlife Habitat Assessment Report & Buffer Enhancement Plan*” prepared by Soundview Consultants and dated June 14, 2017 (revised September 27, 2018, February 20, 2020, and November 30, 2020), identified five wetlands onsite:

- Wetland A: 7,698 square feet, in the western portion of the Site. A small portion of Wetland A extends offsite to the west
- Wetland B: 14,191 square feet, eastern portion of the Site
- Wetland C: 10,919 square feet, southwestern portion of the Site, to the southeast of Wetland A
- Wetland D: 3,063 square feet, northwestern portion of the Site, to the northeast of Wetland A
- Wetland E: 1,329 square feet, southeastern portion of the Site, to the southeast of Wetland B and is almost entirely located onsite

The wetlands onsite were reported to likely provide limited water quality and hydrologic functions, such as stormwater retention and infiltration, water quality enhancement, and wildlife habitat due to the level of disturbance from the previous gravel mining activities within and surrounding the wetlands.

Technical Memorandum (Robinson Noble, 2019)

A report entitled, “*Technical Memorandum: Green Cove Records Review, Data Gaps Analysis, and Recommendations*”, prepared by Robinson Noble for the City of Olympia and dated June 5, 2019 applies to 13 parcels, including the four parcels associated with the Site. This report reviews environmental records provided by the City of Olympia. Despite previously concluding that no additional investigation was needed at the Site (Robinson Noble, 2008), Robinson Noble noted the following potential environmental concerns:

- Potential contamination from fill materials at the Site
- Potential contamination from chemical drums and buckets, the previously used UST, and the previously used AST
- Potential soil contamination from dumping into an on-site septic system
- Potential methane gas concerns from the breakdown of organic materials buried as fill at the Site
- Potential shallow, perched groundwater contamination from fill materials, leaks, or spills

The report lists additional concerns related to the other nine parcels covered by this review but those parcels are not a part of the current Site, thus they are not included in this summary. Further, several of the concerns are not relevant to MTCA cleanup but rather are pertinent to the City land use permitting process.

Robinson Noble references complaints from citizens, citing a concern for potential contamination to the drinking water aquifers. However, Robinson Noble states that the Washington State Department of Health (DOH) source water assessment program mapping application does not show any wellhead protection areas which overlap the Site, thereby making it unlikely that the Site is a potential concern to any public water systems.

Initial Investigation (Ecology, 2020)

The *Initial Investigation Field Report*, prepared by Ecology and dated March 5, 2020, reviewed the following documents:

- 1993 Stemen UST removal report
- 2004 AMEC Phase I ESA
- 2015 Ages Phase I ESA
- 2015 Ages soil sampling report
- 2015 Ages geotechnical report
- 2016 Earth Solutions revised geologic report
- 2016 Ages Phase I ESA and geotechnical report addendum
- 2019 Robinson Noble technical memorandum

Ecology recommended the Site be placed on the CSCS for the following reasons:

- Lack of information on final fate relating to petroleum-contaminated soils removed from the UST excavation
- Lack of characterization and remediation of the two visually impacted areas relating to drum storage
- Lack of compliance with MTCA Table 830-1 sampling for the test pit projects of 2007 and 2008
- A 2015 aerial map of the Site shows fill piles of unknown origin at multiple locations; no testing has been completed at the Site after 2015.

2.2 SITE CHARACTERIZATION

In October 2020, ENPRO completed an RIWP that:

- Summarized prior Site environmental investigations
- Identified data gaps with respect to contaminant sources, migration, and exposure pathways
- Proposed additional environmental investigation to fill the identified data gaps

Ecology provided general comments on ENPRO's RIWP, which were incorporated into the final version (see Appendix E for the final RIWP). The RIWP field work was conducted from November 9 to 13, 2020. The data collection activities included:

- Sampling and analysis of Site soil obtained during:
 - Drilling of 11 soil borings (B1 through B11) (see Figure 4)
 - Collection of 25 surface soils (and two duplicate surface soil samples) (see Figure 5)
- Sampling and analysis of Site groundwater obtained from permanent monitoring wells (MW1 through MW11) (see Figure 4) – Note: per the RIWP, eleven permanent wells were installed to a total depth of 15 feet bgs. Monitoring well MW-10 did not encounter water. An insufficient amount of water was present in MW-9 for proper well development, purging, and sampling. Therefore, only 9 of the 11 permanent wells were sampled.
- Surface water quality parameter measurements, using field instrumentation, were recorded from three locations within the Parcel A wetlands. (see Figure 6)

Soil Borings and Soil Sample Collection

ENPRO engaged Cascade Drilling & Technical Services (Cascade) to complete 11 soil borings in accordance with the requirements of Chapter 173-160 Washington Administrative Code

(WAC) as described in the RIWP (see Figure 4 and Appendix E). Soil borings were advanced using a sonic drill rig and were sampled/monitored as follows:

- Photoionization detector (PID) readings were recorded for every two feet of each boring
- Lower explosive limit (LEL) readings for methane were recorded along the entire core length for each boring
- One soil sample was collected from each boring at approximately 7 feet bgs
- One soil sample was collected from each boring at approximately 15 feet bgs
- An additional soil sample was collected from Boring 3 at a depth of 10 feet bgs, based on a slightly elevated PID reading at this depth

All sampling was conducted by Mr. Ho'ano Rosario, ENPRO's field technician, and overseen by Mr. Kenton Beal, ENPRO's senior Registered Professional Geologist. Soil samples were collected into each of two pre-weighed volatile organic analysis (VOA) vials with a stir bar and two additional pre-weighed vials without a stir bar. In addition, soil was collected into two 8-ounce certified-clean jars. All samples were labelled, recorded on a chain-of-custody form, and packaged in an insulated sample chest for pick-up by the laboratory.

Two duplicate soil samples from B3 (at approximately 7 and 15 feet bgs) were collected as described above in accordance with ENPRO's QAPP (the QAPP is presented in Appendix G).

Each soil sample collected for chemical analysis was assigned a unique sample identification number including the boring number and the depth from which the sample was collected. For example, the soil sample collected from Boring B1 at a depth of seven feet bgs was identified as B1-7 and a duplicate sample collected from Boring B1 at a depth of seven feet bgs was identified as B1-7A.

Mr. Beal visually classified the soils for each boring in accordance with the Unified Soil Classification System (USCS) and Munsell color charts and recorded soil descriptions, field screening results, and other relevant details (e.g. staining, debris, odors, etc.) on ENPRO's boring log form. The boring logs are provided in Appendix C.

Surface Soil Sample Collection

Mr. Rosario, supervised by Mr. Beal, collected 25 surface soil samples and 2 duplicate samples using a laboratory-supplied disposable plastic syringe. Five-gram aliquots were placed into each of two pre-weighed VOA vials with a stir bar, two additional pre-weighed vials without a stir bar, and two 8-ounce certified-clean jars and submitted for analysis. All samples were labelled, recorded on a chain-of-custody form, and packaged in an insulated sample chest for pick-up by the laboratory.

Surface samples were numbered sequentially, for example: SS1, SS2, SS3, etc. and duplicate samples were identified as SS1A, SS2A, SS3A, etc.

Monitoring Wells and Groundwater Sample Collection

Under Mr. Beal's direction, Cascade converted each soil boring to a permanent monitoring well in accordance with Chapter 173-160 WAC. Mr. Beal documented installation of each well, including an as-built well completion diagram (see Appendix C). Wells were constructed with 2-inch-diameter, threaded polyvinyl chloride (PVC) casing. Well screens included a 0.020-inch slotted (20-slot) screen 10 feet in length. A filter pack consisting of silica sand was packed around the well screen. The well screen was installed to intersect the top of the groundwater surface to allow for observation of the potential presence of light non-aqueous phase liquid (LNAPL) free product. The filter pack was installed to a depth approximately 2 feet above the screened interval. Locking well caps were installed in the top of the well casing. Following installation of the well casing, filter pack and seal, the wells were completed with a square (approximately 2 feet by 2 feet) concrete pad (approximately 4 inches thick), and a flush-mounted, traffic-rated well cover.

After installation, each well was measured to determine the depth to groundwater below the top of casing. This measurement was used to calculate the well volume of each well, to determine how much water should be removed for well development. Less than one foot of water was detected in well MW-9 and water was not detected at all in MW-10. The remaining wells were developed using a low-flow peristaltic pump to remove fine-grained material from inside the well casing and filter pack to the extent practical, and to improve hydraulic communication between the well screen and the surrounding water-bearing formation. Each well was developed by removing a minimum of three casing volumes of water. Well development water was observed to be free of visible turbidity after removal of approximately one half well volume. The process is described in detail in Section 4 of the FSP (Appendix F).

Following well development and recharge, the wells were allowed to equilibrate for approximately 24 hours prior to sampling. As part of the groundwater sampling procedure, each well was purged of additional water immediately before collecting samples. Water was purged using a low-volume peristaltic pump, until the effluent was visibly clean, at which point groundwater parameters were recorded to evaluate that samples were obtained from water that was representative of the perched aquifer conditions.

Nine groundwater samples were collected at an ultra-low flow rate (less than 0.25 liters per minute). Following documentation that the groundwater parameters had stabilized, the peristaltic pump effluent was discharged directly into laboratory-supplied sample containers. A duplicate groundwater sample was collected from MW3 in accordance with the QAPP (Appendix G). All samples were labelled, recorded on a chain-of-custody form, and packaged with ice in an insulated sample chest for delivery to the laboratory.

Each groundwater sample was assigned a unique sample identification number including the well number and the 6-digit date on which the sample was collected. For example, the groundwater sample collected from well MW3 on November 14, 2020 was identified as MW3-111420 and a duplicate sample collected from well MW3 on November 14, 2020 was identified as MW3-111420A.

Horizontal coordinates for each boring and surface soil sampling location were recorded using a hand-held GPS device with real-time differential correction as a preliminary measurement. Subsequently, monitoring well locations and elevations were professionally surveyed by CES NW, Inc. Monitoring well locations and elevations are presented in Table 7, Section 2.3.2.7 of this report.

2.2.1 SAMPLING AND MONITORING

The sampling strategy for this RI was based on the preliminary CSM provided in Section 4.0 of the RIWP (see Appendix E). Sampling techniques and protocols, including preservatives, filtration information, and containers are included in the FSP (Appendix F).

Eleven soil borings and groundwater monitoring wells, plus 25 surface soil samples were designed to assess the presence of COCs associated with historical use of the Site. Tables 1 through 3 below indicate the COCs that were analyzed for at each area of concern.

Table 1
Soil Boring Laboratory Analysis by Area of Concern

Analysis	UST Location	Buried Fill	Log Storage
NWTPH-Dx	*	*	*
NWTPH-Gx	*	*	*
BTEX	*	*	*
EDB			
EDC			
MTBE			
Total Pb			
PAHs		*	*
PCP			
PCBs		*	*
HVOCs	*	*	*
Total Cu			*
RCRA 8 (total)		*	*
TCLP			
Dioxins			
Furans			
# of Samples	2	21 ¹	2

* = Analyzed

¹ = Includes two duplicate sample

Table 2
Groundwater Laboratory Analysis by Area of Concern

Analysis	UST Location	Buried Fill	Log Storage
NWTPH-Dx	*	*	*
NWTPH-Gx	*	*	*
BTEX	*	*	*
EDB		*	
EDC			
MTBE			
PAHs			
PCP			
PCBs		*	
HVOCs	*	*	*
RCRA 8 (total)	*	*	*
Cu (total)			*
RCRA 8 (dissolved)	*	*	*
Cu (dissolved)			*
TCLP			
Fe	*	*	*
Mn	*	*	*
Eh (ORP)	*	*	*
pH	*	*	*
Ammonia	*	*	*
Benzoic acid	*	*	*
# of Samples	1	10 ¹	1

* = Analyzed

¹ = Includes one duplicate sample

Table 3
Surface Soil Laboratory Analysis by Area of Concern

Analysis	UST Location	Garage Interior	North of Garage	East of Garage	Log Storage	Fill Piles	Wetlands
NWTPH-Dx	*	*	*	*	*	*	*
NWTPH-Gx	*	*	*	*	*	*	*
BTEX					*	*	*
EDB							
EDC							
MTBE							
Total Pb							
PAHs	*	*	*	*	*	*	*
PCP					*		
PCBs	*	*	*	*		*	*

* = Analyzed

¹ = Includes one duplicate sample

Table 3 (continued)
Surface Soil Laboratory Analysis by Area of Concern

Analysis	UST Location	Garage Interior	North of Garage	East of Garage	Log Storage	Fill Piles	Wetlands
HVOCs	*	*	*	*	*	*	*
RCRA 8 (total)		*	*	*	*	*	*
Cu (total)					*	*	
TCLP			*				
# of Samples	3 ¹	2	2	2	7 ¹	8	3

* = Analyzed

¹ = Includes one duplicate sample

The analytical data collected during this investigation was evaluated relative to appropriate MTCRA screening levels for unrestricted land use, compiled into a project database, and uploaded to Ecology's Environmental Information Management (EIM) database.

The rationale for data collection is presented by area in the following subsections. The FSP (Appendix F) details the field procedures followed during data collection. Additional information on laboratory analytical methods and quality control is provided in the QAPP (Appendix G).

2.2.1.1 Former UST

Background Rationale

A 12,000-gallon diesel UST had previously been removed from the northwestern portion of Parcel C (Stemen, 1993). Stained soil, attributed to delivery overfills and spills, was observed around the fill pipe during removal and approximately 25 cy of impacted soil were excavated from around the fill pipe and stockpiled just north of and in line with the eastern half of the excavation.

Laboratory results of soil samples collected from the excavation pit and approximately 75 cy of non-impacted soil indicated TPH concentrations were well below Ecology's 1993 action level of 200 ppm. The soil sample collected from the impacted soil stockpile indicated a concentration of 390 ppm for TPH. The final disposition of the impacted soil was not documented.

Data Collection/COCs

- Two soil samples were collected from one soil boring (B1) (Figure 4) – one at 7 feet bgs and one at 15 feet bgs – at the location of the former UST. These samples were analyzed for the COCs listed in Table 1 (Section 2.2.1)
- PID readings were collected at two-foot intervals along the length of the boring core

- Methane readings were recorded for the length of the boring core
- The boring was completed as a permanent well (MW1)
- One groundwater sample (MW1-111220) was collected from MW1 and analyzed for the COCs listed in Table 2 (Section 2.2.1)
- Two surface soil samples (SS1 and SS2) and one duplicate surface soil sample (SS2A) (Figure 5) were collected from the location of the former TPH-impacted stockpile and analyzed for the COCs listed in Table 3 (Section 2.2.1)

2.2.1.2 Garage Area

Background Rationale

Two Phase I ESA's (AMEC, 2004 and Ages, 2015) noted a dirt-floored garage near the central portion of Parcel C. Eight 55-gallon drums were reported to have been stored in this area, directly on the ground with no secondary containment. Contents were not identified. A 6-foot by 6-foot area of stained gravel/soil was noted within the garage. The garage building has since been removed and not present at the time of this RI.

Data Collection/COCs

- Two surface soil samples (SS5 and SS6) (Figure 5) were collected from the former interior of the garage for the COCs listed in Table 3 (Section 2.2.1)

2.2.1.3 Former Drum Storage, AST, and Vehicle Maintenance Areas

Background Rationale

The Ages 2015 Phase I ESA reported one 500-gallon AST near the above-mentioned garage. The AST was reported as new and in good condition, though it was located on gravel without secondary containment. Contents were not identified.

Two 55-gallon drums were located outside the garage and were stored on gravel with no secondary containment. Contents were not identified. A 6-foot by 6-foot area of stained gravel/soil was reported outside the garage to the north, near an equipment and truck parking area.

Vehicle maintenance was reported to have occurred to the east of the former garage.

Data Collection/COCs

- Two surface soil samples (SS3 and SS4) (Figure 5) were collected from the stained area north of the garage to be analyzed for the COCs listed in Table 3 (Section 2.2.1)

- Two surface soil samples (SS7 and SS8) (Figure 5) were collected from the AST, drum storage, and vehicle maintenance area east of the garage and analyzed for the COCs listed in Table 3 (Section 2.2.1)

2.2.1.4 Debris Fill Areas

Background Rationale

Between the 2007 Pacific Rim and the 2008 Robinson Noble soil investigations, 53 test-pits were excavated at the Site.

The initial 2007 Pacific Rim investigation reported fill material with a diesel or oil odor in Pit 10 (0 to 10 feet bgs), on the northwest corner of Parcel A (near Boring B2) (see Figure 3). Fill material with a strong petroleum odor was also noted in Pit 17 (0 to 6 feet bgs) within the south-central portion of Parcel A (near Boring B3).

A follow-up investigation in 2008 by Robinson Noble indicated that diesel-range hydrocarbons were detected at a concentration of 370 mg/kg in a soil sample collected from Test Pit 6 (near the 2007 investigation's Pit 17, see Figure 3). This concentration was significantly less than the MTCA Method A soil CUL that was applicable at the time.

Data Collection/COCs

- Soil borings were advanced as described in Table 4 below (Figure 4); two soil samples were collected from each boring – one at 7 feet bgs and one at 15 feet bgs – and analyzed for the COCs listed in Table 1 (Section 2.2.1)
 - Two duplicate samples were collected from B3: B3-7A and B3-15A and analyzed for the COCs listed in Table 1 (Section 2.2.1)
 - One additional soil sample was collected from B3 (B3-10) due to a relatively elevated PID reading
- PID readings were recorded at two-foot intervals of the boring cores
- Methane readings were recorded along the length of the boring cores
- Nine borings were completed as permanent wells within the debris fill areas as described in Table 4 on the following page.
- Groundwater samples were collected from each of the permanent wells, with the exception of MW9 and MW10, for which insufficient water was encountered to allow for the collection of a representative groundwater sample.
- A duplicate groundwater sample was collected from MW3, in accordance with the QAPP for this project.
- Groundwater samples were analyzed for the COCs listed in Table 2 (Section 2.2.1)

Table 4
Boring and Well Identification Within the Debris Fill Areas

Boring Number	Monitoring Well Number	Sample Number	Boring Location	Boring Depth	Addressed Concern
B2	MW2	MW2-111320	Northwestern corner of Parcel A	0 – 15 feet bgs	Petroleum odor, wood, and construction debris in 2007 test pit
B3	MW3	MW3-111420 MW3-111420A	Southeastern portion of Parcel A	0 – 15 feet bgs	Petroleum odor, wood debris, and construction debris in 2007 test pit
B4	MW4	MW4-111320	Northwestern corner of Parcel A	0 – 15 feet bgs	Woody debris in 2007 test pit
B5	MW5	MW5-111220	Western border of Parcel A	0 – 15 feet bgs	Random fill in 2007 test pit
B6	MW6	MW6-111220	South central portion of Parcel B	0 – 15 feet bgs	Wood and construction debris in 2007 test pit
B7	MW7	MW7-111220	Southern portion of Parcel B	0 – 15 feet bgs	Wood and construction debris in 2007 test pit
B8	MW8	MW8-111420	North central border of Parcel C	0 – 15 feet bgs	Wood and construction debris in 2007 test pit
B9	MW9	Not sampled; well dry	Central portion of Parcel A	0 – 15 feet bgs	Wood and random fill in 2007 test pit
B10	MW10	Not sampled; well dry	Central portion of Parcel A	0 – 15 feet bgs	Wood debris in 2007 test pit

2.2.1.5 Fill Piles and Log/Materials Storage Areas

Background Rationale

Log and material storage areas were visible near the central portion of Parcel A in a 1990 aerial photograph.

A 2015 Site map shows fill piles of unknown origin at multiple locations around the Site (see Figure 3).

A complaint from a nearby resident alleged that creosote logs had been stored at the Site. While the logs alleged in the complaint were determined to actually be on an adjacent property, associated COCs are included in the analysis as a precaution.

Data Collection/COCs

- Two soil samples were collected from Boring B11 (Figure 4) – one at 7 feet bgs and one at 15 feet bgs – near the center of Parcel A. Samples were analyzed for the COCs listed in Table 1 (Section 2.2.1)
- PID readings were recorded at two-foot intervals of the boring core.
- Methane readings were recorded along the length of the boring core.
- The boring was completed as a permanent well (MW11).

- One groundwater (MW11-111420) sample was collected from MW11 and analyzed for the COCs listed in Table 2 (Section 2.2.1)
- Six surface soil samples (SS18 – SS23) and one duplicate surface soil sample (SS20A) (Figure 5) were collected from the north/central portion of Parcel A, where log and material storage areas had been identified. These samples were analyzed for the COCs listed in Table 3 (Section 2.2.1).
- Four surface soil samples (SS16, SS17, SS24, and SS25) (Figure 5) were collected from the western and central portions of Parcel A, where imported fill piles had been identified. These samples were analyzed for the COCs listed in Table 3 (Section 2.2.1).
- Two surface soil samples (SS9 and SS10) (Figure 5) were collected near the boundary between Parcels A and C, where a wood debris fill pile had been identified. These samples were analyzed for the COCs listed in Table 3 (Section 2.2.1).
- Two surface soil samples (SS11 and SS12) (Figure 5) were collected near the boundary between Parcels A and C, slightly east of sample SS-10, where a construction debris fill pile had been identified. These samples were analyzed for the COCs listed in Table 3 (Section 2.2.1)

2.2.1.6 Wetlands

Background Rationale

Wetlands are present in the east, southwest, and northwest portions of the Site (Soundview Consultants, 2020) (Figure 5).

Data Collection/COCs

- Three surface soil samples (SS13 – SS15) (Figure 5) were collected from the areas adjacent and nearby the eastern wetlands (Wetlands B and E per the Soundview Consultants report). These samples were analyzed for the COCs listed in Table 3 (Section 2.2.1)
- Field measurements of conventional water quality parameters including pH, salinity, total dissolved solids, conductivity, and temperature were collected from standing water at three locations within the wetlands.

2.2.1.7 Hydrogeologic Data Collection

No adequate hydrogeologic data had been collected regarding shallow perched groundwater at the Site prior to this RI and it was considered unlikely that shallow groundwater characteristics at the Site were consistent with those of the deeper aquifer.

Water level measurements were collected from each of the permanent well installations (with the exception of MW-10, which did not encounter the perched groundwater surface). These measurements combined with survey data of the elevations of the top of the well casings were used to estimate a preliminary shallow groundwater gradient for the Site ranging from 0.0045 to 0.013 ft/ft (Figure 16). Occurrences of shallow groundwater are anticipated to be seasonal and are not expected to be connected on a perennial basis.

2.2.1.8 Modifications to RIWP

Field procedures followed the RIWP with the following exceptions:

- Selected field samples collected into VOA vials for VOC analysis were determined by the laboratory to contain too much soil media, and not enough headspace. Therefore, analysis by the 5035 Method was not possible. As an alternative, the laboratory prepped and analyzed these samples in the laboratory via Method 5030. Per the PQLs included in the laboratory reports, this data is considered to be adequate for decision making purposes.”
- An additional sample was collected from B3 based on a moderately elevated PID reading. The sample was collected from a depth of 10 feet bgs, in addition to the samples collected from the planned depths of 7 and 15 feet bgs. This resulted in three soil samples from MW3. The additional sample was subjected to the same analyses as the other two planned samples.
- Monitoring wells MW-9 and MW-10 did not yield enough water for groundwater sampling, and thus, no groundwater samples were collected from these wells.

2.2.2 GEOLOGY

Regional Geology

The geology of the Greater Puget Sound region is characterized by glacially derived sediments, which were deposited during several episodes, concluding with the Vashon Stade of the Fraser Glaciation, which ended approximately 12,500 years ago. The advance of the Vashon glacier deepened and widened north-south trending valleys. Thick bodies of sand, gravel, and till were deposited over the area. With the retreat of the glacier, ice-contact stratified drift was deposited over much of the area, followed by a period of alluvial valley filling, peat deposition, minor erosion, and soil development (AMEC, 2004). The upper two feet consists of very dark brown gravelly sandy loam. At around 30 inches bgs, there typically lies a weakly cemented hardpan that can be crushed to very gravelly loamy sand (Robinson Noble, 2008)

According to the United States Department of Agriculture (USDA) *Soil Survey of Thurston County Area, Washington, General Soil Map*, soils of the Site vicinity are generally characterized

as Alderwood series soils. This series is described as moderately well drained, on glacial till plains. The western portion of the Site is characterized as a gravel pit consisting of in-filled excavations from which soil and the underlying rounded glacial pebbles and stones have been removed. According to the Geology and Groundwater Resources of Thurston County, Washington (USGS Water Resources Division) *Geologic Map of Thurston County, Washington, West Half*, soil at the Site is characterized as recessional outwash overlying till.

RI Geologic Findings

Surface Conditions

The project site is roughly “T-shaped” and is comprised of 5 separate parcels. Cooper Point Road NW forms the western boundary. The remaining boundaries are primarily occupied by wooded property, with the exception of residential parcels to the south (one on Cooper Point Road and two along Grove Street).

Site access was via Cooper Point Road, through a series of two locked gates on the west side of the property. The western portion, near the south boundary slopes south towards a wooded depression (Wetlands “C”, Soundview Consultants, June 2017, revised November 2020). The western portion of the property generally has a slight slope to the west, towards Cooper Point Road NW. The south-central portion of the property is slightly elevated, with gradual slopes to the west, south, and east, and a steeper slope to the north, towards the gravel pit portion of the property. Two small hills were observed within the north central portion of the property. The southwest face of the eastern hill was extremely steep from gravel pit excavations. The eastern portion of the site slopes towards the east and was heavily vegetated with thorn bushes and other vegetation.

Much of the interior of the site is devoid of dense vegetation aside from low-lying shrubbery and grasses. A small series of makeshift roads traverse this portion of the site. Exposed surface soils primarily consisted of a mixture of silt, sand, and gravel with a significant component of rounded gravel and cobbles.

Soils

The naturally occurring soils encountered at the Site were consistent with previous descriptions, including regional geologic descriptions (AMEC, 2004; Robinson Noble, 2008; USDA; and USGS) and more recent, site-specific investigations (Pacific Rim Soil & Water, Inc, 2007; Ages, LLC; 2015). A significant amount of fill material was also encountered. A description of the soils encountered, per boring, follows.

Boring B-1

South of the entrance at the western boundary, soils consisted of approximately 2 feet of organic silts with gravel (topsoil) overlying silt and sand with varying amounts of rounded gravel and cobbles. All interpreted to be naturally occurring strata.

Boring B-2

Northwestern portion of property, soils consisted of approximately 4 feet of sandy silt with an estimated 50 percent gravel and cobbles. Beneath this was approximately five feet of gray clay with 30 percent gravel and cobbles. The bottom 4 feet consisted of very fine grained, well sorted, dark gray sand. All interpreted to be naturally occurring strata.

Boring B-3

On the south side of the east portion of the site, 2 feet of silt/gravel/clay topsoil was observed over approximately 9 feet of highly organic silt, buried wood and a small amount of rounded cobbles ranging in diameter from 0.25 to 8.5 inches. Material from 0 to 11 feet below grade is interpreted to be fill material. The bottom four feet of this boring consisted of silty to sandy gravel, interpreted to be naturally occurring strata.

Boring B-4

Approximately 105 feet south of B-2, near the northwest corner of the property, soils included approximately 2 feet of silty sand and gravel (topsoil) over 13 feet of well-sorted, medium-grained, greenish sand. All interpreted to be naturally occurring strata.

Boring B-5

Approximately 165 feet south of B-4, and near the northwest corner of the property, soils consisted of approximately 2 feet of a dark reddish brown silty sandy gravel mixture over 3.5 feet of highly organic black clay with gravel (logged as peat, but interpreted to be buried fill with a high percentage of wood). Small metal fragments were observed at 5 to 5.5 feet bgs. Material from 0 to 5.5 feet below grade is interpreted to be fill material. Underlying this was approximately 4.5 feet of medium grained sand with 10 to 20 percent gravel and cobbles. The bottom 5 feet of soils consisted of well sorted very fine sand. Material from 5.5 feet to 15 feet bgs is interpreted to be naturally occurring strata.

Boring B-6

North of the site entrance near the west boundary of the project site, soil included 7 feet of sandy silt with approximately 40 percent gravel and cobbles including an oval/spheroidal boulder of asphalt (approximately 4 inches by 2 inches) that was observed between 6 and 7 feet below grade. Material from 0 to 7 feet below grade is interpreted to be fill material. Soils from 7 to 15 feet below grade consisted of medium-grained sand with 10 to 20 percent gravel and cobbles. This material was interpreted to be naturally occurring strata.

Boring B-7

Just south of B-6, but north of the entrance near the west boundary of the project site, the top 4 feet consisted of sandy silt with approximately 40 percent gravel and cobbles followed by 3 feet of silt with clay and approximately 50 percent gravel. Concrete debris was observed at approximately 6 to 7 feet below grade. Fill material with wood debris (logged as peat) and approximately 10 percent gravel was encountered from 7 to 10 feet below grade. Material from 0

to 10 feet below grade was interpreted to be fill material. The bottom 5 feet of the boring consisted of well-sorted, medium grained sand, interpreted to be naturally occurring strata.

Boring B-8

Located in the south-central portion of the project site, soil consisted of 2.5 feet of organic silt and sand with gravel and rounded cobbles overlying 3.5 feet fill material with wood debris (logged as peat). This fill included highly organic silt, wood fragments, concrete debris, and some rounded cobbles. Material from 0 to 6 feet below grade was interpreted to be fill material. Gravel with varying amounts of silt and sand was encountered from 6 to 15 feet below grade. This gravel was interpreted to be naturally occurring strata.

Boring B-9

Located in the eastern portion of the property, soils consisted of 2 feet of organic silty sand with gravel underlain by 5.5 feet of fill material with wood debris (logged as peat). This fill material included highly organic silt, wood fragments, concrete debris, and some rounded cobbles. Material from 0 to 7.5 feet below grade was interpreted to be fill material. This was underlain by 4.5 feet of inorganic silt with sand and gravel followed by 3 feet of silty sand with approximately 10 percent of gravel. Material from 7.5 to 15 feet below grade was interpreted to be naturally occurring strata.

Boring B-10

Located approximately 165 feet northwest of B-9 in the eastern portion of the site, soils included 2 feet of organic clay with 10 to 15 percent gravel and cobbles underlain by 5 feet of fill material with wood debris (logged as peat). This fill material included approximately 50 percent gravel and cobbles. Material from 0 to 7 feet below grade was interpreted to be fill material. Below this was approximately 5.5 feet of poorly graded gravels with sands, silts, and clays. The bottom 2.5 feet consisted of well-graded, medium grained sand with approximately 5 to 10 percent gravel. Material from 7 to 15 feet below grade was interpreted to be naturally occurring strata.

Boring B-11

Located in the north-central portion of the site, soils included 2.5 of silty gravel (approximately 50 percent gravel) over 0.5 feet of clean dense clay. Clay with approximately 50 to 60 percent gravel was encountered from 3 to 6 feet below grade. Beneath this was one foot of clean clay, followed by 8 feet sand with 20 percent gravel, grading with depth to well-sorted, medium-grained sand. All of the soils encountered in this boring were interpreted to be naturally occurring strata.

Boring logs are included in Appendix C.

Interpretation

Soils interpreted to represent native, in situ material, are typical of glacial deposits, including a range of very gravelly soils with cobbles to clean clay, with variable gradations between these extremes. Rounded cobbles, indicating water transport, are common, interpreted to

be associated with water-deposited glacial outwash. Significant thicknesses of well sorted sands were observed.

Observations from our investigation were combined with recorded observations presented by AGES, LLC (Preliminary Geotechnical Report, January 12, 2015) and Pacific Rim Soil & Water, Inc. (Soils investigation preliminary, November 2, 2007), to provide a more robust coverage of the Site. This additional data was used to generate Figure 15, showing a generalized soils map divided into three categories:

- Native soils with very little disturbed cover or fill
- Filled areas that did not contain significant proportions of buried wood material
- Filled areas with significant amounts of buried wood

As depicted in Figure 15, large areas of the Site are underlain by fill material of varying composition. Much of the fill material resembled the native soil, but could be readily identified as fill material by the presence of asphalt, concrete, wood, and metal debris. Metal fragments were observed in Boring B-5 at a depth of approximately 5 to 5.5 feet bgs, and were reported in TP-5 (AGES) and P-14 (Pacific Rim Soil & Water, Inc.).

As stated above, some of the fill material encountered included large percentages of wood debris at various stages of degradation. Some of the wood had completely degraded to organic silt, and some wood appeared relatively fresh with recognizable grain structure. This material was logged as “Peat”, to remain within the USCS, however, this is more accurately described as “fill material with a large percentage of wood debris.”

Fill material with wood debris dominates the southwest and eastern portions of the site (with the caveat that the extreme eastern boundary of the property is occupied by native materials with little fill or re-worked overburden).

Figures 18 to 21 present geologic cross-sections using the data of this study, combined with data from Ages, LLC (2015) and Pacific Rim Soil & Water, Inc. (2007).

2.2.3 HYDROGEOLOGY

Regional Hydrogeology

A groundwater contour map from a regional USGS study, *Hydrological and Quality of Ground Water in Northern Thurston County* (1998, revised) shows the regional groundwater flow direction near the Site is to the east, towards Budd Inlet. Local well logs indicate that the general groundwater flow direction is to the northeast at a gradient of approximately 0.08 ft/ft.

The region’s hydrogeology is described in the City of Olympia’s *Allison Springs and East Olympia Allison Springs Wellhead Protection Plan* as being underlain by an alternating sequence of glacial and non-glacial sediments forming several confined aquifer systems. The extended capture zone of the Allison Springs wellfield extends beneath the Site. The wells in this wellfield

are completed in several aquifer systems and produce water for the City of Olympia's municipal supply.

Site-Specific Hydrogeology (previous investigations)

The Site is in a Critical Aquifer Recharge Area (CARA). Earth Solutions (October 11, 2016) reported that, through past permitted site use as a gravel mine, the majority of soils that would exhibit a high susceptibility to shallow interflow aquifer recharge, i.e. clean sandy soils, have been removed. The remaining soil type – fill and glacial till – is much lower in permeability. Layers of sandy soil documented in test pits from previous investigations (see Section 2.1) do not appear to be continuous and hydraulic communication is expected to be low and sporadic. Based on this, it was concluded by others that the susceptibility to adversely impact CARA resources has been significantly lowered by replacing permeable native soils with non-permeable fill materials through historical use of the Site. The deeper aquifer beneath the Site is separated by a layer of glacial till and is effectively disconnected from direct recharge. The soils overlying the groundwater table contain relatively thick, glacially consolidated fine-grained deposits that do not transmit water readily to recharge the locally deep groundwater table (Earth Solutions NW, 2016).

Previous investigations at the Site indicate:

- The groundwater table, as observed in previous borings at the Site, is below the 50-foot level (Stemen, 1993). The locations of the referenced borings/wells were not provided, nor were any well logs provided to confirm the measured groundwater depths.
- The static water level within a “nearby” well, drilled to 111 feet bgs, was reportedly 47 feet below the top of the wellhead at the time of drilling (Robinson Noble, 2008). The location of the well, distance from the Site, and well logs were not provided.
- Perched groundwater tables have been observed in several test pits in concert with loose, gravelly, sandy native substrates at depths between 10 and 15 feet bgs (Pacific Rim Soil & Water, 2007)
- Groundwater seepage was observed in test pits at depths ranging from 3.5 to 8.0 feet bgs. Seepage was believed to represent a seasonal perched water table developed during the wet winter season. (Ages, 2008)
- The regional static groundwater table occurs at depths of approximately 110 to 150 feet below existing grades based on a review of available well logs for the area. Soils overlying the groundwater table contain relatively thick deposits that do not readily transmit water (including perched groundwater) to recharge the locally deep groundwater table. (Earth Solutions NW, 2016)
- Perched groundwater zones are relatively isolated and do not represent a defined groundwater table or a pervasive interflow regime; based on the depth of the local groundwater aquifer and the soils above, the risk of affecting groundwater is negligible (Earth Solutions NW, 2016)

RI Hydrogeologic Findings

Eleven wells were installed to a total depth of 15 feet bgs, in accordance with the RIWP, dated November 16, 2020. Groundwater was not detected in Monitoring Well MW10, installed at an elevation of 257.25 feet (North American Vertical Datum of 1988) (top of casing elevation). All other wells had measurable levels of groundwater that were used to evaluate the occurrence and distribution of water beneath the site.

For all wells, except MW3, MW10 and MW11, groundwater was detected in sandy and gravel deposits. Groundwater in MW11 was detected in a clay layer with a high percentage of gravel. For MW3, groundwater was detected in a fill layer with a large amount of wood. As stated, groundwater was not encountered in MW10.

Based on the regional hydrogeologic descriptions, presented above, and the depths to groundwater detected, it is our interpretation that the groundwater detected represents seasonally perched water. However, based on the relatively consistent elevations of the groundwater detected (between 242.09 and 232.63 feet above mean sea level) across the Site, it is our interpretation that this groundwater surface was interconnected at the time of our investigation. It is further our interpretation that the primary mechanism of groundwater transport across the site is intergranular flow, during periods of sufficient rainfall.

Figure 16 presents a groundwater contour map based on our field measurements of groundwater levels as measured following well installation and development. This map indicates a localized high, or mound across the west/west-central portion of the Site. A second, less pronounced localized high is interpreted for the eastern portion of the Site. These both roughly coincide with areas of fill material with a high percentage of wood debris (see Figure 15).

The calculated hydrogeologic gradient varied as follows:

- 0.013 foot per foot to the northwest near the southwest corner of the site
- 0.01 foot per foot to the northwest in the northwest portion of the property
- 0.0045 foot per foot to the northeast across the central portion of the property
- 0.006 foot per foot to the east/northeast in the southeast portion of the property

Because of the shallow depth to groundwater, it is anticipated that surface rainfall will recharge the locally perched groundwater table. It is anticipated that the hydrogeologic elevations will change across the Site with seasonal weather patterns, as previously published by others. Because of the ephemeral nature of this water, groundwater at the site does not have any meaningful use.

Measure of hydrogeologic parameters, such as permeability, hydraulic conductivity, and groundwater flow velocity were not included in the scope of this investigation.

2.2.4 OTHER SITE INFORMATION

Five wetland areas have been identified at the Site (Soundview Consultants, November 2020). The Soundview Consultants report is summarized in Section 2.1. Two wetlands (Wetlands B and E) were detected near the eastern portion of the Site. Two wetlands (Wetlands A and D) were detected near the northwestern portion of the Site. One wetland (Wetland C) was detected near the southwestern portion of the Site. It has not been determined if these wetlands are connected to shallow groundwater at the site.

2.2.5 PROPOSED CLEANUP STANDARDS

This section describes the numerical screening levels against which constituent concentration data for environmental media were compared for the purpose of identifying constituents of potential concern during this RI.

2.2.5.1 Soil Cleanup Standards

Because the Site is intended as a residential development, the soil data was evaluated relative to soil screening levels for unrestricted land use. The soil screening levels are the most stringent of MTCA unrestricted Method A or Method B soil cleanup levels.

For total chromium, the soil screening level was set at 2,000 mg/kg (CUL for chromium III), assuming that the measured concentration of total chromium is the concentration of chromium III, based on no evidence of historical use of chromium VI at the site, and no detectable concentrations of chromium VI in soil samples analyzed for this RI.

For arsenic, the soil screening level was set at 20 mg/kg, based on direct contact using Equation 740-2 and protection of groundwater for drinking water use using the procedures in WAC 173-340-747(4), adjusted for natural background for soil.

The point of compliance for direct contact with soil extends to 15 feet below grade, based on a reasonable maximum depth of excavation and assumed placement of excavated soils at the surface where contact occurs. Therefore, for soil screening levels based on direct contact, the soil point of compliance is to a depth of 15 feet.

2.2.5.2 Groundwater Cleanup Standards

Shallow perched groundwater at the Site is ephemeral, possibly or temporally discontinuous, sporadic, and disconnected from the deep underlying aquifer.

Because drinking water is not a reasonable or practical future use for shallow groundwater at the Site, groundwater screening levels for the RI are the most stringent criterion based on protection of surface water and vapor intrusion (VI) to future structures (indoor air) at the Site. For arsenic, the groundwater screening level was set at 5 µg/L (MTCA Method A groundwater

cleanup level based on background). In addition, because there are no surface water criteria for petroleum mixtures (TPH), MTCA Method A groundwater cleanup levels were applied as the groundwater screening criteria for TPH. Note that the individual constituents comprising TPH mixtures (VOCs, PAHs, etc.) were also analyzed, and have their own surface water-based and VI-based groundwater screening levels.

Groundwater screening levels protective of surface water incorporate MTCA surface water cleanup levels including criteria from applicable state and federal laws. For protection of surface water quality, screening levels are the most stringent of the following aquatic life criteria and human health criteria for consumption of aquatic organisms under state and federal laws:

1. MTCA standard Method B surface water cleanup levels based on human consumption of fish (human health only)
2. Federal National Recommended Water Quality Criteria pursuant to Section 304(a) of the Clean Water Act
3. The Federal National Toxics Rule (NTR; 40 CFR 131.36)

Since shallow groundwater may discharge to nearby water bodies, marine water quality criteria were considered for purposes of developing the screening levels. For each constituent, the most conservative water quality criterion was chosen as the groundwater screening level.

Volatilization of contaminants in shallow groundwater can represent a potential risk for VI to future structures (indoor air) or outdoor ambient air. MTCA Method B VI groundwater screening levels, as provided in Ecology's 2019 Cleanup Levels and Risk Calculation Database (CLARC) were applied for the purposes of this RI.

The standard point of compliance for shallow groundwater cleanup levels is throughout shallow perched groundwater at the Site. If it is not practicable to meet groundwater cleanup levels throughout the Site, Ecology may approve a conditional point of compliance for groundwater.

For volatile groundwater contaminants that can pose a VI risk, protectiveness is achieved by meeting VI-based groundwater cleanup levels throughout Site groundwater, or wherever structures will be built on grade in the future. Therefore, for VI protection, the groundwater point of compliance is throughout shallow perched groundwater at the Site.

Because the highest beneficial use of shallow groundwater at the Site is potential discharge to surface water, protectiveness of that use is dependent on meeting surface water criteria at the points of groundwater discharge to nearby surface water bodies.

For the purposes of the RI, the data from each permanent monitoring well was compared against groundwater screening levels protective of both VI and surface water protection.

2.3 SAMPLING/ANALYTICAL RESULTS

The nature and extent of contamination at the Site is defined in this section based on the results of field screening and laboratory analysis of soil and groundwater samples and comparison of detected concentrations to the respective proposed cleanup levels (PCLs) described in Section 2.2.5 of this report. To evaluate samples containing carcinogenic polycyclic aromatic hydrocarbon (cPAH) mixtures, the total toxic equivalent concentration (TEQ) for the cPAHs was calculated and compared to the applicable CUL, as required by WAC 173-340-708(8)(e).

Appendix D provides tables presenting the laboratory results for the COCs and their respective PCLs.

2.3.1 QUALITY ANALYSIS

Field and laboratory quality assurance/quality control (QA/QC) procedures were implemented as described in ENPRO's QAPP (Appendix G). All data collected during this RI meet the needs of the project objectives.

2.3.2 RESULTS

The following subsections discuss the analytical data by area of concern, including:

- The nature, magnitude, and extent of COCs
- Evidence for transfer/interactions between different media (leaching, groundwater plume migration, etc.), if applicable
- Detail on the likely fate and transport of the main COCs and COC groups identified at and potentially downgradient of the Site, if applicable
- Analytes with no published CULs are not included in the data presentation of this section.

Because the groundwater beneath the site is temporal and not connected to the deeper aquifer, no practical use for the groundwater beneath the Site has been identified. In the event a connection is shown between the perched groundwater and surface water features (including but not necessarily limited to wetland features identified at the Site), degradation of groundwater quality would be of concern. Based on this rationale, and as presented in the RIWP, analytical results herein are compared to MTCA Methods A or B CULs for unrestricted land use. For completeness, we have identified analytical results of soil samples that exceed the Ecology CULs for groundwater protection.

2.3.2.1 Former UST

No COCs were detected at concentrations greater than the PQL in soil samples (B1-7 and B1-15) collected from the former UST location (Figure 4).

The following COCs were detected in the groundwater sample collected from MW1 at the former UST location (Figure 4):

- Barium (total): 30 µg/L (CUL= 3,200 µg/L)
- Iron (total): 2,700 µg/L (CUL= 11,000 µg/L)
- Manganese (total/dissolved): 630/560 µg/L (CUL= 750 µg/L)

None of the constituent concentrations detected in the former UST groundwater sample exceeded the MTCA Methods A or B CULs for unrestricted land use.

The following COCs were detected in surface soil sample SS1, collected from the former TPH-impacted stockpile (Figure 5):

- Surface soil sample SS1
 - TPH as diesel: 150 mg/kg (CUL=2,000 mg/kg)
 - TPH as heavy oils: 1,800 mg/kg (CUL= 2,000 mg/kg)
 - Naphthalene: 0.01 mg/kg (CUL= 5 mg/kg)
 - Fluoranthene: 0.014 mg/kg (CUL= 3,200 mg/kg)
 - Pyrene: 0.015 mg/kg (CUL= 2,400 mg/kg)
 - Benzo(a)pyrene: 0.0093 mg/kg (CUL=0.1 mg/kg)
 - cPAH TEQ= 0.01165 mg/kg (CUL= 0.1 mg/kg)
 - Lead: 17 mg/kg (CUL= 250 mg/kg)

None of the constituent concentrations detected in surface soil sample SS1 collected from the location of the former TPH-impacted stockpile exceeded the MTCA Methods A or B CULs for unrestricted land use. No COCs were detected at concentrations greater than the PQL in surface soil sample SS2 and its duplicate sample SS2A collected from the same location (Figure 5).

PID readings of field samples from Boring B1 (Figure 4) at two-foot intervals ranged from 0.2 to 0.3 ppm.

LEL readings for methane from the length of Boring B1 did not exceed 0.0 percent.

2.3.2.2 Former Garage Area

The following COCs were detected in surface soil samples SS5 and SS6 (Figure 5) at the former garage location:

- Surface soil sample SS5
 - TPH as heavy oils: 80 mg/kg (CUL = 2,000 mg/kg)
 - Fluoranthene: 0.012 mg/kg (CUL= 3,200 mg/kg)
 - Pyrene: 0.014 mg/kg (CUL= 2,400 mg/kg)
 - Benzo(a)pyrene: 0.0084 mg/kg (CUL=0.1)
 - cPAH TEQ= 0.009683 mg/kg (CUL= 0.1 mg/kg)
 - Barium: 44 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 16 mg/kg (CUL for chromium III= 2,000 mg/kg)

- Surface soil sample SS6
 - TPH as heavy oils: 73 mg/kg (CUL = 2,000 mg/kg)
 - Naphthalene: 0.015 mg/kg (CUL= 5 mg/kg)
 - Anthracene: 0.011 mg/kg (CUL= 24,000 mg/kg)
 - Fluoranthene: 0.077 mg/kg (CUL= 3,200 mg/kg)
 - Pyrene: 0.081 mg/kg (CUL= 2,400 mg/kg)
 - Benzo(a)pyrene: 0.05 (CUL=0.1 mg/kg)
 - cPAH TEQ= 0.06769 mg/kg (CUL= 0.1 mg/kg)
 - Barium: 63 mg/kg (CUL= 16,000 mg/kg)
 - Cadmium: 0.84 mg/kg (CUL= 2 mg/kg)
 - Chromium: 21 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 16 mg/kg (CUL= 250 mg/kg)

None of the constituent concentrations detected in surface soil at the former garage exceeded the MTCA Methods A or B CULs for unrestricted land use.

Cadmium in sample SS6 slightly exceeded the CUL based on groundwater protection of 0.04 mg/kg, however, migration of cadmium from surface soil to groundwater is unlikely as it has not been detected in any of the subsurface soil and groundwater samples.

PID readings of field samples collected at sample locations SS5 and SS6 (Figure 5) did not exceed 0.1 ppm.

LEL readings for methane in field samples collected at sample locations SS5 and SS6 did not exceed 0.0 percent.

2.3.2.3 Former Drum Storage Area, AST, and Vehicle Maintenance Areas

The following COCs were detected in surface soil samples SS3 and SS4 (Figure 5) collected from the stained area north of the former garage:

- Surface soil sample SS3
 - TPH as heavy oils: 130 mg/kg (CUL = 2,000 mg/kg)
 - Naphthalene: 0.081 mg/kg (CUL= 5 mg/kg)
 - 2-Methylnaphthalene: 0.044 mg/kg (CUL= 5,600 mg/kg)
 - Anthracene: 0.056 mg/kg (CUL= 24,000 mg/kg)
 - Fluoranthene: 0.17 mg/kg (CUL= 3,200 mg/kg)
 - Pyrene: 0.17 mg/kg (CUL= 2,400 mg/kg)
 - Benzo(a)pyrene: 0.089 mg/kg (CUL=0.1 mg/kg)
 - cPAH TEQ= 0.11701 mg/kg (CUL= 0.1 mg/kg)
 - Arsenic: 15 mg/kg (CUL= 20 mg/kg)
 - Barium: 84 mg/kg (CUL= 16,000 mg/kg)
 - Cadmium: 0.62 mg/kg (CUL= 2 mg/kg)
 - Chromium: 31 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 130 mg/kg (CUL= 250 mg/kg)

- Surface soil sample SS4
 - TPH as heavy oils: 77 mg/kg (CUL = 2,000 mg/kg)
 - Anthracene: 0.014 mg/kg (CUL= 24,000 mg/kg)
 - Fluoranthene: 0.066 mg/kg (CUL= 3,200 mg/kg)
 - Pyrene: 0.09 mg/kg (CUL= 2,400 mg/kg)
 - Benzo(a)pyrene: 0.046 mg/kg (CUL= 0.1 mg/kg)
 - cPAH TEQ= 0.05894 mg/kg (CUL= 0.1 mg/kg)
 - Barium: 60 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 21 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 18 mg/kg (CUL= 250 mg/kg)

None of the constituent concentrations detected in surface soils to the north of the former garage exceeded the MTCA Methods A or B CULs for unrestricted land use, with the exception of cPAH TEQ in sample SS3.

Evidence of migration of cPAHs from this surface soil location to groundwater has not been established as cPAHs were not detected in any of the groundwater samples collected for this project. Furthermore, except for surface soil samples SS11 (discussed below) and SS3, no other surface soil samples exhibited total TEQ for cPAHs above the CUL, suggesting that the lateral transport of cPAHs in surface soil has not been significant.

Arsenic, barium and cadmium in sample SS3 exceeded the CUL based on groundwater protection of 0.15 mg/kg, 83 mg/kg and 0.04 mg/kg, respectively. However, evidence of migration of these metals from surface soil to groundwater has not been established as they were not detected in the nearest groundwater sample (MW8-111420) collected for this project.

The following COCs were detected in surface soil samples SS7 and SS8 (Figure 5) collected from the AST, drum storage, and vehicle maintenance area east of the garage:

- Surface soil sample SS7
 - TPH as heavy oils: 190 mg/kg (CUL= 2,000 mg/kg)
 - Anthracene: 0.013 mg/kg (CUL= 24,000 mg/kg)
 - Fluoranthene: 0.043 mg/kg (CUL= 3,200 mg/kg)
 - Pyrene: 0.042 mg/kg (CUL= 2,400 mg/kg)
 - Benzo(a)pyrene: 0.016 mg/kg (CUL=0.1 mg/kg)
 - cPAH TEQ= 0.02292 mg/kg (CUL= 0.1 mg/kg)
 - Barium: 110 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 34 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 15 mg/kg (CUL= 250 mg/kg)
- Surface soil sample SS8
 - Barium: 85 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 24 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 9 mg/kg (CUL= 250 mg/kg)

None of the constituent concentrations detected in surface soils collected from the AST, drum storage, and vehicle maintenance area east of the garage exceeded the MTCA Methods A or B CULs for unrestricted land use.

Barium slightly exceeded the CUL based on groundwater protection of 83 mg/kg. However, evidence of migration of barium from surface soil to groundwater has not been

established as it was not detected in the nearest groundwater sample (MW8-111420) collected for this project.

PID readings of field samples collected at sample locations SS7 and SS8 (Figure 5) did not exceed 0.1 ppm.

LEL readings for methane in field samples collected at sample locations SS7 and SS8 did not exceed 0.0 percent.

2.3.2.4 Debris Fill Areas

The following COCs were detected in soil boring and groundwater samples from debris fill areas:

Boring B2/MW2 (Figure 4) at the approximate location of the 2007 Pacific Rim preliminary soil sampling report's Test Pit 10

- Boring B2, Soil Sample B2-7
 - TPH as heavy oils at 7 feet bgs: 170 mg/kg (CUL = 2,000 mg/kg)
 - Fluoranthene: 0.013 mg/kg (CUL= 3,200 mg/kg)
 - Pyrene: 0.016 mg/kg (CUL= 2,400 mg/kg)
 - Benzo(a)pyrene: 0.0086 mg/kg (CUL=0.1 mg/kg)
 - cPAH TEQ= 0.010566 mg/kg (CUL= 0.1 mg/kg)
 - Barium: 56 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 19 mg/kg (CUL for chromium III= 2,000 mg/kg)
- Boring B2, Soil Sample B2-7A
 - TPH as heavy oils at 7 feet bgs: 97 mg/kg (CUL = 2,000 mg/kg)
 - Barium: 65 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 23 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 7 mg/kg (CUL= 250 mg/kg)
- Boring B2, Soil Sample B2-15
 - Barium: 31 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 18 mg/kg (CUL for chromium III= 2,000 mg/kg)
- Boring B2, Soil Sample B2-15

- Barium: 36 mg/kg (CUL= 16,000 mg/kg)
- Chromium: 18 mg/kg (CUL for chromium III= 2,000 mg/kg)
- MW2-111320, Groundwater
 - TPH as heavy oil: 540 µg/L (CUL= 500 µg/L)
 - Arsenic (total/dissolved): 8.2/7.4 µg/L (CUL= 5 µg/L)
 - Barium (total/dissolved): 55/38 µg/L (CUL= 3,200 µg/L)
 - Iron (total/dissolved): 4,600/2,100 µg/L (CUL= 11,000 µg/L)
 - Manganese (total/dissolved): 17,000/18,000 µg/L (CUL= 750 µg/L)

None of the constituent concentrations detected in soil samples collected from Boring B2 exceeded the MTCA Methods A or B CULs for unrestricted land use. However, arsenic, manganese and TPH as heavy oil were detected in groundwater sample MW2-111320 at concentrations that exceeded the MTCA Methods A or B.

Leaching of TPH as heavy oil from mixed fill material in this area may be occurring. Although TPH was not detected in the soil samples from Boring B2, Pacific Rim reported diesel or oil odors from fill material exposed in their nearby Test Pit 10 (Pacific Rim, 2007).

Regarding the detection of metals in groundwater samples collected from MW-2, the negative correlation observed between dissolved metals and redox potential indicates that reducing conditions in the groundwater could be leading to the release of naturally occurring arsenic and manganese to groundwater at this location. Gurung et al. (2005) suggested a chemically reduced environment in the aquifer triggers desorption of arsenic from arsenic-bearing iron oxides.

PID readings of field samples collected from Boring B2 at two-foot intervals ranged from 0.5 to 0.8 ppm.

LEL readings for methane from the length of Boring B2 did not exceed 0.0 percent.

Boring B3/MW3 (Figure 4) at the approximate location of the 2007 Pacific Rim preliminary soil sampling report's Test Pit 17 and the 2008 Robinson Noble Phase II ESA's Test Pit 6 (Figure 3)

- Boring B3, Soil Sample B3-7
 - TPH as heavy oils: 530 mg/kg (CUL = 2,000 mg/kg)
 - Barium: 96 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 26 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 10 mg/kg (CUL= 250 mg/kg)
- Boring B3, Soil Sample B3-7A

- TPH as diesel: 120 mg/kg (CUL = 2,000 mg/kg)
 - TPH as heavy oils: 960 mg/kg (CUL = 2,000 mg/kg)
 - cPAH TEQ= 0.00141 mg/kg (CUL= 0.1 mg/kg)
 - Barium: 61 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 19 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 26 mg/kg (CUL= 250 mg/kg)
- Boring B3, Soil Sample B3-10
 - TPH as gasoline: 21 mg/kg (CUL = 100 mg/kg)
 - TPH as diesel: 700 mg/kg (CUL = 2,000 mg/kg)
 - TPH as heavy oils: 4,500 mg/kg (CUL = 2,000 mg/kg)
 - Naphthalene: 0.083 mg/kg (CUL= 5 mg/kg)
 - 2-Methylnaphthalene: 0.03 mg/kg (CUL= 320 mg/kg)
 - 1-Methylnaphthalene: 0.019 mg/kg (CUL= 34 mg/kg)
 - Acenaphthene: 0.021 mg/kg (CUL= 4,800 mg/kg)
 - Fluorene: 0.021 mg/kg (CUL= 3,200 mg/kg)
 - Fluoranthene: 0.053 mg/kg (CUL= 3,200 mg/kg)
 - Pyrene: 0.053 mg/kg (CUL= 2,400 mg/kg)
 - Benzo(a)pyrene: 0.018 mg/kg (CUL=0.1mg/kg)
 - cPAH TEQ= 0.02047 mg/kg (CUL= 0.1 mg/kg)
 - Barium: 140 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 30 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 100 mg/kg (CUL= 250 mg/kg)
 - Boring B3, Soil Sample B3-15
 - Barium: 20 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 7.3 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Boring B3, Soil Sample B3-15A
 - Barium: 27 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 12 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 10 - 100 mg/kg (CUL= 250 mg/kg)
 - MW3-111420, Groundwater

- TPH as heavy oil: 260 µg/L (CUL= 500 µg/L)
 - Iron (total/dissolved): 13,000/9,400 µg/L (CUL= 11,000 µg/L)
 - Lead (total): 1.2 µg/L (CUL= 3,200 µg/L)
 - Manganese (total/dissolved): 1,000/1,000 µg/L (CUL= 750 µg/L)
- MW3-111420A, Groundwater
 - TPH as heavy oil: 260 µg/L (CUL= 500 µg/L)
 - Pyrene: 0.12 µg/L (CUL= 480 µg/L)
 - Iron (total/dissolved): 13,000/9,600 µg/L (CUL= 11,000 µg/L)
 - Lead (total): 1.3 µg/L (CUL= 3,200 µg/L)
 - Manganese (total/dissolved): 1,000/990 µg/L (CUL= 750 µg/L)

None of the constituent concentrations detected in soil samples collected from Boring B3 exceeded the MTCA Methods A or B CULs for unrestricted land use, except for TPH as heavy oils, detected in sample B3-10 collected from 10 feet bgs.

The collection of sample B3-10 was a field modification to the RIWP, based on a slightly elevated PID reading recorded at this depth. Of the five soil samples collected from Boring B3, only sample B3-10 exhibited a concentration of TPH as heavy oils that exceeded the CUL of 2,000 mg/kg. The Pacific Rim 2007 report noted petroleum odors from 0 – 6 feet bgs in the general vicinity of Boring B3. The Robinson Noble 2008 report stated that a soil sample (SETP6-1), collected from an unspecified depth within Test Pit 6, also in the general vicinity of Boring B3, exhibited a TPH-oil concentration of 370 mg/kg. Note, Robinson Noble did not report field or analytical evidence of petroleum contamination in their Test Pit 5, estimated to be 35 feet west of their Test Pit 6.

Total iron was detected in groundwater sample MW3-111420 at a concentration that exceeded the MTCA Methods A or B. However, the detected concentration of dissolved iron did not exceed the applicable CULs. This suggests that the detected total iron was associated with fine-grained soil particles suspended in the groundwater sample.

Manganese (total and dissolved) was detected in groundwater sample MW3-111420 at concentrations that exceeded the MTCA Methods A or B. Reducing conditions in the groundwater could be leading to the release of naturally occurring manganese to groundwater at this location.

PID readings of field samples collected from Boring B3 at two-foot intervals ranged from 0.3 to 26.2 ppm.

LEL readings for methane from the length of Boring B3 did not exceed 0.0 percent.

Boring B7 (Figure 4) at the approximate location of the 2007 Pacific Rim preliminary soil sampling report's Test Pit 14

- Boring B7, Soil Sample B7-7
 - TPH as diesel: 140 mg/kg (CUL = 2,000 mg/kg)
 - TPH as heavy oils: 1,300 mg/kg (CUL = 2,000 mg/kg)
 - Naphthalene: 0.059 mg/kg (CUL= 5 mg/kg)
 - 2-Methylnaphthalene: 0.034 mg/kg (CUL= 320 mg/kg)
 - 1-Methylnaphthalene: 0.018 mg/kg (CUL= 34 mg/kg)
 - Acenaphthene: 0.067 mg/kg (CUL= 4,800 mg/kg)
 - Fluorene: 0.1 mg/kg (CUL= 3,200 mg/kg)
 - Anthracene: 0.11 mg/kg (CUL= 24,000 mg/kg)
 - Fluoranthene: 0.35 mg/kg (CUL= 3,200 mg/kg)
 - Pyrene: 0.35 mg/kg (CUL= 2,400 mg/kg)
 - Benzo(a)pyrene: 0.041 mg/kg (CUL = 0.1 mg/kg)
 - Mercury: 1.3 mg/kg (CUL= 2 mg/kg)
 - cPAH TEQ= 0.05823 – 0.02047 mg/kg (CUL= 0.1 mg/kg)
 - Barium: 35 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 19 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 16 mg/kg (CUL= 250 mg/kg)
 - Mercury: 1.3 mg/kg (CUL=2.0 mg/kg)
- Boring B7, Soil Sample B7-15
 - Barium: 31 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 19 mg/kg (CUL for chromium III= 2,000 mg/kg)
- MW7-111220, Groundwater
 - TPH as diesel: 380 µg/L (CUL= 500 µg/L)
 - TPH as heavy oil: 630 µg/L (CUL= 500 µg/L)
 - Acenaphthene: 0.11 µg/L (CUL=960 µg/L)
 - Arsenic (total/dissolved): 36/21 µg/L (CUL= 5 µg/L)
 - Barium (total/dissolved): 62/40 µg/L (CUL= 3,200 µg/L)
 - Iron (total/dissolved): 47,000/37,000 µg/L (CUL= 11,000 µg/L)
 - Manganese (total/dissolved): 7,100/7,600 µg/L (CUL= 750 µg/L)

None of the constituent concentrations detected in soil samples collected from Boring B7 exceeded the MTCA Methods A or B CULs for unrestricted land use.

Pacific Rim's 2007 report noted logs, asphalt, concrete, rebar, metal strips, and cedar planks within Test Pit 14. ENPRO's sample B7-7 was collected from 7 feet bgs and contained concentrations of TPH as heavy oils and diesel below the CUL. TPH as heavy oils and as diesel were not detected at or above the PQL in sample B7-15 collected from 15 feet bgs.

Mercury in soil sample B7-7, collected from 7 feet bgs, exceeded the CUL based on groundwater protection of 0.1 mg/kg. However, evidence of migration of mercury from soil to groundwater has not been established, as mercury was not detected in the groundwater sample (MW7-111220) collected from this location.

Arsenic, iron, manganese and TPH as heavy oil were detected in groundwater sample MW7-111220 at concentrations that exceeded the MTCA Methods A or B. Leaching of TPH as heavy oil from fill material in this soil may be occurring. Reducing conditions in the groundwater could be leading to the release of naturally occurring arsenic, iron and manganese to groundwater at this location. Leaching of TPH as heavy oil from fill material in this soil may be occurring. Reducing conditions in the groundwater in MW7 could be leading to the release of naturally occurring arsenic, iron and manganese at this location.

PID readings of field samples collected from Boring B7 at two-foot intervals ranged from 0.3 to 1.4 ppm.

LEL readings for methane from the length of Boring B7 did not exceed 0.0 percent.

Boring B9 (Figure 4) at the approximate location of the 2007 Pacific Rim preliminary soil sampling report's Test Pit 18

- Boring B9, Soil Sample B9-7
 - TPH as diesel: 280 mg/kg (CUL = 2,000 mg/kg)
 - TPH as heavy oil: 1,200 mg/kg (CUL = 2,000 mg/kg)
 - Pyrene: 0.034 mg/kg (CUL= 2,400 mg/kg)
 - Barium: 63 mg/kg (CUL = 16,000 mg/kg)
 - Chromium: 16 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 6.5 mg/kg (CUL = 250 mg/kg)

- Boring B9, Soil Sample B9-15
 - Barium: 74 mg/kg (CUL = 16,000 mg/kg)
 - Chromium: 24 mg/kg (CUL for chromium III= 2,000 mg/kg)

None of the constituent concentrations detected in soil samples collected from Boring B9 exceeded the MTCA Methods A or B CULs for unrestricted land use.

A groundwater sample was not collected from this location due to an insufficient accumulation of water within the permanently installed monitoring wall (MW9).

PID readings of field samples collected from Boring B9 at two-foot intervals ranged from 0.4 to 1.0 ppm.

LEL readings for methane from the length of Boring B9 did not exceed 0.0 percent.

Boring B10 (Figure 4) at the approximate location of the 2007 Pacific Rim preliminary soil sampling report's Test Pit 19

- Boring B10, Soil Sample B10-7
 - TPH as heavy oil: 75 mg/kg (CUL = 2,000 mg/kg)
 - Barium: 67 mg/kg (CUL = 16,000 mg/kg)
 - Chromium: 19 mg/kg (CUL for chromium III= 2,000 mg/kg)
- Boring B10, Soil Sample B10-15
 - Barium: 58 mg/kg (CUL = 16,000 mg/kg)
 - Chromium: 14 mg/kg (CUL for chromium III= 2,000 mg/kg)

None of the constituent concentrations detected in Boring B10 soil samples exceeded the MTCA Methods A or B CULs for unrestricted land use.

A groundwater sample was not collected from this location due to an insufficient accumulation of water within the permanently installed monitoring wall (MW10) (the well did not encounter the groundwater table).

PID readings of field samples collected from Boring B10 at two-foot intervals ranged from 0.4 to 0.8 ppm.

LEL readings for methane from the length of Boring B10 did not exceed 0.0 percent.

Boring B4 (Figure 4) at the approximate location of the 2007 Pacific Rim preliminary soil sampling report's Test Pit 11

- Boring B4, Soil Sample B4-7
 - Barium: 33 mg/kg (CUL = 16,000 mg/kg)
 - Chromium: 20 mg/kg (CUL for chromium III= 2,000 mg/kg)
- Boring B4, Soil Sample B4-15
 - Barium: 36 mg/kg (CUL = 16,000 mg/kg)
 - Chromium: 22 mg/kg (CUL for chromium III= 2,000 mg/kg)

- MW4-111320, Groundwater
 - TPH as heavy oil: 310 µg/L (CUL= 500 µg/L)
 - Barium (total/dissolved): 90/52 µg/L (CUL= 3,200 µg/L)
 - Iron (total/dissolved): 7,300/260 µg/L (CUL= 11,000 µg/L)
 - Lead (total): 5.9 µg/L (CUL= 11,000 µg/L)
 - Manganese (total/dissolved): 6,200/6,200 µg/L (CUL= 750 µg/L)

None of the constituent concentrations detected in soil samples from Boring B4 exceeded the MTCA Methods A or B CULs for unrestricted land use. Manganese was the only constituent detected in groundwater sample MW4-111320 at a concentration that exceeded the MTCA Methods A or B. Reducing conditions in the groundwater could be leading to the release of naturally occurring manganese to groundwater at this location.

PID readings of field samples collected from Boring B4 at two-foot intervals ranged from 0.1 to 0.2 ppm.

LEL readings for methane from the length of Boring B4 did not exceed 0.0 percent.

Boring B5 (Figure 4) in the vicinity of the 2007 Pacific Rim preliminary soil sampling report's Test Pit 12

- Boring B5, Soil Sample B5-7
 - Barium: 53 mg/kg (CUL = 16,000 mg/kg)
 - Chromium: 17 mg/kg (CUL for chromium III= 2,000 mg/kg)
- Boring B5, Soil Sample B5-15
 - Barium: 26 mg/kg (CUL = 16,000 mg/kg)
 - Chromium: 18 mg/kg (CUL for chromium III= 2,000 mg/kg)
- MW5-111220, Groundwater
 - TPH as heavy oil: 270 µg/L (CUL= 500 µg/L)
 - Arsenic (total/dissolved): 73/42 µg/L (CUL= 5 µg/L)
 - Barium (total/dissolved): 50/26 µg/L (CUL= 3,200 µg/L)
 - Iron (total/dissolved): 58,000/42,000 µg/L (CUL= 11,000 µg/L)
 - Manganese (total/dissolved): 11,000/13,000 µg/L (CUL= 750 µg/L)

None of the constituent concentrations detected in soil samples from Boring B5 exceeded the MTCA Methods A or B CULs for unrestricted land use.

Arsenic, iron and manganese were detected in groundwater sample MW5-111220 at concentrations that exceeded the MTCA Methods A or B. Reducing conditions in the groundwater could be leading to the release of naturally occurring arsenic, iron and manganese to groundwater at this location.

PID readings of field samples collected from Boring B5 at two-foot intervals ranged from 0.5 to 0.9 ppm.

LEL readings for methane from the length of Boring B5 did not exceed 0.0 percent.

Boring B6 (Figure 4) at the approximate location of the 2007 Pacific Rim preliminary soil sampling report's Test Pit 13

- Boring B6, Soil Sample B6-7
 - Fluoranthene: 0.039 mg/kg (CUL= 3,200 mg/kg)
 - Pyrene: 0.037mg/kg (CUL= 2,400 mg/kg)
 - Benzo(a)pyrene: 0.017 mg/kg (CUL = 0.1 mg/kg)
 - cPAH TEQ= 0.02211 mg/kg (CUL= 0.1 mg/kg)
 - Barium: 64 mg/kg (CUL = 16,000 mg/kg)
 - Chromium: 26 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 5.9 mg/kg (CUL=250)

- Boring B6, Soil Sample B6-15
 - Barium: 31 mg/kg (CUL = 16,000 mg/kg)
 - Chromium: 14 mg/kg (CUL for chromium III= 2,000 mg/kg)

- MW6-111220, Groundwater
 - TPH as heavy Oil: 230 µg/L (CUL= 500 µg/L)
 - Arsenic (total/dissolved): 18/15 µg/L (CUL= 5 µg/L)
 - Barium (total): 33µg/L (CUL= 3,200 µg/L)
 - Iron (total/dissolved): 18,000/16,000 µg/L (CUL= 11,000 µg/L)
 - Manganese (total/dissolved): 4,500/4,500 µg/L (CUL= 750 µg/L)

None of the constituent concentrations detected in soil samples from Boring B6 exceeded the MTCA Methods A or B CULs for unrestricted land use.

Arsenic, iron and manganese were detected in groundwater sample MW6-111220 at concentrations that exceeded the MTCA Methods A or B. Reducing conditions in the groundwater

could be leading to the release of naturally occurring arsenic, iron and manganese to groundwater at this location.

PID readings of field samples collected from Boring B6 at two-foot intervals ranged from 0.6 to 1.0 ppm.

LEL readings for methane from the length of Boring B6 did not exceed 0.0 percent.

Boring B8 (Figure 4) at the approximate location of the 2007 Pacific Rim preliminary soil sampling report's Test Pit 15

- Boring B8, Soil Sample B8-7
 - Barium: 35 mg/kg (CUL = 16,000 mg/kg)
 - Chromium: 14 mg/kg (CUL for chromium III= 2,000 mg/kg)
- Boring B8, Soil Sample B8-15
 - Barium: 28 mg/kg (CUL = 16,000 mg/kg)
 - Chromium: 13 mg/kg (CUL for chromium III= 2,000 mg/kg)
- MW8-111420, Groundwater
 - Barium (total): 37µg/L (CUL= 3,200 µg/L)
 - Iron (total/dissolved): 8,600/560 µg/L (CUL= 11,000 µg/L)
 - Manganese (total/dissolved): 2,500/2,500 µg/L (CUL= 750 µg/L)

None of the constituent concentrations detected in soil samples from Boring B8 exceeded the MTCA Methods A or B CULs for unrestricted land use.

Manganese was detected in groundwater sample MW8-111420 at a concentration that exceeded the MTCA Methods A or B. Reducing conditions in the groundwater could be leading to the release of naturally occurring manganese to groundwater at this location.

PID readings of field samples collected from Boring B8 at two-foot intervals ranged from 0.2 to 0.4 ppm.

LEL readings for methane from the length of Boring B8 did not exceed 0.0 percent.

PID readings from the debris fill area borings are listed in Table 5 below.

Table 5
Summary of Debris Fill Area PID Readings

Boring	Location	2 ft bgs (ppm)	4 ft bgs (ppm)	6 ft bgs (ppm)	8 ft bgs (ppm)	10 ft bgs (ppm)	12 ft bgs (ppm)	14 ft bgs (ppm)
B2	Northwestern corner of Parcel A	0.6	0.7	0.8	0.6	0.5	0.6	0.8
B3	Southeastern portion of Parcel A	0.3	0.5	0.5	0.4	26.2	1.2	0.6
B4	Northwestern corner of Parcel A	0.2	0.1	0.2	0.2	0.2	0.2	0.2
B5	Western border of Parcel A	0.5	0.7	0.6	0.9	NR	0.6	0.5
B6	South central portion of Parcel B	0.6	0.6	0.7	0.8	0.7	0.7	1.0
B7	Southern portion of Parcel B	0.3	0.3	0.3	0.5	1.4	0.6	0.8
B8	North central border of Parcel C	0.3	0.4	0.3	0.3	0.2	0.3	0.2
B9	Central portion of Parcel A	0.6	1.0	0.7	0.6	0.6	0.4	0.6
B10	Central portion of Parcel A	0.5	0.8	0.6	0.4	0.4	0.4	0.4

NR = No reading due to the presence of scrap metal

2.3.2.5 Fill Piles and Log/Materials Storage Areas

The following COCs were detected in soil samples from Boring B11 and groundwater sample MW11-111420 (Figure 4) at the log/materials storage area in the central portion of Parcel A:

- Boring 11, Soil Sample B11-7
 - TPH as heavy oil: 67 mg/kg (CUL = 2,000 mg/kg)
 - Barium: 58 mg/kg (CUL = 16,000 mg/kg)
 - Chromium: 23 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Copper 19 mg/kg (CUL = 3,200 mg/kg)

- Boring 11, Soil Sample B11-15
 - Barium: 36 mg/kg (CUL = 16,000 mg/kg)
 - Chromium: 22 mg/kg (CUL for chromium III= 2,000 mg/kg)

- Copper: 9.2 mg/kg (CUL = 3,200 mg/kg)
- MW11-111420, Groundwater
 - Barium (total): 32 µg/L (CUL= 3,200 µg/L)
 - Iron (total/dissolved): 3,900/95 µg/L (CUL= 11,000 µg/L)
 - Iron (dissolved): 95 µg/L (CUL= 11,000 µg/L)
 - Manganese (total): 110 µg/L (CUL= 750 µg/L)

None of the constituent concentrations detected in the soil and groundwater samples collected from B11/MW11 exceeded the MTCA Methods A or B CULs for unrestricted land use.

Copper in soil sample B11-7, collected at 7 feet bgs, slightly exceeded the CUL based on groundwater protection of 14 mg/kg. Migration of copper from this soil to groundwater is unlikely as it was not detected in the groundwater sample collected from this location. Note: the groundwater surface in MW11 at the time of sampling was measured at 3.47 feet below the top of the well casing.

PID readings of field samples collected from Boring B11 at two-foot intervals ranged from 0.3 to 0.7 ppm.

LEL readings for methane from the length of Boring B11 did not exceed 0.0 percent.

The following COCs were detected in surface soil samples SS9 and SS10 (Figure 5) collected from the western and central portions of Parcel A, where a wood debris fill pile had previously been identified:

- Surface soil sample SS9
 - Barium: 40 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 16 mg/kg (CUL for chromium III= 2,000 mg/kg)
- Surface soil sample SS10
 - TPH as heavy oil: 170 mg/kg (CUL= 2,000 mg/kg)
 - Anthracene: 0.026 mg/kg (CUL= 24,000 mg/kg)
 - Fluoranthene: 0.05 mg/kg (CUL= 3,200 mg/kg)
 - Pyrene: 0.042 mg/kg (CUL= 2,400 mg/kg)
 - Benzo(a)pyrene: 0.056 mg/kg (CUL=0.1 mg/kg)
 - cPAH TEQ= 0.08898 mg/kg (CUL= 0.1 mg/kg)
 - Barium: 180 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 39 mg/kg (CUL for chromium III= 2,000 mg/kg)

- Lead: 17 mg/kg (CUL= 250 mg/kg)

None of the constituent concentrations detected in surface soil samples SS9 and SS10 exceeded the MTCA Methods A or B CULs for unrestricted land use.

Barium in sample SS10 exceeded the CUL based on groundwater protection of 83 mg/kg.

PID readings of field samples collected at sample locations SS9 and SS10 (Figure 5) did not exceed 0.1 ppm.

LEL readings for methane in field samples collected at sample locations SS9 and SS10 did not exceed 0.0 percent.

The following COCs were detected in surface soil samples SS11 and SS12 (Figure 5) collected from the western and central portions of Parcel A, where a construction debris fill pile had previously been identified:

- Surface soil sample SS11
 - TPH as diesel: 65 mg/kg (CUL= 2,000 mg/kg)
 - TPH as heavy oil: 650 mg/kg (CUL= 2,000 mg/kg)
 - Naphthalene: 0.12 mg/kg (CUL= 5 mg/kg)
 - 2-Methylnaphthalene: 0.078 mg/kg (CUL= 320 mg/kg)
 - 1-Methylnaphthalene: 0.037 mg/kg (CUL= 34 mg/kg)
 - Acenaphthene: 0.027 mg/kg (CUL= 4,800 mg/kg)
 - Fluorene: 0.042 mg/kg (CUL= 3,200 mg/kg)
 - Anthracene: 0.22 mg/kg (CUL= 24,000 mg/kg)
 - Fluoranthene: 0.52 mg/kg (CUL= 3,200 mg/kg)
 - Pyrene: 0.39 mg/kg (CUL=2,400)
 - Benzo(a)pyrene: 0.33 mg/kg (CUL = 0.1 mg/kg)
 - cPAH TEQ= 0.5369 mg/kg (CUL= 0.1 mg/kg)
 - Barium: 89 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 21 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 11 mg/kg (CUL= 250 mg/kg)
- Surface soil sample SS12
 - TPH as heavy oil: 130 mg/kg (CUL= 2,000 mg/kg)
 - Naphthalene: 0.014 mg/kg (CUL= 5 mg/kg)
 - 2-Methylnaphthalene: 0.017 mg/kg (CUL= 320 mg/kg)

- 1-Methylnaphthalene: 0.026 mg/kg (CUL= 34 mg/kg)
- Fluoranthene: 0.015 mg/kg (CUL= 3,200 mg/kg)
- Pyrene: 0.022 mg/kg (CUL= 2,400 mg/kg)
- cPAH TEQ= 0.00011 mg/kg (CUL= 0.1 mg/kg)
- Barium: 70 mg/kg (CUL= 16,000 mg/kg)
- Chromium: 20 mg/kg (CUL for chromium III= 2,000 mg/kg)
- Lead: 8.5 mg/kg (CUL= 250 mg/kg)

None of the constituent concentrations detected in surface soil samples SS11 and SS12 exceeded the MTCA Methods A or B CULs for unrestricted land use, with the exception of total TEQ for cPAHs in sample SS11.

None of the groundwater samples collected for this project contained detectable concentration of any cPAHs. Furthermore, except for surface soil samples SS3 (discussed above) and SS11, no other surface soil samples exhibited a total TEQ for cPAHs greater than the CUL. These data suggest the occurrence of soil at the site with a total TEQ for cPAHs greater than the CUL is limited, and has not impacted the perched groundwater beneath the Site.

Barium in surface soil sample SS11 slightly exceeded the CUL of 83 mg/kg based on groundwater protection.

Subsurface soil and groundwater samples have not been collected in the vicinity of sample SS11 to evaluate the vertical extent of barium and/or TEQ for cPAHs and direct evidence of potential groundwater impact.

PID readings of field samples collected at sample locations SS11 and SS12 (Figure 5) did not exceed 0.1 ppm.

LEL readings for methane in field samples collected at sample locations SS11 and SS12 did not exceed 0.0 percent.

The following COCs were detected in surface soil samples SS18 through SS23, collected from the log/materials storage area in the central portion of Parcel A (Figure 5):

- Surface soil sample SS18
 - Barium: 37 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 21 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Copper: 11 mg/kg (CUL= 3,200 mg/kg)
- Surface soil sample SS19

- Barium: 46 mg/kg (CUL= 16,000mg/kg)
- Chromium: 17 mg/kg (CUL for chromium III= 2,000 mg/kg)
- Copper: 12 mg/kg (CUL= 3,200 mg/kg)
- Surface soil sample SS20
 - Barium: 66 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 29 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Copper: 17 mg/kg (CUL= 3,200 mg/kg)
- Surface soil sample SS20A
 - Barium: 71 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 29 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Copper: 17 mg/kg (CUL= 3,200 mg/kg)
- Surface soil sample SS21
 - Barium: 28 mg/kg (CUL= 16 000 mg/kg)
 - Chromium: 18 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Copper: 7.5 mg/kg (CUL= 3,200 mg/kg)
- Surface soil sample SS22
 - Anthracene: 0.014 mg/kg (CUL= 24,000 mg/kg)
 - Chrysene: 0.067 mg/kg (CUL= 0.1 mg/kg)
 - Fluoranthene: 0.17 mg/kg (CUL= 3,200 mg/kg)
 - Pyrene: 0.15 mg/kg (CUL= 2,400 mg/kg)
 - Benzo(a)pyrene: 0.062 mg/kg (CUL = 0.1 mg/kg)
 - cPAH TEQ= 0.08407 mg/kg (CUL= 0.1 mg/kg)
 - Barium: 57 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 26 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Copper: 19 mg/kg (CUL= 3,200 mg/kg)
- Surface soil sample SS23
 - Naphthalene: 0.016 mg/kg (CUL= 5 mg/kg)
 - Barium: 56 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 25 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Copper: 13 mg/kg (CUL= 3,200 mg/kg)

None of the constituent concentrations detected in the log/materials storage area in the central portion of Parcel A surface soil samples exceeded the MTCA Methods A or B CULs for unrestricted land use.

Copper in samples SS20 and SS22, slightly exceeded the CUL based on groundwater protection of 14 mg/kg, however, copper was not detected in nearby groundwater sample MW11-111420, providing evidence that migration of copper to the underlying perched water is not occurring.

PID readings of field samples collected at sample locations SS18 through SS23 (Figure 5) did not exceed 0.1 ppm.

LEL readings for methane in field samples collected at sample locations SS18 through SS23 did not exceed 0.0 percent.

The following COCs were detected in surface soil samples SS16, SS17, SS24, and SS25, collected from the central and western portions of Parcel A, where imported fill piles had been identified (Figure 5):

- Surface soil sample SS16
 - Barium: 30 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 31 mg/kg (CUL for chromium III= 2,000 mg/kg)
- Surface soil sample SS17
 - Barium: 48 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 20 mg/kg (CUL for chromium III= 2,000 mg/kg)
- Surface soil sample SS24
 - TPH as heavy oil: 280 mg/kg (CUL= 2,000 mg/kg)
 - Naphthalene: 0.078 mg/kg (CUL= 5 mg/kg)
 - 2-Methylnaphthalene: 0.09 mg/kg (CUL= 320mg/kg)
 - 1-Methylnaphthalene: 0.13 mg/kg (CUL= 34 mg/kg)
 - Acenaphthene: 0.036 mg/kg (CUL= 4,800 mg/kg)
 - Fluorene: 0.046 mg/kg (CUL= 3,200 mg/kg)
 - Anthracene: 0.033 mg/kg (CUL= 24,000 mg/kg)
 - Fluoranthene: 0.062 mg/kg (CUL=3,200 mg/kg)
 - Pyrene: 0.11 mg/kg (CUL= 2,400 mg/kg)
 - Benzo(a)pyrene: 0.029 mg/kg (CUL = 0.1 mg/kg)
 - cPAH TEQ= 0.03718 mg/kg (CUL= 0.1 mg/kg)

- Barium: 48 mg/kg (CUL= 16,000 mg/kg)
- Chromium: 23 mg/kg (CUL for chromium III= 2,000 mg/kg)
- Lead: 8.5 mg/kg (CUL= 250 mg/kg)
- Surface soil sample SS25
 - TPH as heavy oil: 160 mg/kg (CUL= 2,000 mg/kg)
 - Barium: 61 mg/kg (CUL= 16, 000 mg/kg)
 - Chromium: 23 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 35 mg/kg (CUL= 250 mg/kg)

None of the constituent concentrations detected in surface soil samples SS16, SS17, SS24, and SS25 exceeded the MTCA Methods A or B CULs for unrestricted land use.

PID readings of field samples collected at sample locations SS16, SS17, SS24, and SS25 (Figure 5) did not exceed 0.1 ppm.

LEL readings for methane in field samples collected at sample locations SS16, SS17, SS24, and SS25 did not exceed 0.0 percent.

2.3.2.6 Wetlands

The following COCs were detected in surface soil samples SS13, SS14, and SS15 (Figure 5) collected from the wetlands on the eastern portion of Parcel A (Wetland B, Soundview Consultants, 2020):

- Surface soil sample SS13
 - Barium: 28 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 16 mg/kg (CUL for chromium III= 2,000 mg/kg)
- Surface soil sample SS14
 - TPH as heavy oil: 69 mg/kg (CUL= 2,000 mg/kg)
 - Fluoranthene: 0.012 mg/kg (CUL=3,200 mg/kg)
 - Pyrene: 0.013 mg/kg (CUL= 2,400 mg/kg)
 - cPAH TEQ= 0.0011 mg/kg (CUL= 0.1 mg/kg)
 -
 - Barium: 55 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 23 mg/kg (CUL for chromium III= 2,000 mg/kg)

- Lead: 8.1 mg/kg (CUL= 250 mg/kg)
- Surface soil sample SS15
 - TPH as heavy oil: 95 mg/kg (CUL= 2,000 mg/kg)
 - Fluoranthene: 0.06 mg/kg (CUL=3,200 mg/kg)
 - Pyrene: 0.066 mg/kg (CUL= 2,400 mg/kg)
 - Benzo(a)pyrene: 0.039 mg/kg (CUL=0.1 mg/kg)
 - cPAH TEQ= 0.0513 mg/kg (CUL= 0.1 mg/kg)
 - Barium: 64 mg/kg (CUL= 16,000 mg/kg)
 - Chromium: 25 mg/kg (CUL for chromium III= 2,000 mg/kg)
 - Lead: 11 mg/kg (CUL= 250 mg/kg)

None of the constituent concentrations detected in surface soils samples SS13, SS14, and SS15 exceeded the MTCA Methods A or B CULs for unrestricted land use.

PID readings of field samples collected at sample locations SS13, SS14, and SS15 (Figure 5) did not exceed 0.1 ppm.

LEL readings for methane in field samples collected at sample locations SS13, SS14, and SS15 did not exceed 0.0 percent.

Field measurements of conventional water quality parameters including pH, salinity, total dissolved solids, conductivity, and temperature were collected at three locations with standing water in the wetlands (Figure 6, Table 6).

Table 6
Field Measurements of Conventional Water Quality Parameters

Parameter	30 ft North of MW9	45 ft East of MW9	15 ft Northwest of MW3	Average
pH	6.41	7.55	7.1	7.02
Salinity (ppm)	17.1	11.7	17.9	15.6
Total Dissolved Solids (ppm)	25.7	18.1	27.2	23.7
Conductivity (µS)	37.2	25.9	39.2	34.1
Temperature (°C)	7.4	6.7	7.6	7.2

2.3.2.7 Hydrogeologic Data Collection

Following well installation and development, water level measurements were collected from each well and used to calculate the elevation of the measured groundwater table. The measured depth to groundwater was subtracted from the surveyed elevation, provided by CES, Inc., to calculate the elevation of the groundwater table at that location (see Table 7 below). This information was used to construct a water table contour map (Figure 16). The hydrogeologic gradient calculated from this map varies as follows:

- 0.013 foot per foot to the northwest near the southwest corner of the site
- 0.01 foot per foot to the northwest in the northwest portion of the property
- 0.0045 foot per foot to the northeast across the central portion of the property
- 0.006 foot per foot to the east/northeast in the southeast portion of the property

Table 7
Summary of Monitoring Well Elevations and Groundwater Level Measurements

Monitoring Well	Surveyed Elevation (top of casing) (NAVD 88)	Latitude/Longitude	Water Level Below Top of Casing (ft)	Calculated Groundwater Elevation (NAVD 88)
MW1	244.92	Lat: 47° 03' 57.232" Long: -122° 56' 29.269"	10.94	233.98
MW2	244.96	Lat: 47° 04' 06.853" Long: -122° 56' 25.093"	12.33	232.63
MW3	247.80	Lat: 47° 03' 58.385" Long: -122° 56' 11.900"	13.33	234.47

NAVD 88 = North American Vertical Datum of 1988
ft = feet

Table 7 (continued)
Summary of Monitoring Well Elevations and Groundwater Level Measurements

Monitoring Well	Surveyed Elevation (top of casing) (NAVD 88)	Latitude/Longitude	Water Level Below Top of Casing (ft)	Calculated Groundwater Elevation (NAVD 88)
MW4	245.28	Lat: 47° 04' 06.050" Long: -122° 56' 25.227"	12.16	233.12
MW5	244.66	Lat: 47° 04' 04.760" Long: -122° 56' 25.028"	11.32	233.34
MW6	243.57	Lat: 47° 03' 59.941" Long: -122° 56' 29.016"	9.84	233.73
MW7	244.52	Lat: 47° 03' 58.855" Long: -122° 56' 29.345"	10.59	233.93
MW8	248.59	Lat: 47° 03' 56.447" Long: -122° 56' 25.062"	6.50	242.09

MW9	253.10	Lat: 47° 04' 00.662" Long: -122° 56' 12.522"	13.98	239.12
MW10	257.25	Lat: 47° 04' 01.648" Long: -122° 56' 13.810"	ND	nd
MW11	241.72	Lat: 47° 04' 03.358" Long: -122° 56' 19.744"	3.47	238.25

NACD 88 = North American Vertical Datum of 1988

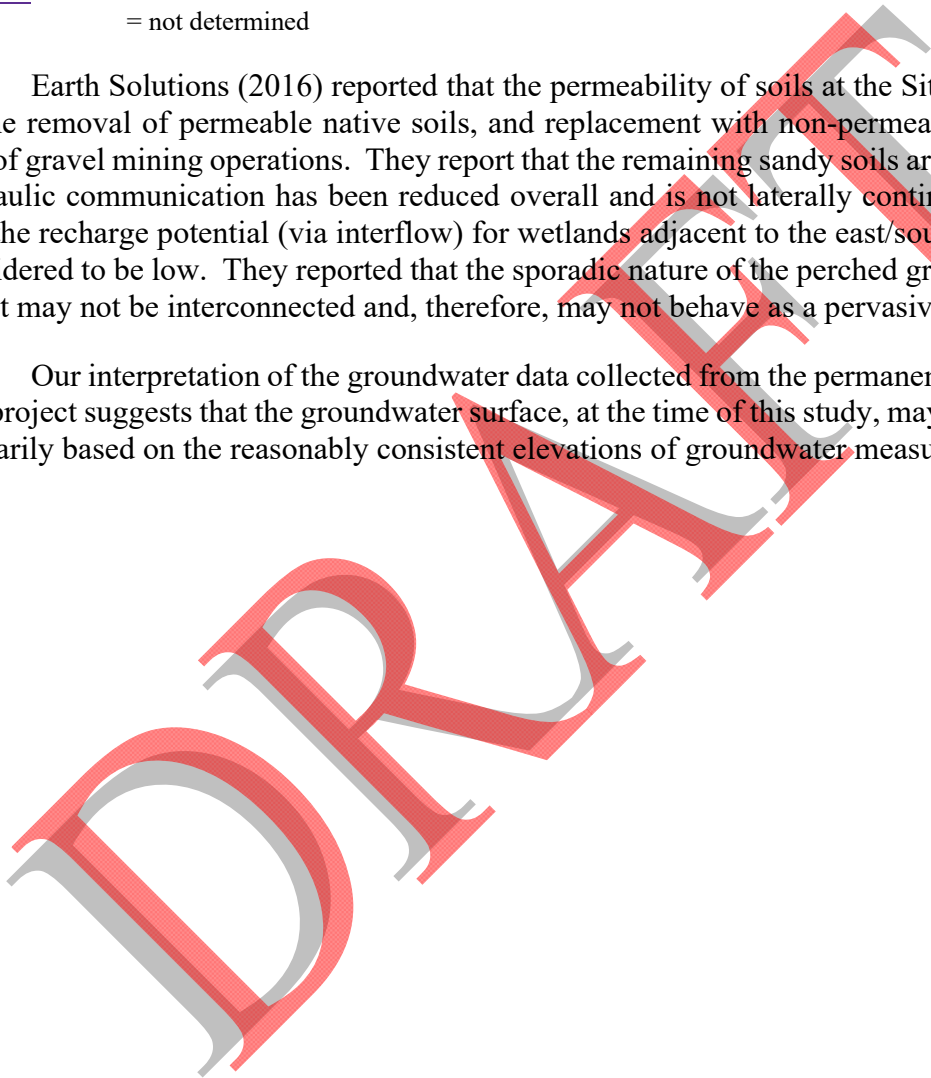
ft = feet

ND = None detected

nd = not determined

Earth Solutions (2016) reported that the permeability of soils at the Site had been reduced by the removal of permeable native soils, and replacement with non-permeable fill materials as part of gravel mining operations. They report that the remaining sandy soils are discontinuous and hydraulic communication has been reduced overall and is not laterally continuous. They report that the recharge potential (via interflow) for wetlands adjacent to the east/southeast of the Site is considered to be low. They reported that the sporadic nature of the perched groundwater suggests that it may not be interconnected and, therefore, may not behave as a pervasive interflow regime.

Our interpretation of the groundwater data collected from the permanent wells installed for this project suggests that the groundwater surface, at the time of this study, may be interconnected, primarily based on the reasonably consistent elevations of groundwater measured across the Site.



3.0 CONCEPTUAL SITE MODEL

The following sections present an updated CSM (Figure 22), including potential contaminant release and transport mechanisms, exposure pathways, and receptors. The CSM identifies data gaps in the existing characterization data and defines applicable regulatory screening levels.

3.1 CONTAMINANT RELEASE AND TRANSPORT

The Site was operated as a gravel pit from at least 1960 through the 1990s. To support operations, diesel, heavy oils, and solvents were stored and used on the Site in a localized area, i.e., the garage area (see Figure 3). This general portion of the Site also supported a UST, an AST, and vehicle maintenance activities. The tanks and the garage had all been removed prior to this RI.

Potential sources for contamination at the former UST location, former AST location, garage, and vehicle maintenance area include the following:

- Fuel storage, including diesel fuel that was stored in the UST (removed in 1993).
- Unknown contents of the former AST
- Former vehicle maintenance operations, including the presumed use of solvents and handling/storage of used oil

Following its use as a gravel pit, wood debris, logs and construction debris such as concrete, asphalt, metal and wire were used as fill at the Site.

An aerial photograph from 1990 indicates logs and materials were stored on Parcel A at that time.

Multiple fill piles were identified on Parcel A in 2015. The Site developer, Green Cove Park Development/Westbrook Investments, indicated the fill piles – consisting of wood debris, construction debris, and imported fill – have all been subsequently removed and no materials are currently stored above ground at the Site. The Ages 2015 soil sampling report addressed contamination concerns associated with the 2015 fill piles and reported sporadic trace amounts of heavy oil and metals (see Section 3.7).

A resident complaint alleged creosote logs were stored at the Site, though the logs cited in the complaint were on an adjacent property. However, logs (not known or suspected to have been treated with creosote) were reported in multiple test pits at the Site. Potential sources for contamination at the fill areas and material storage locations include the following:

- Fill debris of unknown origin placed sporadically at the Site

- Wood debris used as fill material

This RI has confirmed the presence of the following COCs in soil and/or groundwater at concentrations greater than the applicable CULs for unrestricted land use:

- Arsenic
 - Groundwater at the northwestern corner of Parcel A (sample MW2), western border of Parcel A (sample MW5), and the south portion of Parcel B (sample MW6 and MW7). Buried wood and construction debris were identified in all of these borings, except MW2.

Arsenic in groundwater can potentially be a result of leaching from the wood and debris fill. Degradation of the buried wood can reduce groundwater oxidation-reduction potential (ORP), which in turn can increase mobility of naturally occurring arsenic, and other metals, in the soil, resulting in a transfer of these metals to the shallow groundwater. Since the shallow groundwater and deeper aquifer are disconnected (separated by relatively impermeable layers of glacial and non-glacial sedimentary soil), migration of arsenic-impacted groundwater to the deep aquifer is not anticipated.

Arsenic-impacted shallow groundwater and potential discharge to the western wetlands at the Site (Wetlands A and D, Soundview Consultants, 2020) is a possible concern based on the detected concentrations of dissolved arsenic in groundwater samples MW2 and MW5. Based on the hydrogeologic contours for the Site (Figure 15), groundwater in the vicinity of MW6 and MW7 is not expected to reach the western wetlands.

- Iron
 - Groundwater at the western border of Parcel A (sample MW5) and the south portion of Parcel B (samples MW6 and MW7). Buried wood and construction debris were identified in all three of these borings.

Iron in groundwater may be a result of leaching from the wood and debris fill, and/or leaching of naturally occurring iron due to a reduced ORP. Since the shallow groundwater and deeper aquifer are disconnected, migration of iron-impacted groundwater to the deep aquifer is not anticipated.

Iron-impacted shallow groundwater and potential discharge to the western wetlands at the Site is a possible concern based on elevated concentrations of dissolved iron in groundwater sample MW5.

- Manganese
 - Groundwater at the northwestern corner of Parcel A (samples MW2, MW4, and MW5), southeastern portion of Parcel A (sample MW3), and the south portion

of Parcel B (samples MW6 and MW7). Construction debris and/or buried wood were identified in all of these borings except MW2, MW4, and MW6.

Manganese in groundwater may be a result of leaching from the wood and debris fill and/or leaching of naturally occurring manganese due to a reduced ORP. Since the shallow groundwater and deeper aquifer are disconnected, migration of manganese-impacted groundwater to the deep aquifer is not anticipated.

Manganese-impacted shallow groundwater and potential discharge to the eastern wetlands at the Site (Wetlands B and E, Soundview Consultants, 2020) and western wetlands at the Site is a possible concern based on elevated concentrations of dissolved manganese in groundwater samples MW2, MW3, MW4 and MW5.

- TPH as heavy oil
 - Subsurface soil at the southeastern portion of Parcel A where petroleum odor, wood debris, and construction debris had previously been identified (sample B3-10)
 - Groundwater at the northwestern corner of Parcel A (sample MW2), where petroleum odor, wood, and construction debris had previously been identified and in the southern portion of Parcel B, where buried wood and construction debris had previously been identified (sample MW7)

Potential sources of TPH to the subsurface soil at the southeastern portion of Parcel A include construction debris and/or buried wood. Potential transport mechanisms for the subsurface TPH as heavy oil include leaching to groundwater driven by infiltrating surface waters. If the TPH reached the groundwater, it could subsequently discharge to the wetlands on the eastern portion of the Site. Note: TPH was detected in the groundwater sample collected from MW3 at a concentration less than the applicable CUL.

TPH as heavy oil in groundwater at the northwestern portion of Parcel A and southern portion of Parcel B can potentially be a result of leaching from the wood and construction debris fill. Since the shallow groundwater and deeper aquifer are disconnected, migration of TPH-impacted groundwater to the deep aquifer is not anticipated. Discharge of TPH-impacted shallow groundwater to the western wetlands at the Site is a possible concern for MW2, based on the hydrogeologic contours of the Site.

- cPAHs
 - Surface soil near the southern boundary of Parcel A, where a construction debris fill pile had previously been identified (sample SS11)
 - Surface soil at the stained area north of the garage (sample SS3)

Potential sources of cPAHs to the surface soil near the southern boundary of Parcel A and north of the garage include historical fuel releases associated with sand and gravel operations and/or construction fill piles storage. Potential transport mechanisms of the

cPAHs include surface stormwater runoff and leaching to subsurface soil and groundwater. However, analytical data presented herein do not indicate that the lateral and/or vertical transport of cPAHs from surface soil have occurred. No cPAHs were detected in any of the groundwater samples analyzed for this project.

3.2 EXPOSURE PATHWAYS AND RECEPTORS

An exposure pathway describes the mechanisms by which human or ecological exposure to contaminants can occur assuming no remedial action or protective control is in place. An exposure pathway is considered complete if a human or ecological receptor can be exposed to a contaminant via that pathway. Assuming a future residential land use, potential pathways for receptors to be exposed to contaminants in Site soil, groundwater, and surface water are outlined below and presented in Figure 22.

Soil

Current and future potentially complete exposure pathways for soil include the following:

- Construction workers: dermal contact with or incidental ingestion of contaminated soils
- Residents: dermal contact with or incidental ingestion of contaminated soils
- Terrestrial wildlife: contacting contaminated soils
- Terrestrial wildlife: consuming soil invertebrates that have accumulated bioaccessible contaminants from the soil

In addition to these pathways, contaminants in soil can leach to groundwater, acting as a secondary source; therefore, the soil-to-groundwater pathway is considered in areas where there is a potentially complete groundwater exposure pathway.

Groundwater

As discussed further in Section 4.3, shallow perched groundwater at the Site is not used for drinking water and is not a practical future source of drinking water; therefore, potable use of on-Site groundwater is not considered a potentially complete exposure pathway for the Site.

As discussed in Sections 2.1 and 2.2.3, the underlying aquifer used for drinking water is approximately 150 feet bgs and is effectively disconnected to shallow perched groundwater at the Site; therefore, the deeper aquifer is not considered a potentially complete exposure pathway for the Site.

Current and future potentially complete exposure pathways for shallow perched groundwater at the Site include the following:

- Construction workers: direct contact with contaminated groundwater during excavation or other construction-related activities

- Ecological receptors (benthic, aquatic): direct exposure to shallow groundwater contaminants discharged to the sediment bioactive zone or surface water
- Higher-trophic-level organisms (ecological or human): consuming ecological receptors contaminated by shallow groundwater discharges to the sediment bioactive zone or surface water

Surface Water

Current and future potentially complete exposure pathways for surface water in nearby water bodies, or more likely storm water ponding at the Site, include the following:

- Ecological receptors (benthic, aquatic): direct exposure to contaminants in sediment bioactive zone or surface water
- Higher-trophic-level organisms (ecological or human): consuming ecological receptors contaminated by exposure to surface water

DRAFT

4.0 SUMMARY, CONCLUSIONS & RECOMMENDATIONS

The following sections present a summary of our findings, and ENPRO's conclusions and recommendations based on the information gathered during this RI.

4.1 SUMMARY AND CONCLUSIONS

Localized soil and groundwater contamination with certain COCs at concentrations greater than the applicable CULs for unrestricted land use has been identified at the Site. All exceedances are presented in figures 7 to 14 and summarized below:

- Arsenic
 - Concentrations of dissolved arsenic ranging from 7.4 µg/L to 42 µg/L (CUL= 5 µg/L) were detected in groundwater near the northwestern corner of Parcel A (sample MW2), western border of Parcel A (sample MW5), and southern portion of Parcel B (samples MW6 and MW7). Buried fill material with a significant component of wood was observed in soil borings B5 and B7.

Arsenic in groundwater can potentially be a result of leaching from the wood and debris fill. Degradation of buried wood can result in reduced groundwater ORP conditions, which in turn can increase the mobility of naturally occurring arsenic in soil, releasing it to the groundwater.

Since the shallow groundwater and deeper aquifer are not connected, migration of arsenic-impacted groundwater to the deep aquifer is not anticipated. However, arsenic-impacted shallow groundwater and subsequent discharge to the wetlands west of the Site is a potential concern based on elevated concentrations of dissolved arsenic in groundwater samples from MW2 and MW5, collected from the northwest corner and western border of Parcel A.

Based on our hydrogeologic assessment, it appears that groundwater may flow from the northwestern portion of Parcel A towards Wetlands A and D as identified by Soundview Consultants (2020). However, it has not been established whether or not the wetlands are connected to the shallow perched groundwater table.

- Iron
 - Concentrations of dissolved iron ranging from 16,000 µg/L to 42,000 µg/L (CUL= 11,000 µg/L) in groundwater at the western border of Parcel A (sample MW5), and the southern portion of Parcel B (samples MW6 and MW7), where buried wood and construction debris were identified. Buried fill material with a significant component of wood was observed in soil borings B5 and B7.

Elevated concentrations of iron in groundwater may be a result of leaching from the wood and debris fill and/or naturally occurring soils, exacerbated by a reduced ORP. Since the shallow groundwater and deeper aquifer are not connected, migration of iron-impacted groundwater to the deep aquifer is not anticipated. However, iron-impacted shallow groundwater and subsequent discharge to the wetlands west of the Site is a potential concern based on elevated concentrations of dissolved iron in groundwater sample MW5, collected from the western border of Parcel A.

- Manganese

- Concentrations of dissolved manganese ranging from 990 µg/L to 18,000 µg/L (CUL= 750 µg/L) were detected in groundwater near the northwestern corner of Parcel A (sample MW2), southeastern portion of Parcel A (sample MW3), western border of Parcel A (samples MW4 and MW5), and the southern portion of Parcel B (samples MW6 and MW7) and the central portion of Parcel C (sample MW8). Buried fill material with a significant component of wood was observed in soil borings B3, B5, B7, and B8.

Elevated concentrations of manganese in groundwater may be a result of leaching from the wood and debris fill and/or naturally occurring soils, exacerbated by a reduced ORP conditions. Since the shallow groundwater and deeper aquifer are not connected, migration of manganese-impacted groundwater to the deep aquifer is not anticipated. However, manganese-impacted shallow groundwater and subsequent discharge to the wetlands on the east portion of the Site (Wetlands B and E as identified by Soundview Consultants, 2020) and on the west portion of the Site (Wetlands A and D as identified by Soundview Consultants, 2020) may be a concern based on elevated concentrations of dissolved manganese in groundwater samples MW2, MW3, MW4 and MW5.

- TPH as heavy oil

- TPH as oil was detected at a concentration of 4,500 mg/kg (CUL = 2,000 mg/kg) in subsurface soil collected from 10 feet bgs at the southeastern portion of Parcel A (sample B3-10). Buried fill material with a significant component of wood was observed in soil boring B3. Petroleum odors had been reported in soils from test pits in this vicinity of the Site (Robinson Noble, 2008).

Potential sources of TPH detected in sample B3-10 may include buried debris and/or buried wood. Potential transport mechanism of subsurface TPH as heavy oil in soil includes leaching to groundwater, which could subsequently discharge to the wetland onsite.

Laboratory results of the groundwater sample collected from MW3 do not provide evidence that the TPH detected in soil has leached to the groundwater.

Furthermore, it has not been established if surface water in the adjacent wetlands is connected to the shallow perched groundwater beneath the Site.

- TPH as oil was detected at a concentration of 630 µg/L in groundwater sample MW7, collected near the southern portion of Parcel B, and at a concentration of 540 µg/L in groundwater sample MW2, collected near the northwestern corner of Parcel A (CUL= 500 µg/L). Buried fill material with a significant component of wood was observed in soil boring B7. Petroleum odors were reported in soils from a test pit excavated in this vicinity of the Site (Pacific Rim Soil & Water, Inc., 2007).

TPH as heavy oil in groundwater at the northwestern corner of Parcel A and southern portion of Parcel B can potentially be a result of leaching from the wood and construction debris fill.

Since the shallow groundwater and deeper aquifer are not connected, migration of TPH-impacted groundwater to the deep aquifer is not anticipated. Discharge of TPH-impacted shallow groundwater to wetlands D and A is a potential concern based on elevated TPH concentrations detected in MW2, and our interpretation of a localized west-northwestern groundwater flow direction.

It has not been established if surface water in the adjacent wetlands is connected to the shallow perched groundwater beneath the Site.

- cPAHs

- A calculated cPAH TEQ of 0.5369 mg/kg (CUL= 0.1 mg/kg) was determined for surface soil near the south-central portion of Parcel A (sample SS11), where a construction debris fill pile had previously been identified.

A calculated cPAH TEQ of 0.11701 mg/kg (CUL= 0.1 mg/kg) was detected in surface soil sample SS3 collected to evaluate stained soil previously identified north of the garage.

Potential sources of cPAHs detected in these surface soil samples include historical fuel releases associated with sand and gravel operations and/or construction fill piles storage. Potential transport mechanisms of cPAHs in surface soil include stormwater runoff and leaching to subsurface soil and groundwater.

Analytical data from nearby surface soil and groundwater samples do not provide evidence that such migration has occurred.

4.2 RECOMMENDATIONS

Based on the information available for the Site, the following data gaps should be addressed to evaluate feasibility of potential remedial alternatives:

- Delineate the lateral and vertical extent of surface soil contamination with cPAHs to the north of the garage, and cPAHs at the south-central portion of Parcel A
- Delineate the lateral and vertical extent of subsurface soil contamination with TPH as heavy oil at the southeastern portion of Parcel A
- Delineate the lateral extent of groundwater contamination with arsenic, iron, manganese and TPH as heavy oil in impacted areas of parcels A, B and C. And conduct four consecutive quarters of groundwater sampling and analysis to effectively support Site groundwater characterization.
- Survey elevations of wetlands to assess connectivity with perched water
- Periodic monitoring of groundwater for short list of contaminants and to monitor changes in groundwater elevation over time
- Additional surface and near surface soil sampling around SS3 to evaluate cPAHs.
- Additional surface and near surface soil sampling around SS11 to evaluate cPAHs.
- Additional subsurface soil sampling around B3-10 to evaluate TPH as heavy oil.

5.0 REFERENCES

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Author of Publication: ENPRO
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Name of Publication: *Environmental Soil Sampling,*
Author of Publication: Ages
Date of Publication: July 20, 2015

Name of Publication: *Improper Solid Waste Handling – Former Sundberg Gravel Pit*
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Name of Publication: *Initial Investigation Field Report*
Author of Publication: Ecology
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Date of Publication: April 2, 2004

Name of Publication: *Phase I Environmental Site Assessment: Sundberg Estates*
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Date of Publication: January 30, 2015

Name of Publication: *Phase I ESA and Geotechnical Report Addendum*
Author of Publication: Ages
Date of Publication: October 18, 2016

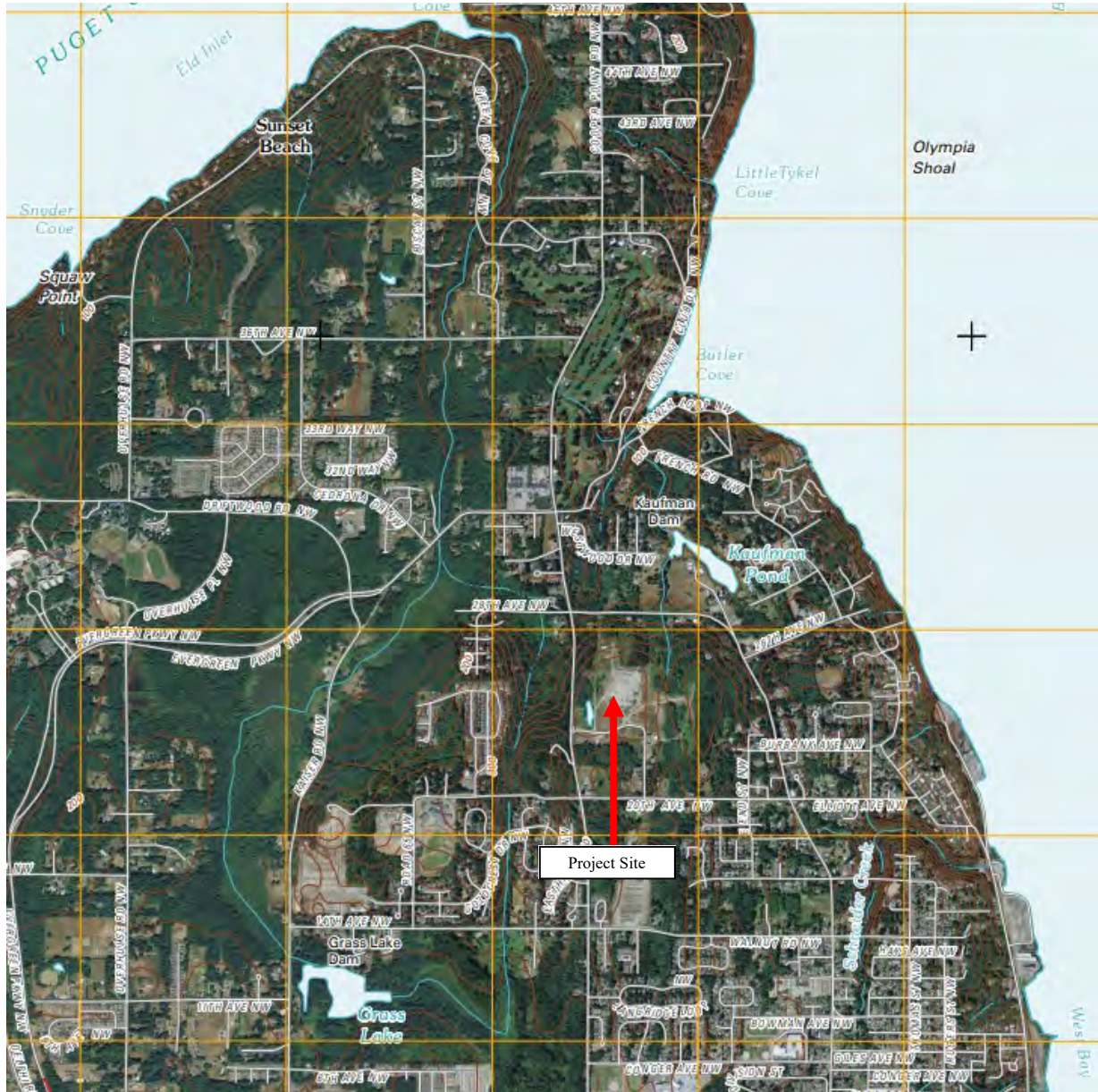
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- Name of Publication: *Revised Hydrogeologic Report: Proposed Green Cove Park Residential Development, Cooper Point Road Northwest, Olympia, Washington*
Author of Publication: Earth Solutions
Date of Publication: October 11, 2016
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- Name of Publication: *Sundberg Estates Subsurface Investigation (Phase II Environmental Site Assessment)*
Author of Publication: Robinson Noble
Date of Publication: March 4, 2008
- Name of Publication: *Technical Memorandum: Green Cove Records Review, Data Gaps Analysis, and Recommendations*
Author of Publication: Robinson Noble
Date of Publication: June 5, 2019
- Name of Publication: *Underground Storage Tank Removal Located at 2200 Cooper Point Road NW, Olympia, Site #011500, County Plot 8170000000*
Author of Publication: Stemen
Date of Publication: March 18, 2013
- Name of Publication: *Wetlands and Fish and Wildlife Habitat Assessment Report & Buffer Enhancement Plan, Green Cove Park*
Author of Publication: Soundview Consultants
Date of Publication: June 2017, Revised September 2018, February 2020 and November 2020

Appendix A

Site Figures



Source: U.S. Geological Survey, 2011

Figure 1
TOPOGRAPHIC MAP

Scale: 1 inch = 2,000 feet



Source: Thurston County Assessors Office, 2020

Figure 2
SITE BOUNDARY AND PARCEL LOCATIONS

Scale: 1 inch = 600 feet



- ★ Wood/Logs in Test Pit
- ★ Construction and/or Other Debris in Test Pit
- ★ Wood and Construction Debris in Test Pit

Figure 3
AREAS OF CONCERN NOTED IN PREVIOUS REPORTS

Scale: 1 inch = 600 feet



- Soil boring/monitoring well
- Soil boring/dry monitoring well

Figure 4
SOIL BORING AND GROUNDWATER SAMPLING LOCATIONS

Scale: 1 inch = 600 feet



● Surface sample location

Figure 5
SURFACE SOIL SAMPLING LOCATIONS

Scale: 1 inch = 600 feet




 Parameter Measurement Locations

Figure 6
 SURFACE WATER PARAMETERS IN THE WETLANDS

Scale: 1 inch = 600 feet

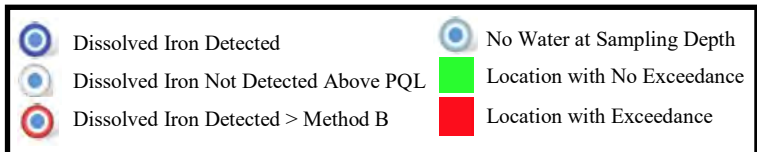


Figure 7
DISSOLVED IRON IN GROUNDWATER EXCEEDING
METHOD B NONCANCER CUL (11,000 µg/L)

Scale: 1 inch = 600 feet

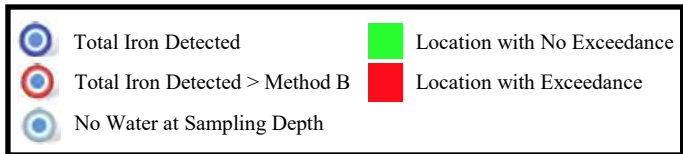
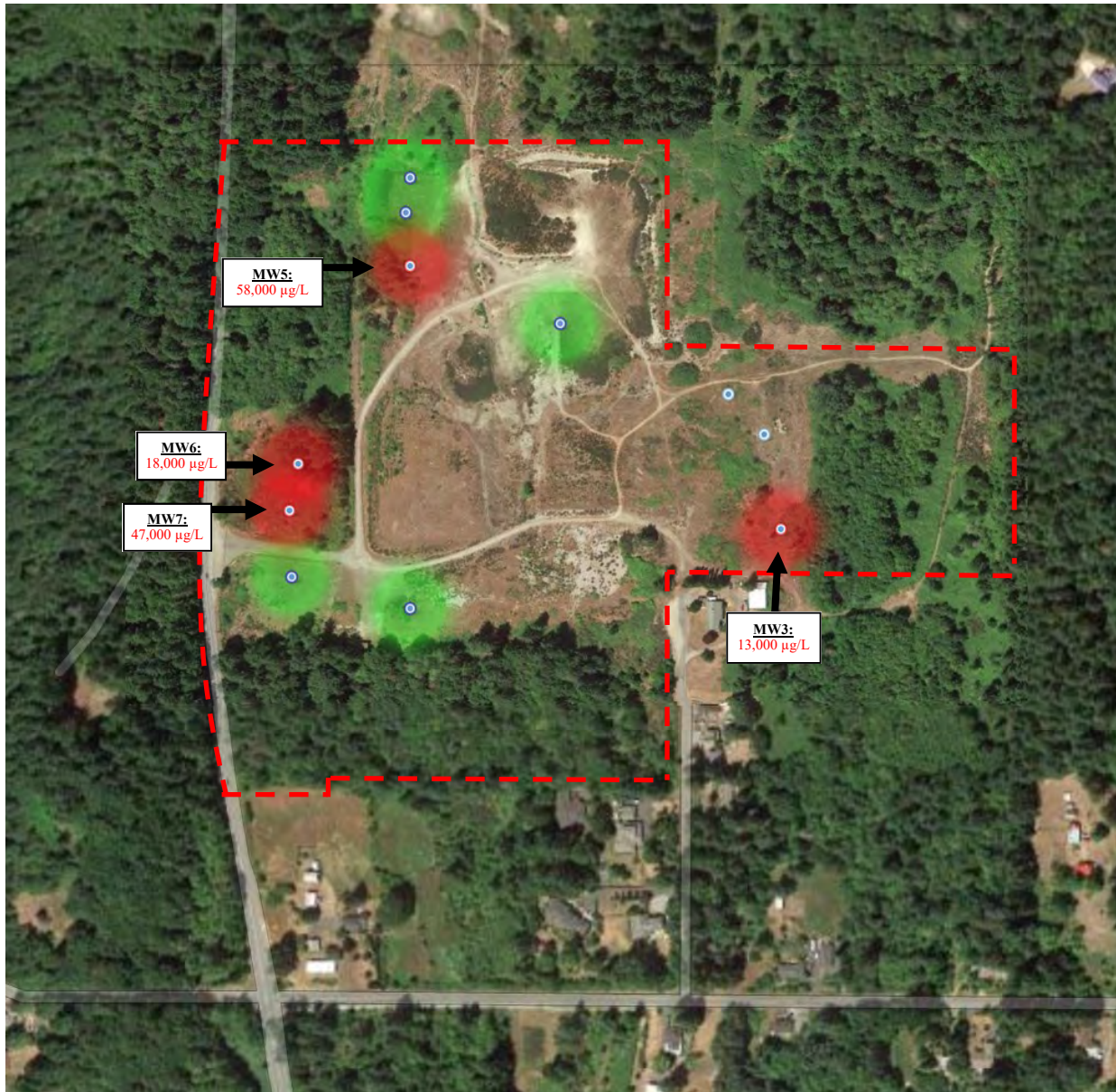


Figure 8
 TOTAL IRON IN GROUNDWATER EXCEEDING
 METHOD B NONCANCER CUL (11,000 µg/L)

Scale: 1 inch = 600 feet

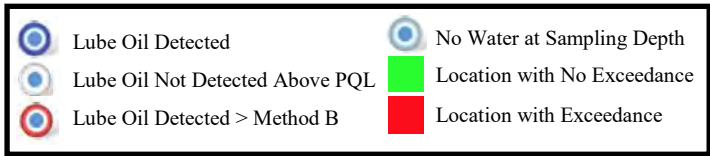


Figure 9
TPH AS HEAVY OIL IN GROUNDWATER EXCEEDING
METHOD A CUL (500 µg/L)

Scale: 1 inch = 600 feet

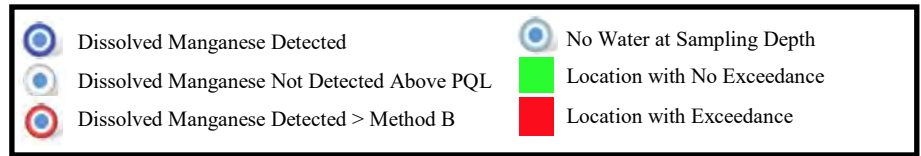


Figure 10
DISSOLVED MANGANESE IN GROUNDWATER EXCEEDING
METHOD B NONCANCER CUL (750 µg/L)

Scale: 1 inch = 600 feet

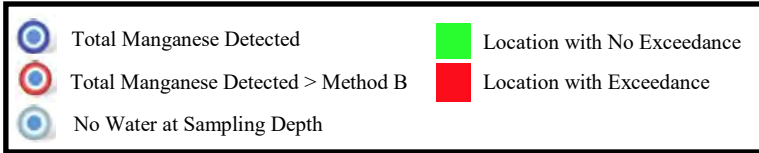


Figure 11
 TOTAL MANGANESE IN GROUNDWATER EXCEEDING
 METHOD B NONCANCER CUL (750 µg/L)

Scale: 1 inch = 600 feet

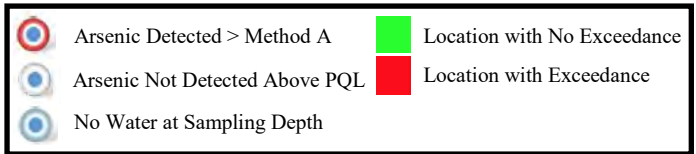
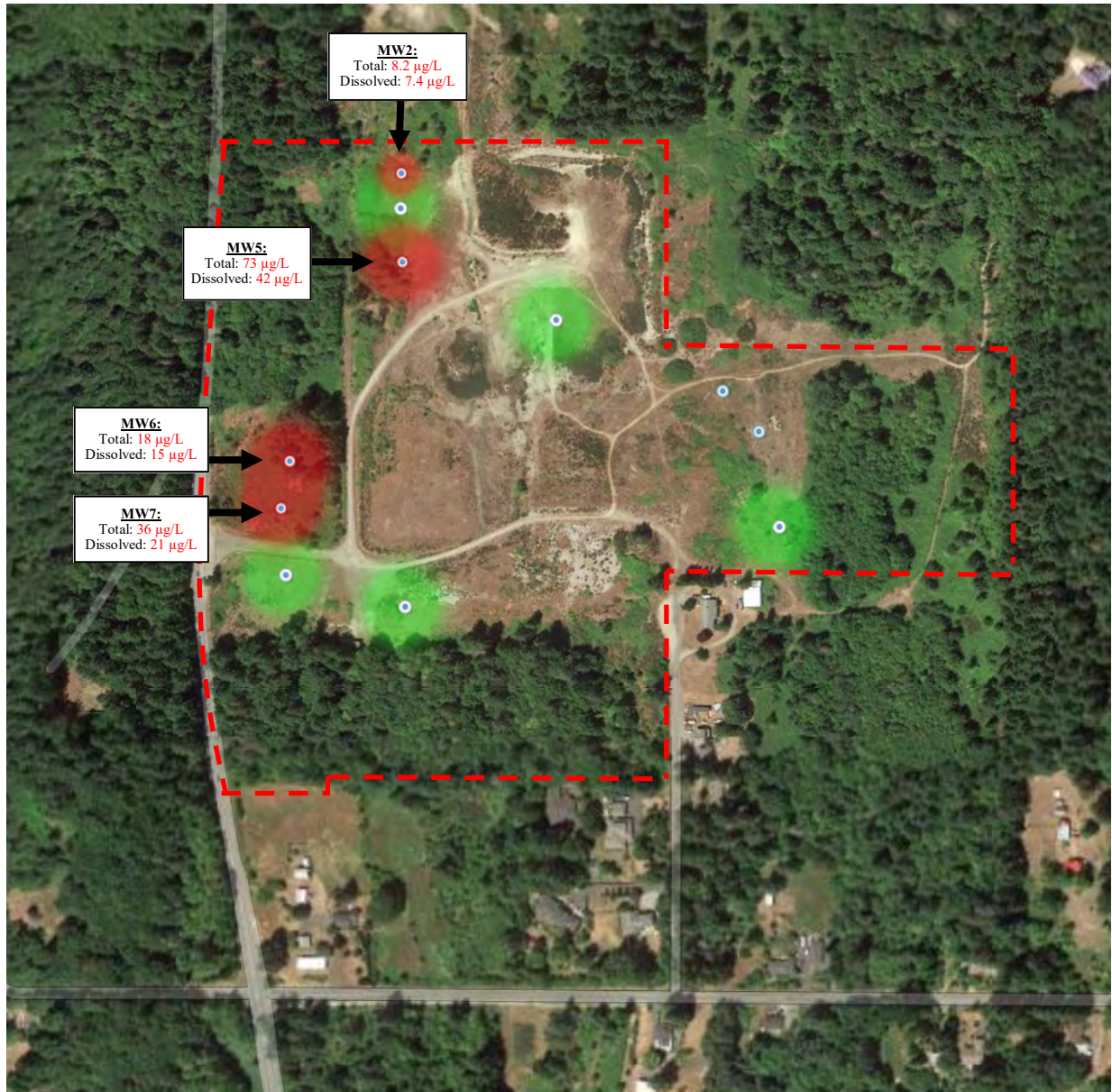


Figure 12
**ARSENIC IN GROUNDWATER EXCEEDING
 METHOD A CUL (5 µg/L)**

Scale: 1 inch = 600 feet

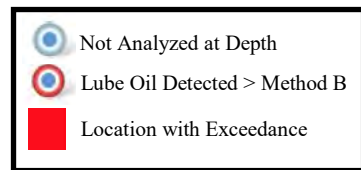


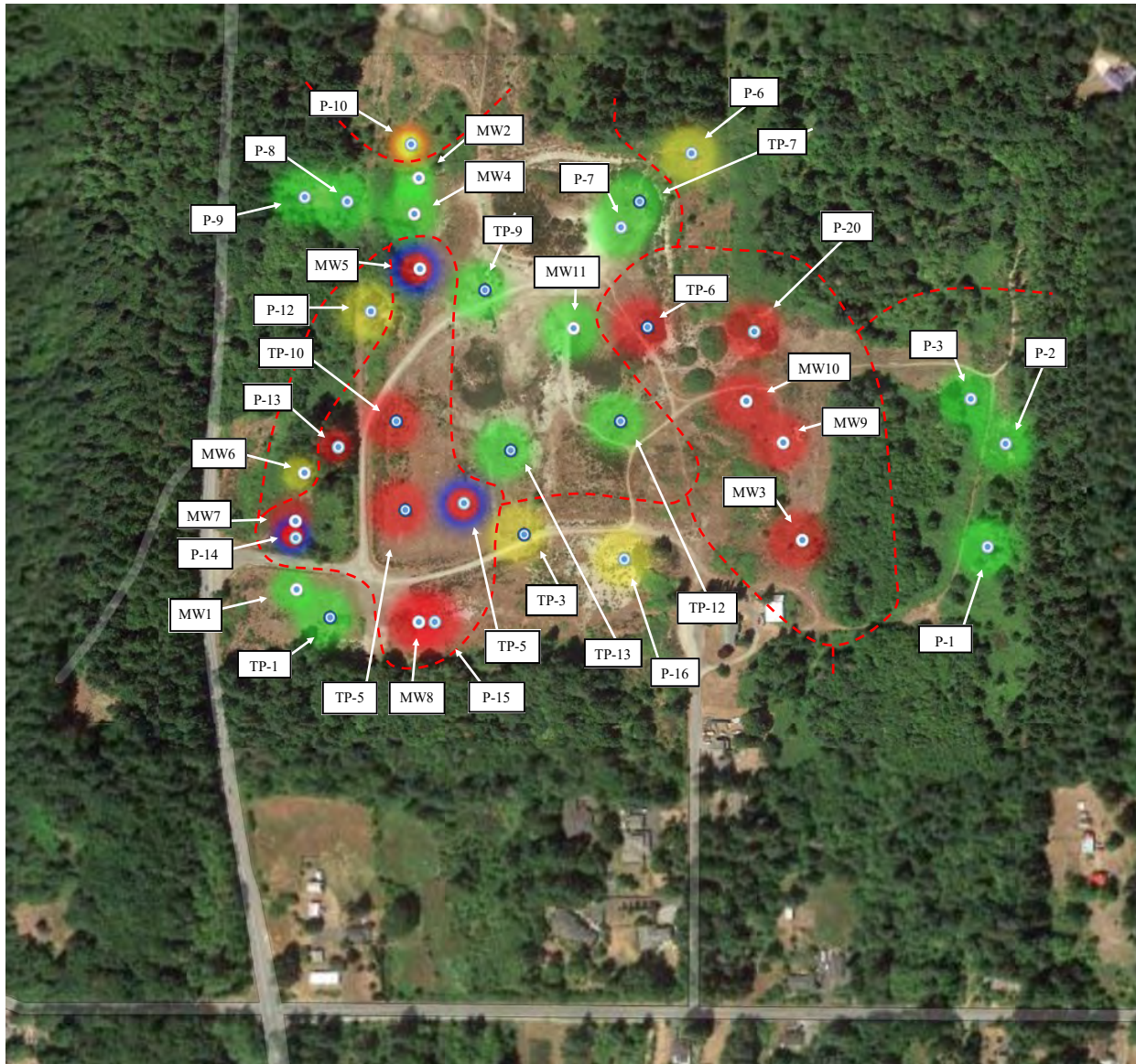
Figure 13
 TPH AS HEAVY OIL IN SUBSURFACE SOIL (10 FT) EXCEEDING
 METHOD A CUL (2,000 mg/kg)

Scale: 1 inch = 600 feet



Figure 14
cPAHs TOTAL TEQ IN SURFACE SOIL EXCEEDING METHOD A
CUL (0.1 mg/kg)

Scale: 1 inch = 600 feet



	TP (Ages, LLC, 2015)		Fill		Fill with no Wood
	P (Pacific Rim Soil & Water, Inc., 2007)		Fill with Wood		Mixed Fill (Diesel Odor)
	MW (ENPRO, 2021)		Fill with Wood and Metal		

Figure 15
GENERAL VIEW OF SITE SOILS

Scale: 1 inch = 600 feet



	Monitoring Wells
	Groundwater Elevations in Feet Above North American Vertical Datum 1988

Figure 16
GROUNDWATER ELEVATION CONTOURS

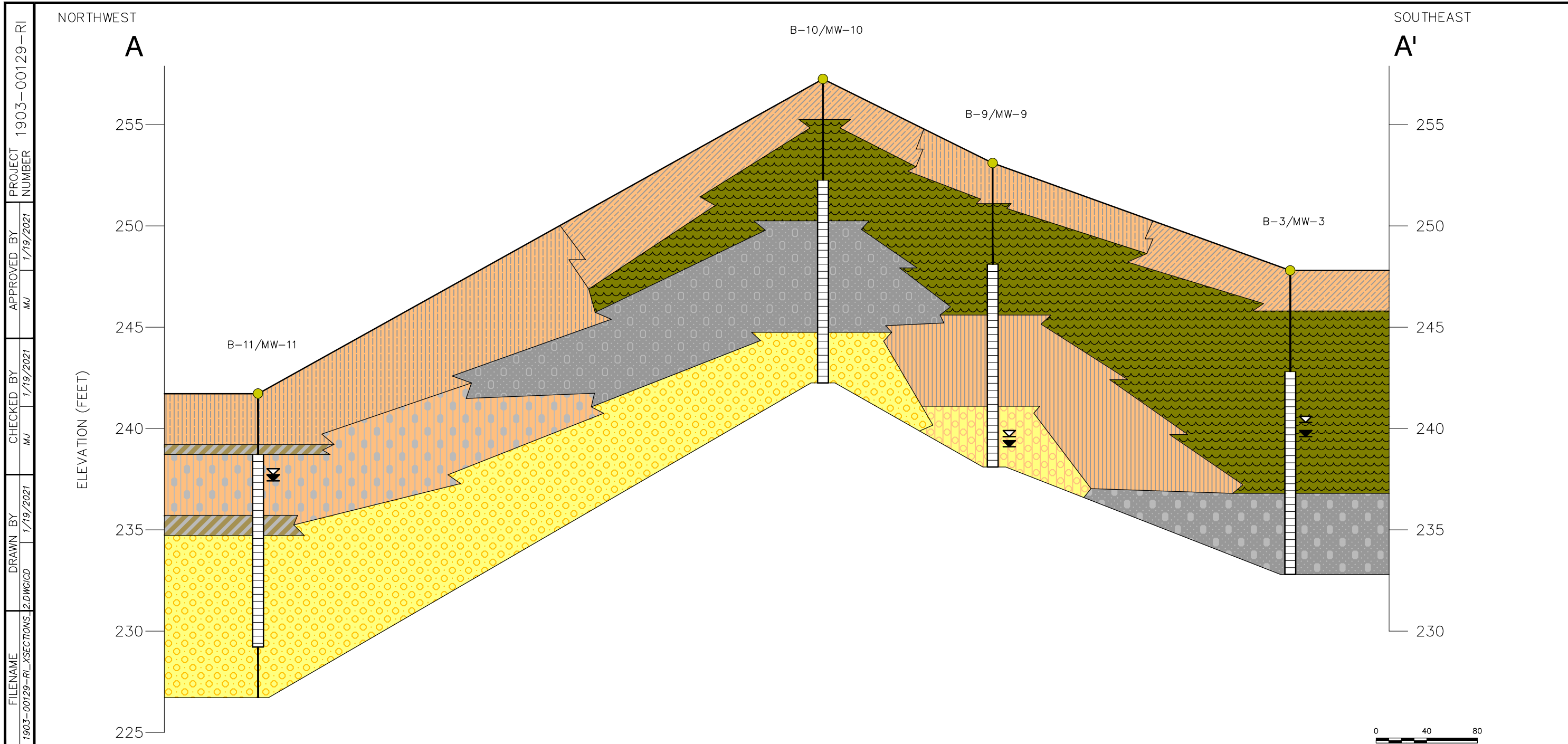
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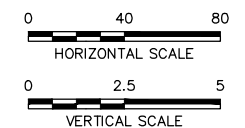
	TP (Ages, LLC, 2015)	A - A' (see fig. 18)
	P (Pacific Rim Soil & Water, Inc., 2007)	C - C' (see fig. 18)
	MW (ENPRO, 2021)	B - B' (see fig. 18)
		D - D' (see fig. 18)

Figure 17
 CROSS SECTION TRANSECTS AND ASSOCIATED EXPLORATION LOCATIONS

Scale: 1 inch = 600 feet



PROJECT NUMBER 1903-00129-RI
 APPROVED BY MJ 1/19/2021
 CHECKED BY MJ 1/19/2021
 DRAWN BY 1/19/2021
 FILENAME 1903-00129-RI_XSECTIONS_12.DWG/CD



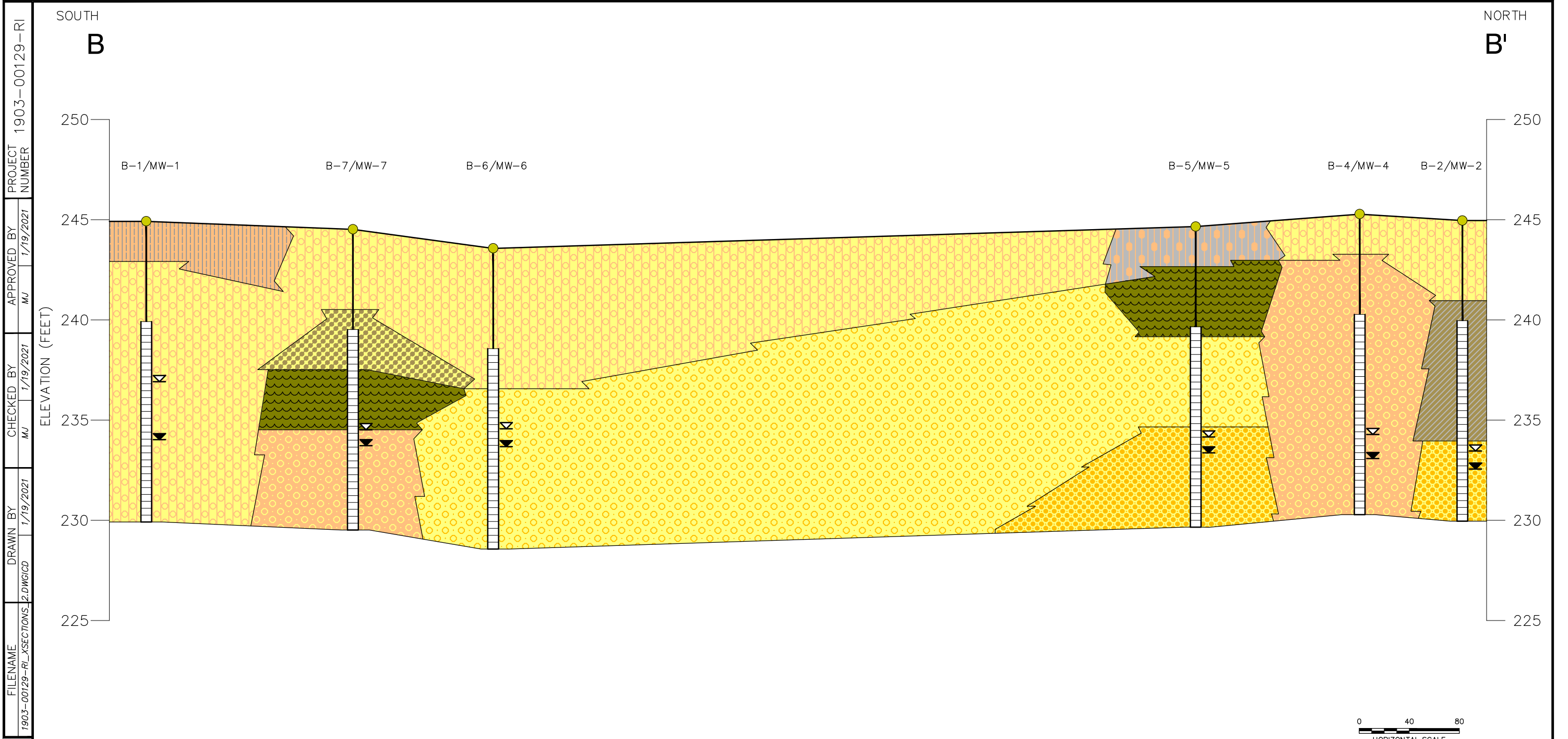
LEGEND

- | | | |
|--|--|---|
| <p>B-10/MW-10</p> <p>— BORING/WELL</p> <p>▽ — WATER LEVEL DURING DRILLING</p> <p>◼ — WATER LEVEL AT END OF DRILLING</p> <p>— SCREENED INTERVAL</p> <p>— MAXIMUM DEPTH EXPLORED</p> <p>— SOIL CONTACT</p> | <p>SM= SILTY-SANDS, SAND-SILT MIXTURES</p> <p>SW= WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES</p> <p>ML= INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS, WITH SLIGHT PLASTICITY</p> <p>OL= ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY</p> <p>CH= INORGANIC CLAYS, OF HIGH PLASTICITY, FAT CLAYS</p> <p>OH= ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS</p> | <p>PT= PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS</p> <p>GP/GC= POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES/CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES</p> <p>GP/GM= POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES/SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES</p> <p>GP/SC= POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES/CLAYEY-SANDS, SAND-CLAY MIXTURES</p> <p>CH/GC= INORGANIC CLAYS, OF HIGH PLASTICITY, FAT CLAYS/CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES</p> |
|--|--|---|

FIGURE 18

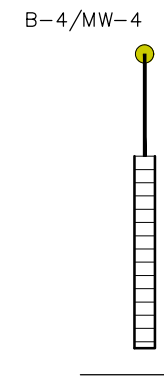
GEOLOGIC CROSS SECTION A-A'

GREEN COVE PARK DEVELOPMENT
 1903-00129-RI
 220 COOPER POINT ROAD NW
 OLYMPIA, WASHINGTON



PROJECT NUMBER: 1903-00129-RI
 APPROVED BY: MJ 1/19/2021
 CHECKED BY: MJ 1/19/2021
 DRAWN BY: DJW/GICD 1/19/2021
 FILENAME: 1903-00129-RI_XSECTIONS_2.DWG

LEGEND



- BORING/WELL
- WATER LEVEL DURING DRILLING
- WATER LEVEL AT END OF DRILLING
- SCREENED INTERVAL
- MAXIMUM DEPTH EXPLORED
- SOIL CONTACT

- SM= SILTY-SANDS, SAND-SILT MIXTURES
- SW= WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
- SC= CLAYEY-SANDS, SAND-CLAY MIXTURES
- OL= ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
- GM= SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
- SP= POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
- CL= INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, LEAN CLAYS, SILT-CLAYS MIXTURES

- PT= PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS
- SW/SM= WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES/SILTY-SANDS, SAND-SILT MIXTURES

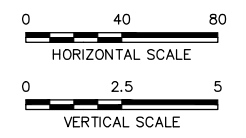


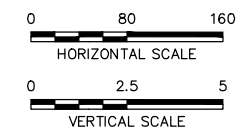
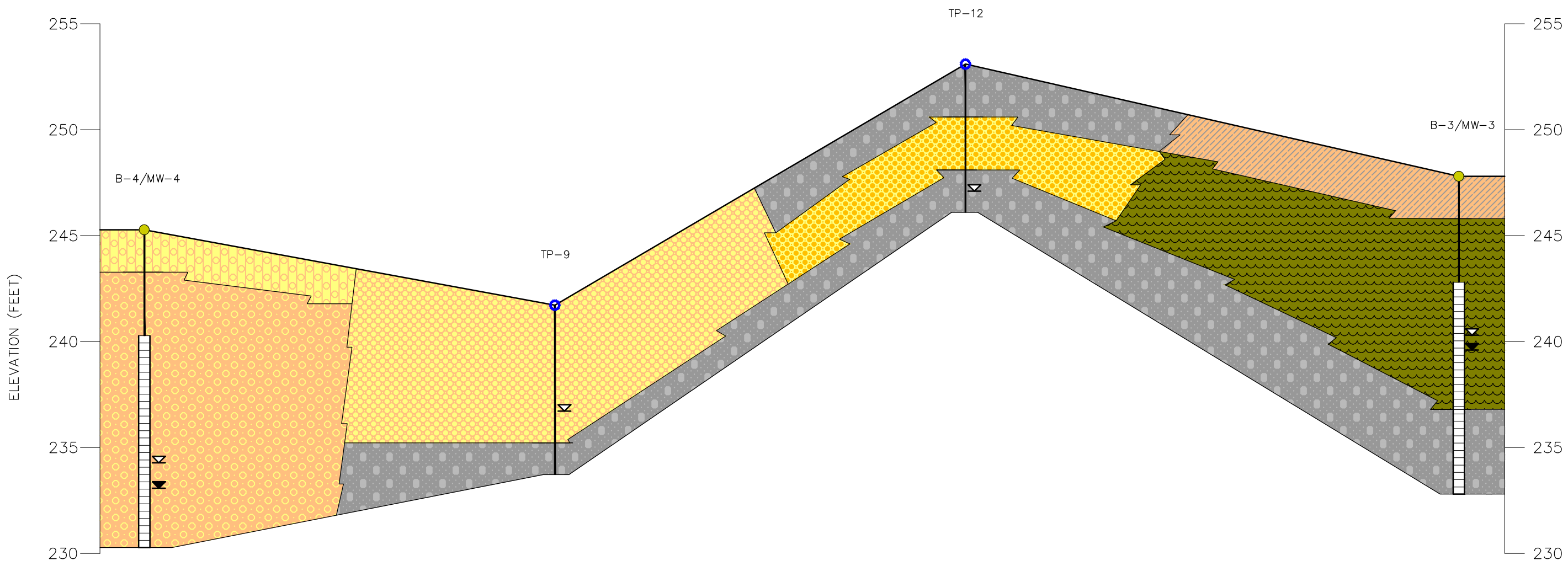
FIGURE 19
GEOLOGIC CROSS SECTION B-B'

GREEN COVE PARK DEVELOPMENT
 1903-00129-RI
 220 COOPER POINT ROAD NW
 OLYMPIA, WASHINGTON

FILENAME 1903-00129-RI_XSECTIONS.2.DWGICD
 DRAWN BY 1/19/2021
 CHECKED BY 1/19/2021
 APPROVED BY 1/19/2021
 PROJECT NUMBER 1903-00129-RI

NORTHWEST
C

SOUTHEAST
C'



LEGEND

- TP-9 B-3/MW-3
- BORING/WELL, TEST PIT
- WATER LEVEL DURING DRILLING
- WATER LEVEL AT END OF DRILLING
- SCREENED INTERVAL
- MAXIMUM DEPTH EXPLORED
- SOIL CONTACT

- SM= SILTY-SANDS, SAND-SILT MIXTURES
- SP= POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
- OH= ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
- PT= PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

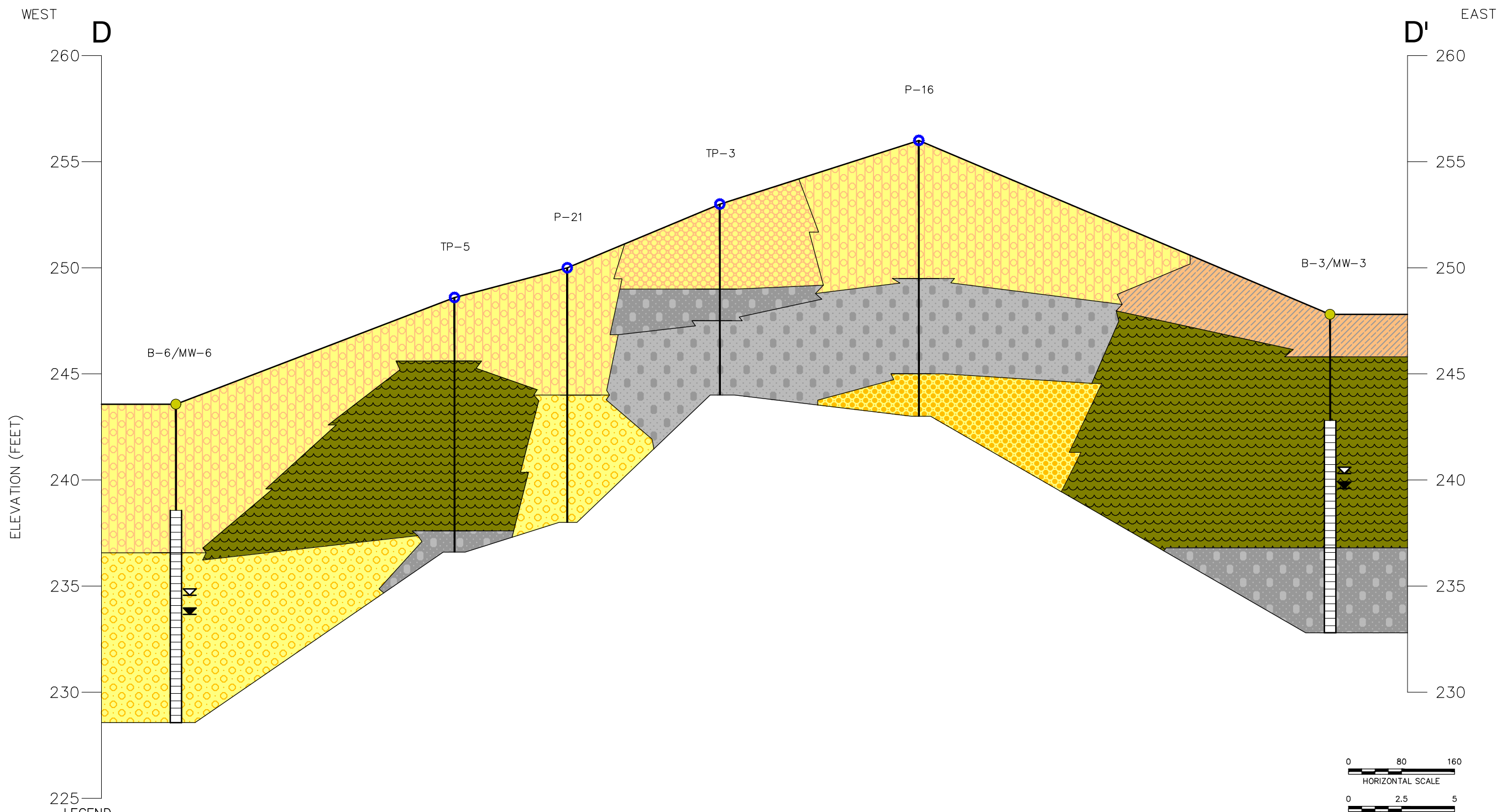
- GP/GM= POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES/SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
- SW/SM= WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES/SILTY-SANDS, SAND-SILT MIXTURES
- SP/SM= POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES/SILTY-SANDS, SAND-SILT MIXTURES



FIGURE 20
GEOLOGIC CROSS SECTION C-C'

GREEN COVE PARK DEVELOPMENT
 1903-00129-RI
 220 COOPER POINT ROAD NW
 OLYMPIA, WASHINGTON

PROJECT NUMBER 1903-00129-RI
 APPROVED BY MJ 1/19/2021
 CHECKED BY MJ 1/19/2021
 DRAWN BY DWG/GCD 1/19/2021
 FILENAME 1903-00129-RI_XSECTIONS_12.DWG/GCD



LEGEND

- TP-3 B-3/MW-3
- - BORING/WELL, TEST PIT
- - BORING/WELL, TEST PIT
- ▬ - WATER LEVEL DURING DRILLING
- ▬ - WATER LEVEL AT END OF DRILLING
- ▬ - SCREENED INTERVAL
- ▬ - MAXIMUM DEPTH EXPLORED
- ▬ - SOIL CONTACT

- SM= SILTY-SANDS, SAND-SILT MIXTURES
- SW= WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
- SP= POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
- GP= POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
- OH= ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS

- PT= PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS
- GP/GM= POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES/SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
- SP/SM= POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES/SILTY-SANDS, SAND-SILT MIXTURES

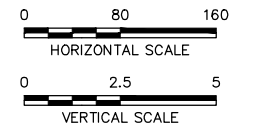
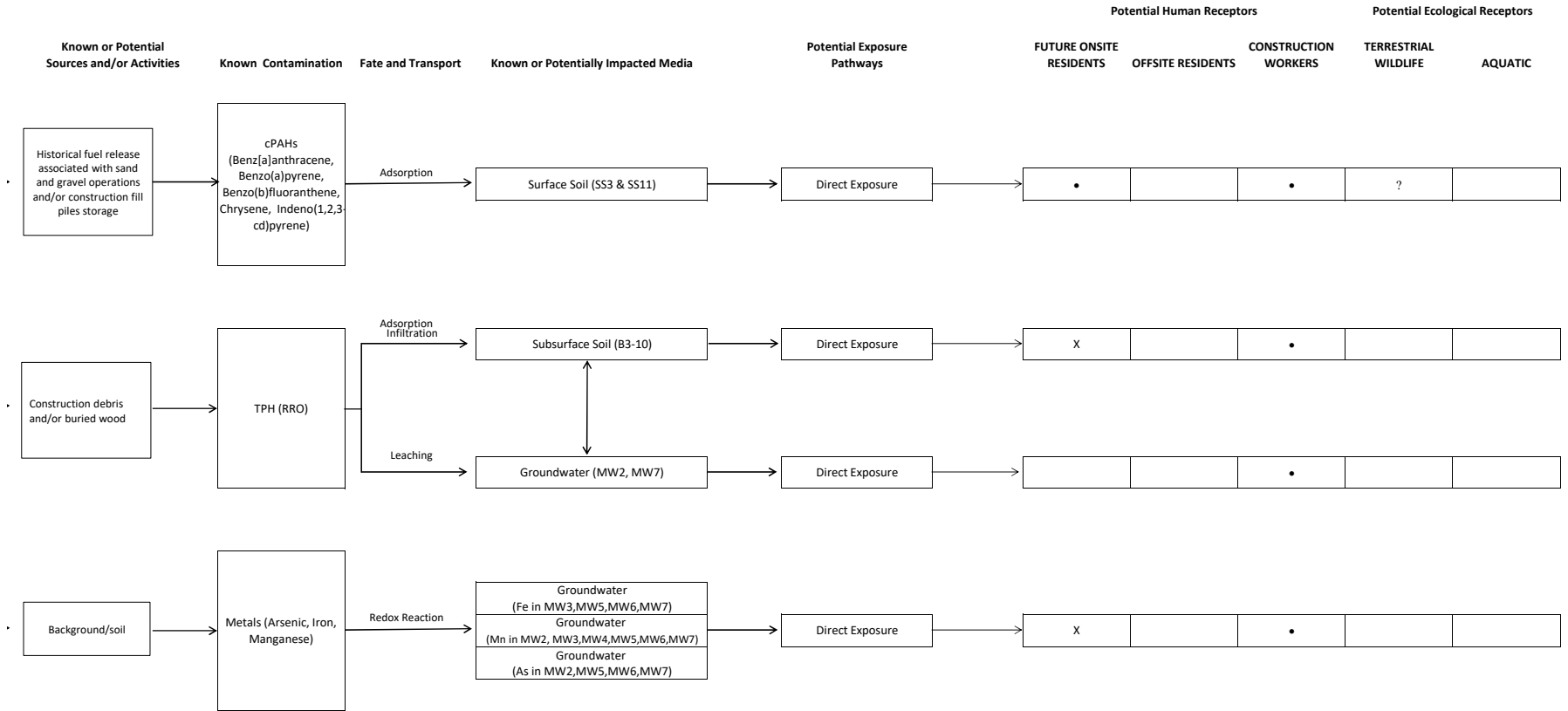


FIGURE 21
 GEOLOGIC CROSS SECTION D-D'

GREEN COVE PARK DEVELOPMENT
 1903-00129-RI
 220 COOPER POINT ROAD NW
 OLYMPIA, WASHINGTON

Draft Conceptual Site Model: Green Cove Park (Former Sundberg Gravel Pit)



LEGEND:

	Pathway is not complete, no evaluation required
X	Pathway is or may be complete, but is judged to be minor or unlikely. Quantitative data collection not required.
•	Pathway is or may be complete, collect quantitative data.

Appendix B

Photographs



Photo 1

Green Cove Park Development

Project Number: 1903-00129-RI

Green Cove Park Development

2200 Cooper Point Road Northwest, Olympia, Washington

Date of Photos: November 2020





Photo 2

Green Cove Park Development

Project Number: 1903-00129-RI

Green Cove Park Development

2200 Cooper Point Road Northwest, Olympia, Washington

Date of Photos: November 2020





Photo 3

Standing Water in Wetlands

Project Number: 1903-00129-RI

Green Cove Park Development

2200 Cooper Point Road Northwest, Olympia, Washington

Date of Photos: November 2020





Photo 4
(Description)

Project Number: 1903-00129-RI

Green Cove Park Development

2200 Cooper Point Road Northwest, Olympia, Washington

Date of Photos: November 2020





Photo 5

4 Gas Meter Reading at B9

Project Number: 1903-00129-RI

Green Cove Park Development

2200 Cooper Point Road Northwest, Olympia, Washington

Date of Photos: November 2020



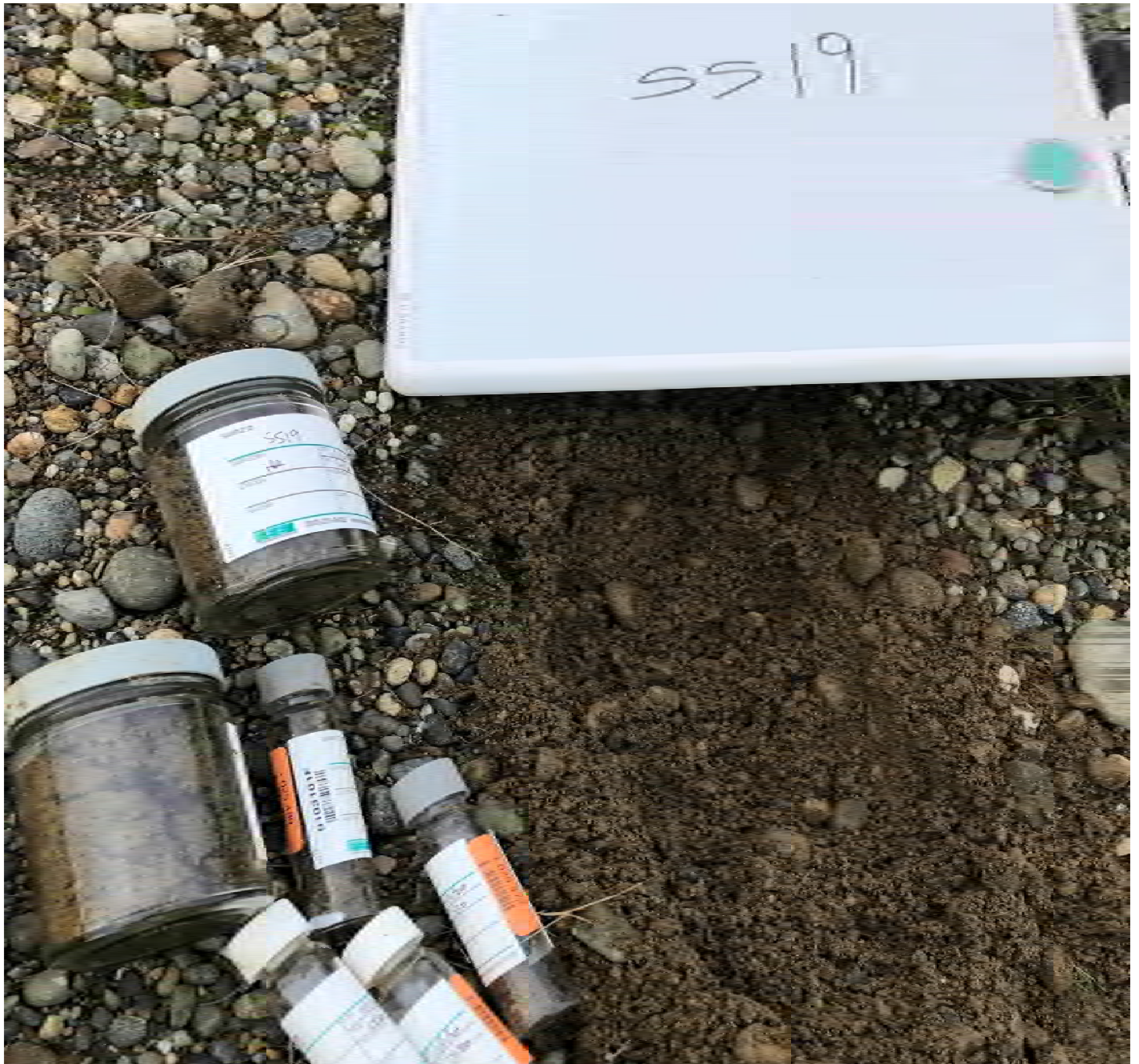


Photo 6

Surface Sample 19

Project Number: 1903-00129-RI

Green Cove Park Development

2200 Cooper Point Road Northwest, Olympia, Washington

Date of Photos: November 2020





Photo 7

Photoionization Reading at Surface Sample 22

Project Number: 1903-00129-RI

Green Cove Park Development

2200 Cooper Point Road Northwest, Olympia, Washington

Date of Photos: November 2020





Photo 8

Monitoring Well 4 Gas Meter Reading

Project Number: 1903-00129-RI

Green Cove Park Development

2200 Cooper Point Road Northwest, Olympia, Washington

Date of Photos: November 2020





Photo 9

Monitoring Well Photoionization Meter Reading

Project Number: 1903-00129-RI

Green Cove Park Development

2200 Cooper Point Road Northwest, Olympia, Washington

Date of Photos: November 2020





Photo 10

Water Quality Field Measurements from Monitoring Well

Project Number: 1903-00129-RI

Green Cove Park Development

2200 Cooper Point Road Northwest, Olympia, Washington

Date of Photos: November 2020



Appendix C

Exploratory Logs



Client: Green Cove Park Development

Project #: 1903-00129-RI

Address: 220 Cooper Point Rd NW

WELL LOG

Boring #: B1

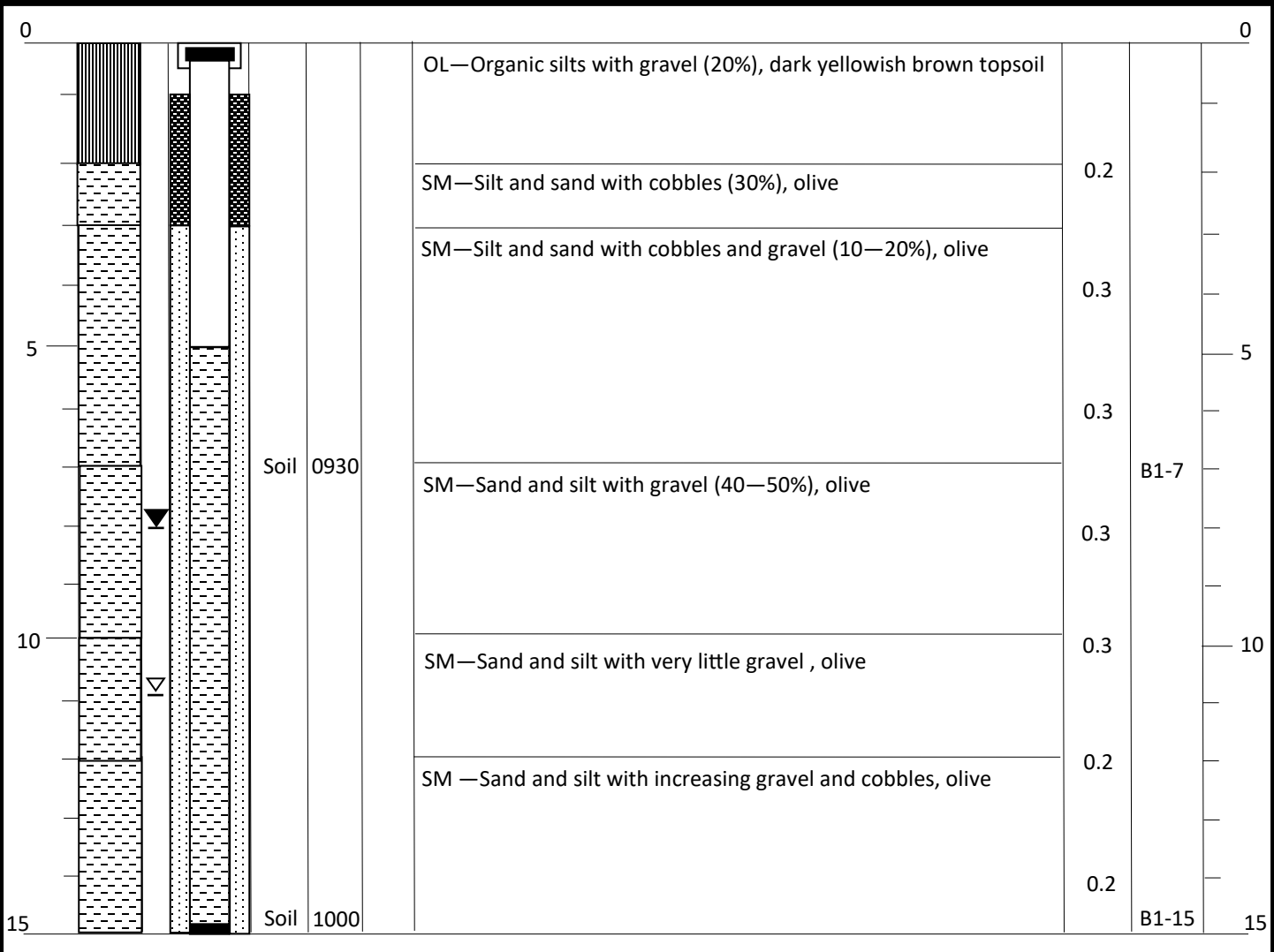
Well #: MW1

Page: 1

of 1

Start Date/Time: 11/09/20; 0830	Boring Depth (ft): 15	Well Depth (ft): 15
End Date/Time: 11/09/20; 0915	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Cascade Env.	Sampling Method(s): Discrete (5035)	Screen Slot (in): 0.020
Drilling Method: Sonic	DTW During Drilling (ft): 8	Riser Material: PVC
Drilling Equipment: Longyear DB-100	DTW After Drilling (ft): 10.9	Screen Material: PVC
Driller: Rico Rodriguez	Top of Casing Elevation (ft): 241.9	Seal Material(s): Bentonite
Logged By: Ken Beal	Location (X, Y): 47.065914, -122.941671	Filter Pack: Monterey #2 sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Recovery (ft)		PID (ppm)	Sample ID	



NOTES: Groundwater sample MW1-111220 collected 11/12/20 at 1500. Wellhead PID = 0.0 ppm and LEL = 0.0%.



Client: Green Cove Park Development

Project #: 1903-00129-RI

Address: 220 Cooper Point Rd NW

WELL LOG

Boring #: B2

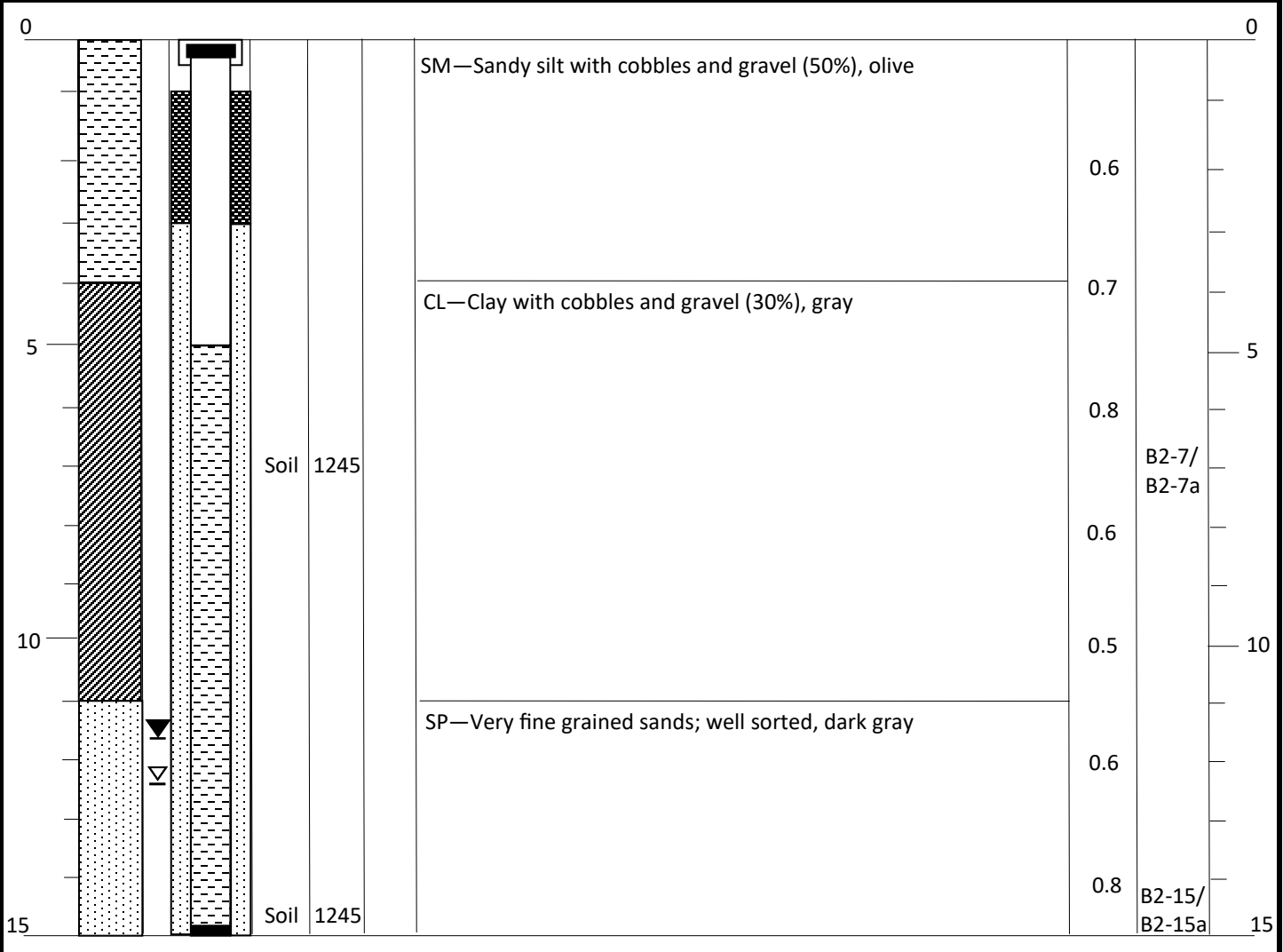
Well #: MW2

Page: 1

of 1

Start Date/Time: 11/10/20; 1200	Boring Depth (ft): 15	Well Depth (ft): 15
End Date/Time: 11/10/20; 1245	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Cascade Env.	Sampling Method(s): Discrete (5035)	Screen Slot (in): 0.020
Drilling Method: Sonic	DTW During Drilling (ft): 11.5	Riser Material: PVC
Drilling Equipment: Longyear DB-100	DTW After Drilling (ft): 12.4	Screen Material: PVC
Driller: Rico Rodriguez	Top of Casing Elevation (ft): 214.2	Seal Material(s): Bentonite
Logged By: Ken Beal	Location (X, Y): 47.068592, -122.940474	Filter Pack: Monterey #2 sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Recovery (ft)		PID (ppm)	Sample ID	



NOTES: Groundwater sample MW2-111320 collected 11/13/20 at 1130. Wellhead PID = 0.2 ppm and LEL = 0.0%.



Client: Green Cove Park Development

Project #: 1903-00129-RI

Address: 220 Cooper Point Rd NW

WELL LOG

Boring #: B3

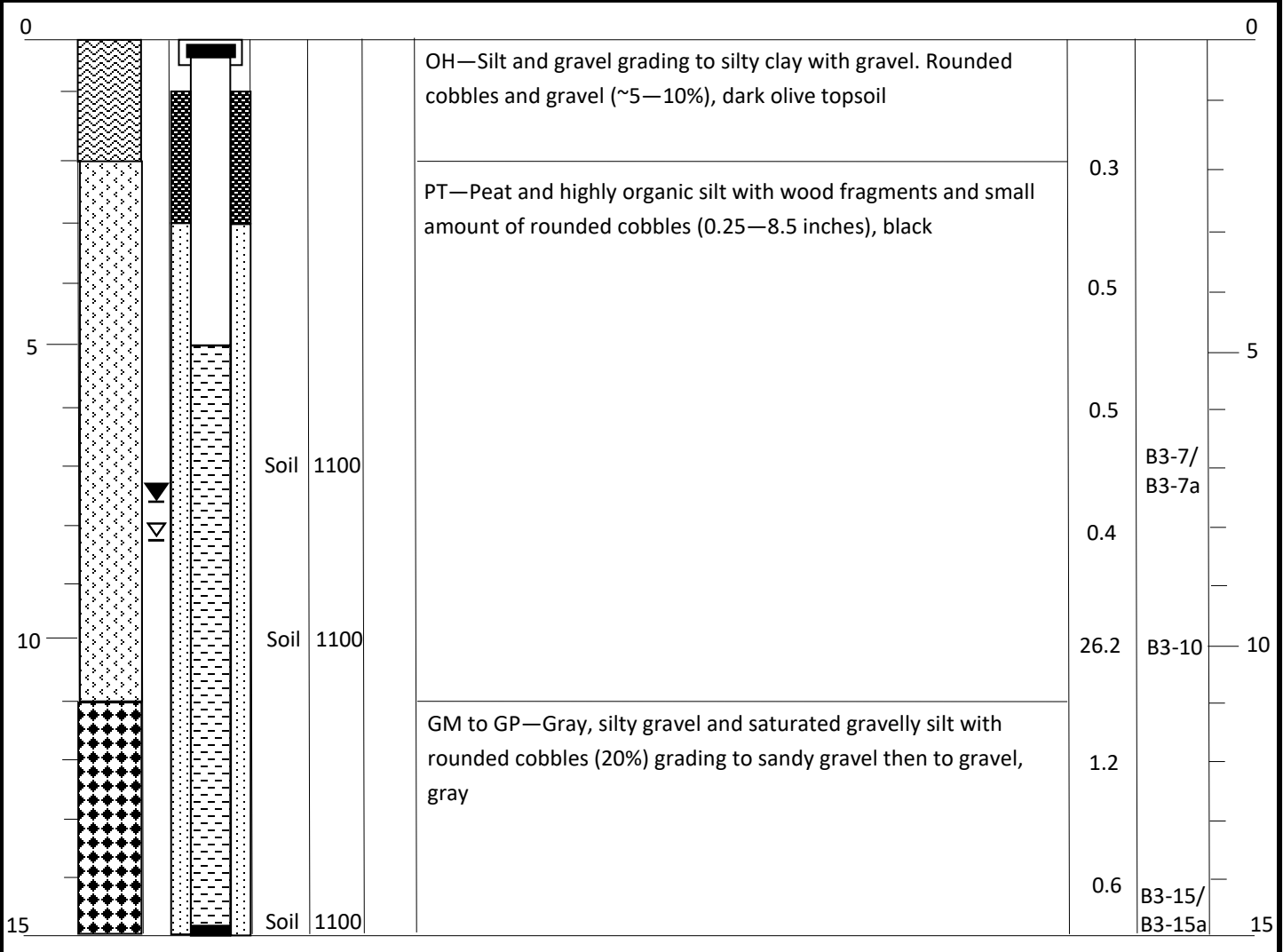
Well #: MW3

Page: 1

of 1

Start Date/Time: 11/09/20; 1040	Boring Depth (ft): 15	Well Depth (ft): 15
End Date/Time: 11/09/20; 1120	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Cascade Env.	Sampling Method(s): Discrete (5035)	Screen Slot (in): 0.020
Drilling Method: Sonic	DTW During Drilling (ft): 7.5	Riser Material: PVC
Drilling Equipment: Longyear DB-100	DTW After Drilling (ft): 8.2	Screen Material: PVC
Driller: Rico Rodriguez	Top of Casing Elevation (ft): 248.7	Seal Material(s): Bentonite
Logged By: Ken Beal	Location (X, Y): 47.066258, -122.936654	Filter Pack: Monterey #2 sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Recovery (ft)		PID (ppm)	Sample ID	



NOTES: Additional sample collected from 10 feet bgs due to elevated PID reading. Groundwater sample MW3-111420 and duplicate MW3-111420a collected 11/14/20 at 0915 and 0930, respectively. Wellhead PID = 0.0 ppm and LEL = 0.0%.



Client: Green Cove Park Development

Project #: 1903-00129-RI

Address: 220 Cooper Point Rd NW

WELL LOG

Boring #: B4

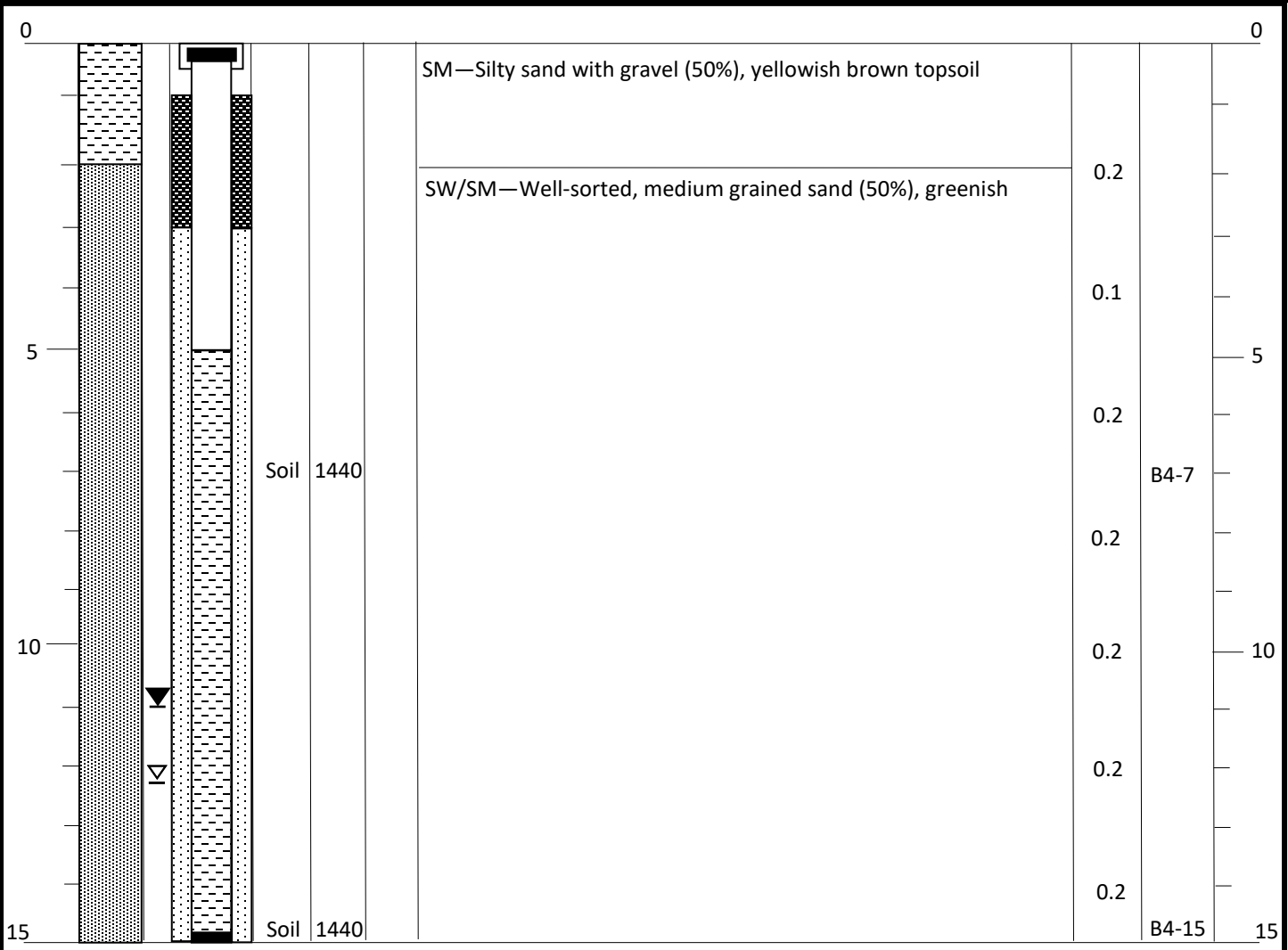
Well #: MW4

Page: 1

of 1

Start Date/Time: 11/09/20; 1430	Boring Depth (ft): 15	Well Depth (ft): 15
End Date/Time: 11/09.20; 1330	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Cascade Env.	Sampling Method(s): Discrete (5035)	Screen Slot (in): 0.020
Drilling Method: Sonic	DTW During Drilling (ft): 11	Riser Material: PVC
Drilling Equipment: Longyear DB-100	DTW After Drilling (ft): 12.2	Screen Material: PVC
Driller: Rico Rodriguez	Top of Casing Elevation (ft): 214.1	Seal Material(s): Bentonite
Logged By: Ken Beal	Location (X, Y): 47.068348, -122.940434	Filter Pack: Monterey #2 sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Recovery (ft)		PID (ppm)	Sample ID	



NOTES: Groundwater sample MW4-111320 collected 11/13/20 at 0930. Wellhead PID = 0.5 ppm and LEL = 0.0%.



Client: Green Cove Park Development

Project #: 1903-00129-RI

Address: 220 Cooper Point Rd NW

WELL LOG

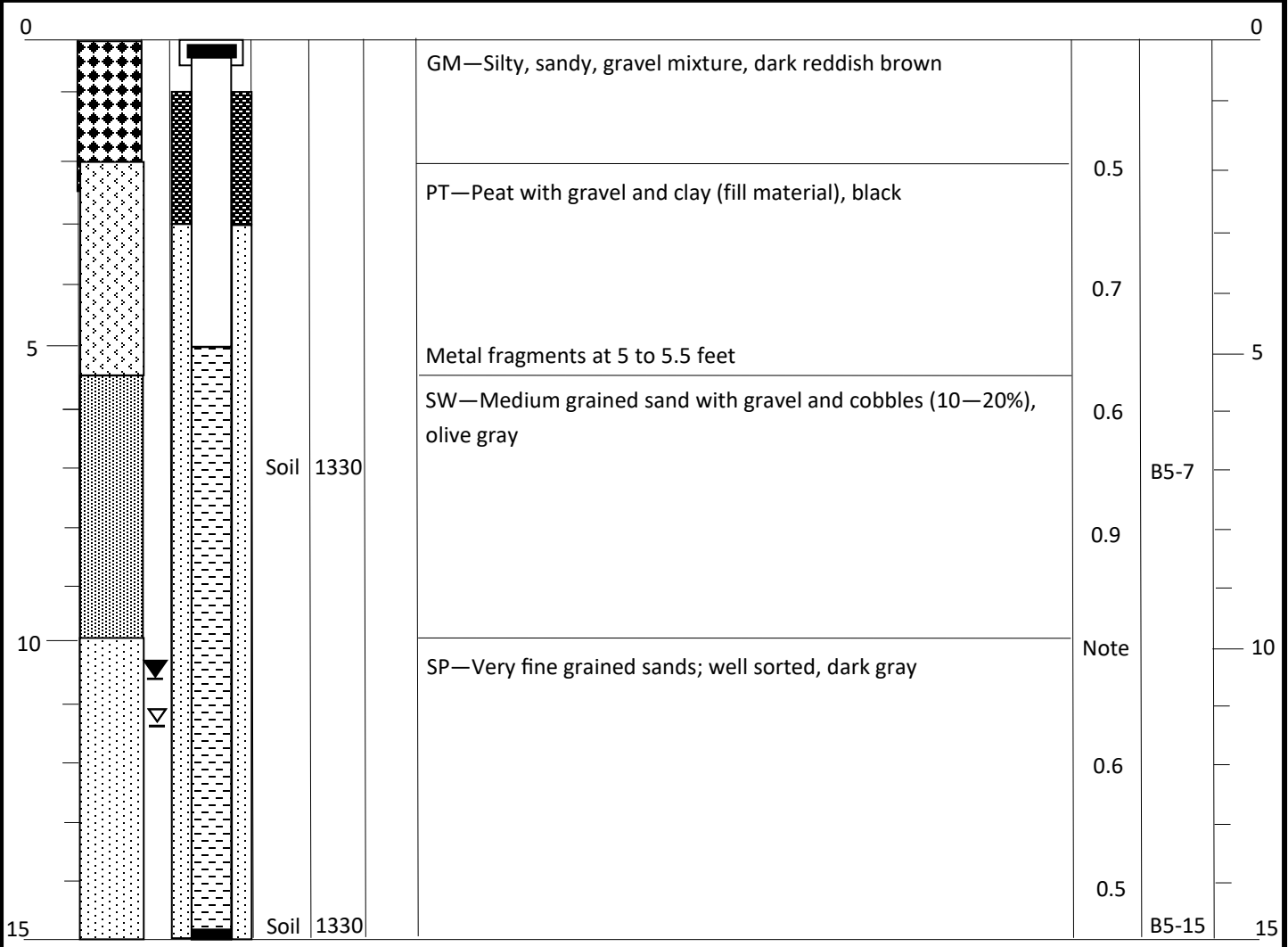
Boring #: B5

Well #: MW5

Page: 1 of 1

Start Date/Time: 11/10/20; 1240	Boring Depth (ft): 15	Well Depth (ft): 15
End Date/Time: 11/10/20; 1325	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Cascade Env.	Sampling Method(s): Discrete (5035)	Screen Slot (in): 0.020
Drilling Method: Sonic	DTW During Drilling (ft): 10.5	Riser Material: PVC
Drilling Equipment: Longyear DB-100	DTW After Drilling (ft): 11.3	Screen Material: PVC
Driller: Rico Rodriguez	Top of Casing Elevation (ft): 218.9	Seal Material(s): Bentonite
Logged By: Ken Beal	Location (X, Y): 47.067991, -122.940416	Filter Pack: Monterey #2 sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Recovery (ft)		PID (ppm)	Sample ID	



NOTES: A PID reading could not be collected from 10 feet bgs due to the presence of scrap metal. Groundwater sample MW5-111220 collected 11/12/20 at 1615. Wellhead PID = 0.3 ppm and LEL = 40.0%.



Client: Green Cove Park Development

Project #: 1903-00129-RI

Address: 220 Cooper Point Rd NW

WELL LOG

Boring #: B6

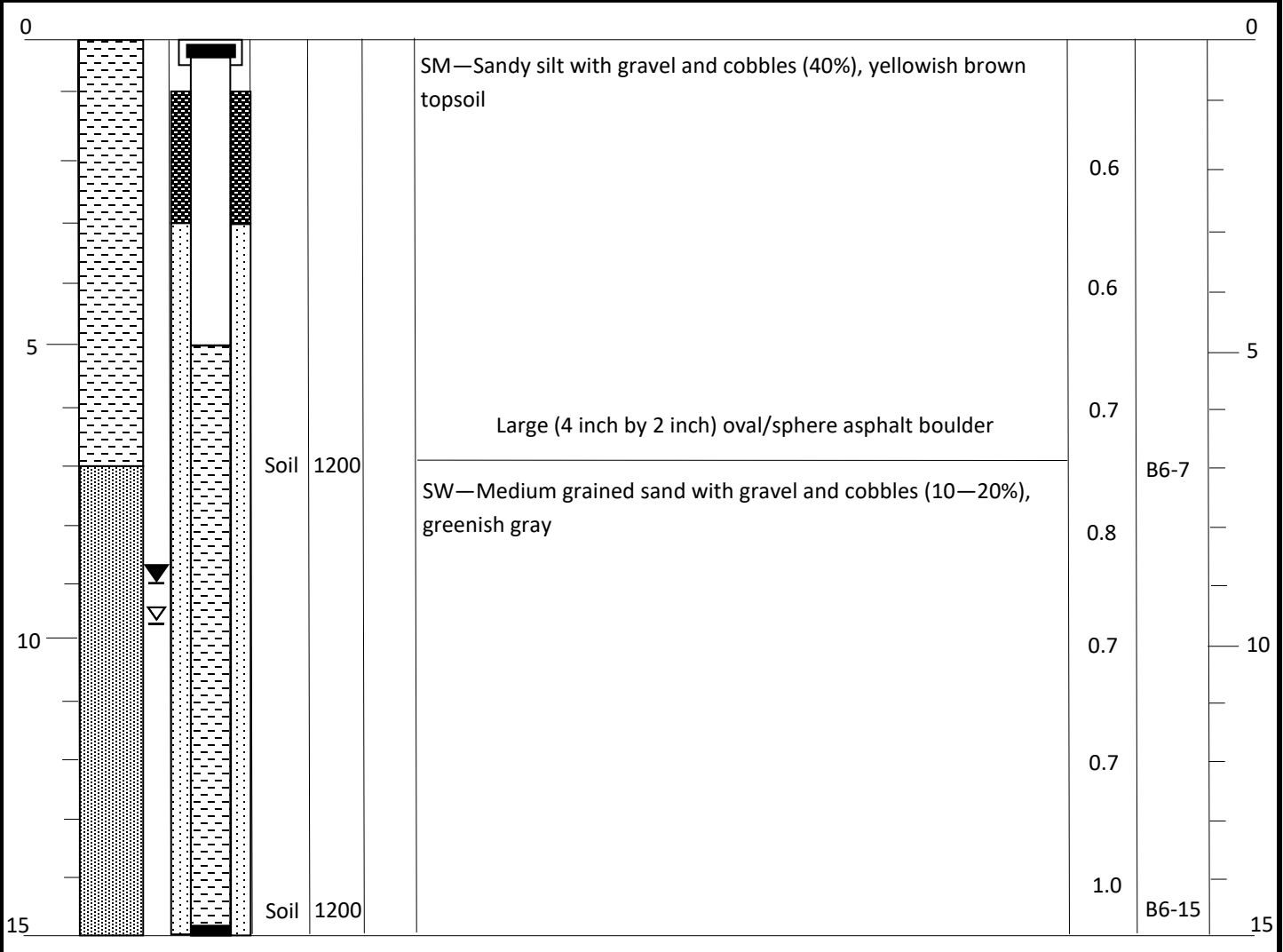
Well #: MW6

Page: 1

of 1

Drilling Start Date/Time:	Boring Depth (ft): 15	Well Depth (ft): 15
Drilling End Date/Time:	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Cascade Env.	Sampling Method(s): Discrete (5035)	Screen Slot (in): 0.020
Drilling Method: Sonic	DTW During Drilling (ft): 9	Riser Material: PVC
Drilling Equipment: Longyear DB-100	DTW After Drilling (ft): 9.9	Screen Material: PVC
Driller: Rico Rodriguez	Top of Casing Elevation (ft): 247.4	Seal Material(s): Bentonite
Logged By: Ken Beal	Location (X, Y): 47.066719, -122.941400	Filter Pack: Monterey #2 sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Recovery (ft)		PID (ppm)	Sample ID	



NOTES: Groundwater sample MW6-111220 collected 11/12/20 at 1220. Wellhead PID = 0.1 ppm and LEL = 0.0%.



Client: Green Cove Park Development

Project #: 1903-00129-RI

Address: 220 Cooper Point Rd NW

WELL LOG

Boring #: B7

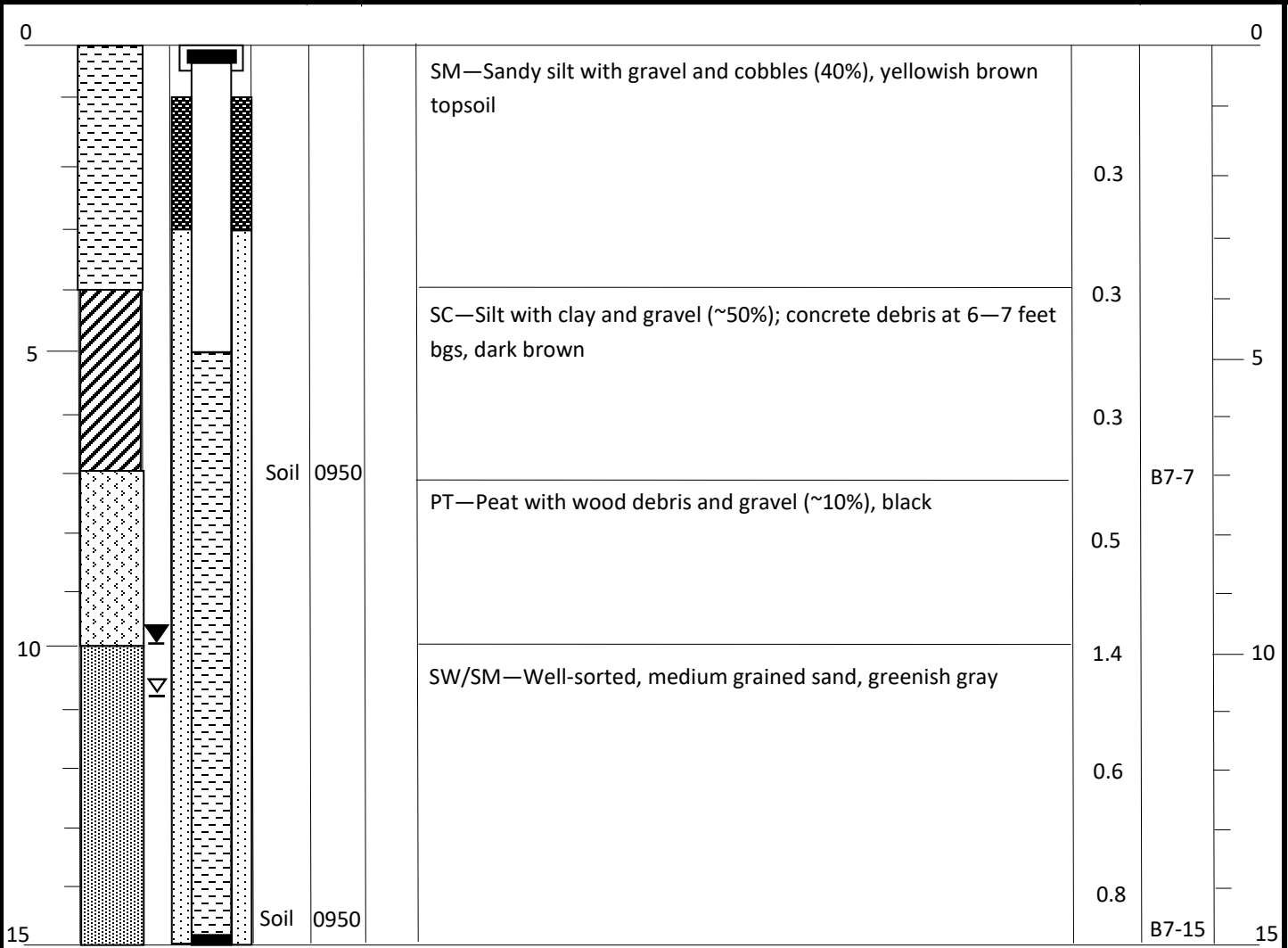
Well #: MW7

Page: 1

of 1

Start Date/Time: 11/10/20; 0900	Boring Depth (ft): 15	Well Depth (ft): 15
End Date/Time: 11/10/20; 0945	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Cascade Env.	Sampling Method(s): Discrete (5035)	Screen Slot (in): 0.020
Drilling Method: Sonic	DTW During Drilling (ft): 10	Riser Material: PVC
Drilling Equipment: Longyear DB-100	DTW After Drilling (ft): 10.8	Screen Material: PVC
Driller: Rico Rodriguez	Top of Casing Elevation (ft): 226.3	Seal Material(s): Bentonite
Logged By: Ken Beal	Location (X, Y): 47.066375, -122.941490	Filter Pack: Monterey #2 sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Recovery (ft)		PID (ppm)	Sample ID	



NOTES: Groundwater sample MW7-111220 collected 11/12/20 at 1345. Wellhead PID = 0.2 ppm and LEL = 0.0%.



Client: Green Cove Park Development

Project #: 1903-00129-RI

Address: 220 Cooper Point Rd NW

WELL LOG

Boring #: B8

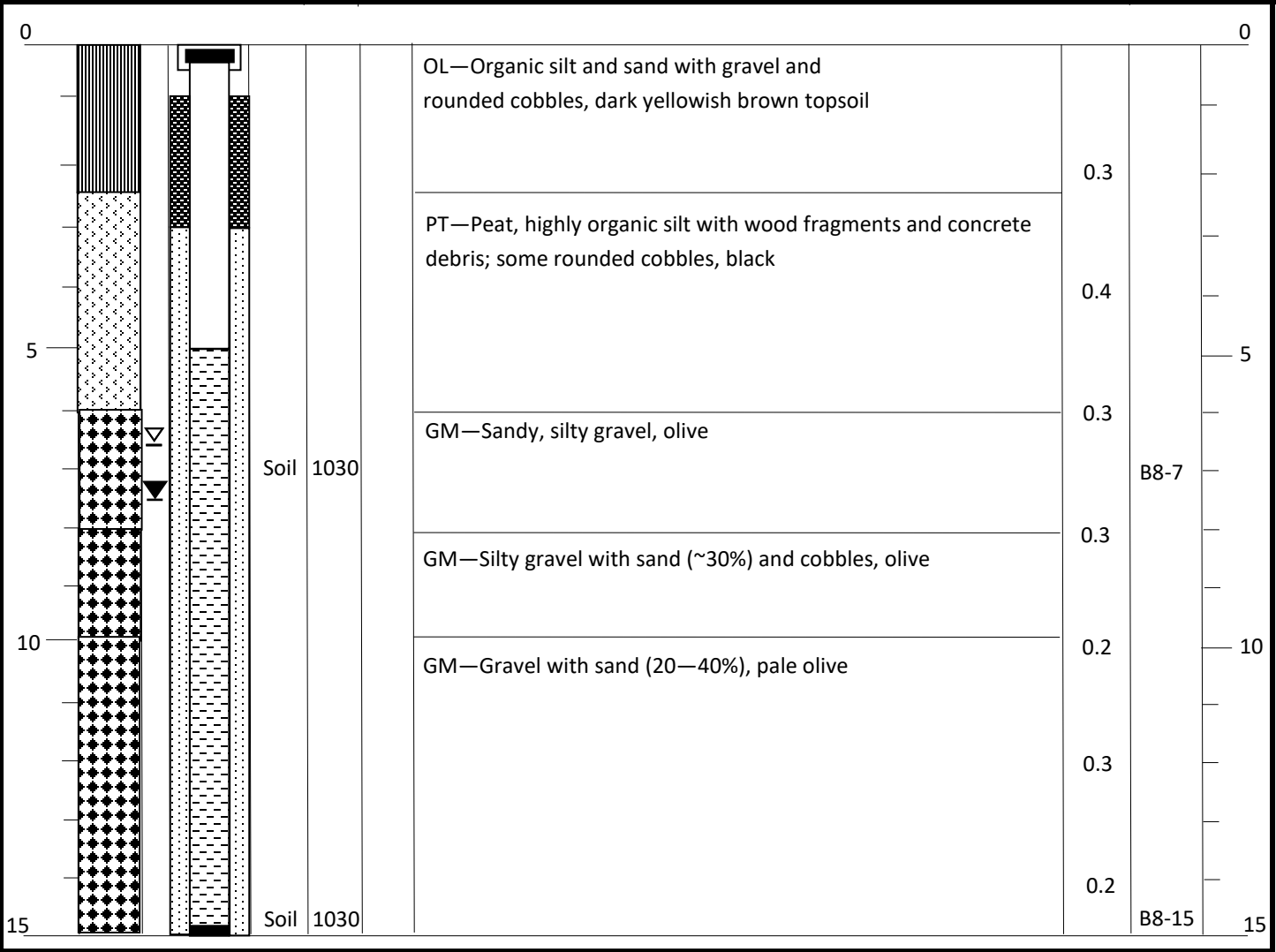
Well #: MW8

Page: 1

of 1

Drilling Start Date/Time:	Boring Depth (ft): 15	Well Depth (ft): 15
Drilling End Date/Time:	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Cascade Env.	Sampling Method(s): Discrete (5035)	Screen Slot (in): 0.020
Drilling Method: Sonic	DTW During Drilling (ft): 7.5	Riser Material: PVC
Drilling Equipment: Longyear DB-100	DTW After Drilling (ft): 6.5	Screen Material: PVC
Driller: Rico Rodriguez	Top of Casing Elevation (ft): 254.2	Seal Material(s): Bentonite
Logged By: Ken Beal	Location (X, Y): 47.065724, -122.940326	Filter Pack: Monterey #2 sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Recovery (ft)		PID (ppm)	Sample ID	



NOTES: Groundwater sample MW8-111420 collected 11/14/20 at 1030. Wellhead PID = 0.3 ppm and LEL = 0.0%.



Client: Green Cove Park Development

Project #: 1903-00129-RI

Address: 220 Cooper Point Rd NW

WELL LOG

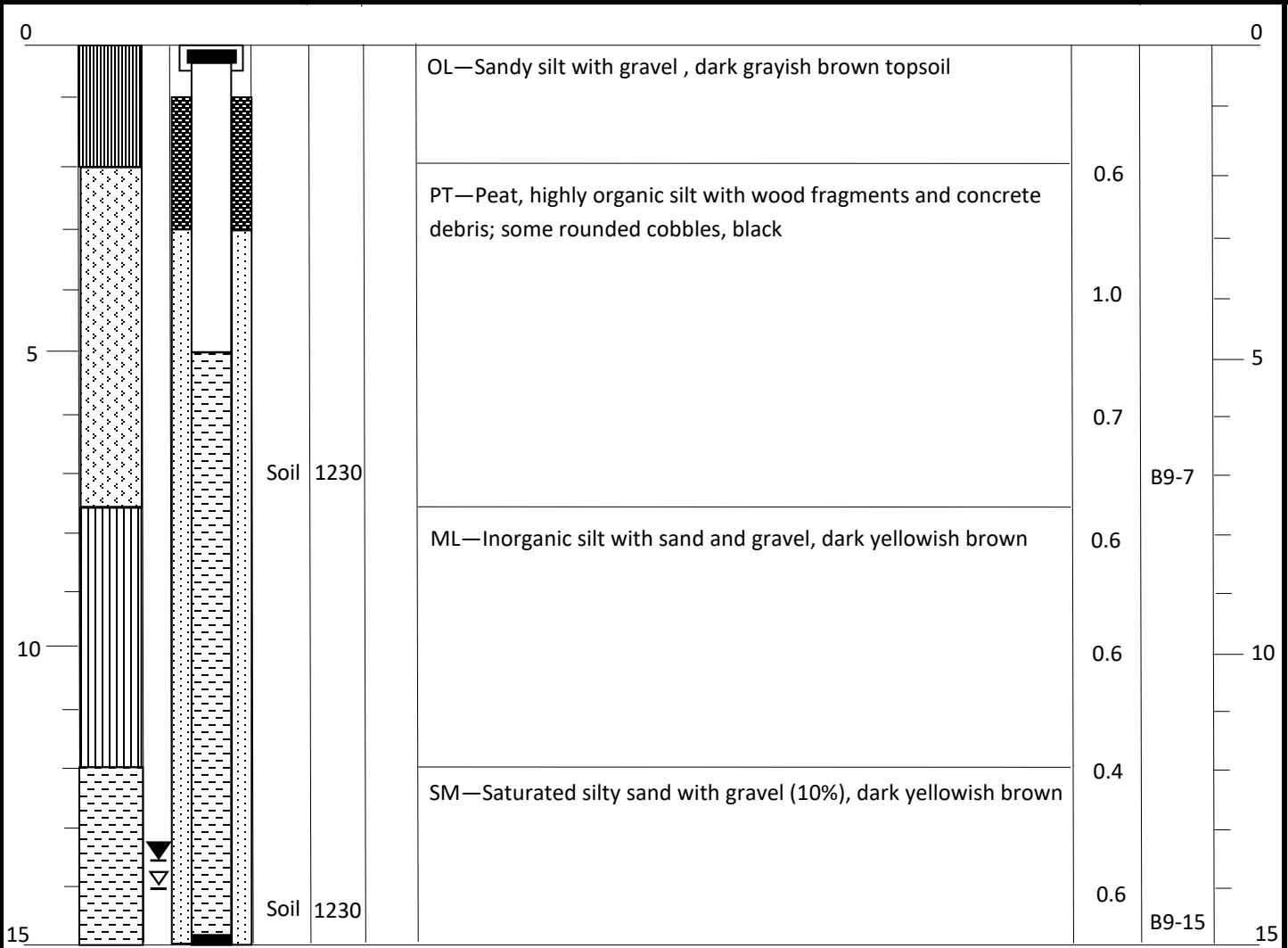
Boring #: B9

Well #: MW9

Page: 1 of 1

Start Date/Time: 11/09/20; 1140	Boring Depth (ft): 15	Well Depth (ft): 15
End Date/Time: 11/09/20; 1220	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Cascade Env.	Sampling Method(s): Discrete (5035)	Screen Slot (in): 0.020
Drilling Method: Sonic	DTW During Drilling (ft): 13.5	Riser Material: PVC
Drilling Equipment: Longyear DB-100	DTW After Drilling (ft): 14.0	Screen Material: PVC
Driller: Rico Rodriguez	Top of Casing Elevation (ft): 261.3	Seal Material(s): Bentonite
Logged By: Ken Beal	Location (X, Y): 47.066891, -122.936880	Filter Pack: Monterey #2 sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Recovery (ft)		PID (ppm)	Sample ID	



NOTES: Approximately 1 foot of water was present in MW9 and was declared effectively dry; a groundwater sample could not be collected.



Client: Green Cove Park Development

Project #: 1903-00129-RI

Address: 220 Cooper Point Rd NW

WELL LOG

Boring #: 10

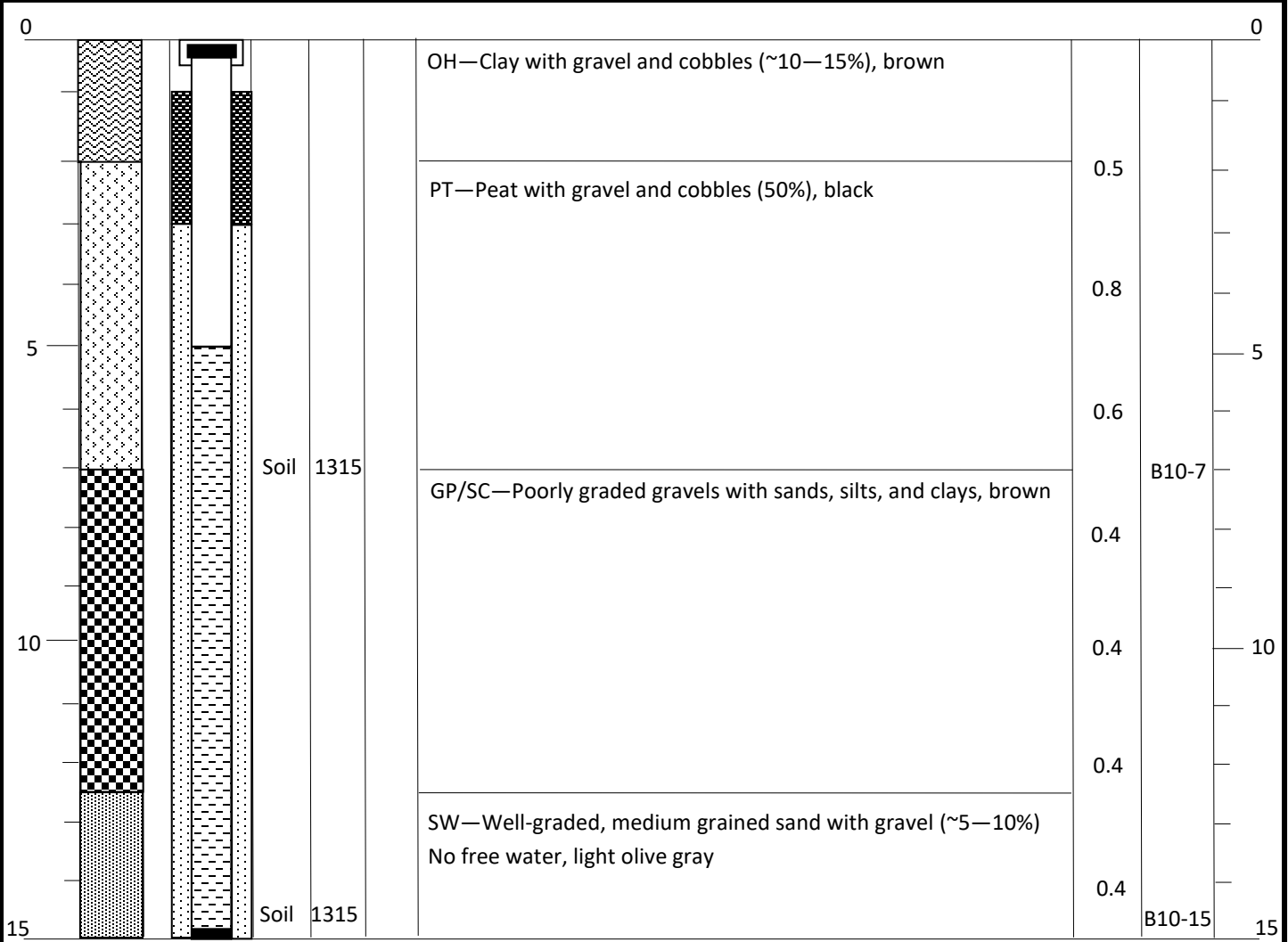
Well #: MW10

Page: 1

of 1

Start Date/Time: 11/09/20; 1240	Boring Depth (ft): 15	Well Depth (ft): 15
End Date/Time: 11/09/20; 1320	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Cascade Env.	Sampling Method(s): Discrete (5035)	Screen Slot (in): 0.020
Drilling Method: Sonic	DTW During Drilling (ft): NA	Riser Material: PVC
Drilling Equipment: Longyear DB-100	DTW After Drilling (ft): NA	Screen Material: PVC
Driller: Rico Rodriguez	Top of Casing Elevation (ft): 249.8	Seal Material(s): Bentonite
Logged By: Ken Beal	Location (X, Y): 47.067168, -122.937087	Filter Pack: Monterey #2 sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Recovery (ft)		PID (ppm)	Sample ID	



NOTES: No water was present in MW10 and was declared dry; a groundwater sample could not be collected.



Client: Green Cove Park Development

Project #: 1903-00129-RI

Address: 220 Cooper Point Rd NW

WELL LOG

Boring #: 11

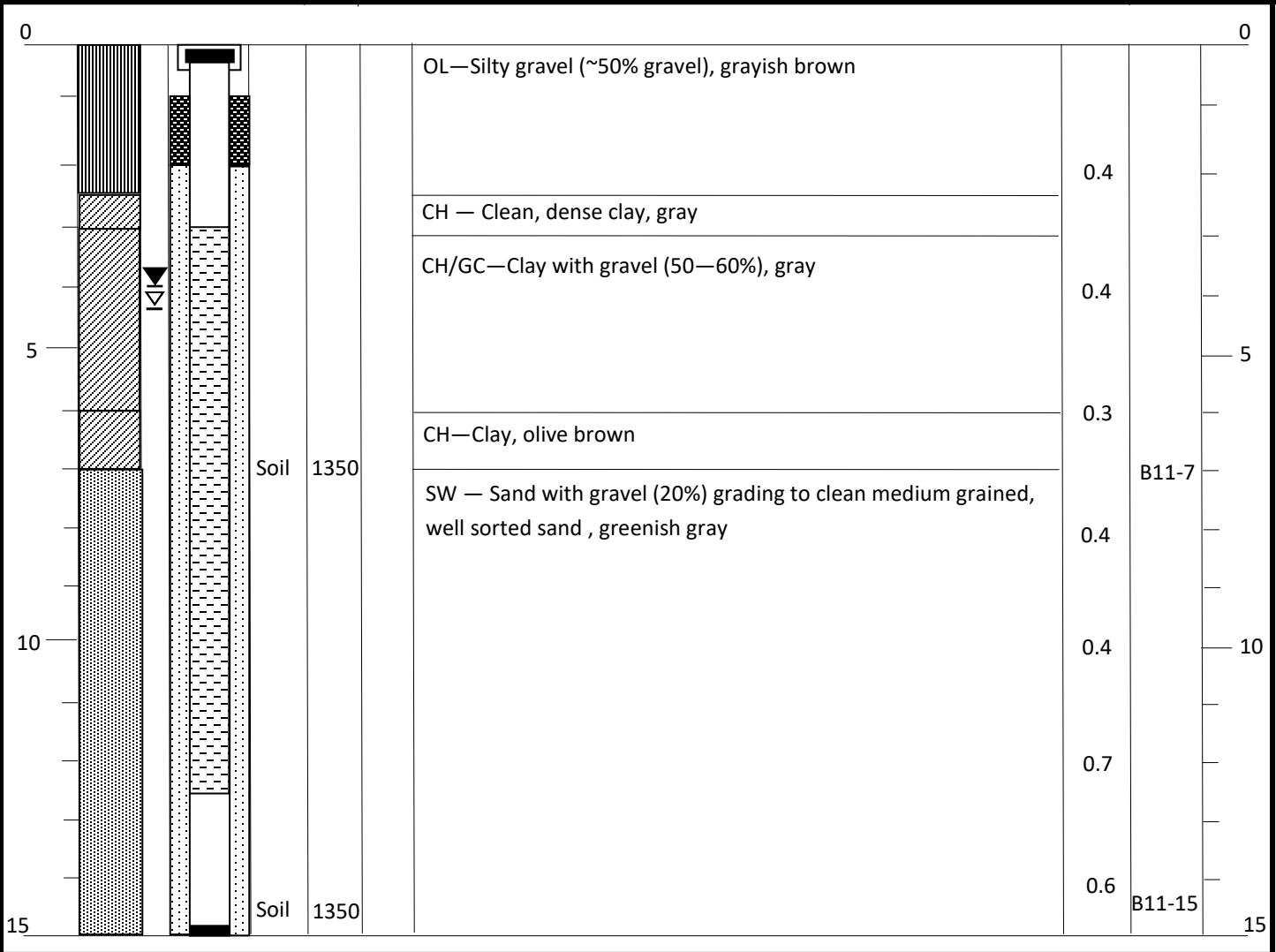
Well #: MW11

Page: 1

of 1







Start Date/Time: 11/09/20; 1340	Boring Depth (ft): 15	Well Depth (ft): 15
End Date/Time: 11/09/20; 1415	Boring Diameter (in): 6	Well Diameter (in): 2
Drilling Company: Cascade Env.	Sampling Method(s): Discrete (5035)	Screen Slot (in): 0.020
Drilling Method: Sonic	DTW During Drilling (ft): 4	Riser Material: PVC
Drilling Equipment: Longyear DB-100	DTW After Drilling (ft): 4.3	Screen Material: PVC
Driller: Rico Rodriguez	Top of Casing Elevation (ft): 223.7	Seal Material(s): Bentonite
Logged By: Ken Beal	Location (X, Y): 47.067653, -122.938828	Filter Pack: Monterey #2 sand







DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT			SOIL/ROCK VISUAL DESCRIPTION	MEASURE		DEPTH (ft)
				Sample Type	Time	Recovery (ft)		PID (ppm)	Sample ID	



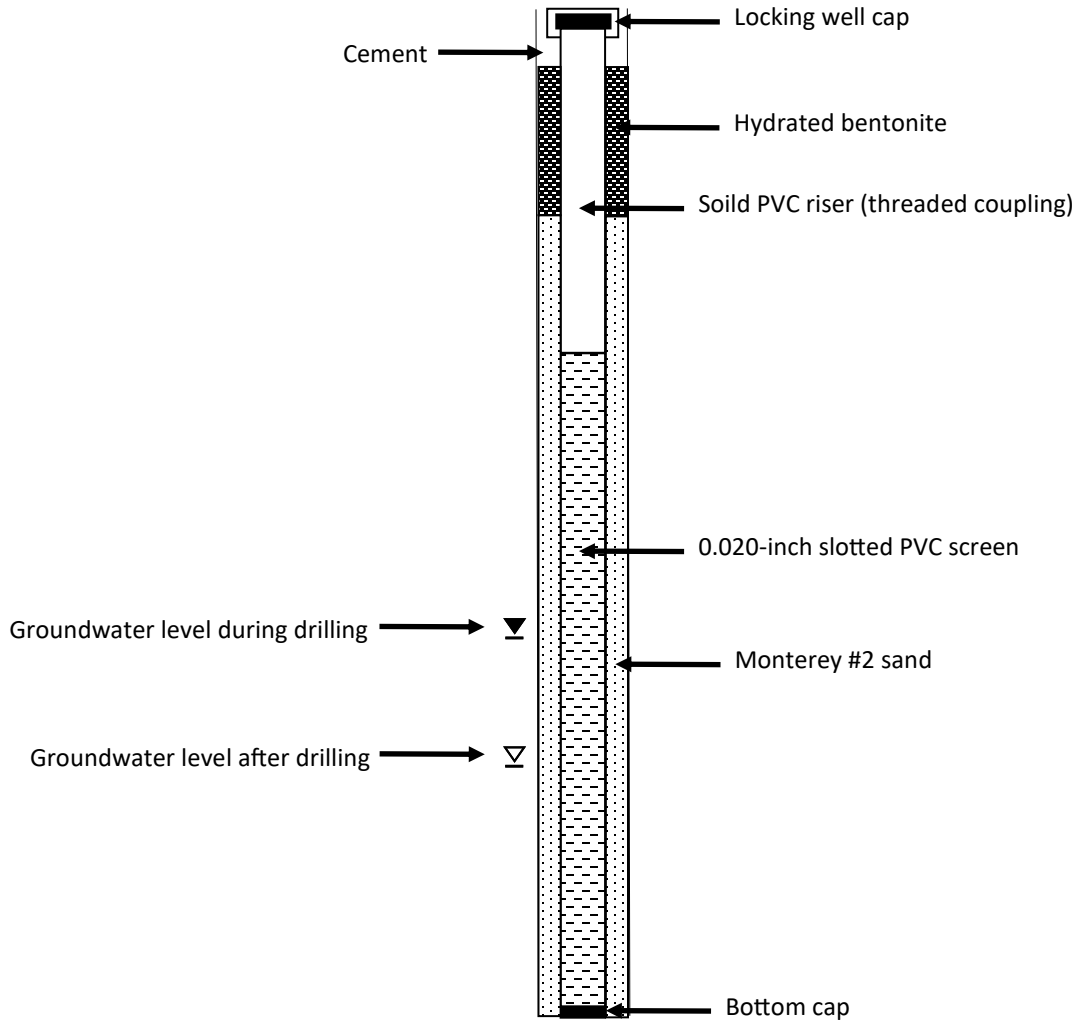
NOTES: Groundwater sample MW11-111420 collected 11/14/20 at 0830. Wellhead PID = 0.3 ppm and LEL = 0.0%.

UNIFIED SOIL CLASSIFICATION SYSTEM—ASTM D2488

	GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
	GM	Silty gravels, gravel-sand-silt mixtures
	SW	Well-graded sands, gravelly sands, little or no fines
	SP	Poorly graded sands, gravelly sands, little or no fines
	SM	Silty sands, sand-silt mixtures
	SC	Clayey sands, sand-clay mixtures

	ML	Inorganic silts & very fine sands, silty or clayey sands
	CL	Inorganic clays of low to medium plasticity, gravelly clays
	OL	Organic silts and organic silty clays of low plasticity
	CH	Inorganic clays of high plasticity, fat clays
	OH	Organic clays of medium to high plasticity, organic silts
	PT	Peat and other highly organic soils

MONITORING WELL DIAGRAM



Appendix D
Analytical Data for All
Constituents

**Table D-1
Soil Boring Analytical Data– B1 through B3**

COPC	B1-7 (mg/kg)	B1-15 (mg/kg)	B2-7 (mg/kg)	B2-7A (mg/kg)	B2-15 (mg/kg)	B2-15A (mg/kg)	B3-7 (mg/kg)	B3-7A (mg/kg)	B3-10 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
TPH (NWTPH-Dx)												
Gasoline range	< 5.5	< 5.5	< 4.9	< 5.9	< 5.3	< 6.5	< 9.8	< 11	21	100	np	np
Diesel range	< 28	< 27	< 28	< 28	< 29	< 30	< 39	120	700	2,000	np	np
Heavy oil range	< 56	< 55	170	97	< 58	< 60	530	960	4,500	2,000	np	np
VOCs (EPA 8260D)												
Dichlorodifluoromethane	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	16,000	np
Chloromethane	--	--	< 0.0079	< 0.0080	--	--	< 0.011	< 0.0096	< 0.021	np	np	np
Vinyl chloride	--	--	< 0.0015	< 0.0015	--	--	< 0.0021	< 0.0018	< 0.0039	np	240	0.67
Bromomethane	--	--	< 0.0053	< 0.0054	--	--	< 0.0075	< 0.0064	< 0.014	np	110	np
Chloroethane	--	--	< 0.0053	< 0.0054	--	--	< 0.0075	< 0.0064	< 0.014	np	np	np
Trichlorofluoromethane	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	24,000	np
1,1-Dichloroethene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	4,000	np
Iodomethane	--	--	< 0.0053	< 0.0054	--	--	< 0.0075	< 0.0064	< 0.014	np	np	np
Methylene chloride	--	--	< 0.0068	< 0.0068	--	--	< 0.0096	< 0.0082	< 0.018	0.02	480	94
trans-1,2-Dichloroethene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	1,600	np
Methyl t-Butyl Ether	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	0.1	np	560
1,1-Dichloroethane	--	--	< 0.0014	< 0.0014	--	--	< 0.0020	< 0.0017	< 0.0036	np	16,000	180
2,2-Dichloropropane	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	np	np
cis-1,2-Dichloroethene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	160	np
Bromochloromethane	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	np	np
Chloroform	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	800	32

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

Bold = detected concentration is greater than the PCL

Table D-1 (continued)
Soil Boring Analytical Data– B1 through B3

COPC	B1-7 (mg/kg)	B1-15 (mg/kg)	B2-7 (mg/kg)	B2-7A (mg/kg)	B2-15 (mg/kg)	B2-15A (mg/kg)	B3-7 (mg/kg)	B3-7A (mg/kg)	B3-10 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
1,1,1-Trichloroethane (TCA)	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	2.0	160,000	np
Carbon tetrachloride	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	320	14
1,1-Dichloropropene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	np	np
Benzene	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.022	< 0.04	0.03	320	18
1,2-Dichloroethane (EDC)	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	480	11
Trichloroethene (TCE)	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	0.03	40	12
1,2-Dichloropropane	--	--	< 0.0014	< 0.0014	--	--	< 0.0020	< 0.0017	< 0.0036	np	3,200	27
Dibromoethane	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	np	np
Bromodichloromethane	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	1,600	16
2-Chloroethyl Vinyl Ether	--	--	< 0.0053	< 0.0054	--	--	< 0.0075	< 0.0064	< 0.014	np	np	np
1,3-Dichloropropene (cis)	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	2,400	10
1,3-Dichloropropene (trans)	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	2,400	10
Toluene	< 0.055	< 0.055	< 0.049	< 0.059	< 0.053	< 0.065	< 0.098	< 0.11	< 0.20	7.0	6,400	np
1,1,2-Trichloroethane	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	320	18
Tetrachloroethene (PCE)	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	0.05	480	480
1,3-Dichloropropane	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	np	np
Dibromochloromethane	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	1,600	12

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram
 Bold = practical quantitation limit greater than PCL

Table D-1 (continued)
Soil Boring Analytical Data– B1 through B3

COPC	B1-7 (mg/kg)	B1-15 (mg/kg)	B2-7 (mg/kg)	B2-7A (mg/kg)	B2-15 (mg/kg)	B2-15A (mg/kg)	B3-7 (mg/kg)	B3-7A (mg/kg)	B3-10 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
1,2-Dibromoethane (EDB)	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	0.005	720	0.5
Chlorobenzene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	1,600	np
1,1,1,2-Tetrachloroethane	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	2,400	38
Ethylbenzene	<0.055	<0.055	<0.049	<0.059	<0.053	< 0.065	<0.098	<0.11	<0.20	6.0	8,000	np
Xylenes (total)	<0.11	<0.11	<0.098	<0.118	<0.106	< 0.13	<0.196	<0.22	<0.04	9.0	16,000	np
Bromoform	--	--	< 0.0053	< 0.0054	--	--	< 0.0075	< 0.0064	< 0.014	np	1,600	130
Bromobenzene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	640	np
1,1,2,2-Tetrachloroethane	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	1,600	5.0
1,2,3-Trichloropropane	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	320	0.0063
2-Chlorotoluene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	1,600	np
4-Chlorotoluene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	1,600*	np
1,3-Dichlorobenzene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	np	np
1,4-Dichlorobenzene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	5,600	190
1,2-Dichlorobenzene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	7,200	np
1,2-Dibromo-3- chloropropane	--	--	< 0.0053	< 0.0054	--	--	< 0.0075	< 0.45	< 1.0	np	16	1.3
1,2,4-Trichlorobenzene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	800	34
Hexachlorobutadiene	--	--	< 0.0053	< 0.0054	--	--	< 0.0075	< 0.45	< 1.0	np	80	13
1,2,3-Trichlorobenzene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	np	np

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

Bold = practical quantitation limit greater than PCL

* = CUL for 2-Chlorotoluene

Table D-1 (continued)
Soil Boring Analytical Data– B1 through B3

COPC	B1-7 (mg/kg)	B1-15 (mg/kg)	B2-7 (mg/kg)	B2-7A (mg/kg)	B2-15 (mg/kg)	B2-15A (mg/kg)	B3-7 (mg/kg)	B3-7A (mg/kg)	B3-10 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
1,2-Dibromoethane (EDB)	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	0.005	720	0.5
Chlorobenzene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	1,600	np
1,1,1,2-Tetrachloroethane	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.0013	< 0.0028	np	2,400	38
Ethylbenzene	<0.055	<0.055	<0.049	<0.059	<0.053	< 0.065	<0.098	<0.11	<0.20	6.0	8,000	np
Xylenes (total)	<0.055	<0.055	<0.049	<0.059	<0.053	< 0.065	<0.098	<0.11	<0.020	9.0	16,000	np
Bromoform	--	--	< 0.0053	< 0.0054	--	--	< 0.0075	< 0.0064	< 0.014	np	1,600	130
Bromobenzene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	640	np
1,1,2,2-Tetrachloroethane	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	1,600	5.0
1,2,3-Trichloropropane	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	320	0.0063
2-Chlorotoluene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	1,600	np
4-Chlorotoluene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	1,600*	np
1,3-Dichlorobenzene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	np	np
1,4-Dichlorobenzene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	5,600	190
1,2-Dichlorobenzene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	7,200	np
1,2-Dibromo-3-chloropropane	--	--	< 0.0053	< 0.0054	--	--	< 0.0075	< 0.45	< 1.0	np	16	1.3
1,2,4-Trichlorobenzene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	800	34
Hexachlorobutadiene	--	--	< 0.0053	< 0.0054	--	--	< 0.0075	< 0.45	< 1.0	np	80	13
1,2,3-Trichlorobenzene	--	--	< 0.0011	< 0.0011	--	--	< 0.0015	< 0.091	< 0.20	np	np	np

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

Bold = practical quantitation limit greater than PCL

* = CUL for 2-Chlorotoluene

Table D-1 (continued)
Soil Boring Analytical Data for– B1 through B3

COPC	B1-7 (mg/kg)	B1-15 (mg/kg)	B2-7 (mg/kg)	B2-7A (mg/kg)	B2-15 (mg/kg)	B2-15A (mg/kg)	B3-7 (mg/kg)	B3-7A (mg/kg)	B3-10 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
PAHs												
Naphthalene	--	--	< 0.0076	< 0.0074	< 0.0078	< 0.0080	< 0.010	< 0.010	0.083	5.0	1,600	np
2-Methylnaphthalene	--	--	< 0.0076	< 0.0074	< 0.0078	< 0.0080	< 0.010	< 0.010	0.030	np	320	np
1-Methylnaphthalene	--	--	< 0.0076	< 0.0074	< 0.0078	< 0.0080	< 0.010	< 0.010	0.019	np	5,600	34
Acenaphthylene	--	--	< 0.0076	< 0.0074	< 0.0078	< 0.0080	< 0.010	< 0.010	< 0.016	np	np	np
Acenaphthene	--	--	< 0.0076	< 0.0074	< 0.0078	< 0.0080	< 0.010	< 0.010	0.021	np	4,800	np
Fluorene	--	--	< 0.0076	< 0.0074	< 0.0078	< 0.0080	< 0.010	< 0.010	0.021	np	3,200	np
Pentachlorophenol	--	--	--	--	--	--	--	--	--	np	400	2.5
Phenanthrene	--	--	0.013	< 0.0074	< 0.0078	< 0.0080	< 0.010	0.013	0.063	np	np	np
Anthracene	--	--	< 0.0076	< 0.0074	< 0.0078	< 0.0080	< 0.010	< 0.010	< 0.016	np	24,000	np
Fluoranthene	--	--	0.013	< 0.0074	< 0.0078	< 0.0080	< 0.010	< 0.010	0.053	np	3,200	np
Pyrene	--	--	0.016	< 0.0074	< 0.0078	< 0.0080	< 0.010	< 0.010	0.053	np	2,400	np
Benzo(a)anthracene	--	--	0.0077	< 0.0074	< 0.0078	< 0.0080	< 0.010	< 0.010	< 0.016	np	np	np
Chrysene	--	--	0.0096	< 0.0074	< 0.0078	< 0.0080	< 0.010	0.011	0.027	np	np	np
Benzo(b)fluoranthene	--	--	0.011	< 0.0074	< 0.0078	< 0.0080	0.013	< 0.010	0.022	np	np	np
Benzo(j,k)fluoranthene	--	--	< 0.0076	< 0.0074	< 0.0078	< 0.0080	< 0.010	< 0.010	< 0.016	np	np	np
Benzo(a)pyrene	--	--	0.0086	< 0.0074	< 0.0078	< 0.0080	< 0.010	< 0.010	0.018	0.1	24	0.19
Indeno(1,2,3-cd)pyrene	--	--	< 0.0076	< 0.0074	< 0.0078	< 0.0080	< 0.010	< 0.010	< 0.016	np	np	np
Dibenzo(a,h)anthracene	--	--	< 0.0076	< 0.0074	< 0.0078	< 0.0080	< 0.010	< 0.010	< 0.016	np	np	np
Benzo(g,h,i)perylene	--	--	< 0.0076	< 0.0074	< 0.0078	< 0.0080	< 0.010	< 0.010	< 0.016	np	np	np
Total cPAH TEQ	--	--	0.011706	N/A	N/A	N/A	0.00835	0.00761	0.02367	0.1	np	np

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram
 cPAH = carcinogenic polycyclic aromatic hydrocarbons
 TEQ = total toxic equivalent concentration

Table D-1 (continued)
Soil Boring Analytical Data– B1 through B3

COPC	B1-7 (mg/kg)	B1-15 (mg/kg)	B2-7 (mg/kg)	B2-7A (mg/kg)	B2-15 (mg/kg)	B2-15A (mg/kg)	B3-7 (mg/kg)	B3-7A (mg/kg)	B3-10 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
Metals (total)												
Arsenic ¹	--	--	< 11	< 11	< 12	< 12	< 15	< 15	< 25	20	24	0.67
Barium	--	--	56	65	31	36	96	61	140	np	16,000	np
Cadmium	--	--	< 0.57	< 0.56	< 0.58	< 0.60	< 0.77	< 0.77	< 1.2	2.0	80	np
Chromium (total)	--	--	19	23	18	18	26	19	30	np	np	np
Chromium III	--	--	19	23	18	18	26	19	30	2,000	120,000	np
Chromium VI	--	--	< 1.1	< 1.1	--	--	< 1.5	< 1.5	< 2.5	19	240	np
Copper	--	--	--	--	--	--	--	--	--	np	3,200	np
Lead	--	--	< 5.7	7.0	< 5.8	< 6.0	10	26	100	250	np	np
Mercury	--	--	< 0.28	< 0.28	< 0.29	< 0.30	< 0.38	< 0.38	< 0.62	2.0	np	np
Nickel	--	--	--	--	--	--	--	--	--	np	1,600	np
Selenium	--	--	< 11	< 11	< 12	< 12	< 15	< 15	< 25	np	400	np
Silver	--	--	< 1.1	< 1.1	< 1.2	< 1.2	< 1.5	< 1.5	< 2.5	np	400	np
PCBs												
Aroclor 1016	--	--	< 0.057	< 0.056	--	--	< 0.077	< 0.077	< 0.12	np	5.6	14
Aroclor 1221	--	--	< 0.057	< 0.056	--	--	< 0.077	< 0.077	< 0.12	np	np	np
Aroclor 1232	--	--	< 0.057	< 0.056	--	--	< 0.077	< 0.077	< 0.12	np	np	np
Aroclor 1242	--	--	< 0.057	< 0.056	--	--	< 0.077	< 0.077	< 0.12	np	np	np
Aroclor 1248	--	--	< 0.057	< 0.056	--	--	< 0.077	< 0.077	< 0.12	np	np	np
Aroclor 1254	--	--	< 0.057	< 0.056	--	--	< 0.077	< 0.077	< 0.12	np	1.6	0.5

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

¹ = cleanup level was set at 20 mg/kg based on direct contact using Equation 740-2 and protection of groundwater for drinking water use using the procedures in WAC 173-340-747(4), adjusted for natural background for soil.

Table D-1 (continued)
Soil Boring Analytical Data– B1 through B3

COPC	B1-7 (mg/kg)	B1-15 (mg/kg)	B2-7 (mg/kg)	B2-7A (mg/kg)	B2-15 (mg/kg)	B2-15A (mg/kg)	B3-7 (mg/kg)	B3-7A (mg/kg)	B3-10 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
PCBs												
Aroclor 1260	--	--	< 0.057	< 0.056	--	--	< 0.077	< 0.077	< 0.12	np	np	0.5
PCBs (total)	--	--	<0.399	<0.393	--	--	<0.539	<0.539	<0.84	1.0	np	0.5

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram
 Bold = practical quantitation limit greater than PCL

Table D-2
Soil Boring Analytical Data– B3 through B7

COPC	B3-15 (mg/kg)	B3-15A (mg/kg)	B4-7 (mg/kg)	B4-15 (mg/kg)	B5-7 (mg/kg)	B5-15 (mg/kg)	B6-7 (mg/kg)	B6-15 (mg/kg)	B7-7 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
TPH												
Gasoline Range	< 5.6	< 4.7	< 6.5	< 7.1	< 5.4	< 6.2	< 7.4	< 5.8	< 14	100	np	np
Diesel (DRO)	< 28	< 28	< 32	< 31	< 27	< 32	< 29	< 28	140	2,000	np	np
Heavy Oil Range	< 56	< 57	< 65	< 63	< 54	< 63	< 59	< 56	1,300	2,000	np	np

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram

Table D-2 (continued)
Soil Boring Analytical Data– B3 through B7

COPC	B3-15 (mg/kg)	B3-15A (mg/kg)	B4-7 (mg/kg)	B4-15 (mg/kg)	B5-7 (mg/kg)	B5-15 (mg/kg)	B6-7 (mg/kg)	B6-15 (mg/kg)	B7-7 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
Dichlorodifluoromethane	--	--	--	--	--	--	--	--	< 0.0019	np	16,000	np
Chloromethane	--	--	--	--	--	--	--	--	< 0.014	np	np	np
Vinyl chloride	--	--	--	--	--	--	--	--	< 0.0027	np	240	0.67
Bromomethane	--	--	--	--	--	--	--	--	< 0.0095	np	110	np
Chloroethane	--	--	--	--	--	--	--	--	< 0.0095	np	np	np
Trichlorofluoromethane	--	--	--	--	--	--	--	--	< 0.0019	np	24,000	np
1,1-Dichloroethene	--	--	--	--	--	--	--	--	< 0.0019	np	4,000	np
Iodomethane	--	--	--	--	--	--	--	--	< 0.0095	np	np	np
Methylene chloride	--	--	--	--	--	--	--	--	< 0.012	0.02	480	94
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	< 0.0019	np	1,600	np
Methyl t-Butyl Ether	--	--	--	--	--	--	--	--	< 0.0019	0.1	np	560
1,1-Dichloroethane	--	--	--	--	--	--	--	--	< 0.0025	np	16,000	180
2,2-Dichloropropane	--	--	--	--	--	--	--	--	< 0.0019	np	np	np
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	< 0.0019	np	160	np
Bromochloromethane	--	--	--	--	--	--	--	--	< 0.0019	np	np	np
Chloroform	--	--	--	--	--	--	--	--	< 0.0019	np	800	32
1,1,1-Trichloroethane (TCA)	--	--	--	--	--	--	--	--	< 0.0019	2.0	160,000	np
Carbon tetrachloride	--	--	--	--	--	--	--	--	< 0.0019	np	320	14
1,1-Dichloropropene	--	--	--	--	--	--	--	--	< 0.0019	np	np	np

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

Table D-2 (continued)
Soil Boring Analytical Data– B3 through B7

COPC	B3-15 (mg/kg)	B3-15A (mg/kg)	B4-7 (mg/kg)	B4-15 (mg/kg)	B5-7 (mg/kg)	B5-15 (mg/kg)	B6-7 (mg/kg)	B6-15 (mg/kg)	B7-7 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
Benzene	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.029	0.03	320	18
1,2-Dichloroethane (EDC)	--	--	--	--	--	--	--	--	< 0.0019	np	480	11
Trichloroethene (TCE)	--	--	--	--	--	--	--	--	< 0.0019	0.03	40	12
1,2-Dichloropropane	--	--	--	--	--	--	--	--	< 0.0025	np	3,200	27
Dibromoethane	--	--	--	--	--	--	--	--	< 0.0019	np	np	np
Bromodichloromethane	--	--	--	--	--	--	--	--	< 0.0019	np	1,600	16
2-Chloroethyl Vinyl Ether	--	--	--	--	--	--	--	--	< 0.0019	np	np	np
1,3-Dichloropropene (cis)	--	--	--	--	--	--	--	--	< 0.0019	np	2,400	10
1,3-Dichloropropene (trans)	--	--	--	--	--	--	--	--	< 0.0019	np	2,400	10
Toluene	<0.056	<0.047	<0.065	<0.071	<0.054	<0.062	<0.074	<0.058	<0.014	7.0	6,400	np
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	< 0.0019	np	320	18
Tetrachloroethene (PCE)	--	--	--	--	--	--	--	--	< 0.0019	0.05	480	480
1,3-Dichloropropane	--	--	--	--	--	--	--	--	< 0.0019	np	np	np
Dibromochloromethane	--	--	--	--	--	--	--	--	< 0.0019	np	1,600	12
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	--	< 0.0019	0.005	720	0.5
Chlorobenzene	--	--	--	--	--	--	--	--	< 0.0019	np	1,600	np
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	--	< 0.0019	np	2,400	38

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

Table D-2 (continued)
Soil Boring Analytical Data– B3 through B7

COPC	B3-15 (mg/kg)	B3-15A (mg/kg)	B4-7 (mg/kg)	B4-15 (mg/kg)	B5-7 (mg/kg)	B5-15 (mg/kg)	B6-7 (mg/kg)	B6-15 (mg/kg)	B7-7 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
Ethylbenzene	<0.056	<0.047	<0.065	<0.071	<0.054	<0.062	<0.074	<0.058	<0.014	6.0	8,000	np
Xylenes (total)	<0.112	<0.094	<0.13	<0.142	<0.108	<0.124	<0.148	<0.116	<0.028	9.0	16,000	np
Bromoform	--	--	--	--	--	--	--	--	<0.0095	np	1,600	130
Bromobenzene	--	--	--	--	--	--	--	--	<0.13	np	640	np
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	<0.13	np	1,600	5.0
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	<0.13	np	320	0.0063
2-Chlorotoluene	--	--	--	--	--	--	--	--	<0.13	np	1,600	np
4-Chlorotoluene	--	--	--	--	--	--	--	--	<0.13	np	1,600	np
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	<0.13	np	np	np
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	<0.13	np	5,600	190
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	<0.13	np	7,200	np
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	<0.65	np	16	1.3
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	<0.13	np	800	34
Hexachlorobutadiene	--	--	--	--	--	--	--	--	<0.65	np	80	13
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	<0.13	np	np	np
PAHs												
Naphthalene	<0.0075	<0.0076	<0.0086	<0.0083	<0.0072	<0.0084	<0.0078	<0.0075	0.059	5.0	1,600	np
2-Methylnaphthalene	<0.0075	<0.0076	<0.0086	<0.0083	<0.0072	<0.0084	<0.0078	<0.0075	0.034	np	320	np
1-Methylnaphthalene	<0.0075	<0.0076	<0.0086	<0.0083	<0.0072	<0.0084	<0.0078	<0.0075	0.018	np	5,600	34

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

Bold = practical quantitation limit greater than PCL

Table D-2 (continued)
Soil Boring Analytical Data– B3 through B7

COPC	B3-15 (mg/kg)	B3-15A (mg/kg)	B4-7 (mg/kg)	B4-15 (mg/kg)	B5-7 (mg/kg)	B5-15 (mg/kg)	B6-7 (mg/kg)	B6-15 (mg/kg)	B7-7 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
PAHs												
Acenaphthylene	< 0.0075	< 0.0076	< 0.0086	< 0.0083	< 0.0072	< 0.0084	< 0.0078	< 0.0075	0.013	np	np	np
Acenaphthene	< 0.0075	< 0.0076	< 0.0086	< 0.0083	< 0.0072	< 0.0084	< 0.0078	< 0.0075	0.067	np	4,800	np
Fluorene	< 0.0075	< 0.0076	< 0.0086	< 0.0083	< 0.0072	< 0.0084	< 0.0078	< 0.0075	0.10	np	3,200	np
Pentachlorophenol	--	--	--	--	--	--	--	--	--	np	400	2.5
Phenanthrene	< 0.0075	< 0.0076	< 0.0086	< 0.0083	< 0.0072	< 0.0084	0.027	< 0.0075	0.18	np	np	np
Anthracene	< 0.0075	< 0.0076	< 0.0086	< 0.0083	< 0.0072	< 0.0084	< 0.0078	< 0.0075	0.11	np	24,000	np
Fluoranthene	< 0.0075	< 0.0076	< 0.0086	< 0.0083	< 0.0072	< 0.0084	0.039	< 0.0075	0.35	np	3,200	np
Pyrene	< 0.0075	< 0.0076	< 0.0086	< 0.0083	< 0.0072	< 0.0084	0.037	< 0.0075	0.35	np	2,400	np
Benzo(a)anthracene	< 0.0075	< 0.0076	< 0.0086	< 0.0083	< 0.0072	< 0.0084	0.015	< 0.0075	0.067	np	np	np
Chrysene	< 0.0075	< 0.0076	< 0.0086	< 0.0083	< 0.0072	< 0.0084	0.021	< 0.0075	0.083	np	np	np
Benzo(b)fluoranthene	< 0.0075	< 0.0076	< 0.0086	< 0.0083	< 0.0072	< 0.0084	0.022	< 0.0075	0.077	np	np	np
Benzo(j,k)fluoranthene	< 0.0075	< 0.0076	< 0.0086	< 0.0083	< 0.0072	< 0.0084	0.0090	< 0.0075	0.020	np	np	np
Benzo(a)pyrene	< 0.0075	< 0.0076	< 0.0086	< 0.0083	< 0.0072	< 0.0084	0.017	< 0.0075	0.041	0.1	24	0.19
Indeno(1,2,3-cd)pyrene	< 0.0075	< 0.0076	< 0.0086	< 0.0083	< 0.0072	< 0.0084	0.012	< 0.0075	0.020	np	np	np
Dibenzo(a,h)anthracene	< 0.0075	< 0.0076	< 0.0086	< 0.0083	< 0.0072	< 0.0084	< 0.0078	< 0.0075	< 0.013	np	np	np
Benzo(g,h,i)perylene	< 0.0075	< 0.0076	< 0.0086	< 0.0083	< 0.0072	< 0.0084	0.012	< 0.0075	0.019	np	np	np
cPAH TEQ	N/A	N/A	N/A	N/A	N/A	N/A	0.0234	N/A	0.06093	0.1	np	np
Metals (total)												
Arsenic ¹	< 11	< 11	< 13	< 13	< 11	< 13	< 12	< 11	< 19	20	24	0.67

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

¹ = cleanup level was set at 20 mg/kg based on direct contact using Equation 740-2 and protection of groundwater for drinking water use using the procedures in WAC 173-340-747(4), adjusted for natural background for soil.

cPAH = carcinogenic polycyclic aromatic hydrocarbons

TEQ = total toxic equivalent concentration

Table D-2 (continued)
Soil Boring Analytical Data– B3 through B7

COPC	B3-15 (mg/kg)	B3-15A (mg/kg)	B4-7 (mg/kg)	B4-15 (mg/kg)	B5-7 (mg/kg)	B5-15 (mg/kg)	B6-7 (mg/kg)	B6-15 (mg/kg)	B7-7 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
Metals (total)												
Barium	20	27	33	36	53	26	64	31	35	np	16,000	np
Cadmium	< 0.56	< 0.57	< 0.65	< 0.63	< 0.54	< 0.63	< 0.59	< 0.56	< 0.95	2.0	80	np
Chromium (total)	7.3	12	20	22	17	18	26	14	19	np	np	np
Chromium III	7.3	12	20	22	17	18	26	14	19	2,000	120,000	np
Chromium VI	--	--	< 1.3	< 1.3	--	--	< 1.2	--	< 1.9	19	240	np
Copper	--	--	--	--	--	--	--	--	--	np	3,200	np
Lead	< 5.6	< 5.7	< 6.5	< 6.3	< 5.4	< 6.3	5.9	< 5.6	16	250	np	np
Mercury	< 0.28	< 0.28	< 0.32	< 0.31	< 0.27	< 0.31	< 0.29	< 0.28	1.3	2.0	np	np
Nickel	--	--	--	--	--	--	--	--	--	np	1,600	np
Selenium	< 11	< 11	< 13	< 13	< 11	< 13	< 12	< 11	< 19	np	400	np
Silver	< 1.1	< 1.1	< 1.3	< 1.3	< 1.1	< 1.3	< 1.2	< 1.1	< 1.9	np	400	np
PCBs												
Aroclor 1016	--	--	--	--	--	--	--	--	< 0.095	np	5.6	14
Aroclor 1221	--	--	--	--	--	--	--	--	< 0.095	np	np	np
Aroclor 1232	--	--	--	--	--	--	--	--	< 0.095	np	np	np
Aroclor 1242	--	--	--	--	--	--	--	--	< 0.095	np	np	np
Aroclor 1248	--	--	--	--	--	--	--	--	< 0.095	np	np	np
Aroclor 1254 ¹	--	--	--	--	--	--	--	--	< 0.095	np	1.6	0.5
Aroclor 1260 ¹	--	--	--	--	--	--	--	--	< 0.095	np	np	0.5
PCBs (total)	--	--	--	--	--	--	--	--	< 0.665	1.0	np	0.5

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

Bold = practical quantitation limit greater than PCL

Table D-3
Soil Boring Analytical Data– B7 through B11

COPC	B7-15 (mg/kg)	B8-7 (mg/kg)	B8-15 (mg/kg)	B9-7 (mg/kg)	B9-15 (mg/kg)	B10-7 (mg/kg)	B10-15 (mg/kg)	B11-7 (mg/kg)	B11-15 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
TPH												
Gasoline Range	< 4.7	< 4.1	< 4.0	< 7.1	< 5.3	< 6.4	< 5.8	< 5.4	< 6.6	100	np	np
Diesel (DRO)	< 29	< 27	< 29	280	< 30	< 30	< 27	< 29	< 30	2,000	np	np
Heavy Oil Range	< 59	< 53	< 58	1,200	< 60	75	< 54	67	< 59	2,000	np	np
VOCs												
Dichlorodifluoromethane	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	16,000	np
Chloromethane	--	--	--	< 0.010	--	< 0.0086	--	< 0.0068	--	np	np	np
Vinyl chloride	--	--	--	< 0.0019	--	< 0.0016	--	< 0.0013	--	np	240	0.67
Bromomethane	--	--	--	< 0.0067	--	< 0.0058	--	< 0.0045	--	np	110	np
Chloroethane	--	--	--	< 0.0067	--	< 0.0058	--	< 0.0045	--	np	np	np
Trichlorofluoromethane	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	24,000	np
1,1-Dichloroethene	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	4,000	np
Iodomethane	--	--	--	< 0.0067	--	< 0.0058	--	< 0.0045	--	np	np	np
Methylene chloride	--	--	--	< 0.0085	--	< 0.0074	--	< 0.0058	--	0.02	480	94
trans-1,2-Dichloroethene	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	1,600	np
Methyl t-Butyl Ether	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	0.1	np	560
1,1-Dichloroethane	--	--	--	< 0.0017	--	< 0.0015	--	< 0.0012	--	np	16,000	180
2,2-Dichloropropane	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	np	np
cis-1,2-Dichloroethene	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	160	np
Bromochloromethane	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	np	np
Chloroform	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	800	32

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

Table D-3 (continued)
Soil Boring Analytical Data– B7 through B11

COPC	B7-15 (mg/kg)	B8-7 (mg/kg)	B8-15 (mg/kg)	B9-7 (mg/kg)	B9-15 (mg/kg)	B10-7 (mg/kg)	B10-15 (mg/kg)	B11-7 (mg/kg)	B11-15 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
1,1,1-Trichloroethane (TCA)	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	2.0	160,000	np
Carbon tetrachloride	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	320	14
1,1-Dichloropropene	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	np	np
Benzene	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.03	320	18
1,2-Dichloroethane (EDC)	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	480	11
Trichloroethene (TCE)	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	0.03	40	12
1,2-Dichloropropane	--	--	--	< 0.0017	--	< 0.0015	--	< 0.0012	--	np	3,200	27
Dibromoethane	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	np	np
Bromodichloromethane	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	1,600	16
2-Chloroethyl Vinyl Ether	--	--	--	< 0.0067	--	< 0.0058	--	< 0.0045	--	np	np	np
1,3-Dichloropropene (cis)	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	2,400	10
1,3-Dichloropropene (trans)	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	2,400	10
Toluene	< 0.047	< 0.041	< 0.040	< 0.071	< 0.053	< 0.064	< 0.058	< 0.054	< 0.066	7.0	6,400	np
1,1,2-Trichloroethane	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	320	18
Tetrachloroethene (PCE)	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	0.05	480	480
1,3-Dichloropropane	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	np	np
Dibromochloromethane	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	1,600	12

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram

Table D-3 (continued)
Soil Boring Analytical Data– B7 through B11

COPC	B7-15 (mg/kg)	B8-7 (mg/kg)	B8-15 (mg/kg)	B9-7 (mg/kg)	B9-15 (mg/kg)	B10-7 (mg/kg)	B10-15 (mg/kg)	B11-7 (mg/kg)	B11-15 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
1,2-Dibromoethane (EDB)	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	0.005	720	0.5
Chlorobenzene	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	1,600	np
1,1,1,2-Tetrachloroethane	--	--	--	< 0.0013	--	< 0.0012	--	< 0.00091	--	np	2,400	38
Ethylbenzene	< 0.047	<0.041	<0.040	<0.071	<0.053	<0.064	<0.058	<0.054	<0.066	6.0	8,000	np
Xylenes (total)	< 0.094	<0.082	<0.080	<0.142	<0.106	<0.128	<0.116	<0.108	<0.132	9.0	16,000	np
Bromoform	--	--	--	< 0.0067	--	< 0.0058	--	< 0.0045	--	np	1,600	130
Bromobenzene	--	--	--	< 0.070	--	< 0.0012	--	< 0.00091	--	np	640	np
1,1,2,2-Tetrachloroethane	--	--	--	< 0.070	--	< 0.0012	--	< 0.00091	--	np	1,600	5.0
1,2,3-Trichloropropane	--	--	--	< 0.070	--	< 0.0012	--	< 0.00091	--	np	320	0.0063
2-Chlorotoluene	--	--	--	< 0.070	--	< 0.0012	--	< 0.00091	--	np	1,600	np
4-Chlorotoluene	--	--	--	< 0.070	--	< 0.0012	--	< 0.00091	--	np	1,600	np
1,3-Dichlorobenzene	--	--	--	< 0.070	--	< 0.0012	--	< 0.00091	--	np	np	np
1,4-Dichlorobenzene	--	--	--	< 0.070	--	< 0.0012	--	< 0.00091	--	np	5,600	190
1,2-Dichlorobenzene	--	--	--	< 0.070	--	< 0.0012	--	< 0.00091	--	np	7,200	np
1,2-Dibromo-3-chloropropane	--	--	--	< 0.35	--	< 0.0058	--	< 0.0045	--	np	16	1.3
1,2,4-Trichlorobenzene	--	--	--	< 0.070	--	< 0.0012	--	< 0.00091	--	np	800	34
Hexachlorobutadiene	--	--	--	< 0.35	--	< 0.0058	--	< 0.0045	--	np	80	13
1,2,3-Trichlorobenzene	--	--	--	< 0.070	--	< 0.0012	--	< 0.00091	--	np	np	np

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

Bold = practical quantitation limit greater than PCL

Table D-3 (continued)
Soil Boring Analytical Data– B7 through B11

COPC	B7-15 (mg/kg)	B8-7 (mg/kg)	B8-15 (mg/kg)	B9-7 (mg/kg)	B9-15 (mg/kg)	B10-7 (mg/kg)	B10-15 (mg/kg)	B11-7 (mg/kg)	B11-15 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
PAHs												
Naphthalene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	5.0	1,600	np
2-Methylnaphthalene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	320	np
1-Methylnaphthalene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	5,600	34
Acenaphthylene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	np	np
Acenaphthene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	4,800	np
Fluorene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	3,200	np
Pentachlorophenol	--	--	--	--	--	--	--	< 0.19	< 0.20	np	400	2.5
Phenanthrene	< 0.0078	< 0.0071	< 0.0077	0.014	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	np	np
Anthracene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	24,000	np
Fluoranthene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	3,200	np
Pyrene	< 0.0078	< 0.0071	< 0.0077	0.034	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	2,400	np
Benzo(a)anthracene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	np	np
Chrysene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	np	np
Benzo(b)fluoranthene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	np	np
Benzo(j,k)fluoranthene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	np	np
Benzo(a)pyrene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	0.1	24	0.19
Indeno(1,2,3-cd)pyrene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	np	np
Dibenzo(a,h)anthracene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	np	np
Benzo(g,h,i)perylene	< 0.0078	< 0.0071	< 0.0077	< 0.0085	< 0.0080	< 0.0081	< 0.0072	< 0.0076	< 0.0079	np	np	np
cPAH TEQ	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.1	np	np

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram
 cPAH = carcinogenic polycyclic aromatic hydrocarbons
 TEQ = total toxic equivalent concentration

Table D-3 (continued)
Soil Boring Analytical Data– B7 through B11

COPC	B7-15 (mg/kg)	B8-7 (mg/kg)	B8-15 (mg/kg)	B9-7 (mg/kg)	B9-15 (mg/kg)	B10-7 (mg/kg)	B10-15 (mg/kg)	B11-7 (mg/kg)	B11-15 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
Metals (total)												
Arsenic ¹	< 12	<11	<12	< 13	< 12	< 12	< 11	< 11	< 12	20	24	0.67
Barium	31	35	28	63	74	67	58	58	36	np	16,000	np
Cadmium	< 0.59	< 0.53	< 0.58	< 0.64	< 0.60	< 0.61	< 0.54	< 0.57	< 0.59	2.0	80	np
Chromium (total)	19	14	13	16	24	19	14	23	22	np	np	np
Chromium III	19	14	13	16	24	19	14	23	22	2,000	120,000	np
Chromium VI	< 1.2	--	--	--	< 1.2	< 1.2	--	< 1.1	< 1.2	19	240	np
Copper	--	--	--	--	--	--	--	19	9.2	np	3,200	np
Lead	< 5.9	< 5.3	< 5.8	6.5	< 6.0	< 6.1	< 5.4	< 5.7	< 5.9	250	np	np
Mercury	< 0.29	< 0.27	< 0.29	< 0.32	< 0.30	< 0.30	< 0.27	< 0.29	< 0.30	2.0	np	np
Nickel	--	--	--	--	--	--	--	--	--	np	1,600	np
Selenium	< 12	< 11	< 12	< 13	< 12	< 12	< 11	< 11	< 12	np	400	np
Silver	< 1.2	< 1.1	< 1.2	< 1.3	< 1.2	< 1.2	< 1.1	< 1.1	< 1.2	np	400	np
PCBs												
Aroclor 1016	--	--	--	< 0.064	--	< 0.061	--	< 0.057	--	np	5.6	14
Aroclor 1221	--	--	--	< 0.064	--	< 0.061	--	< 0.057	--	np	np	np
Aroclor 1232	--	--	--	< 0.064	--	< 0.061	--	< 0.057	--	np	np	np
Aroclor 1242	--	--	--	< 0.064	--	< 0.061	--	< 0.057	--	np	np	np
Aroclor 1248	--	--	--	< 0.064	--	< 0.061	--	< 0.057	--	np	np	np
Aroclor 1254	--	--	--	< 0.064	--	< 0.061	--	< 0.057	--	np	1.6	0.5
Aroclor 1260	--	--	--	< 0.064	--	< 0.061	--	< 0.057	--	np	np	0.5

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

¹ = cleanup level was set at 20 mg/kg based on direct contact using Equation 740-2 and protection of groundwater for drinking water use using the procedures in WAC 173-340-747(4), adjusted for natural background for soil.

Table D-3 (continued)
Soil Boring Analytical Data– B7 through B11

COPC	B7-15 (mg/kg)	B8-7 (mg/kg)	B8-15 (mg/kg)	B9-7 (mg/kg)	B9-15 (mg/kg)	B10-7 (mg/kg)	B10-15 (mg/kg)	B11-7 (mg/kg)	B11-15 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
PCBs												
PCBs (total)	--	--	--	<0.448	--	<0.427	--	0.399	--	1.0	np	0.5

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram

Table D-4
Surface Soil Analytical Data– SS1 through SS8

COPC	SS1 (mg/kg)	SS2 (mg/kg)	SS2A (mg/kg)	SS3 (mg/kg)	SS4 (mg/kg)	SS5 (mg/kg)	SS6 (mg/kg)	SS7 (mg/kg)	SS8 (mg/kg)	Soil Method A Unrestrict ed Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
TPH												
Gasoline (GRO)	< 6.8	< 5.1	< 4.5	< 5.5	< 3.9	< 4.4	< 4.6	< 12	< 6.1	100	np	np
Diesel (DRO)	150	< 31	< 29	< 30	< 28	< 28	< 31	< 43	< 34	2,000	np	np

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram

Table D-4 (continued)
Surface Soil Analytical Data– SS1 through SS8

COPC	SS1 (mg/kg)	SS2 (mg/kg)	SS2A (mg/kg)	SS3 (mg/kg)	SS4 (mg/kg)	SS5 (mg/kg)	SS6 (mg/kg)	SS7 (mg/kg)	SS8 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
TPH												
Heavy Oil Range	1,800	< 63	< 57	130	77	80	73	190	< 69	2,000	np	np
VOCs												
Dichlorodifluoromethane	< 0.0024	--	--	< 0.0019	< 0.0021	< 0.0018	< 0.0022	< 0.0028	--	np	16,000	np
Chloromethane	< 0.010	--	--	< 0.0081	< 0.0089	< 0.0078	< 0.0095	< 0.012	--	np	np	np
Vinyl chloride	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	240	0.67
Bromomethane	< 0.0067	--	--	< 0.0052	< 0.0058	< 0.0051	< 0.0062	< 0.0079	--	np	110	np
Chloroethane	< 0.0067	--	--	< 0.0052	< 0.0058	< 0.0051	< 0.0062	< 0.0079	--	np	np	np
Trichlorofluoromethane	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	24,000	np
1,1-Dichloroethene	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	4,000	np
Iodomethane	< 0.0067	--	--	< 0.0052	< 0.0058	< 0.0051	< 0.0062	< 0.0079	--	np	np	np
Methylene chloride	< 0.0067	--	--	< 0.0052	< 0.0058	< 0.0051	< 0.0062	< 0.0079	--	0.02	480	94
trans-1,2-Dichloroethene	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	1,600	np
Methyl t-Butyl Ether	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	0.1	np	560
1,1-Dichloroethane	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	16,000	180
2,2-Dichloropropane	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	np	np
cis-1,2-Dichloroethene	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	160	np
Bromochloromethane	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	np	np
Chloroform	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	800	32
1,1,1-Trichloroethane (TCA)	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	2.0	160,000	np

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram

Table D-4 (continued)
Surface Soil Analytical Data– SS1 through SS8

COPC	SS1 (mg/kg)	SS2 (mg/kg)	SS2A (mg/kg)	SS3 (mg/kg)	SS4 (mg/kg)	SS5 (mg/kg)	SS6 (mg/kg)	SS7 (mg/kg)	SS8 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
Carbon tetrachloride	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	320	14
Benzene	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.024	< 0.02	0.03	320	18
1,1-Dichloropropene	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	np	np
1,2-Dichloroethane (EDC)	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	480	11
Trichloroethene (TCE)	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	0.03	40	12
1,2-Dichloropropane	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	3,200	27
Dibromoethane	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	np	np
Bromodichloromethane	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	1,600	16
2-Chloroethyl Vinyl Ether	< 0.0067	--	--	< 0.0052	< 0.0058	< 0.0051	< 0.0062	< 0.0079	--	np	np	np
1,3-Dichloropropene (cis)	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	2,400	10
Toluene	< 0.068	< 0.051	< 0.045	< 0.055	< 0.039	< 0.044	< 0.046	< 0.12	< 0.061	7.0	6,400	np
1,3-Dichloropropene (trans)	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	2,400	10
1,1,2-Trichloroethane	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	320	18
Tetrachloroethene (PCE)	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	0.05	480	480
1,3-Dichloropropane	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	np	np
Dibromochloromethane	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	1,600	12
1,2-Dibromoethane (EDB)	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	0.005	720	0.5
Chlorobenzene	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	1,600	np
1,1,1,2-Tetrachloroethane	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.0016	--	np	2,400	38

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram

Table D-4 (continued)
Surface Soil Analytical Data– SS1 through SS8

COPC	SS1 (mg/kg)	SS2 (mg/kg)	SS2A (mg/kg)	SS3 (mg/kg)	SS4 (mg/kg)	SS5 (mg/kg)	SS6 (mg/kg)	SS7 (mg/kg)	SS8 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
Ethylbenzene	< 0.068	< 0.051	< 0.045	< 0.055	< 0.039	< 0.044	< 0.046	< 0.12	< 0.061	6.0	8,000	np
Xylenes (total)	< 0.136	< 0.102	< 0.090	< 0.110	< 0.078	< 0.088	< 0.092	< 0.24	< 0.122	9.0	16,000	np
Bromoform	< 0.0067	--	--	< 0.0052	< 0.0058	< 0.0051	< 0.0062	< 0.0079	--	np	1,600	130
Bromobenzene	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.12	--	np	640	np
1,1,2,2-Tetrachloroethane	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.12	--	np	1,600	5.0
1,2,3-Trichloropropane	< 0.0013	--	--	< 0.0010	< 0.0058	< 0.0010	< 0.0012	< 0.12	--	np	320	0.0063
2-Chlorotoluene	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.12	--	np	1,600	np
4-Chlorotoluene	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.12	--	np	1,600	np
1,3-Dichlorobenzene	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.12	--	np	np	np
1,4-Dichlorobenzene	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.12	--	np	5,600	190
1,2-Dichlorobenzene	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.12	--	np	7,200	np
1,2-Dibromo-3-chloropropane	< 0.0067	--	--	< 0.0052	< 0.0058	< 0.0051	< 0.0062	< 0.60	--	np	16	1.3
1,2,4-Trichlorobenzene	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.12	--	np	800	34
Hexachlorobutadiene	< 0.0067	--	--	< 0.0052	< 0.0058	< 0.0051	< 0.0062	< 0.60	--	np	80	13
1,2,3-Trichlorobenzene	< 0.0013	--	--	< 0.0010	< 0.0012	< 0.0010	< 0.0012	< 0.12	--	np	np	np
SVOCs												
Naphthalene	--	--	--	--	--	--	--	--	--	5.0	1,600	np
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	np	320	np

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram
 Bold = practical quantitation limit greater than PCL

Table D-4 (continued)
Surface Soil Analytical Data– SS1 through SS8

COPC	SS1 (mg/kg)	SS2 (mg/kg)	SS2A (mg/kg)	SS3 (mg/kg)	SS4 (mg/kg)	SS5 (mg/kg)	SS6 (mg/kg)	SS7 (mg/kg)	SS8 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
SVOCs												
1-Methylnaphthalene	--	--	--	--	--	--	--	--	--	np	5,600	34
Acenaphthylene	--	--	--	--	--	--	--	--	--	np	np	np
Acenaphthene	--	--	--	--	--	--	--	--	--	np	4,800	np
Fluorene	--	--	--	--	--	--	--	--	--	np	3,200	np
Pentachlorophenol	--	--	--	--	--	--	--	--	--	np	400	2.5
Phenanthrene	--	--	--	--	--	--	--	--	--	np	np	np
Anthracene	--	--	--	--	--	--	--	--	--	np	24,000	np
Fluoranthene	--	--	--	--	--	--	--	--	--	np	3,200	np
Pyrene	--	--	--	--	--	--	--	--	--	np	2,400	np
Benzo(a)anthracene	--	--	--	--	--	--	--	--	--	np	np	np
Chrysene	--	--	--	--	--	--	--	--	--	np	np	np
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	np	np	np
Benzo(j,k)fluoranthene	--	--	--	--	--	--	--	--	--	np	np	np
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	0.1	24	0.19
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	np	np	np
Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	np	np	np
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	np	np	np

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

Table D-4 (continued)
Surface Soil Analytical Data– SS1 through SS8

COPC	SS1 (mg/kg)	SS2 (mg/kg)	SS2A (mg/kg)	SS3 (mg/kg)	SS4 (mg/kg)	SS5 (mg/kg)	SS6 (mg/kg)	SS7 (mg/kg)	SS8 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
PAHs												
Naphthalene	0.010	--	--	0.081	< 0.0075	< 0.0075	0.015	< 0.011	--	5.0	1,600	np
2-Methylnaphthalene	< 0.0080	--	--	0.044	< 0.0075	< 0.0075	< 0.0082	< 0.011	--	np	320	np
1-Methylnaphthalene	< 0.0080	--	--	< 0.016	< 0.0075	< 0.0075	< 0.0082	< 0.011	--	np	5,600	34
Acenaphthylene	< 0.0080	--	--	0.045	0.017	< 0.0075	< 0.0082	< 0.011	--	np	np	np
Acenaphthene	< 0.0080	--	--	< 0.016	< 0.0075	< 0.0075	< 0.0082	< 0.011	--	np	4,800	np
Fluorene	< 0.0080	--	--	< 0.016	< 0.0075	< 0.0075	< 0.0082	< 0.011	--	np	3,200	np
Phenanthrene	0.013	--	--	0.10	0.037	0.011	0.053	0.016	--	np	np	np
Anthracene	< 0.0080	--	--	0.056	0.014	< 0.0075	0.011	0.013	--	np	24,000	np
Fluoranthene	0.014	--	--	0.17	0.066	0.012	0.077	0.043	--	np	3,200	np
Pyrene	0.015	--	--	0.17	0.090	0.014	0.081	0.042	--	np	2,400	np
Benzo(a)anthracene	< 0.0080	--	--	0.074	0.037	< 0.0075	0.044	0.019	--	np	np	np
Chrysene	0.015	--	--	0.081	0.044	0.0083	0.049	0.042	--	np	np	np
Benzo(b)fluoranthene	0.014	--	--	0.10	0.044	0.012	0.071	0.033	--	np	np	np
Benzo(j,k)fluoranthene	< 0.0080	--	--	0.031	0.016	< 0.0075	0.019	< 0.011	--	np	np	np
Benzo(a)pyrene	0.0093	--	--	0.089	0.046	0.0084	0.050	0.016	--	0.1	24	0.19
Indeno(1,2,3-cd)pyrene	< 0.0080	--	--	0.067	0.028	< 0.0075	0.038	0.013	--	np	np	np
Dibenzo(a,h)anthracene	< 0.0080	--	--	< 0.016	< 0.0075	< 0.0075	< 0.0082	< 0.011	--	np	np	np
Benzo(g,h,i)perylene	< 0.0080	--	--	0.074	0.028	< 0.0075	0.037	< 0.011	--	np	np	np
cPAH TEQ	0.01245	--	--	0.11781	0.059315	0.011183	0.0681	0.02402	--	0.1	np	np

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram
Bold = detected concentration is greater than the PCL
 cPAH = carcinogenic polycyclic aromatic hydrocarbons
 TEQ = total toxic equivalent concentration

Table D-4 (continued)
Surface Soil Analytical Data– SS1 through SS8

COPC	SS1 (mg/kg)	SS2 (mg/kg)	SS2A (mg/kg)	SS3 (mg/kg)	SS4 (mg/kg)	SS5 (mg/kg)	SS6 (mg/kg)	SS7 (mg/kg)	SS8 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
Metals (total)												
Arsenic ¹	--	--	--	15	< 11	< 11	< 12	< 17	< 14	20	24	0.67
Barium	--	--	--	84	60	44	63	110	85	np	16,000	np
Cadmium	--	--	--	0.62	< 0.56	< 0.56	0.84	< 0.85	< 0.69	2.0	80	np
Chromium (total) ²	--	--	--	31	21	16	21	34	24	np	np	np
Copper	--	--	--	--	--	--	--	--	--	np	3,200	np
Lead	17	--	--	130	18	< 5.6	16	15	9.0	250	np	np
TCLP Lead	--	--	--	< 0.20	--	--	--	--	--			
Mercury	--	--	--	< 0.30	< 0.28	< 0.28	< 0.31	< 0.42	< 0.34	2.0	np	np
Selenium	--	--	--	< 12	< 11	< 11	< 12	< 17	< 14	np	400	np
Silver	--	--	--	< 1.2	< 1.1	< 1.1	< 1.2	< 1.7	< 1.4	np	400	np
PCBs												
Aroclor 1016	< 0.060	--	--	< 0.059	< 0.056	< 0.056	< 0.061	< 0.085	--	np	5.6	14
Aroclor 1221	< 0.060	--	--	< 0.059	< 0.056	< 0.056	< 0.061	< 0.085	--	np	np	np
Aroclor 1232	< 0.060	--	--	< 0.059	< 0.056	< 0.056	< 0.061	< 0.085	--	np	np	np
Aroclor 1242	< 0.060	--	--	< 0.059	< 0.056	< 0.056	< 0.061	< 0.085	--	np	np	np
Aroclor 1248	< 0.060	--	--	< 0.059	< 0.056	< 0.056	< 0.061	< 0.085	--	np	np	np
Aroclor 1254	< 0.060	--	--	< 0.059	< 0.056	< 0.056	< 0.061	< 0.085	--	np	1.6	0.5
Aroclor 1260	< 0.060	--	--	< 0.059	< 0.056	< 0.056	< 0.061	< 0.085	--	np	np	0.5
PCBs (total)	< 0.42	--	--	< 0.413	< 0.392	< 0.392	< 0.427	< 0.595	--	1.0	np	0.5

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

¹ = exceeds Soil Method B Cancer. However, cleanup level was set at 20 mg/kg based on direct contact using Equation 740-2 and protection of groundwater for drinking water use using the procedures in WAC 173-340-747(4), adjusted for natural background for soil

² = cleanup level set at 2,000 mg/kg (CUL for chromium III), assuming that the measured concentration of total chromium is the concentration of chromium III

Table D-5
Surface Soil Analytical Data– SS9 through SS17

COPC	SS9 (mg/kg)	SS10 (mg/kg)	SS11 (mg/kg)	SS12 (mg/kg)	SS13 (mg/kg)	SS14 (mg/kg)	SS15 (mg/kg)	SS16 (mg/kg)	SS17 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
TPH												
Gasoline (GRO)	< 4.0	< 7.8	< 12	< 9.9	< 4.9	< 6.0	< 8.1	< 7.1	< 5.0	100	np	np
Diesel (DRO)	< 28	< 36	65	< 38	< 31	< 30	< 32	< 30	< 29	2,000	np	np
Heavy Oil Range	< 57	170	650	130	< 61	69	95	< 60	< 57	2,000	np	np
VOCs												
Dichlorodifluoromethane	--	< 0.0019	< 0.0031	< 0.0017	--	< 0.00091	--	--	--	np	16,000	np
Chloromethane	--	< 0.0083	< 0.013	< 0.0072	--	< 0.0039	--	--	--	np	np	np
Vinyl chloride	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	240	0.67
Bromomethane	--	< 0.0054	< 0.0085	< 0.0047	--	< 0.0025	--	--	--	np	110	np
Chloroethane	--	< 0.0054	< 0.0085	< 0.0047	--	< 0.0025	--	--	--	np	np	np
Trichlorofluoromethane	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	24,000	np
1,1-Dichloroethene	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	4,000	np
Iodomethane	--	< 0.0054	< 0.0085	< 0.0047	--	< 0.0025	--	--	--	np	np	np
Methylene chloride	--	< 0.0054	< 0.0085	< 0.0047	--	< 0.0025	--	--	--	0.02	480	94
trans-1,2-Dichloroethene	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	1,600	np
Methyl t-Butyl Ether	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	0.1	np	560
1,1-Dichloroethane	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	16,000	180
2,2-Dichloropropane	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	np	np
cis-1,2-Dichloroethene	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	160	np
Bromochloromethane	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	np	np

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram
 Bold = practical quantitation limit greater than PCL
Bold = detected concentration is greater than the PCL

Table D-5 (continued)
Surface Soil Analytical Data– SS9 through SS17

COPC	SS9 (mg/kg)	SS10 (mg/kg)	SS11 (mg/kg)	SS12 (mg/kg)	SS13 (mg/kg)	SS14 (mg/kg)	SS15 (mg/kg)	SS16 (mg/kg)	SS17 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
Chloroform	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	800	32
1,1,1-Trichloroethane (TCA)	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	2.0	160,000	np
Carbon tetrachloride	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	320	14
Benzene	< 0.02	< 0.02	< 0.024	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.03	320	18
1,1-Dichloropropene	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	np	np
1,2-Dichloroethane (EDC)	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	480	11
Trichloroethene (TCE)	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	0.03	40	12
1,2-Dichloropropane	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	3,200	27
Dibromoethane	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	np	np
Bromodichloromethane	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	1,600	16
2-Chloroethyl Vinyl Ether	--	< 0.0054	< 0.0085	< 0.0047	--	< 0.0025	--	--	--	np	np	np
1,3-Dichloropropene (cis)	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	2,400	10
Toluene	< 0.040	< 0.078	< 0.12	< 0.099	< 0.049	< 0.060	< 0.081	< 0.071	< 0.050	7.0	6,400	np
1,3-Dichloropropene (trans)	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	2,400	10
1,1,2-Trichloroethane	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	320	18
Tetrachloroethene (PCE)	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	0.05	480	480
1,3-Dichloropropane	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	np	np
Dibromochloromethane	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	1,600	12

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram

Table D-5 (continued)
Surface Soil Analytical Data– SS9 through SS17

COPC	SS9 (mg/kg)	SS10 (mg/kg)	SS11 (mg/kg)	SS12 (mg/kg)	SS13 (mg/kg)	SS14 (mg/kg)	SS15 (mg/kg)	SS16 (mg/kg)	SS17 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
1,2-Dibromoethane ¹ (EDB)	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	0.005	720	0.5
Chlorobenzene	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	1,600	np
1,1,1,2-Tetrachloroethane	--	< 0.0011	< 0.0017	< 0.00094	--	< 0.00051	--	--	--	np	2,400	38
Ethylbenzene	< 0.040	< 0.078	< 0.12	< 0.099	< 0.049	< 0.060	< 0.081	< 0.071	< 0.050	6.0	8,000	np
Xylenes (total)	< 0.080	< 0.156	< 0.24	< 0.198	< 0.098	< 0.120	< 0.162	< 0.142	< 0.100	9.0	16,000	np
Bromoform	--	< 0.0054	< 0.0085	< 0.0047	--	< 0.0025	--	--	--	np	1,600	130
Bromobenzene ¹	--	< 0.078	< 0.12	< 0.062	--	< 0.00051	--	--	--	np	640	np
1,1,1,2-Tetrachloro- ethane ^{1,2}	--	< 0.078	< 0.12	< 0.062	--	< 0.00051	--	--	--	np	1,600	5.0
1,2,3-Trichloropropane	--	< 0.078	< 0.12	< 0.062	--	< 0.00051	--	--	--	np	320	0.0063
2-Chlorotoluene	--	< 0.078	< 0.12	< 0.062	--	< 0.00051	--	--	--	np	1,600	np
4-Chlorotoluene	--	< 0.078	< 0.12	< 0.062	--	< 0.00051	--	--	--	np	1,600	np
1,3-Dichlorobenzene	--	< 0.078	< 0.12	< 0.062	--	< 0.00051	--	--	--	np	np	np
1,4-Dichlorobenzene ²	--	< 0.078	< 0.12	< 0.062	--	< 0.00051	--	--	--	np	5,600	190
1,2-Dichlorobenzene	--	< 0.078	< 0.12	< 0.062	--	< 0.00051	--	--	--	np	7,200	np
1,2-Dibromo-3- chloropropane	--	< 0.39	< 0.59	< 0.31	--	< 0.0025	--	--	--	np	16	1.3
1,2,4-Trichlorobenzene ¹	--	< 0.078	< 0.12	< 0.062	--	< 0.00051	--	--	--	np	800	34
Hexachlorobutadiene ¹	--	< 0.39	< 0.59	< 0.31	--	< 0.0025	--	--	--	np	80	13

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram
 Bold = practical quantitation limit greater than PCL

Table D-5 (continued)
Surface Soil Analytical Data– SS9 through SS17

COPC	SS9 (mg/kg)	SS10 (mg/kg)	SS11 (mg/kg)	SS12 (mg/kg)	SS13 (mg/kg)	SS14 (mg/kg)	SS15 (mg/kg)	SS16 (mg/kg)	SS17 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
1,2,3-Trichlorobenzene	--	< 0.078	< 0.12	< 0.062	--	< 0.00051	--	--	--	np	np	np
SVOCs												
Naphthalene	--	--	--	--	--	--	--	--	--	5.0	1,600	np
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	np	320	np
1-Methylnaphthalene	--	--	--	--	--	--	--	--	--	np	5,600	34
Acenaphthylene	--	--	--	--	--	--	--	--	--	np	np	np
Acenaphthene	--	--	--	--	--	--	--	--	--	np	4,800	np
Fluorene	--	--	--	--	--	--	--	--	--	np	3,200	np
Pentachlorophenol	--	--	--	--	--	--	--	--	--	np	400	2.5
Phenanthrene	--	--	--	--	--	--	--	--	--	np	np	np
Anthracene	--	--	--	--	--	--	--	--	--	np	24,000	np
Fluoranthene	--	--	--	--	--	--	--	--	--	np	3,200	np
Pyrene	--	--	--	--	--	--	--	--	--	np	2,400	np
Benzo(a)anthracene	--	--	--	--	--	--	--	--	--	np	np	np
Chrysene	--	--	--	--	--	--	--	--	--	np	np	np
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	np	np	np
Benzo(j,k)fluoranthene	--	--	--	--	--	--	--	--	--	np	np	np
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	0.1	24	0.19
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	np	np	np
Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	np	np	np

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram

Table D-5 (continued)
Surface Soil Analytical Data– SS9 through SS17

COPC	SS9 (mg/kg)	SS10 (mg/kg)	SS11 (mg/kg)	SS12 (mg/kg)	SS13 (mg/kg)	SS14 (mg/kg)	SS15 (mg/kg)	SS16 (mg/kg)	SS17 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
SVOCs												
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	np	np	np
PAHs												
Naphthalene	< 0.0076	< 0.0096	0.12	0.014	< 0.0081	< 0.0081	< 0.0086	< 0.0080	< 0.0076	5.0	1,600	np
2-Methylnaphthalene	< 0.0076	< 0.0096	0.078	0.017	< 0.0081	< 0.0081	< 0.0086	< 0.0080	< 0.0076	np	320	np
1-Methylnaphthalene	< 0.0076	< 0.0096	0.037	0.026	< 0.0081	< 0.0081	< 0.0086	< 0.0080	< 0.0076	np	5,600	34
Acenaphthylene	< 0.0076	0.024	0.089	< 0.010	< 0.0081	< 0.0081	< 0.0086	< 0.0080	< 0.0076	np	np	np
Acenaphthene	< 0.0076	< 0.0096	0.027	< 0.010	< 0.0081	< 0.0081	< 0.0086	< 0.0080	< 0.0076	np	4,800	np
Fluorene	< 0.0076	< 0.0096	0.042	< 0.010	< 0.0081	< 0.0081	< 0.0086	< 0.0080	< 0.0076	np	3,200	np
Phenanthrene	< 0.0076	0.016	0.40	0.054	< 0.0081	0.012	0.036	< 0.0080	< 0.0076	np	np	np
Anthracene	< 0.0076	0.026	0.22	< 0.010	< 0.0081	< 0.0081	< 0.0086	< 0.0080	< 0.0076	np	24,000	np
Fluoranthene	< 0.0076	0.050	0.52	0.015	< 0.0081	0.012	0.060	< 0.0080	< 0.0076	np	3,200	np
Pyrene	< 0.0076	0.042	0.39	0.022	< 0.0081	0.013	0.066	< 0.0080	< 0.0076	np	2,400	np
Benzo(a)anthracene	< 0.0076	0.058	0.61	< 0.010	< 0.0081	< 0.0081	0.032	< 0.0080	< 0.0076	np	np	np
Chrysene	< 0.0076	0.088	0.99	0.011	< 0.0081	0.0085	0.040	< 0.0080	< 0.0076	np	np	np
Benzo(b)fluoranthene	< 0.0076	0.15	0.89	< 0.010	< 0.0081	0.011	0.048	< 0.0080	< 0.0076	np	np	np
Benzo(j,k)fluoranthene	< 0.0076	0.031	0.26	< 0.010	< 0.0081	< 0.0081	0.015	< 0.0080	< 0.0076	np	np	np
Benzo(a)pyrene	< 0.0076	0.056	0.33	< 0.010	< 0.0081	< 0.0081	0.039	< 0.0080	< 0.0076	0.1	24	0.19
Indeno(1,2,3-cd)pyrene	< 0.0076	0.066	0.15	< 0.010	< 0.0081	< 0.0081	0.024	< 0.0080	< 0.0076	np	np	np
Dibenzo(a,h)anthracene	< 0.0076	0.016	0.060	< 0.010	< 0.0081	< 0.0081	< 0.0086	< 0.0080	< 0.0076	np	np	np
Benzo(g,h,i)perylene	< 0.0076	0.055	0.19	< 0.010	< 0.0081	< 0.0081	0.024	< 0.0080	< 0.0076	np	np	np
cPAH TEQ	N/A	0.08898	0.5369	0.00761	N/A	0.006855	0.05173	N/A	N/A	0.1	np	np

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram
 Bold = practical quantitation limit greater than PCL
Bold = detected concentration is greater than the PCL
 cPAH = carcinogenic polycyclic aromatic hydrocarbons
 TEQ = total toxic equivalent concentration

Table D-5 (continued)
Surface Soil Analytical Data– SS9 through SS17

COPC	SS9 (mg/kg)	SS10 (mg/kg)	SS11 (mg/kg)	SS12 (mg/kg)	SS13 (mg/kg)	SS14 (mg/kg)	SS15 (mg/kg)	SS16 (mg/kg)	SS17 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
Metals (total)												
Arsenic ¹	< 11	< 14	< 18	< 15	< 12	< 12	< 13	< 12	< 11	20	24	0.67
Barium	40	180	89	70	28	55	64	30	48	np	16,000	np
Cadmium	< 0.57	< 0.72	< 0.90	< 0.75	< 0.61	< 0.61	< 0.64	< 0.60	< 0.57	2.0	80	np
Chromium (total) ²	16	39	21	20	16	23	25	31	20	2,000	120,000	np
Copper	--	--	--	--	--	--	--	--	--	np	3,200	np
Lead	< 5.7	17	11	8.5	< 6.1	8.1	11	< 6.0	< 5.7	250	np	np
TCLP Lead	--	--	--	--	--	--	--	--	--			
Mercury	< 0.28	< 0.36	< 0.45	< 0.38	< 0.31	< 0.30	< 0.32	< 0.30	< 0.28	2.0	np	np
Selenium	< 11	< 14	< 18	< 15	< 12	< 12	< 13	< 12	< 11	np	400	np
Silver	< 1.1	< 1.4	< 1.8	< 1.5	< 1.2	< 1.2	< 1.3	< 1.2	< 1.1	np	400	np
PCBs												
Aroclor 1016	--	< 0.072	< 0.090	< 0.075	--	< 0.061	--	--	--	np	5.6	14
Aroclor 1221	--	< 0.072	< 0.090	< 0.075	--	< 0.061	--	--	--	np	np	np
Aroclor 1232	--	< 0.072	< 0.090	< 0.075	--	< 0.061	--	--	--	np	np	np
Aroclor 1242	--	< 0.072	< 0.090	< 0.075	--	< 0.061	--	--	--	np	np	np
Aroclor 1248	--	< 0.072	< 0.090	< 0.075	--	< 0.061	--	--	--	np	np	np
Aroclor 1254	--	< 0.072	< 0.090	< 0.075	--	< 0.061	--	--	--	np	1.6	0.5
Aroclor 1260	--	< 0.072	< 0.090	< 0.075	--	< 0.061	--	--	--	np	np	0.5

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

Bold = detected concentration is greater than the PCL

¹ = cleanup level set at 20 mg/kg based on direct contact using Equation 740-2 and protection of groundwater for drinking water use using the procedures in WAC 173-340-747(4), adjusted for natural background for soil

² = cleanup level set at 2,000 mg/kg (CUL for chromium III), assuming that the measured concentration of total chromium is the concentration of chromium III

Table D-5 (continued)
Surface Soil Analytical Data– SS9 through SS17

COPC	SS9 (mg/kg)	SS10 (mg/kg)	SS11 (mg/kg)	SS12 (mg/kg)	SS13 (mg/kg)	SS14 (mg/kg)	SS15 (mg/kg)	SS16 (mg/kg)	SS17 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
PCBs												
PCBs (total)	--	<0.36	<0.63	<0.525	--	0.427	--	--	--	1.0	np	0.5

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram
 Bold = practical quantitation limit greater than PCL

Table D-6
Surface Soil Analytical Data– SS18 through SS25

COPC	SS18 (mg/kg)	SS19 (mg/kg)	SS20 (mg/kg)	SS20A (mg/kg)	SS21 (mg/kg)	SS22 (mg/kg)	SS23 (mg/kg)	SS24 (mg/kg)	SS25 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
TPH												
Gasoline (GRO)	< 4.2	< 3.8	< 4.7	< 6.0	< 3.5	< 4.5	< 6.4	< 4.5	< 5.5	100	np	np
Diesel (DRO)	< 28	< 27	< 31	< 31	< 27	< 29	< 35	< 32	< 32	2,000	np	np
Heavy Oil Range	< 57	< 53	< 62	< 62	< 54	< 59	< 70	280	160	2,000	np	np
VOCs												
Dichlorodifluoromethane	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	16,000	np

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram

Table D-6 (continued)
Surface Soil Analytical Data– SS18 through SS25

COPC	SS18 (mg/kg)	SS19 (mg/kg)	SS20 (mg/kg)	SS20A (mg/kg)	SS21 (mg/kg)	SS22 (mg/kg)	SS23 (mg/kg)	SS24 (mg/kg)	SS25 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
Chloromethane	--	--	--	--	--	--	--	< 0.0024	< 0.0027	np	np	np
Vinyl chloride	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	240	0.67
Bromomethane	--	--	--	--	--	--	--	< 0.0024	< 0.0027	np	110	np
Chloroethane	--	--	--	--	--	--	--	< 0.0024	< 0.0027	np	np	np
Trichlorofluoromethane	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	24,000	np
1,1-Dichloroethene	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	4,000	np
Iodomethane	--	--	--	--	--	--	--	< 0.0024	< 0.0027	np	np	np
Methylene chloride	--	--	--	--	--	--	--	< 0.0024	< 0.0027	0.02	480	94
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	1,600	np
Methyl t-Butyl Ether	--	--	--	--	--	--	--	< 0.00047	< 0.00055	0.1	np	560
1,1-Dichloroethane	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	16,000	180
2,2-Dichloropropane	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	np	np
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	160	np
Bromochloromethane	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	np	np
Chloroform	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	800	32
1,1,1-Trichloroethane (TCA)	--	--	--	--	--	--	--	< 0.00047	< 0.00055	2.0	160,000	np
Carbon tetrachloride	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	320	14
Benzene	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.03	320	18
1,1-Dichloropropene	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	np	np

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram

Table D-6 (continued)
Surface Soil Analytical Data– SS18 through SS25

COPC	SS18 (mg/kg)	SS19 (mg/kg)	SS20 (mg/kg)	SS20A (mg/kg)	SS21 (mg/kg)	SS22 (mg/kg)	SS23 (mg/kg)	SS24 (mg/kg)	SS25 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
1,2-Dichloroethane (EDC)	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	480	11
Trichloroethene (TCE)	--	--	--	--	--	--	--	< 0.00047	< 0.00055	0.03	40	12
1,2-Dichloropropane	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	3,200	27
Dibromoethane	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	np	np
Bromodichloromethane	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	1,600	16
2-Chloroethyl Vinyl Ether	--	--	--	--	--	--	--	< 0.0024	< 0.0027	np	np	np
1,3-Dichloropropene (cis)	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	2,400	10
Toluene	< 0.042	< 0.038	< 0.047	< 0.060	< 0.035	< 0.045	< 0.064	< 0.045	< 0.055	7.0	6,400	np
1,3-Dichloropropene (trans)	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	2,400	10
1,1,2-Trichloroethane	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	320	18
Tetrachloroethene (PCE)	--	--	--	--	--	--	--	< 0.00047	< 0.00055	0.05	480	480
1,3-Dichloropropane	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	np	np
Dibromochloromethane	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	1,600	12
1,2-Dibromoethane (EDB)	--	--	--	--	--	--	--	< 0.00047	< 0.00055	0.005	720	0.5
Chlorobenzene	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	1,600	np
1,1,1,2-Tetrachloroethane	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	2,400	38
Ethylbenzene	< 0.042	< 0.038	< 0.047	< 0.060	< 0.035	< 0.045	< 0.064	< 0.045	< 0.055	6.0	8,000	np
Xylenes (total)	< 0.084	< 0.076	< 0.094	< 0.120	< 0.070	< 0.090	< 0.128	< 0.090	< 0.110	9.0	16,000	np
Bromoform	--	--	--	--	--	--	--	< 0.0024	< 0.0027	np	1,600	130

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram
 Bold = practical quantitation limit greater than PCL
Bold = detected concentration is greater than the PCL

Table D-6 (continued)
Surface Soil Analytical Data– SS18 through SS25

COPC	SS18 (mg/kg)	SS19 (mg/kg)	SS20 (mg/kg)	SS20A (mg/kg)	SS21 (mg/kg)	SS22 (mg/kg)	SS23 (mg/kg)	SS24 (mg/kg)	SS25 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
VOCs												
Bromobenzene ¹	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	640	np
1,1,2,2-Tetrachloroethane ^{1,2}	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	1,600	5.0
1,2,3-Trichloropropane	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	320	0.0063
2-Chlorotoluene	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	1,600	np
4-Chlorotoluene	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	1,600	np
1,3-Dichlorobenzene	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	np	np
1,4-Dichlorobenzene ²	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	5,600	190
1,2-Dichlorobenzene	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	7,200	np
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	< 0.0024	< 0.0027	np	16	1.3
1,2,4-Trichlorobenzene ¹	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	800	34
Hexachlorobutadiene ¹	--	--	--	--	--	--	--	< 0.0024	< 0.0027	np	80	13
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	< 0.00047	< 0.00055	np	np	np
SVOCs												
Naphthalene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	< 0.0078	0.016	--	--	5.0	1,600	np
2-Methylnaphthalene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	< 0.0078	< 0.0093	--	--	np	320	np
1-Methylnaphthalene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	< 0.0078	< 0.0093	--	--	np	5,600	34
Acenaphthylene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	< 0.0078	< 0.0093	--	--	np	np	np
Acenaphthene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	< 0.0078	< 0.0093	--	--	np	4,800	np

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram

Table D-6 (continued)
Surface Soil Analytical Data– SS18 through SS25

COPC	SS18 (mg/kg)	SS19 (mg/kg)	SS20 (mg/kg)	SS20A (mg/kg)	SS21 (mg/kg)	SS22 (mg/kg)	SS23 (mg/kg)	SS24 (mg/kg)	SS25 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
SVOCs												
Fluorene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	< 0.0078	< 0.0093	--	--	np	3,200	np
Pentachlorophenol	< 0.19	< 0.18	< 0.21	< 0.21	< 0.18	< 0.19	< 0.23	--	--	np	400	2.5
Phenanthrene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.11	< 0.0093	--	--	np	np	np
Anthracene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.014	< 0.0093	--	--	np	24,000	np
Fluoranthene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.17	< 0.0093	--	--	np	3,200	np
Pyrene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.15	< 0.0093	--	--	np	2,400	np
Benzo(a)anthracene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.051	< 0.0093	--	--	np	np	np
Chrysene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.067	< 0.0093	--	--	np	np	np
Benzo(b)fluoranthene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.081	< 0.0093	--	--	np	np	np
Benzo(j,k)fluoranthene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.031	< 0.0093	--	--	np	np	np
Benzo(a)pyrene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.062	< 0.0093	--	--	0.1	24	0.19
Indeno(1,2,3-cd)pyrene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.041	< 0.0093	--	--	np	np	np
Dibenzo(a,h)anthracene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.010	< 0.0093	--	--	np	np	np
Benzo(g,h,i)perylene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.042	< 0.0093	--	--	np	np	np
PAHs												
Naphthalene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	< 0.0078	< 0.0093	0.078	< 0.0085	5.0	1,600	np
2-Methylnaphthalene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	< 0.0078	< 0.0093	0.090	< 0.0085	np	320	np
1-Methylnaphthalene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	< 0.0078	< 0.0093	0.13	< 0.0085	np	5,600	34
Acenaphthylene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	< 0.0078	< 0.0093	0.040	< 0.0085	np	np	np
Acenaphthene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	< 0.0078	< 0.0093	0.036	< 0.0085	np	4,800	Np
Fluorene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	< 0.0078	< 0.0093	0.046	< 0.0085	np	3,200	np
Phenanthrene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.11	< 0.0093	0.25	< 0.0085	np	np	np

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram

Table D-6 (continued)
Surface Soil Analytical Data– SS18 through SS25

COPC	SS18 (mg/kg)	SS19 (mg/kg)	SS20 (mg/kg)	SS20A (mg/kg)	SS21 (mg/kg)	SS22 (mg/kg)	SS23 (mg/kg)	SS24 (mg/kg)	SS25 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
PAHs												
Anthracene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.014	< 0.0093	0.033	< 0.0085	np	24,000	np
Fluoranthene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.17	< 0.0093	0.062	< 0.0085	np	3,200	np
Pyrene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.15	< 0.0093	0.11	< 0.0085	np	2,400	np
Benzo(a)anthracene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.051	< 0.0093	0.032	< 0.0085	np	np	np
Chrysene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.067	< 0.0093	0.048	0.012	np	np	np
Benzo(b)fluoranthene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.081	< 0.0093	0.031	< 0.0085	np	np	np
Benzo(j,k)fluoranthene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.031	< 0.0093	< 0.0086	< 0.0085	np	np	np
Benzo(a)pyrene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.062	< 0.0093	0.029	< 0.0085	0.1	24	0.19
Indeno(1,2,3-cd)pyrene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.041	< 0.0093	0.014	< 0.0085	np	np	np
Dibenzo(a,h)anthracene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.01	< 0.0093	< 0.0086	< 0.0085	np	np	np
Benzo(g,h,i)perylene	< 0.0076	< 0.0071	< 0.0083	< 0.0083	< 0.0072	0.042	< 0.0093	0.023	< 0.0085	np	np	np
cPAH TEQ	N/A	N/A	N/A	N/A	N/A	0.08407	N/A	0.03804	0.006495	0.1	np	np
Metals (total)												
Arsenic	< 11	< 11	< 12	< 12	< 11	< 12	< 14	< 13	< 13	20	24	0.67
Barium	37	46	66	71	28	57	56	48	61	np	16,000	np
Cadmium	< 0.57	< 0.53	< 0.62	< 0.62	< 0.54	< 0.58	< 0.70	< 0.65	< 0.64	2.0	80	np
Chromium (total) ¹	21	17	29	29	18	26	25	23	23	2,000	120,000	np

np = not published

-- = not analyzed per the method indicated

mg/kg = milligrams per kilogram

¹ = clean-up level set at 2,000 mg/kg (CUL for chromium III), assuming that the measured concentration of total chromium is the concentration of chromium III

cPAH = carcinogenic polycyclic aromatic hydrocarbons

TEQ = total toxic equivalent concentration

Table D-6 (continued)
Surface Soil Analytical Data– SS18 through SS25

COPC	SS18 (mg/kg)	SS19 (mg/kg)	SS20 (mg/kg)	SS20A (mg/kg)	SS21 (mg/kg)	SS22 (mg/kg)	SS23 (mg/kg)	SS24 (mg/kg)	SS25 (mg/kg)	Soil Method A Unrestricted Land Use (mg/kg)	Soil Method B Noncancer (mg/kg)	Soil Method B Cancer (mg/kg)
Metals (total)												
Copper	11	12	17	17	7.5	19	13	--	--	np	3,200	np
Lead	< 5.7	< 5.3	< 6.2	< 6.2	< 5.4	< 5.8	< 7.0	8.5	35	250	np	np
Mercury	< 0.28	< 0.27	< 0.31	< 0.31	< 0.27	< 0.29	< 0.35	< 0.32	< 0.32	2.0	np	np
Selenium	< 11	< 11	< 12	< 12	< 11	< 12	< 14	< 13	< 13	np	400	np
Silver	< 1.1	< 1.1	< 1.2	< 1.2	< 1.1	< 1.2	< 1.4	< 1.3	< 1.3	np	400	np
PCBs												
Aroclor 1016	--	--	--	--	--	--	--	< 0.065	< 0.064	np	5.6	14
Aroclor 1221	--	--	--	--	--	--	--	< 0.065	< 0.064	np	np	np
Aroclor 1232	--	--	--	--	--	--	--	< 0.065	< 0.064	np	np	np
Aroclor 1242	--	--	--	--	--	--	--	< 0.065	< 0.064	np	np	np
Aroclor 1248	--	--	--	--	--	--	--	< 0.065	< 0.064	np	np	np
Aroclor 1254	--	--	--	--	--	--	--	< 0.065	< 0.064	np	1.6	0.5
Aroclor 1260	--	--	--	--	--	--	--	< 0.065	< 0.064	np	np	0.5
PCBs (total)								<0.455	<0.448	1.0	np	0.5

np = not published
 -- = not analyzed per the method indicated
 mg/kg = milligrams per kilogram
 Bold = practical quantitation limit greater than PCL
Bold = detected concentration is greater than the PCL

**Table D-7
Groundwater Analytical Data– MW1 through 8 and MW11**

COPC	MW1 (µg/L)	MW2 (µg/L)	MW3 (µg/L)	MW3a (µg/L)	MW4 (µg/L)	MW5 (µg/L)	MW6 (µg/L)	MW7 (µg/L)	MW8 (µg/L)	MW11 (µg/L)	Ground Water Method A (µg/L)	Ground Water Method B Noncancer (µg/L)	Ground Water Method B Cancer (µg/L)
TPH													
Gasoline (GRO)	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	1,000	np	np
Diesel (DRO)	< 220	< 210	< 210	< 220	< 220	< 210	< 210	380	< 210	< 210	500	np	np
Heavy Oil Range	< 220	540	260	260	310	270	230	630	< 210	< 210	500	np	np
VOCs													
Dichlorodifluoromethane	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	1,600	np
Chloromethane	--	--	< 1.0	< 1.0	--	--	--	--	--	--	np	np	np
Vinyl chloride	--	--	< 0.20	< 0.20	--	--	--	--	--	--	0.2	24	0.029
Bromomethane	--	--	< 2.0	< 2.0	--	--	--	--	--	--	np	11	np
Chloroethane	--	--	< 1.0	< 1.0	--	--	--	--	--	--	np	np	np
Trichlorofluoromethane	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	2,400	np
1,1-Dichloroethene	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	400	np
Iodomethane	--	--	< 5.0	< 5.0	--	--	--	--	--	--	np	np	np
Methylene chloride	--	--	< 1.0	< 1.0	--	--	--	--	--	--	5.0	48	5.8
trans-1,2-Dichloroethene	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	160	np
Methyl t-Butyl Ether	--	--	< 0.20	< 0.20	--	--	--	--	--	--	20	np	24
1,1-Dichloroethane	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	1,600	7.7
2,2-Dichloropropane	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	np	np
cis-1,2-Dichloroethene	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	16	np
Bromochloromethane	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	np	np
Chloroform	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	80	1.4

np = not published
 -- = not analyzed per the method indicated
 µg/L = micrograms per liter
Bold = detected concentration is greater than the PCL

Table D-7 (continued)
Groundwater Analytical Data– MW1 through 8 and MW11

COPC	MW1 (µg/L)	MW2 (µg/L)	MW3 (µg/L)	MW3a (µg/L)	MW4 (µg/L)	MW5 (µg/L)	MW6 (µg/L)	MW7 (µg/L)	MW8 (µg/L)	MW11 (µg/L)	Ground Water Method A (µg/L)	Ground Water Method B Noncancer (µg/L)	Ground Water Method B Cancer (µg/L)
VOCs													
1,1,1-Trichloroethane (TCA)	--	--	< 0.20	< 0.20	--	--	--	--	--	--	200	16,000	np
Carbon tetrachloride ¹	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	32	0.63
1,1-Dichloropropene	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	np	np
Benzene ^{1,2,3}	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.0	32	0.8
1,2-Dichloroethane ¹ (EDC)	--	--	< 0.20	< 0.20	--	--	--	--	--	--	5.0	48	0.48
Trichloroethene ¹ (TCE)	--	--	< 0.20	< 0.20	--	--	--	--	--	--	5.0	4.0	0.54
1,2-Dichloropropane ¹	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	320	1.2
Dibromoethane	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	np	np
Bromodichloromethane ¹	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	160	0.71
2-Chloroethyl Vinyl Ether	--	--	< 30	< 30	--	--	--	--	--	--	np	np	np
1,3-Dichloropropene (cis)	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	240	0.44
1,3-Dichloropropene (trans)	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	240	0.44
Toluene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1,000	640	np
1,1,2-Trichloroethane	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	32	0.77
Tetrachloroethene ¹ (PCE)	--	--	< 0.20	< 0.20	--	--	--	--	--	--	5.0	48	21
1,3-Dichloropropane	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	np	np
Dibromochloromethane	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	160	0.52
1,2-Dibromoethane (EDB)	--	--	< 0.0096	< 0.0095	--	--	--	--	--	--	0.01	72	0.022
Chlorobenzene	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	160	np

np = not published

-- = not analyzed per the method indicated

µg/L = micrograms per liter

Bold = practical quantitation limit greater than PCL

Table D-7 (continued)
Groundwater Analytical Data– MW1 through 8 and MW11

COPC	MW1 (µg/L)	MW2 (µg/L)	MW3 (µg/L)	MW3a (µg/L)	MW4 (µg/L)	MW5 (µg/L)	MW6 (µg/L)	MW7 (µg/L)	MW8 (µg/L)	MW11 (µg/L)	Ground Water Method A (µg/L)	Ground Water Method B Noncancer (µg/L)	Ground Water Method B Cancer (µg/L)
VOCs													
1,1,1,2-Tetrachloroethane	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	240	1.7
Ethylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	700	800	np
Xylenes (total)	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	1,000	1,600	np
Bromoform	--	--	< 1.0	< 1.0	--	--	--	--	--	--	np	160	5.5
Bromobenzene	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	64	np
1,1,2,2-Tetrachloroethane	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	160	0.22
1,2,3-Trichloropropane	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	32	0.00038
2-Chlorotoluene	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	1,600	np
4-Chlorotoluene	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	1,600	np
1,3-Dichlorobenzene	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	np	np
1,4-Dichlorobenzene	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	560	8.1
1,2-Dichlorobenzene	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	720	np
1,2-Dibromo-3-chloropropane	--	--	< 1.0	< 1.0	--	--	--	--	--	--	np	1.6	0.52
1,2,4-Trichlorobenzene	--	--	< 0.20	< 0.20	--	--	--	--	--	--	np	80	1.5
Hexachlorobutadiene	--	--	< 1.0	< 1.0	--	--	--	--	--	--	np	8.0	0.56
1,2,3-Trichlorobenzene	--	--	< 1.0	< 1.0	--	--	--	--	--	--	np	np	np
SVOCs													
Naphthalene	--	< 0.099	0.12	0.17	< 0.10	< 0.10	< 0.097	< 0.098	< 0.10	< 0.10	160	160	np
2-Methylnaphthalene	--	< 0.099	< 0.097	< 0.10	< 0.10	< 0.10	< 0.097	< 0.098	< 0.10	< 0.10	np	32	np

np = not published

-- = not analyzed per the method indicated

µg/L = micrograms per liter

Bold = practical quantitation limit greater than PCL

Table D-7 (continued)
Groundwater Analytical Data– MW1 through 8 and MW11

COPC	MW1 (µg/L)	MW2 (µg/L)	MW3 (µg/L)	MW3a (µg/L)	MW4 (µg/L)	MW5 (µg/L)	MW6 (µg/L)	MW7 (µg/L)	MW8 (µg/L)	MW11 (µg/L)	Ground Water Method A (µg/L)	Ground Water Method B Noncancer (µg/L)	Ground Water Method B Cancer (µg/L)
SVOCs													
1-Methylnaphthalene	--	< 0.099	< 0.097	< 0.10	< 0.10	< 0.10	< 0.097	< 0.098	< 0.10	< 0.10	np	560	1.5
Acenaphthylene	--	< 0.099	< 0.097	< 0.10	< 0.10	< 0.10	< 0.097	< 0.098	< 0.10	< 0.10	np	np	np
Acenaphthene	--	< 0.099	< 0.097	< 0.10	< 0.10	< 0.10	< 0.097	0.11	< 0.10	< 0.10	np	960	np
Fluorene	--	< 0.099	< 0.097	< 0.10	< 0.10	< 0.10	< 0.097	< 0.098	< 0.10	< 0.10	np	640	np
Pentachlorophenol	--	--	--	--	--	--	--	--	--	< 5.0	np	80	0.22
Phenanthrene	--	< 0.099	< 0.097	< 0.10	< 0.10	< 0.10	< 0.097	< 0.098	< 0.10	< 0.10	np	np	np
Anthracene	--	< 0.099	< 0.097	< 0.10	< 0.10	< 0.10	< 0.097	< 0.098	< 0.10	< 0.10	np	4,800	np
Fluoranthene	--	< 0.099	< 0.097	< 0.10	< 0.10	< 0.10	< 0.097	< 0.098	< 0.10	< 0.10	np	640	np
Pyrene	--	< 0.099	< 0.097	0.12	< 0.10	< 0.10	< 0.097	< 0.098	< 0.10	< 0.10	np	480	np
Benzo(a)anthracene	--	< 0.0099	< 0.0097	< 0.010	< 0.010	< 0.010	< 0.0097	< 0.0098	< 0.010	< 0.010	np	np	np
Chrysene	--	< 0.0099	< 0.0097	< 0.010	< 0.010	< 0.010	< 0.0097	< 0.0098	< 0.010	< 0.010	np	np	np
Benzo(b)fluoranthene	--	< 0.0099	< 0.0097	< 0.010	< 0.010	< 0.010	< 0.0097	< 0.0098	< 0.010	< 0.010	np	np	np
Benzo(j,k)fluoranthene	--	< 0.0099	< 0.0097	< 0.010	< 0.010	< 0.010	< 0.0097	< 0.0098	< 0.010	< 0.010	np	np	np
Benzo(a)pyrene ¹	--	< 0.0099	< 0.0097	< 0.010	< 0.010	< 0.010	< 0.0097	< 0.0098	< 0.010	< 0.010	0.1	4.8	0.023
Indeno(1,2,3-cd)pyrene	--	< 0.0099	< 0.0097	< 0.010	< 0.010	< 0.010	< 0.0097	< 0.0098	< 0.010	< 0.010	np	np	np
Dibenzo(a,h)anthracene	--	< 0.0099	< 0.0097	< 0.010	< 0.010	< 0.010	< 0.0097	< 0.0098	< 0.010	< 0.010	np	np	np
Benzo(g,h,i)perylene	--	< 0.0099	< 0.0097	< 0.010	< 0.010	< 0.010	< 0.0097	< 0.0098	< 0.010	< 0.010	np	np	np
Benzoic Acid	< 26	< 27	< 26	< 27	< 27	< 27	< 26	< 26	< 27	< 27	np	64,000	np
Metals (total)													
Arsenic ^{1, 2, 3}	< 3.3	8.2	< 3.3	< 3.3	< 3.3	73	18	36	< 3.3	< 3.3	5.0	4.8	0.058

np = not published
 -- = not analyzed per the method indicated
 µg/L = micrograms per liter
 Bold = practical quantitation limit greater than PCL
 Bold = detected concentration is greater than the PCL

Table D-7 (continued)
Groundwater Analytical Data– MW1 through 8 and MW11

COPC	MW1 (µg/L)	MW2 (µg/L)	MW3 (µg/L)	MW3a (µg/L)	MW4 (µg/L)	MW5 (µg/L)	MW6 (µg/L)	MW7 (µg/L)	MW8 (µg/L)	MW11 (µg/L)	Ground Water Method A (µg/L)	Ground Water Method B Noncancer (µg/L)	Ground Water Method B Cancer (µg/L)
Metals (total)													
Barium	30	55	< 28	< 28	90	50	33	62	37	32	np	3,200	np
Cadmium	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	5.0	8.0	np
Chromium (total)	< 11	< 11	< 11	< 11	< 11	< 11	< 11	< 11	< 11	< 11	5.0	np	np
Copper	--	--	--	--	--	--	--	--	--	< 11	np	640	np
Iron	2,700	4,600	13,000	13,000	7,300	58,000	18,000	47,000	8,600	3,900	np	11,000	np
Lead	< 1.1	< 1.1	1.2	1.3	5.9	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	15	np	np
Manganese	630	17,000	1,000	1,000	6,200	11,000	4,500	7,100	2,500	110	np	750	np
Mercury	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.0	np	np
Selenium	< 5.6	< 5.6	< 5.6	< 5.6	< 5.6	< 5.6	< 5.6	< 5.6	< 5.6	< 5.6	np	80	np
Silver	< 11	< 11	< 11	< 11	< 11	< 11	< 11	< 11	< 11	< 11	np	80	np
Metals (dissolved)													
Arsenic	< 3.0	7.4	< 3.0	< 3.0	< 3.0	42	15	21	< 3.0	< 3.0	5.0	4.8	0.058
Barium	< 25	38	< 25	< 25	52	26	< 25	40	< 25	< 25	np	3,200	np
Cadmium	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	5.0	8.0	np
Chromium (total)	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	5.0	np	np
Copper	--	--	--	--	--	--	--	--	--	< 10	np	640	np
Iron	< 56	2,100	9,400	9,600	260	42,000	16,000	37,000	560	95	np	11,000	np
Lead	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	15	np	np
Manganese	560	18,000	1,000	990	6,200	13,000	4,500	7,600	2,500	< 11	np	750	np
Mercury	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.0	np	np

np = not published
 -- = not analyzed per the method indicated
 µg/L = micrograms per liter
 Bold = practical quantitation limit greater than PCL
Bold = detected concentration is greater than the PCL

Table D-7 (continued)
Groundwater Analytical Data– MW1 through 8 and MW11

COPC	MW1 (µg/L)	MW2 (µg/L)	MW3 (µg/L)	MW3a (µg/L)	MW4 (µg/L)	MW5 (µg/L)	MW6 (µg/L)	MW7 (µg/L)	MW8 (µg/L)	MW11 (µg/L)	Ground Water Method A (µg/L)	Ground Water Method B Noncancer (µg/L)	Ground Water Method B Cancer (µg/L)
Metals (dissolved)													
Selenium	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	np	80	np
Silver	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	np	80	np
PCBs													
Aroclor 1016	--	--	< 0.049	< 0.049	--	--	--	--	--	--	np	5.6	14
Aroclor 1221	--	--	< 0.049	< 0.049	--	--	--	--	--	--	np	np	np
Aroclor 1232	--	--	< 0.049	< 0.049	--	--	--	--	--	--	np	np	np
Aroclor 1242	--	--	< 0.049	< 0.049	--	--	--	--	--	--	np	np	np
Aroclor 1248	--	--	< 0.049	< 0.049	--	--	--	--	--	--	np	np	np
Aroclor 1254	--	--	< 0.049	< 0.049	--	--	--	--	--	--	np	1.6	0.5
Aroclor 1260	--	--	< 0.049	< 0.049	--	--	--	--	--	--	np	np	0.5
PCBs (total)	--	--	<0.343	<0.343	--	--	--	--	--	--	1.0	np	0.5
Properties													
pH*	6.6	6.6	5.7	5.7	6.7	6.7	6.5	6.5	6.0	6.1			
Redox Potential	293	205	407	399	< 200	245	237	250	392	365			
Ammonia (as N) (mg/L)	< 50	130	960	820	< 50	810	1,200	3,800	560	< 50	np	np	np

np = not published
 -- = not analyzed per the method indicated
 µg/L = micrograms per liter
 Bold = practical quantitation limit greater than PCL
Red = detected concentration is greater than the PCL



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

December 14, 2020

Kim Kim
EnPro Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734

Re: Analytical Data for Project 1903-00129-RI
Laboratory Reference No. 2011-099

Dear Kim:

Enclosed are the analytical results and associated quality control data for samples submitted on November 10, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: December 14, 2020
Samples Submitted: November 10, 2020
Laboratory Reference: 2011-099
Project: 1903-00129-RI

Case Narrative

Samples were collected on November 9, 2020 and received by the laboratory on November 10, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

NWTPH-Gx/BTEX Analysis

The Method 5035A VOA vials provided for the samples were filled completely and therefore unusable. The samples were consequently extracted from 8-ounce jars for analysis. Some loss of volatiles may have occurred.

The chromatogram for sample B3-10 is not similar to a typical gas.

The MTCA Method A cleanup level of 0.030 ppm for Benzene is not achievable for sample B3-10 due to the low dry weight of the sample.

Volatiles EPA 8260D Analysis

The Method 5035A VOA vials provided for the samples were filled completely and therefore unusable. The samples were consequently extracted from 8-ounce jars for analysis. Some loss of volatiles may have occurred.

Soluble Hexavalent Chromium EPA 7196A Analysis

The Matrix Spike/Matrix Spike Duplicate recoveries for hexavalent chromium are outside control limits due to matrix interferences. The soil exhibits reducing conditions. The Spike Blank recovery was 91 %. The Standard Reference Material meets the published acceptance limits.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



Date of Report: December 14, 2020
 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B1-7					
Laboratory ID:	11-099-01					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.055	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.055	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.055	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.055	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	5.5	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	91	58-129				
Client ID:	B1-15					
Laboratory ID:	11-099-02					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.055	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.055	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.055	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.055	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	5.5	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	90	58-129				
Client ID:	B8-7					
Laboratory ID:	11-099-03					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.041	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.041	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.041	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.041	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	4.1	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	58-129				



Date of Report: December 14, 2020
 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B8-15					
Laboratory ID:	11-099-04					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.040	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.040	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.040	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.040	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	4.0	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	58-129				
Client ID:	B3-7					
Laboratory ID:	11-099-05					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.098	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.098	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.098	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.098	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	9.8	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	109	58-129				
Client ID:	B3-10					
Laboratory ID:	11-099-06					
Benzene	ND	0.040	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.20	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.20	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.20	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.20	EPA 8021B	11-12-20	11-12-20	
Gasoline	21	20	NWTPH-Gx	11-12-20	11-12-20	T
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	94	58-129				



Date of Report: December 14, 2020
 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-7a					
Laboratory ID:	11-099-07					
Benzene	ND	0.022	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.11	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.11	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.11	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.11	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	11	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	106	58-129				
Client ID:	B3-15					
Laboratory ID:	11-099-08					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.056	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.056	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.056	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.056	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	5.6	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	58-129				
Client ID:	B3-15a					
Laboratory ID:	11-099-09					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.047	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.047	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.047	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.047	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	4.7	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	101	58-129				



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**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B9-7					
Laboratory ID:	11-099-10					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.071	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.071	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.071	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.071	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	7.1	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	101	58-129				
Client ID:	B9-15					
Laboratory ID:	11-099-11					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.053	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.053	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.053	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.053	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	5.3	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	99	58-129				
Client ID:	B10-7					
Laboratory ID:	11-099-12					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.064	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.064	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.064	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.064	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	6.4	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	58-129				



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**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B10-15					
Laboratory ID:	11-099-13					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.058	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.058	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.058	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.058	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	5.8	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	58-129				
Client ID:	B11-7					
Laboratory ID:	11-099-14					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.054	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.054	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.054	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.054	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	5.4	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	101	58-129				
Client ID:	B11-15					
Laboratory ID:	11-099-15					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.066	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.066	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.066	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.066	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	6.6	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	103	58-129				



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**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B4-7					
Laboratory ID:	11-099-16					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.065	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.065	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.065	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.065	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	6.5	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>100</i>	<i>58-129</i>				
Client ID:	B4-15					
Laboratory ID:	11-099-17					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.071	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.071	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.071	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.071	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	7.1	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>99</i>	<i>58-129</i>				



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**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1112S3					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.050	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.050	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.050	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.050	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	5.0	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
Fluorobenzene	99	58-129				
Laboratory ID:	MB1112S4					
Benzene	ND	0.020	EPA 8021B	11-12-20	11-12-20	
Toluene	ND	0.050	EPA 8021B	11-12-20	11-12-20	
Ethyl Benzene	ND	0.050	EPA 8021B	11-12-20	11-12-20	
m,p-Xylene	ND	0.050	EPA 8021B	11-12-20	11-12-20	
o-Xylene	ND	0.050	EPA 8021B	11-12-20	11-12-20	
Gasoline	ND	5.0	NWTPH-Gx	11-12-20	11-12-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
Fluorobenzene	96	58-129				



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**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-091-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
Fluorobenzene				106	106	58-129		
Laboratory ID:	11-091-02							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
Fluorobenzene				108	108	58-129		
SPIKE BLANKS								
Laboratory ID:	SB1112S2							
	SB	SBD	SB	SBD	SB	SBD		
Benzene	0.992	0.999	1.00	1.00	99	100	68-112	1 10
Toluene	1.02	1.03	1.00	1.00	102	103	70-114	1 10
Ethyl Benzene	1.02	1.03	1.00	1.00	102	103	70-115	1 10
m,p-Xylene	1.03	1.03	1.00	1.00	103	103	69-117	0 11
o-Xylene	1.02	1.02	1.00	1.00	102	102	71-115	0 11
<i>Surrogate:</i>								
Fluorobenzene					97	97	58-129	



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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B1-7					
Laboratory ID:	11-099-01					
Diesel Range Organics	ND	28	NWTPH-Dx	11-12-20	11-13-20	
Lube Oil Range Organics	ND	56	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	92	50-150				
Client ID:	B1-15					
Laboratory ID:	11-099-02					
Diesel Range Organics	ND	27	NWTPH-Dx	11-12-20	11-13-20	
Lube Oil Range Organics	ND	55	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	107	50-150				
Client ID:	B8-7					
Laboratory ID:	11-099-03					
Diesel Range Organics	ND	27	NWTPH-Dx	11-12-20	11-13-20	
Lube Oil Range Organics	ND	53	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	117	50-150				
Client ID:	B8-15					
Laboratory ID:	11-099-04					
Diesel Range Organics	ND	29	NWTPH-Dx	11-12-20	11-13-20	
Lube Oil Range Organics	ND	58	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	102	50-150				
Client ID:	B3-7					
Laboratory ID:	11-099-05					
Diesel Range Organics	ND	39	NWTPH-Dx	11-12-20	11-13-20	
Lube Oil Range Organics	530	77	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	98	50-150				
Client ID:	B3-10					
Laboratory ID:	11-099-06					
Diesel Range Organics	700	310	NWTPH-Dx	11-12-20	11-16-20	N
Lube Oil Range Organics	4500	620	NWTPH-Dx	11-12-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	87	50-150				



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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-7a					
Laboratory ID:	11-099-07					
Diesel Range Organics	120	38	NWTPH-Dx	11-12-20	11-13-20	N
Lube Oil Range Organics	960	77	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

Client ID:	B3-15					
Laboratory ID:	11-099-08					
Diesel Range Organics	ND	28	NWTPH-Dx	11-12-20	11-13-20	
Lube Oil Range Organics	ND	56	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	92	50-150				

Client ID:	B3-15a					
Laboratory ID:	11-099-09					
Diesel Range Organics	ND	28	NWTPH-Dx	11-12-20	11-13-20	
Lube Oil Range Organics	ND	57	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	73	50-150				

Client ID:	B9-7					
Laboratory ID:	11-099-10					
Diesel Range Organics	280	32	NWTPH-Dx	11-12-20	11-13-20	N
Lube Oil Range Organics	1200	64	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				

Client ID:	B9-15					
Laboratory ID:	11-099-11					
Diesel Range Organics	ND	30	NWTPH-Dx	11-12-20	11-13-20	
Lube Oil Range Organics	ND	60	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				

Client ID:	B10-7					
Laboratory ID:	11-099-12					
Diesel Range Organics	ND	30	NWTPH-Dx	11-12-20	11-13-20	
Lube Oil Range Organics	75	61	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				



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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B10-15					
Laboratory ID:	11-099-13					
Diesel Range Organics	ND	27	NWTPH-Dx	11-12-20	11-13-20	
Lube Oil Range Organics	ND	54	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				

Client ID:	B11-7					
Laboratory ID:	11-099-14					
Diesel Range Organics	ND	29	NWTPH-Dx	11-12-20	11-13-20	
Lube Oil Range Organics	67	57	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				

Client ID:	B11-15					
Laboratory ID:	11-099-15					
Diesel Range Organics	ND	30	NWTPH-Dx	11-12-20	11-13-20	
Lube Oil Range Organics	ND	59	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				

Client ID:	B4-7					
Laboratory ID:	11-099-16					
Diesel Range Organics	ND	32	NWTPH-Dx	11-12-20	11-13-20	
Lube Oil Range Organics	ND	65	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				

Client ID:	B4-15					
Laboratory ID:	11-099-17					
Diesel Range Organics	ND	31	NWTPH-Dx	11-12-20	11-13-20	
Lube Oil Range Organics	ND	63	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				



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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1112S3					
Diesel Range Organics	ND	25	NWTPH-Dx	11-12-20	11-13-20	
Lube Oil Range Organics	ND	50	NWTPH-Dx	11-12-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-099-01							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	NA	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				92	100	50-150		
Laboratory ID:	11-099-17							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	NA	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				88	99	50-150		



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B8-7					
Laboratory ID:	11-099-03					
Naphthalene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
2-Methylnaphthalene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
1-Methylnaphthalene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthylene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
Fluorene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
Phenanthrene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
Anthracene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
Fluoranthene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
Pyrene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]anthracene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
Chrysene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]pyrene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0071	EPA 8270E/SIM	11-14-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	81	46 - 113				
Pyrene-d10	93	45 - 114				
Terphenyl-d14	89	49 - 121				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B8-15					
Laboratory ID:	11-099-04					
Naphthalene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
2-Methylnaphthalene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
1-Methylnaphthalene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthylene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
Fluorene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
Phenanthrene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
Anthracene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
Fluoranthene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
Pyrene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]anthracene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
Chrysene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]pyrene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0077	EPA 8270E/SIM	11-14-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>85</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>91</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>88</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-7					
Laboratory ID:	11-099-05					
Naphthalene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
2-Methylnaphthalene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
1-Methylnaphthalene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthylene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Fluorene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Phenanthrene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Anthracene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Fluoranthene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Pyrene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Chrysene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[b]fluoranthene	0.013	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	73	46 - 113				
Pyrene-d10	83	45 - 114				
Terphenyl-d14	79	49 - 121				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-10					
Laboratory ID:	11-099-06					
Naphthalene	0.083	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
2-Methylnaphthalene	0.030	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
1-Methylnaphthalene	0.019	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthylene	ND	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthene	0.021	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
Fluorene	0.021	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
Phenanthrene	0.063	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
Anthracene	ND	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
Fluoranthene	0.053	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
Pyrene	0.053	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]anthracene	ND	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
Chrysene	0.027	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[b]fluoranthene	0.022	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]pyrene	0.018	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.016	EPA 8270E/SIM	11-14-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>73</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>79</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>77</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-7a					
Laboratory ID:	11-099-07					
Naphthalene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
2-Methylnaphthalene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
1-Methylnaphthalene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthylene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Fluorene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Phenanthrene	0.013	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Anthracene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Fluoranthene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Pyrene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Chrysene	0.011	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	11-14-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	78	46 - 113				
Pyrene-d10	86	45 - 114				
Terphenyl-d14	81	49 - 121				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-15					
Laboratory ID:	11-099-08					
Naphthalene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
2-Methylnaphthalene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
1-Methylnaphthalene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthylene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
Fluorene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
Phenanthrene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
Anthracene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
Fluoranthene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
Pyrene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]anthracene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
Chrysene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]pyrene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0075	EPA 8270E/SIM	11-14-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>84</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>88</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>87</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-15a					
Laboratory ID:	11-099-09					
Naphthalene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
2-Methylnaphthalene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
1-Methylnaphthalene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthylene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
Fluorene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
Phenanthrene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
Anthracene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
Fluoranthene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
Pyrene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]anthracene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
Chrysene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]pyrene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0076	EPA 8270E/SIM	11-14-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>89</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>97</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>95</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B9-7					
Laboratory ID:	11-099-10					
Naphthalene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
2-Methylnaphthalene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
1-Methylnaphthalene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthylene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
Fluorene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
Phenanthrene	0.014	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
Anthracene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
Fluoranthene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
Pyrene	0.034	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]anthracene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
Chrysene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]pyrene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0085	EPA 8270E/SIM	11-14-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>60</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>70</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>77</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B9-15					
Laboratory ID:	11-099-11					
Naphthalene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
2-Methylnaphthalene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
1-Methylnaphthalene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthylene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
Fluorene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
Phenanthrene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
Anthracene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
Fluoranthene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
Pyrene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]anthracene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
Chrysene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]pyrene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0080	EPA 8270E/SIM	11-14-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	84	46 - 113				
Pyrene-d10	88	45 - 114				
Terphenyl-d14	86	49 - 121				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B10-7					
Laboratory ID:	11-099-12					
Naphthalene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
2-Methylnaphthalene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
1-Methylnaphthalene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthylene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
Fluorene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
Phenanthrene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
Anthracene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
Fluoranthene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
Pyrene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]anthracene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
Chrysene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]pyrene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0081	EPA 8270E/SIM	11-14-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>84</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>94</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>89</i>	<i>49 - 121</i>				



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 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B10-15					
Laboratory ID:	11-099-13					
Naphthalene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
2-Methylnaphthalene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
1-Methylnaphthalene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthylene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
Fluorene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
Phenanthrene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
Anthracene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
Fluoranthene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
Pyrene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]anthracene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
Chrysene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]pyrene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0072	EPA 8270E/SIM	11-14-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>80</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>96</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>89</i>	<i>49 - 121</i>				



Date of Report: December 14, 2020
 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B4-7					
Laboratory ID:	11-099-16					
Naphthalene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
2-Methylnaphthalene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
1-Methylnaphthalene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthylene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
Fluorene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
Phenanthrene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
Anthracene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
Fluoranthene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
Pyrene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]anthracene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
Chrysene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]pyrene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0086	EPA 8270E/SIM	11-14-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>79</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>84</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>84</i>	<i>49 - 121</i>				



Date of Report: December 14, 2020
 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B4-15					
Laboratory ID:	11-099-17					
Naphthalene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
2-Methylnaphthalene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
1-Methylnaphthalene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthylene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
Fluorene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
Phenanthrene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
Anthracene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
Fluoranthene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
Pyrene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]anthracene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
Chrysene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]pyrene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0083	EPA 8270E/SIM	11-14-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	75	46 - 113				
Pyrene-d10	90	45 - 114				
Terphenyl-d14	84	49 - 121				



Date of Report: December 14, 2020
 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1114S1					
Naphthalene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
2-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
1-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthylene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
Acenaphthene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
Fluorene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
Phenanthrene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
Anthracene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
Fluoranthene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
Pyrene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
Chrysene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270E/SIM	11-14-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>93</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>101</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>95</i>	<i>49 - 121</i>				



Date of Report: December 14, 2020
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 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Source	Percent		Recovery	RPD	RPD	Flags
					Result	Recovery	Limits		RPD	Limit	
MATRIX SPIKES											
Laboratory ID:	11-109-21										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	0.0746	0.0755	0.0833	0.0833	ND	90	91	51 - 115	1	26	
Acenaphthylene	0.0799	0.0750	0.0833	0.0833	ND	96	90	53 - 121	6	24	
Acenaphthene	0.0782	0.0731	0.0833	0.0833	ND	94	88	52 - 121	7	25	
Fluorene	0.0801	0.0791	0.0833	0.0833	ND	96	95	58 - 127	1	23	
Phenanthrene	0.0850	0.0810	0.0833	0.0833	ND	102	97	46 - 129	5	28	
Anthracene	0.0828	0.0824	0.0833	0.0833	ND	99	99	57 - 124	0	21	
Fluoranthene	0.0837	0.0839	0.0833	0.0833	ND	100	101	46 - 136	0	29	
Pyrene	0.0884	0.0850	0.0833	0.0833	ND	106	102	41 - 136	4	32	
Benzo[a]anthracene	0.0773	0.0776	0.0833	0.0833	ND	93	93	56 - 136	0	25	
Chrysene	0.0799	0.0810	0.0833	0.0833	ND	96	97	49 - 130	1	22	
Benzo[b]fluoranthene	0.0814	0.0839	0.0833	0.0833	ND	98	101	51 - 135	3	26	
Benzo(j,k)fluoranthene	0.0785	0.0802	0.0833	0.0833	ND	94	96	56 - 124	2	23	
Benzo[a]pyrene	0.0808	0.0834	0.0833	0.0833	ND	97	100	54 - 133	3	26	
Indeno(1,2,3-c,d)pyrene	0.0762	0.0784	0.0833	0.0833	ND	91	94	52 - 134	3	20	
Dibenz[a,h]anthracene	0.0747	0.0782	0.0833	0.0833	ND	90	94	58 - 127	5	17	
Benzo[g,h,i]perylene	0.0751	0.0780	0.0833	0.0833	ND	90	94	54 - 129	4	21	
<i>Surrogate:</i>											
2-Fluorobiphenyl						90	85	46 - 113			
Pyrene-d10						91	98	45 - 114			
Terphenyl-d14						86	90	49 - 121			



Date of Report: December 14, 2020
 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B8-7					
Laboratory ID:	11-099-03					
Arsenic	ND	11	EPA 6010D	11-12-20	11-12-20	
Barium	35	2.7	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	0.53	EPA 6010D	11-12-20	11-12-20	
Chromium	14	0.53	EPA 6010D	11-12-20	11-12-20	
Lead	ND	5.3	EPA 6010D	11-12-20	11-12-20	
Mercury	ND	0.27	EPA 7471B	11-13-20	11-13-20	
Selenium	ND	11	EPA 6010D	11-12-20	11-12-20	
Silver	ND	1.1	EPA 6010D	11-12-20	11-12-20	

Client ID:	B8-15					
Laboratory ID:	11-099-04					
Arsenic	ND	12	EPA 6010D	11-12-20	11-12-20	
Barium	28	2.9	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	0.58	EPA 6010D	11-12-20	11-12-20	
Chromium	13	0.58	EPA 6010D	11-12-20	11-12-20	
Lead	ND	5.8	EPA 6010D	11-12-20	11-12-20	
Mercury	ND	0.29	EPA 7471B	11-13-20	11-13-20	
Selenium	ND	12	EPA 6010D	11-12-20	11-12-20	
Silver	ND	1.2	EPA 6010D	11-12-20	11-12-20	

Client ID:	B3-7					
Laboratory ID:	11-099-05					
Arsenic	ND	15	EPA 6010D	11-12-20	11-12-20	
Barium	96	3.8	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	0.77	EPA 6010D	11-12-20	11-12-20	
Chromium	26	0.77	EPA 6010D	11-12-20	11-12-20	
Lead	10	7.7	EPA 6010D	11-12-20	11-12-20	
Mercury	ND	0.38	EPA 7471B	11-13-20	11-13-20	
Selenium	ND	15	EPA 6010D	11-12-20	11-12-20	
Silver	ND	1.5	EPA 6010D	11-12-20	11-12-20	



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 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-10					
Laboratory ID:	11-099-06					
Arsenic	ND	25	EPA 6010D	11-12-20	11-12-20	
Barium	140	6.2	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	1.2	EPA 6010D	11-12-20	11-12-20	
Chromium	30	1.2	EPA 6010D	11-12-20	11-12-20	
Lead	100	12	EPA 6010D	11-12-20	11-12-20	
Mercury	ND	0.62	EPA 7471B	11-13-20	11-13-20	
Selenium	ND	25	EPA 6010D	11-12-20	11-12-20	
Silver	ND	2.5	EPA 6010D	11-12-20	11-12-20	

Client ID:	B3-7a					
Laboratory ID:	11-099-07					
Arsenic	ND	15	EPA 6010D	11-12-20	11-12-20	
Barium	61	3.8	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	0.77	EPA 6010D	11-12-20	11-12-20	
Chromium	19	0.77	EPA 6010D	11-12-20	11-12-20	
Lead	26	7.7	EPA 6010D	11-12-20	11-12-20	
Mercury	ND	0.38	EPA 7471B	11-13-20	11-13-20	
Selenium	ND	15	EPA 6010D	11-12-20	11-12-20	
Silver	ND	1.5	EPA 6010D	11-12-20	11-12-20	

Client ID:	B3-15					
Laboratory ID:	11-099-08					
Arsenic	ND	11	EPA 6010D	11-12-20	11-12-20	
Barium	20	2.8	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	0.56	EPA 6010D	11-12-20	11-12-20	
Chromium	7.3	0.56	EPA 6010D	11-12-20	11-12-20	
Lead	ND	5.6	EPA 6010D	11-12-20	11-12-20	
Mercury	ND	0.28	EPA 7471B	11-13-20	11-13-20	
Selenium	ND	11	EPA 6010D	11-12-20	11-12-20	
Silver	ND	1.1	EPA 6010D	11-12-20	11-12-20	



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 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-15a					
Laboratory ID:	11-099-09					
Arsenic	ND	11	EPA 6010D	11-12-20	11-12-20	
Barium	27	2.8	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	0.57	EPA 6010D	11-12-20	11-12-20	
Chromium	12	0.57	EPA 6010D	11-12-20	11-12-20	
Lead	ND	5.7	EPA 6010D	11-12-20	11-12-20	
Mercury	ND	0.28	EPA 7471B	11-13-20	11-13-20	
Selenium	ND	11	EPA 6010D	11-12-20	11-12-20	
Silver	ND	1.1	EPA 6010D	11-12-20	11-12-20	

Client ID:	B9-7					
Laboratory ID:	11-099-10					
Arsenic	ND	13	EPA 6010D	11-12-20	11-12-20	
Barium	63	3.2	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	0.64	EPA 6010D	11-12-20	11-12-20	
Chromium	16	0.64	EPA 6010D	11-12-20	11-12-20	
Lead	6.5	6.4	EPA 6010D	11-12-20	11-12-20	
Mercury	ND	0.32	EPA 7471B	11-13-20	11-13-20	
Selenium	ND	13	EPA 6010D	11-12-20	11-12-20	
Silver	ND	1.3	EPA 6010D	11-12-20	11-12-20	

Client ID:	B9-15					
Laboratory ID:	11-099-11					
Arsenic	ND	12	EPA 6010D	11-12-20	11-12-20	
Barium	74	3.0	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	0.60	EPA 6010D	11-12-20	11-12-20	
Chromium	24	0.60	EPA 6010D	11-12-20	11-12-20	
Lead	ND	6.0	EPA 6010D	11-12-20	11-12-20	
Mercury	ND	0.30	EPA 7471B	11-13-20	11-13-20	
Selenium	ND	12	EPA 6010D	11-12-20	11-12-20	
Silver	ND	1.2	EPA 6010D	11-12-20	11-12-20	



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 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B10-7					
Laboratory ID:	11-099-12					
Arsenic	ND	12	EPA 6010D	11-12-20	11-12-20	
Barium	67	3.0	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	0.61	EPA 6010D	11-12-20	11-12-20	
Chromium	19	0.61	EPA 6010D	11-12-20	11-12-20	
Lead	ND	6.1	EPA 6010D	11-12-20	11-12-20	
Mercury	ND	0.30	EPA 7471B	11-13-20	11-13-20	
Selenium	ND	12	EPA 6010D	11-12-20	11-12-20	
Silver	ND	1.2	EPA 6010D	11-12-20	11-12-20	

Client ID:	B10-15					
Laboratory ID:	11-099-13					
Arsenic	ND	11	EPA 6010D	11-12-20	11-12-20	
Barium	58	2.7	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	0.54	EPA 6010D	11-12-20	11-12-20	
Chromium	14	0.54	EPA 6010D	11-12-20	11-12-20	
Lead	ND	5.4	EPA 6010D	11-12-20	11-12-20	
Mercury	ND	0.27	EPA 7471B	11-13-20	11-13-20	
Selenium	ND	11	EPA 6010D	11-12-20	11-12-20	
Silver	ND	1.1	EPA 6010D	11-12-20	11-12-20	

Client ID:	B11-7					
Laboratory ID:	11-099-14					
Arsenic	ND	11	EPA 6010D	11-12-20	11-12-20	
Barium	58	2.9	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	0.57	EPA 6010D	11-12-20	11-12-20	
Chromium	23	0.57	EPA 6010D	11-12-20	11-12-20	
Copper	19	1.1	EPA 6010D	11-12-20	11-12-20	
Lead	ND	5.7	EPA 6010D	11-12-20	11-12-20	
Mercury	ND	0.29	EPA 7471B	11-13-20	11-13-20	
Selenium	ND	11	EPA 6010D	11-12-20	11-12-20	
Silver	ND	1.1	EPA 6010D	11-12-20	11-12-20	



Date of Report: December 14, 2020
 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B11-15					
Laboratory ID:	11-099-15					
Arsenic	ND	12	EPA 6010D	11-12-20	11-12-20	
Barium	36	3.0	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	0.59	EPA 6010D	11-12-20	11-12-20	
Chromium	22	0.59	EPA 6010D	11-12-20	11-12-20	
Copper	9.2	1.2	EPA 6010D	11-12-20	11-12-20	
Lead	ND	5.9	EPA 6010D	11-12-20	11-12-20	
Mercury	ND	0.30	EPA 7471B	11-13-20	11-13-20	
Selenium	ND	12	EPA 6010D	11-12-20	11-12-20	
Silver	ND	1.2	EPA 6010D	11-12-20	11-12-20	

Client ID:	B4-7					
Laboratory ID:	11-099-16					
Arsenic	ND	13	EPA 6010D	11-12-20	11-12-20	
Barium	33	3.2	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	0.65	EPA 6010D	11-12-20	11-12-20	
Chromium	20	0.65	EPA 6010D	11-12-20	11-12-20	
Lead	ND	6.5	EPA 6010D	11-12-20	11-12-20	
Mercury	ND	0.32	EPA 7471B	11-13-20	11-13-20	
Selenium	ND	13	EPA 6010D	11-12-20	11-12-20	
Silver	ND	1.3	EPA 6010D	11-12-20	11-12-20	

Client ID:	B4-15					
Laboratory ID:	11-099-17					
Arsenic	ND	13	EPA 6010D	11-12-20	11-12-20	
Barium	36	3.1	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	0.63	EPA 6010D	11-12-20	11-12-20	
Chromium	22	0.63	EPA 6010D	11-12-20	11-12-20	
Lead	ND	6.3	EPA 6010D	11-12-20	11-12-20	
Mercury	ND	0.31	EPA 7471B	11-13-20	11-13-20	
Selenium	ND	13	EPA 6010D	11-12-20	11-12-20	
Silver	ND	1.3	EPA 6010D	11-12-20	11-12-20	



Date of Report: December 14, 2020
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 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**TOTAL METALS
 EPA 6010D/7471B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1112SM2					
Arsenic	ND	10	EPA 6010D	11-12-20	11-12-20	
Barium	ND	2.5	EPA 6010D	11-12-20	11-12-20	
Cadmium	ND	0.50	EPA 6010D	11-12-20	11-12-20	
Chromium	ND	0.50	EPA 6010D	11-12-20	11-12-20	
Copper	ND	1.0	EPA 6010D	11-12-20	11-12-20	
Lead	ND	5.0	EPA 6010D	11-12-20	11-12-20	
Selenium	ND	10	EPA 6010D	11-12-20	11-12-20	
Silver	ND	1.0	EPA 6010D	11-12-20	11-12-20	
Laboratory ID:	MB1113S1					
Mercury	ND	0.25	EPA 7471B	11-13-20	11-13-20	



Date of Report: December 14, 2020
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 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**TOTAL METALS
 EPA 6010D/7471B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-099-13							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	54.2	56.5	NA	NA	NA	4	20	
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	13.3	15.3	NA	NA	NA	14	20	
Copper	13.5	13.3	NA	NA	NA	1	20	
Lead	ND	ND	NA	NA	NA	NA	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	

Laboratory ID:	11-098-01							
Mercury	ND	ND	NA	NA	NA	NA	20	

MATRIX SPIKES

Laboratory ID:	11-099-13									
	MS	MSD	MS	MSD	MS	MSD				
Arsenic	96.5	96.4	100	100	ND	97	96	75-125	0	20
Barium	143	136	100	100	54.2	89	81	75-125	6	20
Cadmium	44.0	43.9	50.0	50.0	ND	88	88	75-125	0	20
Chromium	106	105	100	100	13.3	92	92	75-125	1	20
Copper	58.0	57.3	50.0	50.0	13.5	89	88	75-125	1	20
Lead	242	242	250	250	ND	97	97	75-125	0	20
Selenium	90.2	88.9	100	100	ND	90	89	75-125	1	20
Silver	20.8	21.1	25.0	25.0	ND	83	84	75-125	1	20

Laboratory ID:	11-098-01									
Mercury	0.455	0.459	0.500	0.500	0.0200	87	88	80-120	1	20



Date of Report: December 14, 2020
 Samples Submitted: November 10, 2020
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 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B11-7					
Laboratory ID:	11-099-14					
Naphthalene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
Pentachlorophenol	ND	0.19	EPA 8270E	11-17-20	11-18-20	
Phenanthrene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo(j,k)fluoranthene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>57</i>	<i>22 - 109</i>				
<i>Phenol-d6</i>	<i>62</i>	<i>36 - 110</i>				
<i>Nitrobenzene-d5</i>	<i>53</i>	<i>31 - 109</i>				
<i>2-Fluorobiphenyl</i>	<i>66</i>	<i>45 - 107</i>				
<i>2,4,6-Tribromophenol</i>	<i>76</i>	<i>43 - 124</i>				
<i>Terphenyl-d14</i>	<i>74</i>	<i>52 - 118</i>				



Date of Report: December 14, 2020
 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B11-15					
Laboratory ID:	11-099-15					
Naphthalene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
Pentachlorophenol	ND	0.20	EPA 8270E	11-17-20	11-18-20	
Phenanthrene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo(j,k)fluoranthene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.0079	EPA 8270E/SIM	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>77</i>	<i>22 - 109</i>				
<i>Phenol-d6</i>	<i>77</i>	<i>36 - 110</i>				
<i>Nitrobenzene-d5</i>	<i>77</i>	<i>31 - 109</i>				
<i>2-Fluorobiphenyl</i>	<i>80</i>	<i>45 - 107</i>				
<i>2,4,6-Tribromophenol</i>	<i>86</i>	<i>43 - 124</i>				
<i>Terphenyl-d14</i>	<i>83</i>	<i>52 - 118</i>				



Date of Report: December 14, 2020
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 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117S1					
Naphthalene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Pentachlorophenol	ND	0.17	EPA 8270E	11-17-20	11-18-20	
Phenanthrene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>67</i>	<i>22 - 109</i>				
<i>Phenol-d6</i>	<i>71</i>	<i>36 - 110</i>				
<i>Nitrobenzene-d5</i>	<i>63</i>	<i>31 - 109</i>				
<i>2-Fluorobiphenyl</i>	<i>71</i>	<i>45 - 107</i>				
<i>2,4,6-Tribromophenol</i>	<i>81</i>	<i>43 - 124</i>				
<i>Terphenyl-d14</i>	<i>77</i>	<i>52 - 118</i>				



Date of Report: December 14, 2020
 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
	SB	SBD	SB	SBD	SB	SBD				
SPIKE BLANKS										
Laboratory ID:	SB1117S1									
Phenol	1.04	0.950	1.33	1.33	78	71	47 - 104	9	30	
2-Chlorophenol	1.15	1.04	1.33	1.33	86	78	45 - 108	10	31	
1,4-Dichlorobenzene	0.532	0.472	0.667	0.667	80	71	41 - 105	12	32	
n-Nitroso-di-n-propylamine	0.540	0.493	0.667	0.667	81	74	47 - 103	9	28	
1,2,4-Trichlorobenzene	0.576	0.521	0.667	0.667	86	78	42 - 111	10	32	
4-Chloro-3-methylphenol	1.22	1.15	1.33	1.33	92	86	61 - 108	6	25	
Acenaphthene	0.539	0.507	0.667	0.667	81	76	54 - 102	6	23	
4-Nitrophenol	1.20	1.11	1.33	1.33	90	83	53 - 122	8	24	
2,4-Dinitrotoluene	0.582	0.520	0.667	0.667	87	78	57 - 107	11	22	
Pentachlorophenol	1.01	1.01	1.33	1.33	76	76	44 - 132	0	23	
Pyrene	0.583	0.556	0.667	0.667	87	83	58 - 111	5	21	
<i>Surrogate:</i>										
2-Fluorophenol					83	72	22 - 109			
Phenol-d6					81	74	36 - 110			
Nitrobenzene-d5					77	71	31 - 109			
2-Fluorobiphenyl					81	74	45 - 107			
2,4,6-Tribromophenol					87	85	43 - 124			
Terphenyl-d14					78	76	52 - 118			



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VOLATILE ORGANICS EPA 8260D
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-7					
Laboratory ID:	11-099-05					
Dichlorodifluoromethane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Chloromethane	ND	0.011	EPA 8260D	11-18-20	11-18-20	
Vinyl Chloride	ND	0.0021	EPA 8260D	11-18-20	11-18-20	
Bromomethane	ND	0.0075	EPA 8260D	11-18-20	11-18-20	
Chloroethane	ND	0.0075	EPA 8260D	11-18-20	11-18-20	
Trichlorofluoromethane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Iodomethane	ND	0.0075	EPA 8260D	11-18-20	11-18-20	
Methylene Chloride	ND	0.0096	EPA 8260D	11-18-20	11-18-20	
(trans) 1,2-Dichloroethene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Methyl t-Butyl Ether	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethane	ND	0.0020	EPA 8260D	11-18-20	11-18-20	
2,2-Dichloropropane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
(cis) 1,2-Dichloroethene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Bromochloromethane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Chloroform	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
1,1,1-Trichloroethane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Carbon Tetrachloride	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloropropene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloroethane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Trichloroethene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloropropane	ND	0.0020	EPA 8260D	11-18-20	11-18-20	
Dibromomethane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Bromodichloromethane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
2-Chloroethyl Vinyl Ether	ND	0.0075	EPA 8260D	11-18-20	11-18-20	
(cis) 1,3-Dichloropropene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
(trans) 1,3-Dichloropropene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-7					
Laboratory ID:	11-099-05					
1,1,2-Trichloroethane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Tetrachloroethene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
1,3-Dichloropropane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Dibromochloromethane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromoethane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Chlorobenzene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
1,1,1,2-Tetrachloroethane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Bromoform	ND	0.0075	EPA 8260D	11-18-20	11-18-20	
Bromobenzene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
1,1,2,2-Tetrachloroethane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
1,2,3-Trichloropropane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
2-Chlorotoluene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
4-Chlorotoluene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
1,3-Dichlorobenzene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
1,4-Dichlorobenzene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
1,2-Dichlorobenzene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromo-3-chloropropane	ND	0.0075	EPA 8260D	11-18-20	11-18-20	
1,2,4-Trichlorobenzene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Hexachlorobutadiene	ND	0.0075	EPA 8260D	11-18-20	11-18-20	
1,2,3-Trichlorobenzene	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>94</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>81</i>	<i>71-130</i>				



Date of Report: December 14, 2020
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 Project: 1903-00129-RI

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-10					
Laboratory ID:	11-099-06					
Dichlorodifluoromethane	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
Chloromethane	ND	0.021	EPA 8260D	11-18-20	11-18-20	
Vinyl Chloride	ND	0.0039	EPA 8260D	11-18-20	11-18-20	
Bromomethane	ND	0.014	EPA 8260D	11-18-20	11-18-20	
Chloroethane	ND	0.014	EPA 8260D	11-18-20	11-18-20	
Trichlorofluoromethane	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethene	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
Iodomethane	ND	0.014	EPA 8260D	11-18-20	11-18-20	
Methylene Chloride	ND	0.018	EPA 8260D	11-18-20	11-18-20	
(trans) 1,2-Dichloroethene	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
Methyl t-Butyl Ether	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethane	ND	0.0036	EPA 8260D	11-18-20	11-18-20	
2,2-Dichloropropane	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
(cis) 1,2-Dichloroethene	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
Bromochloromethane	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
Chloroform	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
1,1,1-Trichloroethane	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
Carbon Tetrachloride	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloropropene	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloroethane	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
Trichloroethene	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloropropane	ND	0.0036	EPA 8260D	11-18-20	11-18-20	
Dibromomethane	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
Bromodichloromethane	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
2-Chloroethyl Vinyl Ether	ND	0.014	EPA 8260D	11-18-20	11-18-20	
(cis) 1,3-Dichloropropene	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
(trans) 1,3-Dichloropropene	ND	0.0028	EPA 8260D	11-18-20	11-18-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-10					
Laboratory ID:	11-099-06					
1,1,2-Trichloroethane	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
Tetrachloroethene	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
1,3-Dichloropropane	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
Dibromochloromethane	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromoethane	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
Chlorobenzene	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
1,1,1,2-Tetrachloroethane	ND	0.0028	EPA 8260D	11-18-20	11-18-20	
Bromoform	ND	0.014	EPA 8260D	11-18-20	11-18-20	
Bromobenzene	ND	0.20	EPA 8260D	11-20-20	11-20-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	11-20-20	11-20-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	11-20-20	11-20-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	11-20-20	11-20-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	11-20-20	11-20-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	11-20-20	11-20-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	11-20-20	11-20-20	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	11-20-20	11-20-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	11-20-20	11-20-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	11-20-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>90</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>76</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-7a					
Laboratory ID:	11-099-07					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Chloromethane	ND	0.0096	EPA 8260D	11-18-20	11-18-20	
Vinyl Chloride	ND	0.0018	EPA 8260D	11-18-20	11-18-20	
Bromomethane	ND	0.0064	EPA 8260D	11-18-20	11-18-20	
Chloroethane	ND	0.0064	EPA 8260D	11-18-20	11-18-20	
Trichlorofluoromethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Iodomethane	ND	0.0064	EPA 8260D	11-18-20	11-18-20	
Methylene Chloride	ND	0.0082	EPA 8260D	11-18-20	11-18-20	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethane	ND	0.0017	EPA 8260D	11-18-20	11-18-20	
2,2-Dichloropropane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Bromochloromethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Chloroform	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloropropene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloroethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Trichloroethene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloropropane	ND	0.0017	EPA 8260D	11-18-20	11-18-20	
Dibromomethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Bromodichloromethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
2-Chloroethyl Vinyl Ether	ND	0.0064	EPA 8260D	11-18-20	11-18-20	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-7a					
Laboratory ID:	11-099-07					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Tetrachloroethene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,3-Dichloropropane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Dibromochloromethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromoethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Chlorobenzene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Bromoform	ND	0.0064	EPA 8260D	11-18-20	11-18-20	
Bromobenzene	ND	0.091	EPA 8260D	11-20-20	11-20-20	
1,1,1,2-Tetrachloroethane	ND	0.091	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichloropropane	ND	0.091	EPA 8260D	11-20-20	11-20-20	
2-Chlorotoluene	ND	0.091	EPA 8260D	11-20-20	11-20-20	
4-Chlorotoluene	ND	0.091	EPA 8260D	11-20-20	11-20-20	
1,3-Dichlorobenzene	ND	0.091	EPA 8260D	11-20-20	11-20-20	
1,4-Dichlorobenzene	ND	0.091	EPA 8260D	11-20-20	11-20-20	
1,2-Dichlorobenzene	ND	0.091	EPA 8260D	11-20-20	11-20-20	
1,2-Dibromo-3-chloropropane	ND	0.45	EPA 8260D	11-20-20	11-20-20	
1,2,4-Trichlorobenzene	ND	0.091	EPA 8260D	11-20-20	11-20-20	
Hexachlorobutadiene	ND	0.45	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichlorobenzene	ND	0.091	EPA 8260D	11-20-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>93</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>78</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B9-7					
Laboratory ID:	11-099-10					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Chloromethane	ND	0.010	EPA 8260D	11-18-20	11-18-20	
Vinyl Chloride	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
Bromomethane	ND	0.0067	EPA 8260D	11-18-20	11-18-20	
Chloroethane	ND	0.0067	EPA 8260D	11-18-20	11-18-20	
Trichlorofluoromethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Iodomethane	ND	0.0067	EPA 8260D	11-18-20	11-18-20	
Methylene Chloride	ND	0.0085	EPA 8260D	11-18-20	11-18-20	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethane	ND	0.0017	EPA 8260D	11-18-20	11-18-20	
2,2-Dichloropropane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Bromochloromethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Chloroform	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloropropene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloroethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Trichloroethene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloropropane	ND	0.0017	EPA 8260D	11-18-20	11-18-20	
Dibromomethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Bromodichloromethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
2-Chloroethyl Vinyl Ether	ND	0.0067	EPA 8260D	11-18-20	11-18-20	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B9-7					
Laboratory ID:	11-099-10					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Tetrachloroethene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,3-Dichloropropane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Dibromochloromethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromoethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Chlorobenzene	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Bromoform	ND	0.0067	EPA 8260D	11-18-20	11-18-20	
Bromobenzene	ND	0.070	EPA 8260D	11-20-20	11-20-20	
1,1,1,2-Tetrachloroethane	ND	0.070	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichloropropane	ND	0.070	EPA 8260D	11-20-20	11-20-20	
2-Chlorotoluene	ND	0.070	EPA 8260D	11-20-20	11-20-20	
4-Chlorotoluene	ND	0.070	EPA 8260D	11-20-20	11-20-20	
1,3-Dichlorobenzene	ND	0.070	EPA 8260D	11-20-20	11-20-20	
1,4-Dichlorobenzene	ND	0.070	EPA 8260D	11-20-20	11-20-20	
1,2-Dichlorobenzene	ND	0.070	EPA 8260D	11-20-20	11-20-20	
1,2-Dibromo-3-chloropropane	ND	0.35	EPA 8260D	11-20-20	11-20-20	
1,2,4-Trichlorobenzene	ND	0.070	EPA 8260D	11-20-20	11-20-20	
Hexachlorobutadiene	ND	0.35	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichlorobenzene	ND	0.070	EPA 8260D	11-20-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>85</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B10-7					
Laboratory ID:	11-099-12					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
Chloromethane	ND	0.0086	EPA 8260D	11-18-20	11-18-20	
Vinyl Chloride	ND	0.0016	EPA 8260D	11-18-20	11-18-20	
Bromomethane	ND	0.0058	EPA 8260D	11-18-20	11-18-20	
Chloroethane	ND	0.0058	EPA 8260D	11-18-20	11-18-20	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
Iodomethane	ND	0.0058	EPA 8260D	11-18-20	11-18-20	
Methylene Chloride	ND	0.0074	EPA 8260D	11-18-20	11-18-20	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
Bromochloromethane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
Chloroform	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
Trichloroethene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloropropane	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Dibromomethane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
Bromodichloromethane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260D	11-18-20	11-18-20	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B10-7					
Laboratory ID:	11-099-12					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
Tetrachloroethene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
Dibromochloromethane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
Chlorobenzene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
Bromoform	ND	0.0058	EPA 8260D	11-18-20	11-18-20	
Bromobenzene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
2-Chlorotoluene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
4-Chlorotoluene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260D	11-18-20	11-18-20	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
Hexachlorobutadiene	ND	0.0058	EPA 8260D	11-18-20	11-18-20	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>87</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B11-7					
Laboratory ID:	11-099-14					
Dichlorodifluoromethane	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
Chloromethane	ND	0.0068	EPA 8260D	11-18-20	11-18-20	
Vinyl Chloride	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Bromomethane	ND	0.0045	EPA 8260D	11-18-20	11-18-20	
Chloroethane	ND	0.0045	EPA 8260D	11-18-20	11-18-20	
Trichlorofluoromethane	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
Iodomethane	ND	0.0045	EPA 8260D	11-18-20	11-18-20	
Methylene Chloride	ND	0.0058	EPA 8260D	11-18-20	11-18-20	
(trans) 1,2-Dichloroethene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
Methyl t-Butyl Ether	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
2,2-Dichloropropane	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
(cis) 1,2-Dichloroethene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
Bromochloromethane	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
Chloroform	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
1,1,1-Trichloroethane	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
Carbon Tetrachloride	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloropropene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloroethane	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
Trichloroethene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	11-18-20	11-18-20	
Dibromomethane	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
Bromodichloromethane	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
2-Chloroethyl Vinyl Ether	ND	0.0045	EPA 8260D	11-18-20	11-18-20	
(cis) 1,3-Dichloropropene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
(trans) 1,3-Dichloropropene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B11-7					
Laboratory ID:	11-099-14					
1,1,2-Trichloroethane	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
Tetrachloroethene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
1,3-Dichloropropane	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
Dibromochloromethane	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromoethane	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
Chlorobenzene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
1,1,1,2-Tetrachloroethane	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
Bromoform	ND	0.0045	EPA 8260D	11-18-20	11-18-20	
Bromobenzene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
1,1,2,2-Tetrachloroethane	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
1,2,3-Trichloropropane	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
2-Chlorotoluene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
4-Chlorotoluene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
1,3-Dichlorobenzene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
1,4-Dichlorobenzene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
1,2-Dichlorobenzene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromo-3-chloropropane	ND	0.0045	EPA 8260D	11-18-20	11-18-20	
1,2,4-Trichlorobenzene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
Hexachlorobutadiene	ND	0.0045	EPA 8260D	11-18-20	11-18-20	
1,2,3-Trichlorobenzene	ND	0.00091	EPA 8260D	11-18-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1118S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Chloromethane	ND	0.0075	EPA 8260D	11-18-20	11-18-20	
Vinyl Chloride	ND	0.0014	EPA 8260D	11-18-20	11-18-20	
Bromomethane	ND	0.0050	EPA 8260D	11-18-20	11-18-20	
Chloroethane	ND	0.0050	EPA 8260D	11-18-20	11-18-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Iodomethane	ND	0.0050	EPA 8260D	11-18-20	11-18-20	
Methylene Chloride	ND	0.0064	EPA 8260D	11-18-20	11-18-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Bromochloromethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Chloroform	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Trichloroethene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloropropane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Dibromomethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	11-18-20	11-18-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1118S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Chlorobenzene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Bromoform	ND	0.0050	EPA 8260D	11-18-20	11-18-20	
Bromobenzene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	11-18-20	11-18-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	11-18-20	11-18-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	96	74-131				
<i>Toluene-d8</i>	98	78-128				
<i>4-Bromofluorobenzene</i>	95	71-130				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1120S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Chloromethane	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Bromomethane	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
Chloroethane	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Iodomethane	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
Methylene Chloride	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Bromochloromethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Chloroform	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Trichloroethene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Dibromomethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
2-Chloroethyl Vinyl Ether	ND	0.0073	EPA 8260D	11-20-20	11-20-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1120S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Chlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Bromoform	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
Bromobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>71-130</i>				



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**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB1118S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0446	0.0446	0.0500	0.0500	89	89	55-126	0	17	
Benzene	0.0400	0.0409	0.0500	0.0500	80	82	65-121	2	16	
Trichloroethene	0.0467	0.0475	0.0500	0.0500	93	95	74-126	2	16	
Toluene	0.0420	0.0426	0.0500	0.0500	84	85	71-121	1	16	
Chlorobenzene	0.0430	0.0445	0.0500	0.0500	86	89	72-123	3	16	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					96	98	74-131			
<i>Toluene-d8</i>					98	96	78-128			
<i>4-Bromofluorobenzene</i>					96	96	71-130			
Laboratory ID:	SB1120S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0533	0.0513	0.0500	0.0500	107	103	55-126	4	17	
Benzene	0.0521	0.0503	0.0500	0.0500	104	101	65-121	4	16	
Trichloroethene	0.0535	0.0513	0.0500	0.0500	107	103	74-126	4	16	
Toluene	0.0525	0.0510	0.0500	0.0500	105	102	71-121	3	16	
Chlorobenzene	0.0549	0.0541	0.0500	0.0500	110	108	72-123	1	16	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					100	102	74-131			
<i>Toluene-d8</i>					98	101	78-128			
<i>4-Bromofluorobenzene</i>					99	99	71-130			



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PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-7					
Laboratory ID:	11-099-05					
Aroclor 1016	ND	0.077	EPA 8082A	11-23-20	11-23-20	
Aroclor 1221	ND	0.077	EPA 8082A	11-23-20	11-23-20	
Aroclor 1232	ND	0.077	EPA 8082A	11-23-20	11-23-20	
Aroclor 1242	ND	0.077	EPA 8082A	11-23-20	11-23-20	
Aroclor 1248	ND	0.077	EPA 8082A	11-23-20	11-23-20	
Aroclor 1254	ND	0.077	EPA 8082A	11-23-20	11-23-20	
Aroclor 1260	ND	0.077	EPA 8082A	11-23-20	11-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	105	46-125				
Client ID:	B3-10					
Laboratory ID:	11-099-06					
Aroclor 1016	ND	0.12	EPA 8082A	11-23-20	11-23-20	
Aroclor 1221	ND	0.12	EPA 8082A	11-23-20	11-23-20	
Aroclor 1232	ND	0.12	EPA 8082A	11-23-20	11-23-20	
Aroclor 1242	ND	0.12	EPA 8082A	11-23-20	11-23-20	
Aroclor 1248	ND	0.12	EPA 8082A	11-23-20	11-23-20	
Aroclor 1254	ND	0.12	EPA 8082A	11-23-20	11-23-20	
Aroclor 1260	ND	0.12	EPA 8082A	11-23-20	11-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	83	46-125				
Client ID:	B3-7a					
Laboratory ID:	11-099-07					
Aroclor 1016	ND	0.077	EPA 8082A	11-23-20	11-23-20	
Aroclor 1221	ND	0.077	EPA 8082A	11-23-20	11-23-20	
Aroclor 1232	ND	0.077	EPA 8082A	11-23-20	11-23-20	
Aroclor 1242	ND	0.077	EPA 8082A	11-23-20	11-23-20	
Aroclor 1248	ND	0.077	EPA 8082A	11-23-20	11-23-20	
Aroclor 1254	ND	0.077	EPA 8082A	11-23-20	11-23-20	
Aroclor 1260	ND	0.077	EPA 8082A	11-23-20	11-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	103	46-125				



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PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B9-7					
Laboratory ID:	11-099-10					
Aroclor 1016	ND	0.064	EPA 8082A	11-23-20	11-23-20	
Aroclor 1221	ND	0.064	EPA 8082A	11-23-20	11-23-20	
Aroclor 1232	ND	0.064	EPA 8082A	11-23-20	11-23-20	
Aroclor 1242	ND	0.064	EPA 8082A	11-23-20	11-23-20	
Aroclor 1248	ND	0.064	EPA 8082A	11-23-20	11-23-20	
Aroclor 1254	ND	0.064	EPA 8082A	11-23-20	11-23-20	
Aroclor 1260	ND	0.064	EPA 8082A	11-23-20	11-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	118	46-125				
Client ID:	B10-7					
Laboratory ID:	11-099-12					
Aroclor 1016	ND	0.061	EPA 8082A	11-23-20	11-23-20	
Aroclor 1221	ND	0.061	EPA 8082A	11-23-20	11-23-20	
Aroclor 1232	ND	0.061	EPA 8082A	11-23-20	11-23-20	
Aroclor 1242	ND	0.061	EPA 8082A	11-23-20	11-23-20	
Aroclor 1248	ND	0.061	EPA 8082A	11-23-20	11-23-20	
Aroclor 1254	ND	0.061	EPA 8082A	11-23-20	11-23-20	
Aroclor 1260	ND	0.061	EPA 8082A	11-23-20	11-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	115	46-125				
Client ID:	B11-7					
Laboratory ID:	11-099-14					
Aroclor 1016	ND	0.057	EPA 8082A	11-23-20	11-23-20	
Aroclor 1221	ND	0.057	EPA 8082A	11-23-20	11-23-20	
Aroclor 1232	ND	0.057	EPA 8082A	11-23-20	11-23-20	
Aroclor 1242	ND	0.057	EPA 8082A	11-23-20	11-23-20	
Aroclor 1248	ND	0.057	EPA 8082A	11-23-20	11-23-20	
Aroclor 1254	ND	0.057	EPA 8082A	11-23-20	11-23-20	
Aroclor 1260	ND	0.057	EPA 8082A	11-23-20	11-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	110	46-125				



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**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1123S1					
Aroclor 1016	ND	0.050	EPA 8082A	11-23-20	11-23-20	
Aroclor 1221	ND	0.050	EPA 8082A	11-23-20	11-23-20	
Aroclor 1232	ND	0.050	EPA 8082A	11-23-20	11-23-20	
Aroclor 1242	ND	0.050	EPA 8082A	11-23-20	11-23-20	
Aroclor 1248	ND	0.050	EPA 8082A	11-23-20	11-23-20	
Aroclor 1254	ND	0.050	EPA 8082A	11-23-20	11-23-20	
Aroclor 1260	ND	0.050	EPA 8082A	11-23-20	11-23-20	
Surrogate:	Percent Recovery		Control Limits			
DCB	114		46-125			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	11-099-12										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	0.512	0.519	0.500	0.500	ND	102	104	43-125	1	15	
Surrogate:											
DCB						116	126	46-125			



Date of Report: December 14, 2020
 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**SOLUBLE HEXAVALENT CHROMIUM
 WATER EXTRACTION
 EPA 7196A**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B3-7					
Laboratory ID:	11-099-05					
Hexavalent Chromium	ND	1.5	EPA 7196A mod.	11-25-20	11-25-20	
Client ID:	B3-10					
Laboratory ID:	11-099-06					
Hexavalent Chromium	ND	2.5	EPA 7196A mod.	11-25-20	11-25-20	
Client ID:	B3-7a					
Laboratory ID:	11-099-07					
Hexavalent Chromium	ND	1.5	EPA 7196A mod.	11-25-20	11-25-20	
Client ID:	B9-15					
Laboratory ID:	11-099-11					
Hexavalent Chromium	ND	1.2	EPA 7196A mod.	11-25-20	11-25-20	
Client ID:	B10-7					
Laboratory ID:	11-099-12					
Hexavalent Chromium	ND	1.2	EPA 7196A mod.	11-25-20	11-25-20	
Client ID:	B11-7					
Laboratory ID:	11-099-14					
Hexavalent Chromium	ND	1.1	EPA 7196A mod.	11-25-20	11-25-20	
Client ID:	B11-15					
Laboratory ID:	11-099-15					
Hexavalent Chromium	ND	1.2	EPA 7196A mod.	11-25-20	11-25-20	



Date of Report: December 14, 2020
 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**SOLUBLE HEXAVALENT CHROMIUM
 WATER EXTRACTION
 EPA 7196A**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B4-7					
Laboratory ID:	11-099-16					
Hexavalent Chromium	ND	1.3	EPA 7196A mod.	11-25-20	11-25-20	
Client ID:	B4-15					
Laboratory ID:	11-099-17					
Hexavalent Chromium	ND	1.3	EPA 7196A mod.	11-25-20	11-25-20	



Date of Report: December 14, 2020
 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

**SOLUBLE HEXAVALENT CHROMIUM
 WATER EXTRACTION
 EPA 7196A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1125S1					
Hexavalent Chromium	ND	1.0	EPA 7196A mod.	11-25-20	11-25-20	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-099-12							
	ORIG	DUP						
Hexavalent Chromium	ND	ND	NA	NA	NA	NA	20	

MATRIX SPIKES

Laboratory ID:	11-099-12											
	MS	MSD	MS	MSD	MS	MSD						
Hexavalent Chromium	3.18	3.39	5.00	5.00	ND	64	68	75-125	6	20	V	

SPIKE BLANK

Laboratory ID:	SB1125S1											
	SB		SB		SB							
Hexavalent Chromium	4.56		5.00		91			75-125	NA	NA		



Date of Report: December 14, 2020
 Samples Submitted: November 10, 2020
 Laboratory Reference: 2011-099
 Project: 1903-00129-RI

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
B1-7	11-099-01	10	11-11-20
B1-15	11-099-02	9	11-11-20
B8-7	11-099-03	6	11-11-20
B8-15	11-099-04	13	11-11-20
B3-7	11-099-05	35	11-11-20
B3-10	11-099-06	59	11-11-20
B3-7a	11-099-07	35	11-11-20
B3-15	11-099-08	11	11-11-20
B3-15a	11-099-09	12	11-11-20
B9-7	11-099-10	21	11-11-20
B9-15	11-099-11	17	11-11-20
B10-7	11-099-12	18	11-11-20
B10-15	11-099-13	7	11-11-20
B11-7	11-099-14	13	11-11-20
B11-15	11-099-15	16	11-12-20
B4-7	11-099-16	23	11-12-20
B4-15	11-099-17	20	11-12-20





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical gas.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





OnSite Environmental Inc.
 Analytical Laboratory Testing Services
 14648 NE 95th Street - Redmond, WA 98052
 Phone: (425) 883-9881 • www.onsite-env.com

Chain of Custody

Turnaround Request
 (in working days)
 (Check One)
 Same Day 1 Day
 2 Days 3 Days
 Standard (7 Days)
 _____ (other)

Laboratory Number: **11-099**

Page 1 of 2

Company: ENPRO Environmental
 Project Number: 103-00129-RI
 Project Name: Green Cove Park Development
 Project Manager: Kim Kim
 Sampled by: Ken Beal/Hoiana Rosario

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	Laboratory Analysis																		
						NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals (8 metals)	Total MPCA Metals	TCLP Metals	HEM (oil and grease) 1664A	% Moisture	
1	B1-7	11-9-20	9:30	Soil	6	X	X	X	X	H	H	H	H	H	H	H	H	X	X	H	H	H	H	X
2	B1-15		10:00			X	X	X	X	H	H	H	H	H	H	H	H	X	X	H	H	H	H	X
3	B8-7		10:30			X	X	X	X	H	H	H	H	H	H	H	H	X	X	H	H	H	H	X
4	B8-15		10:30			X	X	X	X	H	H	H	H	H	H	H	H	X	X	H	H	H	H	X
5	B3-7		11:00			X	X	X	X	H	H	H	H	H	H	H	H	X	X	H	H	H	H	X
6	B3-10		11:00			X	X	X	X	H	H	H	H	H	H	H	H	X	X	H	H	H	H	X
7	B3-7a		11:00			X	X	X	X	H	H	H	H	H	H	H	H	X	X	H	H	H	H	X
8	B3-15		11:00			X	X	X	X	H	H	H	H	H	H	H	H	X	X	H	H	H	H	X
9	B3-15a		11:00			X	X	X	X	H	H	H	H	H	H	H	H	X	X	H	H	H	H	X
10	B9-7		12:30			X	X	X	X	H	H	H	H	H	H	H	H	X	X	H	H	H	H	X

Received	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	<i>Ken Beal</i>	ENPRO Environ	11-10-20	1:06	X = analyze
Received	<i>A. Swanson</i>	ACPHA	11-10-20	1:06	H = hold pending instruction
Relinquished	<i>Ken Beal</i>	ACPHA	11-10-20	3:40	- Added 11/17/2020 DB (STA)
Received	<i>Ken Beal</i>	OSE	11/10/20	1:40	Added 11/19/2020. DB (STA)
Relinquished					
Received					
Reviewed/Date					

Data Package: Standard Level III Level IV
 Chromatograms with final report Electronic Data Deliverables (EDDs)



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Chain of Custody

Turnaround Request
(in working days)

(Check One)

- Same Day 1 Day
- 2 Days 3 Days
- Standard (7 Days)
- (other) _____

Company: **EMPRO Environmental**
 Project Number: **1903-00129-RI**
 Project Name: **Green Cove Park Development**
 Project Manager: **Kim Kin**
 Sampled by: **Ken Beal / Hoana Rosario**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
11	B9-15	11-9-20	12:30	Soil
12	B10-7		1:15	
13	B10-15		1:15	
14	B11-7		1:50	
15	B11-15		1:50	
16	B4-7		2:40	
17	B4-15		2:40	

Number of Containers

Parameter	11	12	13	14	15	16	17
NWTPH-HCID	X	X	X	X	X	X	X
NWTPH-Gx/BTEX	X	X	X	X	X	X	X
NWTPH-Gx	X	X	X	X	X	X	X
NWTPH-Dx (Acid / SG Clean-up)	X	X	X	X	X	X	X
Volatiles 8260C	H	H	H	H	H	H	H
Halogenated Volatiles 8260C	H	H	H	H	H	H	H
EDB EPA 8011 (Waters Only)	H	H	H	H	H	H	H
Semivolatiles 8270D/SIM (with low-level PAHs)	X	X	X	X	X	X	X
PAHs 8270D/SIM (low-level)	X	X	X	X	X	X	X
PCBs 8082A	H	H	H	H	H	H	H
Organochlorine Pesticides 8081B	X	X	X	X	X	X	X
Organophosphorus Pesticides 8270D/SIM	X	X	X	X	X	X	X
Chlorinated Acid Herbicides 8151A	X	X	X	X	X	X	X
Total RCRA Metals (8 metals)	X	X	X	X	X	X	X
Total MTCA Metals	X	X	X	X	X	X	X
TCLP Metals	X	X	X	X	X	X	X
HEM (oil and grease) 1864A	X	X	X	X	X	X	X
EDC	X	X	X	X	X	X	X
MTBE	X	X	X	X	X	X	X
Total Pb	X	X	X	X	X	X	X
Total Cu	X	X	X	X	X	X	X
% Moisture	X	X	X	X	X	X	X

Laboratory Number:

11-099

Page **2** of **2**

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	EMPRO Environ	11-10-20	1:06	X = analyze H = Hold pending instruction
<i>[Signature]</i>	EMPRO Environ	11-10-20	1:06	
<i>[Signature]</i>	EMPRO Environ	11-10-20	3:40	
<i>[Signature]</i>	EMPRO Environ	11-10-20	1:40	

Handwritten notes:
 Benzene Acet
 11-10-20
 Hex Chrome
 EDC
 MTBE
 Total Pb
 Total Cu
 Penta chbro Pheno



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

December 1, 2020

Kim Kim
EnPro Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734

Re: Analytical Data for Project 1903-00129-RI
Laboratory Reference No. 2011-115

Dear Kim:

Enclosed are the analytical results and associated quality control data for samples submitted on November 11, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: December 1, 2020
Samples Submitted: November 11, 2020
Laboratory Reference: 2011-115
Project: 1903-00129-RI

Case Narrative

Samples were collected on November 10, 2020 and received by the laboratory on November 11, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

NWTPH-Gx/BTEX Analysis

The Method 5035A VOA vials provided for the samples were filled completely and therefore unusable. The samples were consequently extracted from 8-ounce jars for analysis. Some loss of volatiles may have occurred.

Volatiles EPA 8260D Analysis

The Method 5035A VOA vials provided for the samples were filled completely and therefore unusable. The samples were consequently extracted from 8-ounce jars for analysis. Some loss of volatiles may have occurred.

Soluble Hexavalent Chromium EPA 7196A Analysis

The Matrix Spike/Matrix Spike Duplicate recoveries for hexavalent chromium are outside control limits due to matrix interferences. The soil exhibits reducing conditions. The Spike Blank recovery was 91 %. The Standard Reference Material meets the published acceptance limits.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



Date of Report: December 1, 2020
 Samples Submitted: November 11, 2020
 Laboratory Reference: 2011-115
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B7-7					
Laboratory ID:	11-115-01					
Benzene	ND	0.029	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	0.14	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	0.14	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	0.14	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	0.14	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	14	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	93	58-129				
Client ID:	B7-15					
Laboratory ID:	11-115-02					
Benzene	ND	0.020	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	0.047	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	0.047	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	0.047	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	0.047	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	4.7	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	58-129				
Client ID:	B6-7					
Laboratory ID:	11-115-03					
Benzene	ND	0.020	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	0.074	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	0.074	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	0.074	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	0.074	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	7.4	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	58-129				



Date of Report: December 1, 2020
 Samples Submitted: November 11, 2020
 Laboratory Reference: 2011-115
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B6-15					
Laboratory ID:	11-115-04					
Benzene	ND	0.020	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	0.058	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	0.058	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	0.058	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	0.058	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	5.8	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	94	58-129				
Client ID:	B2-7					
Laboratory ID:	11-115-05					
Benzene	ND	0.020	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	0.049	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	0.049	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	0.049	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	0.049	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	4.9	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	101	58-129				
Client ID:	B2-7a					
Laboratory ID:	11-115-06					
Benzene	ND	0.020	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	0.059	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	0.059	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	0.059	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	0.059	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	5.9	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	58-129				



Date of Report: December 1, 2020
 Samples Submitted: November 11, 2020
 Laboratory Reference: 2011-115
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B2-15					
Laboratory ID:	11-115-07					
Benzene	ND	0.020	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	0.053	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	0.053	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	0.053	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	0.053	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	5.3	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	91	58-129				
Client ID:	B2-15a					
Laboratory ID:	11-115-08					
Benzene	ND	0.020	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	0.065	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	0.065	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	0.065	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	0.065	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	6.5	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	94	58-129				
Client ID:	B5-7					
Laboratory ID:	11-115-09					
Benzene	ND	0.020	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	0.054	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	0.054	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	0.054	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	0.054	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	5.4	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	94	58-129				



Date of Report: December 1, 2020
 Samples Submitted: November 11, 2020
 Laboratory Reference: 2011-115
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B5-15					
Laboratory ID:	11-115-10					
Benzene	ND	0.020	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	0.062	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	0.062	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	0.062	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	0.062	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	6.2	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	93	58-129				



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**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1113S1					
Benzene	ND	0.020	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	0.050	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	0.050	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	0.050	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	0.050	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	5.0	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	91	58-129				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-119-04							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	30	
Toluene	ND	ND	NA	NA	NA	NA	30	
Ethyl Benzene	ND	ND	NA	NA	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA	NA	NA	30	
o-Xylene	ND	ND	NA	NA	NA	NA	30	
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				97	95	58-129		

SPIKE BLANKS

Laboratory ID:	SB1113S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	0.961	0.963	1.00	1.00	96	96	68-112	0	10
Toluene	0.983	0.985	1.00	1.00	98	99	70-114	0	10
Ethyl Benzene	0.980	0.979	1.00	1.00	98	98	70-115	0	10
m,p-Xylene	0.983	0.978	1.00	1.00	98	98	69-117	1	11
o-Xylene	0.982	0.987	1.00	1.00	98	99	71-115	1	11
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					93	94	58-129		



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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B7-7					
Laboratory ID:	11-115-01					
Diesel Range Organics	140	48	NWTPH-Dx	11-13-20	11-13-20	N
Lube Oil	1300	95	NWTPH-Dx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				

Client ID:	B7-15					
Laboratory ID:	11-115-02					
Diesel Range Organics	ND	29	NWTPH-Dx	11-13-20	11-13-20	
Lube Oil Range Organics	ND	59	NWTPH-Dx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

Client ID:	B6-7					
Laboratory ID:	11-115-03					
Diesel Range Organics	ND	29	NWTPH-Dx	11-13-20	11-13-20	
Lube Oil Range Organics	ND	59	NWTPH-Dx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	90	50-150				

Client ID:	B6-15					
Laboratory ID:	11-115-04					
Diesel Range Organics	ND	28	NWTPH-Dx	11-13-20	11-13-20	
Lube Oil Range Organics	ND	56	NWTPH-Dx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				

Client ID:	B2-7					
Laboratory ID:	11-115-05					
Diesel Range Organics	ND	28	NWTPH-Dx	11-13-20	11-13-20	
Lube Oil	170	57	NWTPH-Dx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				

Client ID:	B2-7a					
Laboratory ID:	11-115-06					
Diesel Range Organics	ND	28	NWTPH-Dx	11-13-20	11-13-20	
Lube Oil	97	56	NWTPH-Dx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	83	50-150				



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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B2-15					
Laboratory ID:	11-115-07					
Diesel Range Organics	ND	29	NWTPH-Dx	11-13-20	11-13-20	
Lube Oil Range Organics	ND	58	NWTPH-Dx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	96	50-150				

Client ID:	B2-15a					
Laboratory ID:	11-115-08					
Diesel Range Organics	ND	30	NWTPH-Dx	11-13-20	11-13-20	
Lube Oil Range Organics	ND	60	NWTPH-Dx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				

Client ID:	B5-7					
Laboratory ID:	11-115-09					
Diesel Range Organics	ND	27	NWTPH-Dx	11-13-20	11-13-20	
Lube Oil Range Organics	ND	54	NWTPH-Dx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	93	50-150				

Client ID:	B5-15					
Laboratory ID:	11-115-10					
Diesel Range Organics	ND	32	NWTPH-Dx	11-13-20	11-13-20	
Lube Oil Range Organics	ND	63	NWTPH-Dx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	83	50-150				



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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1113S1					
Diesel Range Organics	ND	25	NWTPH-Dx	11-13-20	11-13-20	
Lube Oil Range Organics	ND	50	NWTPH-Dx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>90</i>	<i>50-150</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-115-09							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	NA	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				93	86	50-150		



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B7-7					
Laboratory ID:	11-115-01					
Naphthalene	0.059	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
2-Methylnaphthalene	0.034	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
1-Methylnaphthalene	0.018	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
Acenaphthylene	0.013	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
Acenaphthene	0.067	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
Fluorene	0.10	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
Phenanthrene	0.18	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
Anthracene	0.11	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
Fluoranthene	0.35	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
Pyrene	0.35	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
Benzo[a]anthracene	0.067	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
Chrysene	0.083	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
Benzo[b]fluoranthene	0.077	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
Benzo(j,k)fluoranthene	0.020	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
Benzo[a]pyrene	0.041	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
Indeno(1,2,3-c,d)pyrene	0.020	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
Benzo[g,h,i]perylene	0.019	0.013	EPA 8270E/SIM	11-13-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>68</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>85</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>77</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B7-15					
Laboratory ID:	11-115-02					
Naphthalene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
2-Methylnaphthalene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
1-Methylnaphthalene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthylene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Fluorene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Phenanthrene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Anthracene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Fluoranthene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Pyrene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]anthracene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Chrysene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]pyrene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>79</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>88</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>83</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B6-7					
Laboratory ID:	11-115-03					
Naphthalene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
2-Methylnaphthalene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
1-Methylnaphthalene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthylene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Fluorene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Phenanthrene	0.027	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Anthracene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Fluoranthene	0.039	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Pyrene	0.037	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]anthracene	0.015	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Chrysene	0.021	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[b]fluoranthene	0.022	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo(j,k)fluoranthene	0.0090	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]pyrene	0.017	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	0.012	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[g,h,i]perylene	0.012	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>81</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>80</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>89</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B6-15					
Laboratory ID:	11-115-04					
Naphthalene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
2-Methylnaphthalene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
1-Methylnaphthalene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthylene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
Fluorene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
Phenanthrene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
Anthracene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
Fluoranthene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
Pyrene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]anthracene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
Chrysene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]pyrene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0075	EPA 8270E/SIM	11-13-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	85	46 - 113				
Pyrene-d10	93	45 - 114				
Terphenyl-d14	92	49 - 121				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B2-7					
Laboratory ID:	11-115-05					
Naphthalene	ND	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
2-Methylnaphthalene	ND	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
1-Methylnaphthalene	ND	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthylene	ND	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthene	ND	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
Fluorene	ND	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
Phenanthrene	0.013	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
Anthracene	ND	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
Fluoranthene	0.013	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
Pyrene	0.016	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]anthracene	0.0077	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
Chrysene	0.0096	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[b]fluoranthene	0.011	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]pyrene	0.0086	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0076	EPA 8270E/SIM	11-13-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>85</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>84</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>95</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B2-7a					
Laboratory ID:	11-115-06					
Naphthalene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
2-Methylnaphthalene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
1-Methylnaphthalene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthylene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
Fluorene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
Phenanthrene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
Anthracene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
Fluoranthene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
Pyrene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]anthracene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
Chrysene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]pyrene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0074	EPA 8270E/SIM	11-13-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	88	46 - 113				
Pyrene-d10	87	45 - 114				
Terphenyl-d14	93	49 - 121				



Date of Report: December 1, 2020
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 Laboratory Reference: 2011-115
 Project: 1903-00129-RI

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B2-15					
Laboratory ID:	11-115-07					
Naphthalene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
2-Methylnaphthalene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
1-Methylnaphthalene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthylene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Fluorene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Phenanthrene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Anthracene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Fluoranthene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Pyrene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]anthracene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Chrysene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]pyrene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0078	EPA 8270E/SIM	11-13-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>87</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>91</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>94</i>	<i>49 - 121</i>				



Date of Report: December 1, 2020
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 Laboratory Reference: 2011-115
 Project: 1903-00129-RI

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B2-15a					
Laboratory ID:	11-115-08					
Naphthalene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
2-Methylnaphthalene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
1-Methylnaphthalene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthylene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
Fluorene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
Phenanthrene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
Anthracene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
Fluoranthene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
Pyrene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]anthracene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
Chrysene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]pyrene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0080	EPA 8270E/SIM	11-13-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>84</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>92</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>94</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B5-7					
Laboratory ID:	11-115-09					
Naphthalene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
2-Methylnaphthalene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
1-Methylnaphthalene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthylene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
Fluorene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
Phenanthrene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
Anthracene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
Fluoranthene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
Pyrene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]anthracene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
Chrysene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]pyrene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0072	EPA 8270E/SIM	11-13-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>86</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>93</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>98</i>	<i>49 - 121</i>				



Date of Report: December 1, 2020
 Samples Submitted: November 11, 2020
 Laboratory Reference: 2011-115
 Project: 1903-00129-RI

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B5-15					
Laboratory ID:	11-115-10					
Naphthalene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
2-Methylnaphthalene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
1-Methylnaphthalene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthylene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
Fluorene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
Phenanthrene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
Anthracene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
Fluoranthene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
Pyrene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]anthracene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
Chrysene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]pyrene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0084	EPA 8270E/SIM	11-13-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>83</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>96</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>91</i>	<i>49 - 121</i>				



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**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1113S1					
Naphthalene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
2-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
1-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthylene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
Acenaphthene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
Fluorene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
Phenanthrene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
Anthracene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
Fluoranthene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
Pyrene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
Chrysene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270E/SIM	11-13-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	96	46 - 113				
<i>Pyrene-d10</i>	103	45 - 114				
<i>Terphenyl-d14</i>	103	49 - 121				



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**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Source	Percent		Recovery	RPD	RPD	Flags
					Result	Recovery	Limits		RPD	Limit	
MATRIX SPIKES											
Laboratory ID:	11-116-01										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	0.0751	0.0751	0.0833	0.0833	ND	90	90	51 - 115	0	26	
Acenaphthylene	0.0778	0.0792	0.0833	0.0833	ND	93	95	53 - 121	2	24	
Acenaphthene	0.0745	0.0767	0.0833	0.0833	ND	89	92	52 - 121	3	25	
Fluorene	0.0785	0.0822	0.0833	0.0833	ND	94	99	58 - 127	5	23	
Phenanthrene	0.0823	0.0836	0.0833	0.0833	ND	99	100	46 - 129	2	28	
Anthracene	0.0809	0.0843	0.0833	0.0833	ND	97	101	57 - 124	4	21	
Fluoranthene	0.0823	0.0856	0.0833	0.0833	ND	99	103	46 - 136	4	29	
Pyrene	0.0873	0.0824	0.0833	0.0833	ND	105	99	41 - 136	6	32	
Benzo[a]anthracene	0.0877	0.0880	0.0833	0.0833	ND	105	106	56 - 136	0	25	
Chrysene	0.0849	0.0894	0.0833	0.0833	ND	102	107	49 - 130	5	22	
Benzo[b]fluoranthene	0.0831	0.0851	0.0833	0.0833	ND	100	102	51 - 135	2	26	
Benzo(j,k)fluoranthene	0.0902	0.0877	0.0833	0.0833	ND	108	105	56 - 124	3	23	
Benzo[a]pyrene	0.0850	0.0841	0.0833	0.0833	ND	102	101	54 - 133	1	26	
Indeno(1,2,3-c,d)pyrene	0.0846	0.0845	0.0833	0.0833	ND	102	101	52 - 134	0	20	
Dibenz[a,h]anthracene	0.0863	0.0909	0.0833	0.0833	ND	104	109	58 - 127	5	17	
Benzo[g,h,i]perylene	0.0847	0.0858	0.0833	0.0833	ND	102	103	54 - 129	1	21	
<i>Surrogate:</i>											
2-Fluorobiphenyl						95	96	46 - 113			
Pyrene-d10						96	98	45 - 114			
Terphenyl-d14						98	94	49 - 121			



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 Samples Submitted: November 11, 2020
 Laboratory Reference: 2011-115
 Project: 1903-00129-RI

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B7-7					
Laboratory ID:	11-115-01					
Arsenic	ND	19	EPA 6010D	11-16-20	11-16-20	
Barium	35	4.8	EPA 6010D	11-16-20	11-16-20	
Cadmium	ND	0.95	EPA 6010D	11-16-20	11-16-20	
Chromium	19	0.95	EPA 6010D	11-16-20	11-16-20	
Lead	16	9.5	EPA 6010D	11-16-20	11-16-20	
Mercury	1.3	0.48	EPA 7471B	11-18-20	11-18-20	
Selenium	ND	19	EPA 6010D	11-16-20	11-16-20	
Silver	ND	1.9	EPA 6010D	11-16-20	11-16-20	

Client ID:	B7-15					
Laboratory ID:	11-115-02					
Arsenic	ND	12	EPA 6010D	11-16-20	11-16-20	
Barium	31	2.9	EPA 6010D	11-16-20	11-16-20	
Cadmium	ND	0.59	EPA 6010D	11-16-20	11-16-20	
Chromium	19	0.59	EPA 6010D	11-16-20	11-16-20	
Lead	ND	5.9	EPA 6010D	11-16-20	11-16-20	
Mercury	ND	0.29	EPA 7471B	11-18-20	11-18-20	
Selenium	ND	12	EPA 6010D	11-16-20	11-16-20	
Silver	ND	1.2	EPA 6010D	11-16-20	11-16-20	

Client ID:	B6-7					
Laboratory ID:	11-115-03					
Arsenic	ND	12	EPA 6010D	11-16-20	11-16-20	
Barium	64	2.9	EPA 6010D	11-16-20	11-16-20	
Cadmium	ND	0.59	EPA 6010D	11-16-20	11-16-20	
Chromium	26	0.59	EPA 6010D	11-16-20	11-16-20	
Lead	5.9	5.9	EPA 6010D	11-16-20	11-16-20	
Mercury	ND	0.29	EPA 7471B	11-18-20	11-18-20	
Selenium	ND	12	EPA 6010D	11-16-20	11-16-20	
Silver	ND	1.2	EPA 6010D	11-16-20	11-16-20	



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 Samples Submitted: November 11, 2020
 Laboratory Reference: 2011-115
 Project: 1903-00129-RI

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B6-15					
Laboratory ID:	11-115-04					
Arsenic	ND	11	EPA 6010D	11-16-20	11-16-20	
Barium	31	2.8	EPA 6010D	11-16-20	11-16-20	
Cadmium	ND	0.56	EPA 6010D	11-16-20	11-16-20	
Chromium	14	0.56	EPA 6010D	11-16-20	11-16-20	
Lead	ND	5.6	EPA 6010D	11-16-20	11-16-20	
Mercury	ND	0.28	EPA 7471B	11-18-20	11-18-20	
Selenium	ND	11	EPA 6010D	11-16-20	11-16-20	
Silver	ND	1.1	EPA 6010D	11-16-20	11-16-20	

Client ID:	B2-7					
Laboratory ID:	11-115-05					
Arsenic	ND	11	EPA 6010D	11-16-20	11-16-20	
Barium	56	2.8	EPA 6010D	11-16-20	11-16-20	
Cadmium	ND	0.57	EPA 6010D	11-16-20	11-16-20	
Chromium	19	0.57	EPA 6010D	11-16-20	11-16-20	
Lead	ND	5.7	EPA 6010D	11-16-20	11-16-20	
Mercury	ND	0.28	EPA 7471B	11-18-20	11-18-20	
Selenium	ND	11	EPA 6010D	11-16-20	11-16-20	
Silver	ND	1.1	EPA 6010D	11-16-20	11-16-20	

Client ID:	B2-7a					
Laboratory ID:	11-115-06					
Arsenic	ND	11	EPA 6010D	11-16-20	11-16-20	
Barium	65	2.8	EPA 6010D	11-16-20	11-16-20	
Cadmium	ND	0.56	EPA 6010D	11-16-20	11-16-20	
Chromium	23	0.56	EPA 6010D	11-16-20	11-16-20	
Lead	7.0	5.6	EPA 6010D	11-16-20	11-16-20	
Mercury	ND	0.28	EPA 7471B	11-18-20	11-18-20	
Selenium	ND	11	EPA 6010D	11-16-20	11-16-20	
Silver	ND	1.1	EPA 6010D	11-16-20	11-16-20	



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 Project: 1903-00129-RI

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B2-15					
Laboratory ID:	11-115-07					
Arsenic	ND	12	EPA 6010D	11-16-20	11-16-20	
Barium	31	2.9	EPA 6010D	11-16-20	11-16-20	
Cadmium	ND	0.58	EPA 6010D	11-16-20	11-16-20	
Chromium	18	0.58	EPA 6010D	11-16-20	11-16-20	
Lead	ND	5.8	EPA 6010D	11-16-20	11-16-20	
Mercury	ND	0.29	EPA 7471B	11-18-20	11-18-20	
Selenium	ND	12	EPA 6010D	11-16-20	11-16-20	
Silver	ND	1.2	EPA 6010D	11-16-20	11-16-20	

Client ID:	B2-15a					
Laboratory ID:	11-115-08					
Arsenic	ND	12	EPA 6010D	11-16-20	11-16-20	
Barium	36	3.0	EPA 6010D	11-16-20	11-16-20	
Cadmium	ND	0.60	EPA 6010D	11-16-20	11-16-20	
Chromium	18	0.60	EPA 6010D	11-16-20	11-16-20	
Lead	ND	6.0	EPA 6010D	11-16-20	11-16-20	
Mercury	ND	0.30	EPA 7471B	11-18-20	11-18-20	
Selenium	ND	12	EPA 6010D	11-16-20	11-16-20	
Silver	ND	1.2	EPA 6010D	11-16-20	11-16-20	

Client ID:	B5-7					
Laboratory ID:	11-115-09					
Arsenic	ND	11	EPA 6010D	11-16-20	11-16-20	
Barium	53	2.7	EPA 6010D	11-16-20	11-16-20	
Cadmium	ND	0.54	EPA 6010D	11-16-20	11-16-20	
Chromium	17	0.54	EPA 6010D	11-16-20	11-16-20	
Lead	ND	5.4	EPA 6010D	11-16-20	11-16-20	
Mercury	ND	0.27	EPA 7471B	11-18-20	11-18-20	
Selenium	ND	11	EPA 6010D	11-16-20	11-16-20	
Silver	ND	1.1	EPA 6010D	11-16-20	11-16-20	



Date of Report: December 1, 2020
 Samples Submitted: November 11, 2020
 Laboratory Reference: 2011-115
 Project: 1903-00129-RI

**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B5-15					
Laboratory ID:	11-115-10					
Arsenic	ND	13	EPA 6010D	11-16-20	11-16-20	
Barium	26	3.1	EPA 6010D	11-16-20	11-16-20	
Cadmium	ND	0.63	EPA 6010D	11-16-20	11-16-20	
Chromium	18	0.63	EPA 6010D	11-16-20	11-16-20	
Lead	ND	6.3	EPA 6010D	11-16-20	11-16-20	
Mercury	ND	0.31	EPA 7471B	11-18-20	11-18-20	
Selenium	ND	13	EPA 6010D	11-16-20	11-16-20	
Silver	ND	1.3	EPA 6010D	11-16-20	11-16-20	



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**TOTAL METALS
 EPA 6010D/7471B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1116SM1					
Arsenic	ND	10	EPA 6010D	11-16-20	11-16-20	
Barium	ND	2.5	EPA 6010D	11-16-20	11-16-20	
Cadmium	ND	0.50	EPA 6010D	11-16-20	11-16-20	
Chromium	ND	0.50	EPA 6010D	11-16-20	11-16-20	
Lead	ND	5.0	EPA 6010D	11-16-20	11-16-20	
Selenium	ND	10	EPA 6010D	11-16-20	11-16-20	
Silver	ND	1.0	EPA 6010D	11-16-20	11-16-20	

Laboratory ID:	MB1118S1					
Mercury	ND	0.25	EPA 7471B	11-18-20	11-18-20	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-115-03							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	54.7	45.8	NA	NA	NA	18	20	
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	21.8	18.8	NA	NA	NA	15	20	
Lead	5.05	ND	NA	NA	NA	NA	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	

Laboratory ID:	11-115-03							
Mercury	ND	ND	NA	NA	NA	NA	20	

MATRIX SPIKES

Laboratory ID:	11-115-03									
	MS	MSD	MS	MSD	MS	MSD				
Arsenic	87.1	88.7	100	100	ND	87	89	75-125	2	20
Barium	140	146	100	100	54.7	85	92	75-125	5	20
Cadmium	42.8	43.4	50.0	50.0	ND	86	87	75-125	2	20
Chromium	106	110	100	100	21.8	84	88	75-125	4	20
Lead	224	228	250	250	5.05	88	89	75-125	2	20
Selenium	86.1	88.4	100	100	ND	86	88	75-125	3	20
Silver	21.5	21.7	25.0	25.0	ND	86	87	75-125	1	20

Laboratory ID:	11-115-03									
Mercury	0.441	0.454	0.500	0.500	0.0179	85	87	80-120	3	20



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: December 1, 2020
 Samples Submitted: November 11, 2020
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 Project: 1903-00129-RI

VOLATILE ORGANICS EPA 8260D
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B7-7					
Laboratory ID:	11-115-01					
Dichlorodifluoromethane	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
Chloromethane	ND	0.014	EPA 8260D	11-18-20	11-18-20	
Vinyl Chloride	ND	0.0027	EPA 8260D	11-18-20	11-18-20	
Bromomethane	ND	0.0095	EPA 8260D	11-18-20	11-18-20	
Chloroethane	ND	0.0095	EPA 8260D	11-18-20	11-18-20	
Trichlorofluoromethane	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethene	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
Iodomethane	ND	0.0095	EPA 8260D	11-18-20	11-18-20	
Methylene Chloride	ND	0.012	EPA 8260D	11-18-20	11-18-20	
(trans) 1,2-Dichloroethene	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
Methyl t-Butyl Ether	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethane	ND	0.0025	EPA 8260D	11-18-20	11-18-20	
2,2-Dichloropropane	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
(cis) 1,2-Dichloroethene	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
Bromochloromethane	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
Chloroform	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
1,1,1-Trichloroethane	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
Carbon Tetrachloride	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloropropene	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloroethane	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
Trichloroethene	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloropropane	ND	0.0025	EPA 8260D	11-18-20	11-18-20	
Dibromomethane	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
Bromodichloromethane	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
2-Chloroethyl Vinyl Ether	ND	0.0095	EPA 8260D	11-18-20	11-18-20	
(cis) 1,3-Dichloropropene	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
(trans) 1,3-Dichloropropene	ND	0.0019	EPA 8260D	11-18-20	11-18-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B7-7					
Laboratory ID:	11-115-01					
1,1,2-Trichloroethane	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
Tetrachloroethene	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
1,3-Dichloropropane	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
Dibromochloromethane	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromoethane	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
Chlorobenzene	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
1,1,1,2-Tetrachloroethane	ND	0.0019	EPA 8260D	11-18-20	11-18-20	
Bromoform	ND	0.0095	EPA 8260D	11-18-20	11-18-20	
Bromobenzene	ND	0.13	EPA 8260D	11-20-20	11-20-20	
1,1,1,2-Tetrachloroethane	ND	0.13	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichloropropane	ND	0.13	EPA 8260D	11-20-20	11-20-20	
2-Chlorotoluene	ND	0.13	EPA 8260D	11-20-20	11-20-20	
4-Chlorotoluene	ND	0.13	EPA 8260D	11-20-20	11-20-20	
1,3-Dichlorobenzene	ND	0.13	EPA 8260D	11-20-20	11-20-20	
1,4-Dichlorobenzene	ND	0.13	EPA 8260D	11-20-20	11-20-20	
1,2-Dichlorobenzene	ND	0.13	EPA 8260D	11-20-20	11-20-20	
1,2-Dibromo-3-chloropropane	ND	0.65	EPA 8260D	11-20-20	11-20-20	
1,2,4-Trichlorobenzene	ND	0.13	EPA 8260D	11-20-20	11-20-20	
Hexachlorobutadiene	ND	0.65	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichlorobenzene	ND	0.13	EPA 8260D	11-20-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>92</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>80</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B2-7					
Laboratory ID:	11-115-05					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Chloromethane	ND	0.0079	EPA 8260D	11-18-20	11-18-20	
Vinyl Chloride	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Bromomethane	ND	0.0053	EPA 8260D	11-18-20	11-18-20	
Chloroethane	ND	0.0053	EPA 8260D	11-18-20	11-18-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Iodomethane	ND	0.0053	EPA 8260D	11-18-20	11-18-20	
Methylene Chloride	ND	0.0068	EPA 8260D	11-18-20	11-18-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethane	ND	0.0014	EPA 8260D	11-18-20	11-18-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Bromochloromethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Chloroform	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Trichloroethene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloropropane	ND	0.0014	EPA 8260D	11-18-20	11-18-20	
Dibromomethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
2-Chloroethyl Vinyl Ether	ND	0.0053	EPA 8260D	11-18-20	11-18-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B2-7					
Laboratory ID:	11-115-05					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Chlorobenzene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Bromoform	ND	0.0053	EPA 8260D	11-18-20	11-18-20	
Bromobenzene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260D	11-18-20	11-18-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Hexachlorobutadiene	ND	0.0053	EPA 8260D	11-18-20	11-18-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B2-7a					
Laboratory ID:	11-115-06					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Chloromethane	ND	0.0080	EPA 8260D	11-18-20	11-18-20	
Vinyl Chloride	ND	0.0015	EPA 8260D	11-18-20	11-18-20	
Bromomethane	ND	0.0054	EPA 8260D	11-18-20	11-18-20	
Chloroethane	ND	0.0054	EPA 8260D	11-18-20	11-18-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Iodomethane	ND	0.0054	EPA 8260D	11-18-20	11-18-20	
Methylene Chloride	ND	0.0068	EPA 8260D	11-18-20	11-18-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethane	ND	0.0014	EPA 8260D	11-18-20	11-18-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Bromochloromethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Chloroform	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Trichloroethene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloropropane	ND	0.0014	EPA 8260D	11-18-20	11-18-20	
Dibromomethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260D	11-18-20	11-18-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B2-7a					
Laboratory ID:	11-115-06					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Chlorobenzene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Bromoform	ND	0.0054	EPA 8260D	11-18-20	11-18-20	
Bromobenzene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260D	11-18-20	11-18-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
Hexachlorobutadiene	ND	0.0054	EPA 8260D	11-18-20	11-18-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	11-18-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>92</i>	<i>71-130</i>				



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QUALITY CONTROL
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1118S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Chloromethane	ND	0.0075	EPA 8260D	11-18-20	11-18-20	
Vinyl Chloride	ND	0.0014	EPA 8260D	11-18-20	11-18-20	
Bromomethane	ND	0.0050	EPA 8260D	11-18-20	11-18-20	
Chloroethane	ND	0.0050	EPA 8260D	11-18-20	11-18-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Iodomethane	ND	0.0050	EPA 8260D	11-18-20	11-18-20	
Methylene Chloride	ND	0.0064	EPA 8260D	11-18-20	11-18-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloroethane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Bromochloromethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Chloroform	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Trichloroethene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,2-Dichloropropane	ND	0.0013	EPA 8260D	11-18-20	11-18-20	
Dibromomethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	11-18-20	11-18-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	



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VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1118S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Chlorobenzene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Bromoform	ND	0.0050	EPA 8260D	11-18-20	11-18-20	
Bromobenzene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	11-18-20	11-18-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	11-18-20	11-18-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	11-18-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	96	74-131				
<i>Toluene-d8</i>	98	78-128				
<i>4-Bromofluorobenzene</i>	95	71-130				



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VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1120S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Chloromethane	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Bromomethane	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
Chloroethane	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Iodomethane	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
Methylene Chloride	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Bromochloromethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Chloroform	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Trichloroethene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Dibromomethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
2-Chloroethyl Vinyl Ether	ND	0.0073	EPA 8260D	11-20-20	11-20-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	



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QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1120S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Chlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Bromoform	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
Bromobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>71-130</i>				



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**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB1118S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0446	0.0446	0.0500	0.0500	89	89	55-126	0	17	
Benzene	0.0400	0.0409	0.0500	0.0500	80	82	65-121	2	16	
Trichloroethene	0.0467	0.0475	0.0500	0.0500	93	95	74-126	2	16	
Toluene	0.0420	0.0426	0.0500	0.0500	84	85	71-121	1	16	
Chlorobenzene	0.0430	0.0445	0.0500	0.0500	86	89	72-123	3	16	
<i>Surrogate:</i>										
Dibromofluoromethane					96	98	74-131			
Toluene-d8					98	96	78-128			
4-Bromofluorobenzene					96	96	71-130			
Laboratory ID:	SB1120S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0533	0.0513	0.0500	0.0500	107	103	55-126	4	17	
Benzene	0.0521	0.0503	0.0500	0.0500	104	101	65-121	4	16	
Trichloroethene	0.0535	0.0513	0.0500	0.0500	107	103	74-126	4	16	
Toluene	0.0525	0.0510	0.0500	0.0500	105	102	71-121	3	16	
Chlorobenzene	0.0549	0.0541	0.0500	0.0500	110	108	72-123	1	16	
<i>Surrogate:</i>										
Dibromofluoromethane					100	102	74-131			
Toluene-d8					98	101	78-128			
4-Bromofluorobenzene					99	99	71-130			



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PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B7-7					
Laboratory ID:	11-115-01					
Aroclor 1016	ND	0.095	EPA 8082A	11-23-20	11-23-20	
Aroclor 1221	ND	0.095	EPA 8082A	11-23-20	11-23-20	
Aroclor 1232	ND	0.095	EPA 8082A	11-23-20	11-23-20	
Aroclor 1242	ND	0.095	EPA 8082A	11-23-20	11-23-20	
Aroclor 1248	ND	0.095	EPA 8082A	11-23-20	11-23-20	
Aroclor 1254	ND	0.095	EPA 8082A	11-23-20	11-23-20	
Aroclor 1260	ND	0.095	EPA 8082A	11-23-20	11-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	94	46-125				
Client ID:	B2-7					
Laboratory ID:	11-115-05					
Aroclor 1016	ND	0.057	EPA 8082A	11-23-20	11-23-20	
Aroclor 1221	ND	0.057	EPA 8082A	11-23-20	11-23-20	
Aroclor 1232	ND	0.057	EPA 8082A	11-23-20	11-23-20	
Aroclor 1242	ND	0.057	EPA 8082A	11-23-20	11-23-20	
Aroclor 1248	ND	0.057	EPA 8082A	11-23-20	11-23-20	
Aroclor 1254	ND	0.057	EPA 8082A	11-23-20	11-23-20	
Aroclor 1260	ND	0.057	EPA 8082A	11-23-20	11-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	111	46-125				
Client ID:	B2-7a					
Laboratory ID:	11-115-06					
Aroclor 1016	ND	0.056	EPA 8082A	11-23-20	11-23-20	
Aroclor 1221	ND	0.056	EPA 8082A	11-23-20	11-23-20	
Aroclor 1232	ND	0.056	EPA 8082A	11-23-20	11-23-20	
Aroclor 1242	ND	0.056	EPA 8082A	11-23-20	11-23-20	
Aroclor 1248	ND	0.056	EPA 8082A	11-23-20	11-23-20	
Aroclor 1254	ND	0.056	EPA 8082A	11-23-20	11-23-20	
Aroclor 1260	ND	0.056	EPA 8082A	11-23-20	11-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	95	46-125				



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 Project: 1903-00129-RI

**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1123S1					
Aroclor 1016	ND	0.050	EPA 8082A	11-23-20	11-23-20	
Aroclor 1221	ND	0.050	EPA 8082A	11-23-20	11-23-20	
Aroclor 1232	ND	0.050	EPA 8082A	11-23-20	11-23-20	
Aroclor 1242	ND	0.050	EPA 8082A	11-23-20	11-23-20	
Aroclor 1248	ND	0.050	EPA 8082A	11-23-20	11-23-20	
Aroclor 1254	ND	0.050	EPA 8082A	11-23-20	11-23-20	
Aroclor 1260	ND	0.050	EPA 8082A	11-23-20	11-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>		<i>Control Limits</i>			
DCB	114		46-125			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	11-099-12										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	0.512	0.519	0.500	0.500	ND	102	104	43-125	1	15	
<i>Surrogate:</i>											
DCB						116	126	46-125			



Date of Report: December 1, 2020
 Samples Submitted: November 11, 2020
 Laboratory Reference: 2011-115
 Project: 1903-00129-RI

**SOLUBLE HEXAVALENT CHROMIUM
 WATER EXTRACTION
 EPA 7196A**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B7-7					
Laboratory ID:	11-115-01					
Hexavalent Chromium	ND	1.9	EPA 7196A mod.	11-25-20	11-25-20	
Client ID:	B7-15					
Laboratory ID:	11-115-02					
Hexavalent Chromium	ND	1.2	EPA 7196A mod.	11-25-20	11-25-20	
Client ID:	B6-7					
Laboratory ID:	11-115-03					
Hexavalent Chromium	ND	1.2	EPA 7196A mod.	11-25-20	11-25-20	
Client ID:	B2-7					
Laboratory ID:	11-115-05					
Hexavalent Chromium	ND	1.1	EPA 7196A mod.	11-25-20	11-25-20	
Client ID:	B2-7a					
Laboratory ID:	11-115-06					
Hexavalent Chromium	ND	1.1	EPA 7196A mod.	11-25-20	11-25-20	



Date of Report: December 1, 2020
 Samples Submitted: November 11, 2020
 Laboratory Reference: 2011-115
 Project: 1903-00129-RI

**SOLUBLE HEXAVALENT CHROMIUM
 WATER EXTRACTION
 EPA 7196A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1125S1					
Hexavalent Chromium	ND	1.0	EPA 7196A mod.	11-25-20	11-25-20	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-099-12							
	ORIG	DUP						
Hexavalent Chromium	ND	ND	NA	NA	NA	NA	20	

MATRIX SPIKES

Laboratory ID:	11-099-12											
	MS	MSD	MS	MSD	MS	MSD						
Hexavalent Chromium	3.18	3.39	5.00	5.00	ND	64	68	75-125	6	20		V

SPIKE BLANK

Laboratory ID:	SB1125S1											
	SB		SB		SB							
Hexavalent Chromium	4.56		5.00		NA	91		75-125	NA	NA		



Date of Report: December 1, 2020
Samples Submitted: November 11, 2020
Laboratory Reference: 2011-115
Project: 1903-00129-RI

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
B7-7	11-115-01	47	11-12-20
B7-15	11-115-02	15	11-12-20
B6-7	11-115-03	15	11-12-20
B6-15	11-115-04	11	11-12-20
B2-7	11-115-05	12	11-12-20
B2-7a	11-115-06	10	11-12-20
B2-15	11-115-07	14	11-12-20
B2-15a	11-115-08	17	11-12-20
B5-7	11-115-09	7	11-12-20
B5-15	11-115-10	21	11-12-20





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

December 4, 2020

Kim Kim
EnPro Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734

Re: Analytical Data for Project 1903-00129-RI
Laboratory Reference No. 2011-131

Dear Kim:

Enclosed are the analytical results and associated quality control data for samples submitted on November 13, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: December 4, 2020
Samples Submitted: November 13, 2020
Laboratory Reference: 2011-131
Project: 1903-00129-RI

Case Narrative

Samples were collected on November 11, 2020 and received by the laboratory on November 13, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

NWTPH-Gx/BTEX Analysis

The Method 5035A VOA vials provided for samples SS1, SS2, SS2-A, SS3, SS4, SS5, SS6, SS7, and SS8 were filled completely and therefore unusable. The samples were consequently extracted from 8-ounce jars for analysis. Some loss of volatiles may have occurred.

Volatiles EPA 8260D Analysis

The Method 5035A VOA vials provided for samples SS1, SS3, SS4, SS5, SS6 and SS7 were filled completely and therefore unusable. Consequently, 5 grams of each sample was transferred from the overfilled VOA vial to a separate VOA vial containing a stir bar prior to analysis. Some loss of volatiles may have occurred.

The last internal standard for sample SS7 did not meet acceptance criteria due to sample matrix effects. Reanalysis of the sample took place after the holding time had expired which affects the compounds from Bromobenzene onward.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



Date of Report: December 4, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-131
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS1					
Laboratory ID:	11-131-01					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.068	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.068	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.068	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.068	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	6.8	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	91	58-129				
Client ID:	SS2					
Laboratory ID:	11-131-02					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.051	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.051	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.051	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.051	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	5.1	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	99	58-129				
Client ID:	SS2-A					
Laboratory ID:	11-131-03					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.045	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.045	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.045	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.045	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	4.5	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	96	58-129				



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**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS3					
Laboratory ID:	11-131-04					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.055	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.055	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.055	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.055	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	5.5	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>101</i>	<i>58-129</i>				
Client ID:	SS4					
Laboratory ID:	11-131-05					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.039	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.039	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.039	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.039	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	3.9	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>97</i>	<i>58-129</i>				
Client ID:	SS5					
Laboratory ID:	11-131-06					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.044	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.044	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.044	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.044	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	4.4	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>94</i>	<i>58-129</i>				



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**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS6					
Laboratory ID:	11-131-07					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.046	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.046	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.046	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.046	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	4.6	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>107</i>	<i>58-129</i>				
Client ID:	SS7					
Laboratory ID:	11-131-08					
Benzene	ND	0.024	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.12	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.12	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.12	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.12	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	12	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>100</i>	<i>58-129</i>				
Client ID:	SS8					
Laboratory ID:	11-131-09					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.061	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.061	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.061	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.061	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	6.1	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>107</i>	<i>58-129</i>				



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**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS9					
Laboratory ID:	11-131-10					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.040	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.040	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.040	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.040	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	4.0	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	102	58-129				
Client ID:	SS10					
Laboratory ID:	11-131-11					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.078	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.078	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.078	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.078	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	7.8	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	85	58-129				
Client ID:	SS11					
Laboratory ID:	11-131-12					
Benzene	ND	0.024	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.12	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.12	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.12	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.12	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	12	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	80	58-129				



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**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS12					
Laboratory ID:	11-131-13					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.099	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.099	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.099	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.099	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	9.9	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>104</i>	<i>58-129</i>				
Client ID:	SS13					
Laboratory ID:	11-131-14					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.049	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.049	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.049	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.049	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	4.9	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>99</i>	<i>58-129</i>				
Client ID:	SS14					
Laboratory ID:	11-131-15					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.060	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.060	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.060	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.060	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	6.0	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>98</i>	<i>58-129</i>				



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**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS15					
Laboratory ID:	11-131-16					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-17-20	
Toluene	ND	0.081	EPA 8021B	11-16-20	11-17-20	
Ethyl Benzene	ND	0.081	EPA 8021B	11-16-20	11-17-20	
m,p-Xylene	ND	0.081	EPA 8021B	11-16-20	11-17-20	
o-Xylene	ND	0.081	EPA 8021B	11-16-20	11-17-20	
Gasoline	ND	8.1	NWTPH-Gx	11-16-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>100</i>	<i>58-129</i>				



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**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1116S1					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-16-20	
Toluene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
Ethyl Benzene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
m,p-Xylene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
o-Xylene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
Gasoline	ND	5.0	NWTPH-Gx	11-16-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	92	58-129				
Laboratory ID:	MB1116S2					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-16-20	
Toluene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
Ethyl Benzene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
m,p-Xylene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
o-Xylene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
Gasoline	ND	5.0	NWTPH-Gx	11-16-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	91	58-129				



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**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-132-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
Fluorobenzene				97	97	58-129		
Laboratory ID:	11-132-02							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
Fluorobenzene				94	94	58-129		
SPIKE BLANKS								
Laboratory ID:	SB1116S2							
	SB	SBD	SB	SBD	SB	SBD		
Benzene	0.942	0.945	1.00	1.00	94	95	68-112	0 10
Toluene	0.964	0.967	1.00	1.00	96	97	70-114	0 10
Ethyl Benzene	0.952	0.956	1.00	1.00	95	96	70-115	0 10
m,p-Xylene	0.951	0.953	1.00	1.00	95	95	69-117	0 11
o-Xylene	0.970	0.968	1.00	1.00	97	97	71-115	0 11
<i>Surrogate:</i>								
Fluorobenzene					90	91	58-129	



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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS1					
Laboratory ID:	11-131-01					
Diesel Range Organics	150	150	NWTPH-Dx	11-19-20	11-21-20	N
Lube Oil	1800	300	NWTPH-Dx	11-19-20	11-21-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	90	50-150				

Client ID:	SS2					
Laboratory ID:	11-131-02					
Diesel Range Organics	ND	31	NWTPH-Dx	11-19-20	11-19-20	
Lube Oil Range Organics	ND	63	NWTPH-Dx	11-19-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	83	50-150				

Client ID:	SS2-A					
Laboratory ID:	11-131-03					
Diesel Range Organics	ND	29	NWTPH-Dx	11-19-20	11-19-20	
Lube Oil Range Organics	ND	57	NWTPH-Dx	11-19-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	82	50-150				

Client ID:	SS3					
Laboratory ID:	11-131-04					
Diesel Range Organics	ND	30	NWTPH-Dx	11-19-20	11-21-20	
Lube Oil Range Organics	130	59	NWTPH-Dx	11-19-20	11-21-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				

Client ID:	SS4					
Laboratory ID:	11-131-05					
Diesel Range Organics	ND	28	NWTPH-Dx	11-19-20	11-20-20	
Lube Oil Range Organics	77	56	NWTPH-Dx	11-19-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	93	50-150				

Client ID:	SS5					
Laboratory ID:	11-131-06					
Diesel Range Organics	ND	28	NWTPH-Dx	11-19-20	11-19-20	
Lube Oil Range Organics	80	56	NWTPH-Dx	11-19-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	90	50-150				



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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS6					
Laboratory ID:	11-131-07					
Diesel Range Organics	ND	31	NWTPH-Dx	11-19-20	11-19-20	
Lube Oil Range Organics	73	61	NWTPH-Dx	11-19-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				
Client ID:	SS7					
Laboratory ID:	11-131-08					
Diesel Range Organics	ND	43	NWTPH-Dx	11-19-20	11-19-20	
Lube Oil Range Organics	190	85	NWTPH-Dx	11-19-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	70	50-150				
Client ID:	SS8					
Laboratory ID:	11-131-09					
Diesel Range Organics	ND	34	NWTPH-Dx	11-19-20	11-19-20	
Lube Oil Range Organics	ND	69	NWTPH-Dx	11-19-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	76	50-150				
Client ID:	SS9					
Laboratory ID:	11-131-10					
Diesel Range Organics	ND	28	NWTPH-Dx	11-19-20	11-19-20	
Lube Oil Range Organics	ND	57	NWTPH-Dx	11-19-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				
Client ID:	SS10					
Laboratory ID:	11-131-11					
Diesel Range Organics	ND	36	NWTPH-Dx	11-19-20	11-20-20	
Lube Oil Range Organics	170	72	NWTPH-Dx	11-19-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	87	50-150				
Client ID:	SS11					
Laboratory ID:	11-131-12					
Diesel Range Organics	65	45	NWTPH-Dx	11-19-20	11-21-20	N
Lube Oil Range Organics	650	90	NWTPH-Dx	11-19-20	11-21-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	83	50-150				



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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS12					
Laboratory ID:	11-131-13					
Diesel Range Organics	ND	38	NWTPH-Dx	11-19-20	11-20-20	
Lube Oil Range Organics	130	75	NWTPH-Dx	11-19-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				

Client ID:	SS13					
Laboratory ID:	11-131-14					
Diesel Range Organics	ND	31	NWTPH-Dx	11-19-20	11-19-20	
Lube Oil Range Organics	ND	61	NWTPH-Dx	11-19-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	90	50-150				

Client ID:	SS14					
Laboratory ID:	11-131-15					
Diesel Range Organics	ND	30	NWTPH-Dx	11-19-20	11-19-20	
Lube Oil Range Organics	69	61	NWTPH-Dx	11-19-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				

Client ID:	SS15					
Laboratory ID:	11-131-16					
Diesel Range Organics	ND	32	NWTPH-Dx	11-19-20	11-19-20	
Lube Oil Range Organics	95	64	NWTPH-Dx	11-19-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	79	50-150				



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 Project: 1903-00129-RI

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1119S2					
Diesel Range Organics	ND	25	NWTPH-Dx	11-19-20	11-19-20	
Lube Oil Range Organics	ND	50	NWTPH-Dx	11-19-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	92	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-131-02							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	NA	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				83	85	50-150		
Laboratory ID:	SB1119S2							
	ORIG	DUP						
Diesel Fuel #2	90.8	82.6	NA	NA	NA	NA	9	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				94	91	50-150		



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS9					
Laboratory ID:	11-131-10					
Naphthalene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
2-Methylnaphthalene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
1-Methylnaphthalene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthylene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Fluorene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Phenanthrene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Anthracene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Fluoranthene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Pyrene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]anthracene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Chrysene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[b]fluoranthene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo(j,k)fluoranthene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]pyrene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Dibenz[a,h]anthracene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[g,h,i]perylene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	102	46 - 113				
Pyrene-d10	108	45 - 114				
Terphenyl-d14	109	49 - 121				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS10					
Laboratory ID:	11-131-11					
Naphthalene	ND	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
2-Methylnaphthalene	ND	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
1-Methylnaphthalene	ND	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthylene	0.024	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthene	ND	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
Fluorene	ND	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
Phenanthrene	0.016	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
Anthracene	0.026	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
Fluoranthene	0.050	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
Pyrene	0.042	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]anthracene	0.058	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
Chrysene	0.088	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[b]fluoranthene	0.15	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo(j,k)fluoranthene	0.031	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]pyrene	0.056	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
Indeno(1,2,3-c,d)pyrene	0.066	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
Dibenz[a,h]anthracene	0.016	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[g,h,i]perylene	0.055	0.0096	EPA 8270E/SIM	11-19-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	76	46 - 113				
Pyrene-d10	90	45 - 114				
Terphenyl-d14	88	49 - 121				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS11					
Laboratory ID:	11-131-12					
Naphthalene	0.12	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
2-Methylnaphthalene	0.078	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
1-Methylnaphthalene	0.037	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthylene	0.089	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthene	0.027	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
Fluorene	0.042	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
Phenanthrene	0.40	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
Anthracene	0.22	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
Fluoranthene	0.52	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
Pyrene	0.39	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]anthracene	0.61	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
Chrysene	0.99	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[b]fluoranthene	0.89	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo(j,k)fluoranthene	0.26	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]pyrene	0.33	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
Indeno(1,2,3-c,d)pyrene	0.15	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
Dibenz[a,h]anthracene	0.060	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[g,h,i]perylene	0.19	0.012	EPA 8270E/SIM	11-19-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>71</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>85</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>87</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS12					
Laboratory ID:	11-131-13					
Naphthalene	0.014	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
2-Methylnaphthalene	0.017	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
1-Methylnaphthalene	0.026	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthylene	ND	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthene	ND	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
Fluorene	ND	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
Phenanthrene	0.054	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
Anthracene	ND	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
Fluoranthene	0.015	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
Pyrene	0.022	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
Chrysene	0.011	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
Indeno(1,2,3-c,d)pyrene	ND	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	11-19-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>79</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>94</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>94</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS13					
Laboratory ID:	11-131-14					
Naphthalene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
2-Methylnaphthalene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
1-Methylnaphthalene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthylene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Fluorene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Phenanthrene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Anthracene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Fluoranthene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Pyrene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]anthracene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Chrysene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[b]fluoranthene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo(j,k)fluoranthene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]pyrene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Dibenz[a,h]anthracene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[g,h,i]perylene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	89	46 - 113				
Pyrene-d10	107	45 - 114				
Terphenyl-d14	104	49 - 121				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS14					
Laboratory ID:	11-131-15					
Naphthalene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
2-Methylnaphthalene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
1-Methylnaphthalene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthylene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Fluorene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Phenanthrene	0.012	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Anthracene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Fluoranthene	0.012	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Pyrene	0.013	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]anthracene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Chrysene	0.0085	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[b]fluoranthene	0.011	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo(j,k)fluoranthene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]pyrene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Dibenz[a,h]anthracene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[g,h,i]perylene	ND	0.0081	EPA 8270E/SIM	11-19-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>89</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>100</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>92</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS15					
Laboratory ID:	11-131-16					
Naphthalene	ND	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
2-Methylnaphthalene	ND	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
1-Methylnaphthalene	ND	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthylene	ND	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthene	ND	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Fluorene	ND	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Phenanthrene	0.036	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Anthracene	ND	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Fluoranthene	0.060	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Pyrene	0.066	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]anthracene	0.032	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Chrysene	0.040	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[b]fluoranthene	0.048	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo(j,k)fluoranthene	0.015	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]pyrene	0.039	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Indeno(1,2,3-c,d)pyrene	0.024	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Dibenz[a,h]anthracene	ND	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[g,h,i]perylene	0.024	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>87</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>97</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>89</i>	<i>49 - 121</i>				



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 Laboratory Reference: 2011-131
 Project: 1903-00129-RI

**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1119S1					
Naphthalene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
2-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
1-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Acenaphthylene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Acenaphthene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Fluorene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Phenanthrene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Anthracene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Fluoranthene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Pyrene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Chrysene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>102</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>94</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>99</i>	<i>49 - 121</i>				



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**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1119S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	0.0771	0.0711	0.0833	0.0833	93	85	60 - 116	8	16	
Acenaphthylene	0.0887	0.0826	0.0833	0.0833	106	99	60 - 125	7	15	
Acenaphthene	0.0920	0.0869	0.0833	0.0833	110	104	60 - 121	6	15	
Fluorene	0.0884	0.0846	0.0833	0.0833	106	102	65 - 126	4	15	
Phenanthrene	0.0882	0.0831	0.0833	0.0833	106	100	65 - 120	6	15	
Anthracene	0.0908	0.0860	0.0833	0.0833	109	103	67 - 125	5	15	
Fluoranthene	0.0919	0.0903	0.0833	0.0833	110	108	66 - 125	2	15	
Pyrene	0.0910	0.0827	0.0833	0.0833	109	99	62 - 125	10	15	
Benzo[a]anthracene	0.0920	0.0900	0.0833	0.0833	110	108	72 - 129	2	15	
Chrysene	0.0910	0.0889	0.0833	0.0833	109	107	66 - 123	2	15	
Benzo[b]fluoranthene	0.0857	0.0869	0.0833	0.0833	103	104	68 - 128	1	15	
Benzo(j,k)fluoranthene	0.0940	0.0880	0.0833	0.0833	113	106	63 - 128	7	16	
Benzo[a]pyrene	0.0874	0.0835	0.0833	0.0833	105	100	66 - 130	5	15	
Indeno(1,2,3-c,d)pyrene	0.0856	0.0860	0.0833	0.0833	103	103	63 - 135	0	15	
Dibenz[a,h]anthracene	0.0898	0.0881	0.0833	0.0833	108	106	65 - 130	2	15	
Benzo[g,h,i]perylene	0.0892	0.0866	0.0833	0.0833	107	104	66 - 127	3	15	
<i>Surrogate:</i>										
2-Fluorobiphenyl					99	93	46 - 113			
Pyrene-d10					105	100	45 - 114			
Terphenyl-d14					101	99	49 - 121			



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**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS3					
Laboratory ID:	11-131-04					
Arsenic	15	12	EPA 6010D	11-20-20	11-20-20	
Barium	84	3.0	EPA 6010D	11-20-20	11-20-20	
Cadmium	0.62	0.59	EPA 6010D	11-20-20	11-20-20	
Chromium	31	0.59	EPA 6010D	11-20-20	11-20-20	
Lead	130	5.9	EPA 6010D	11-20-20	11-20-20	
Mercury	ND	0.30	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	12	EPA 6010D	11-20-20	11-20-20	
Silver	ND	1.2	EPA 6010D	11-20-20	11-20-20	

Client ID:	SS4					
Laboratory ID:	11-131-05					
Arsenic	ND	11	EPA 6010D	11-20-20	11-20-20	
Barium	60	2.8	EPA 6010D	11-20-20	11-20-20	
Cadmium	ND	0.56	EPA 6010D	11-20-20	11-20-20	
Chromium	21	0.56	EPA 6010D	11-20-20	11-20-20	
Lead	18	5.6	EPA 6010D	11-20-20	11-20-20	
Mercury	ND	0.28	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	11	EPA 6010D	11-20-20	11-20-20	
Silver	ND	1.1	EPA 6010D	11-20-20	11-20-20	

Client ID:	SS5					
Laboratory ID:	11-131-06					
Arsenic	ND	11	EPA 6010D	11-20-20	11-20-20	
Barium	44	2.8	EPA 6010D	11-20-20	11-20-20	
Cadmium	ND	0.56	EPA 6010D	11-20-20	11-20-20	
Chromium	16	0.56	EPA 6010D	11-20-20	11-20-20	
Lead	ND	5.6	EPA 6010D	11-20-20	11-20-20	
Mercury	ND	0.28	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	11	EPA 6010D	11-20-20	11-20-20	
Silver	ND	1.1	EPA 6010D	11-20-20	11-20-20	



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**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS6					
Laboratory ID:	11-131-07					
Arsenic	ND	12	EPA 6010D	11-20-20	11-20-20	
Barium	63	3.1	EPA 6010D	11-20-20	11-20-20	
Cadmium	0.84	0.61	EPA 6010D	11-20-20	11-20-20	
Chromium	21	0.61	EPA 6010D	11-20-20	11-20-20	
Lead	16	6.1	EPA 6010D	11-20-20	11-20-20	
Mercury	ND	0.31	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	12	EPA 6010D	11-20-20	11-20-20	
Silver	ND	1.2	EPA 6010D	11-20-20	11-20-20	

Client ID:	SS7					
Laboratory ID:	11-131-08					
Arsenic	ND	17	EPA 6010D	11-20-20	11-20-20	
Barium	110	4.2	EPA 6010D	11-20-20	11-20-20	
Cadmium	ND	0.85	EPA 6010D	11-20-20	11-20-20	
Chromium	34	0.85	EPA 6010D	11-20-20	11-20-20	
Lead	15	8.5	EPA 6010D	11-20-20	11-20-20	
Mercury	ND	0.42	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	17	EPA 6010D	11-20-20	11-20-20	
Silver	ND	1.7	EPA 6010D	11-20-20	11-20-20	

Client ID:	SS8					
Laboratory ID:	11-131-09					
Arsenic	ND	14	EPA 6010D	11-20-20	11-20-20	
Barium	85	3.4	EPA 6010D	11-20-20	11-20-20	
Cadmium	ND	0.69	EPA 6010D	11-20-20	11-20-20	
Chromium	24	0.69	EPA 6010D	11-20-20	11-20-20	
Lead	9.0	6.9	EPA 6010D	11-20-20	11-20-20	
Mercury	ND	0.34	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	14	EPA 6010D	11-20-20	11-20-20	
Silver	ND	1.4	EPA 6010D	11-20-20	11-20-20	



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**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS9					
Laboratory ID:	11-131-10					
Arsenic	ND	11	EPA 6010D	11-20-20	11-20-20	
Barium	40	2.8	EPA 6010D	11-20-20	11-20-20	
Cadmium	ND	0.57	EPA 6010D	11-20-20	11-20-20	
Chromium	16	0.57	EPA 6010D	11-20-20	11-20-20	
Lead	ND	5.7	EPA 6010D	11-20-20	11-20-20	
Mercury	ND	0.28	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	11	EPA 6010D	11-20-20	11-20-20	
Silver	ND	1.1	EPA 6010D	11-20-20	11-20-20	



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**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS10					
Laboratory ID:	11-131-11					
Arsenic	ND	14	EPA 6010D	11-20-20	11-20-20	
Barium	180	3.6	EPA 6010D	11-20-20	11-20-20	
Cadmium	ND	0.72	EPA 6010D	11-20-20	11-20-20	
Chromium	39	0.72	EPA 6010D	11-20-20	11-20-20	
Lead	17	7.2	EPA 6010D	11-20-20	11-20-20	
Mercury	ND	0.36	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	14	EPA 6010D	11-20-20	11-20-20	
Silver	ND	1.4	EPA 6010D	11-20-20	11-20-20	

Client ID:	SS11					
Laboratory ID:	11-131-12					
Arsenic	ND	18	EPA 6010D	11-20-20	11-20-20	
Barium	89	4.5	EPA 6010D	11-20-20	11-20-20	
Cadmium	ND	0.90	EPA 6010D	11-20-20	11-20-20	
Chromium	21	0.90	EPA 6010D	11-20-20	11-20-20	
Lead	11	9.0	EPA 6010D	11-20-20	11-20-20	
Mercury	ND	0.45	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	18	EPA 6010D	11-20-20	11-20-20	
Silver	ND	1.8	EPA 6010D	11-20-20	11-20-20	

Client ID:	SS12					
Laboratory ID:	11-131-13					
Arsenic	ND	15	EPA 6010D	11-20-20	11-20-20	
Barium	70	3.8	EPA 6010D	11-20-20	11-20-20	
Cadmium	ND	0.75	EPA 6010D	11-20-20	11-20-20	
Chromium	20	0.75	EPA 6010D	11-20-20	11-20-20	
Lead	8.5	7.5	EPA 6010D	11-20-20	11-20-20	
Mercury	ND	0.38	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	15	EPA 6010D	11-20-20	11-20-20	
Silver	ND	1.5	EPA 6010D	11-20-20	11-20-20	



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**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS13					
Laboratory ID:	11-131-14					
Arsenic	ND	12	EPA 6010D	11-20-20	11-20-20	
Barium	28	3.1	EPA 6010D	11-20-20	11-20-20	
Cadmium	ND	0.61	EPA 6010D	11-20-20	11-20-20	
Chromium	16	0.61	EPA 6010D	11-20-20	11-20-20	
Lead	ND	6.1	EPA 6010D	11-20-20	11-20-20	
Mercury	ND	0.31	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	12	EPA 6010D	11-20-20	11-20-20	
Silver	ND	1.2	EPA 6010D	11-20-20	11-20-20	

Client ID:	SS14					
Laboratory ID:	11-131-15					
Arsenic	ND	12	EPA 6010D	11-20-20	11-20-20	
Barium	55	3.0	EPA 6010D	11-20-20	11-20-20	
Cadmium	ND	0.61	EPA 6010D	11-20-20	11-20-20	
Chromium	23	0.61	EPA 6010D	11-20-20	11-20-20	
Lead	8.1	6.1	EPA 6010D	11-20-20	11-20-20	
Mercury	ND	0.30	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	12	EPA 6010D	11-20-20	11-20-20	
Silver	ND	1.2	EPA 6010D	11-20-20	11-20-20	

Client ID:	SS15					
Laboratory ID:	11-131-16					
Arsenic	ND	13	EPA 6010D	11-20-20	11-20-20	
Barium	64	3.2	EPA 6010D	11-20-20	11-20-20	
Cadmium	ND	0.64	EPA 6010D	11-20-20	11-20-20	
Chromium	25	0.64	EPA 6010D	11-20-20	11-20-20	
Lead	11	6.4	EPA 6010D	11-20-20	11-20-20	
Mercury	ND	0.32	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	13	EPA 6010D	11-20-20	11-20-20	
Silver	ND	1.3	EPA 6010D	11-20-20	11-20-20	



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**TOTAL METALS
 EPA 6010D/7471B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1120SM2					
Arsenic	ND	10	EPA 6010D	11-20-20	11-20-20	
Barium	ND	2.5	EPA 6010D	11-20-20	11-20-20	
Cadmium	ND	0.50	EPA 6010D	11-20-20	11-20-20	
Chromium	ND	0.50	EPA 6010D	11-20-20	11-20-20	
Lead	ND	5.0	EPA 6010D	11-20-20	11-20-20	
Selenium	ND	10	EPA 6010D	11-20-20	11-20-20	
Silver	ND	1.0	EPA 6010D	11-20-20	11-20-20	

Laboratory ID:	MB1123S2					
Mercury	ND	0.25	EPA 7471B	11-23-20	11-23-20	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-131-05							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	53.2	47.7	NA	NA	NA	11	20	
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	18.4	17.8	NA	NA	NA	4	20	
Lead	16.0	14.3	NA	NA	NA	11	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	

Laboratory ID:	11-131-05							
Mercury	ND	ND	NA	NA	NA	NA	20	

MATRIX SPIKES

Laboratory ID:	11-131-05									
	MS	MSD	MS	MSD	MS	MSD				
Arsenic	99.4	95.7	100	100	ND	99	96	75-125	4	20
Barium	144	137	100	100	53.2	91	83	75-125	5	20
Cadmium	45.2	44.1	50.0	50.0	ND	90	88	75-125	2	20
Chromium	114	109	100	100	18.4	96	91	75-125	4	20
Lead	256	249	250	250	16.0	96	93	75-125	3	20
Selenium	98.2	93.9	100	100	ND	98	94	75-125	5	20
Silver	23.0	22.5	25.0	25.0	ND	92	90	75-125	2	20

Laboratory ID:	11-131-05									
Mercury	0.579	0.585	0.500	0.500	0.0412	108	109	80-120	1	20



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS1					
Laboratory ID:	11-131-01					
Dichlorodifluoromethane	ND	0.0024	EPA 8260D	11-25-20	11-25-20	
Chloromethane	ND	0.010	EPA 8260D	11-25-20	11-25-20	
Vinyl Chloride	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
Bromomethane	ND	0.0067	EPA 8260D	11-25-20	11-25-20	
Chloroethane	ND	0.0067	EPA 8260D	11-25-20	11-25-20	
Trichlorofluoromethane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
Iodomethane	ND	0.0067	EPA 8260D	11-25-20	11-25-20	
Methylene Chloride	ND	0.0067	EPA 8260D	11-25-20	11-25-20	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
2,2-Dichloropropane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
Bromochloromethane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
Chloroform	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloropropene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloroethane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
Trichloroethene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloropropane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
Dibromomethane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
Bromodichloromethane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
2-Chloroethyl Vinyl Ether	ND	0.0067	EPA 8260D	11-25-20	11-25-20	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS1					
Laboratory ID:	11-131-01					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
Tetrachloroethene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
1,3-Dichloropropane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
Dibromochloromethane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromoethane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
Chlorobenzene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
Bromoform	ND	0.0067	EPA 8260D	11-25-20	11-25-20	
Bromobenzene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
2-Chlorotoluene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
4-Chlorotoluene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromo-3-chloropropane	ND	0.0067	EPA 8260D	11-25-20	11-25-20	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
Hexachlorobutadiene	ND	0.0067	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260D	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>118</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>110</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS3					
Laboratory ID:	11-131-04					
Dichlorodifluoromethane	ND	0.0019	EPA 8260D	11-25-20	11-25-20	
Chloromethane	ND	0.0081	EPA 8260D	11-25-20	11-25-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Bromomethane	ND	0.0052	EPA 8260D	11-25-20	11-25-20	
Chloroethane	ND	0.0052	EPA 8260D	11-25-20	11-25-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Iodomethane	ND	0.0052	EPA 8260D	11-25-20	11-25-20	
Methylene Chloride	ND	0.0052	EPA 8260D	11-25-20	11-25-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Bromochloromethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Chloroform	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Trichloroethene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Dibromomethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
2-Chloroethyl Vinyl Ether	ND	0.0052	EPA 8260D	11-25-20	11-25-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS3					
Laboratory ID:	11-131-04					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Chlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Bromoform	ND	0.0052	EPA 8260D	11-25-20	11-25-20	
Bromobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromo-3-chloropropane	ND	0.0052	EPA 8260D	11-25-20	11-25-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Hexachlorobutadiene	ND	0.0052	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>117</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>86</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS4					
Laboratory ID:	11-131-05					
Dichlorodifluoromethane	ND	0.0021	EPA 8260D	11-25-20	11-25-20	
Chloromethane	ND	0.0089	EPA 8260D	11-25-20	11-25-20	
Vinyl Chloride	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Bromomethane	ND	0.0058	EPA 8260D	11-25-20	11-25-20	
Chloroethane	ND	0.0058	EPA 8260D	11-25-20	11-25-20	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Iodomethane	ND	0.0058	EPA 8260D	11-25-20	11-25-20	
Methylene Chloride	ND	0.0058	EPA 8260D	11-25-20	11-25-20	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Bromochloromethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Chloroform	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Trichloroethene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Dibromomethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Bromodichloromethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260D	11-25-20	11-25-20	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS4					
Laboratory ID:	11-131-05					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Tetrachloroethene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Dibromochloromethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Chlorobenzene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Bromoform	ND	0.0058	EPA 8260D	11-25-20	11-25-20	
Bromobenzene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
2-Chlorotoluene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
4-Chlorotoluene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260D	11-25-20	11-25-20	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Hexachlorobutadiene	ND	0.0058	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>89</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS5					
Laboratory ID:	11-131-06					
Dichlorodifluoromethane	ND	0.0018	EPA 8260D	11-25-20	11-25-20	
Chloromethane	ND	0.0078	EPA 8260D	11-25-20	11-25-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Bromomethane	ND	0.0051	EPA 8260D	11-25-20	11-25-20	
Chloroethane	ND	0.0051	EPA 8260D	11-25-20	11-25-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Iodomethane	ND	0.0051	EPA 8260D	11-25-20	11-25-20	
Methylene Chloride	ND	0.0051	EPA 8260D	11-25-20	11-25-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Bromochloromethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Chloroform	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Trichloroethene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Dibromomethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260D	11-25-20	11-25-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS5					
Laboratory ID:	11-131-06					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Chlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Bromoform	ND	0.0051	EPA 8260D	11-25-20	11-25-20	
Bromobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260D	11-25-20	11-25-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Hexachlorobutadiene	ND	0.0051	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>115</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>87</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS6					
Laboratory ID:	11-131-07					
Dichlorodifluoromethane	ND	0.0022	EPA 8260D	11-25-20	11-25-20	
Chloromethane	ND	0.0095	EPA 8260D	11-25-20	11-25-20	
Vinyl Chloride	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Bromomethane	ND	0.0062	EPA 8260D	11-25-20	11-25-20	
Chloroethane	ND	0.0062	EPA 8260D	11-25-20	11-25-20	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Iodomethane	ND	0.0062	EPA 8260D	11-25-20	11-25-20	
Methylene Chloride	ND	0.0062	EPA 8260D	11-25-20	11-25-20	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Bromochloromethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Chloroform	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Trichloroethene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Dibromomethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Bromodichloromethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
2-Chloroethyl Vinyl Ether	ND	0.0062	EPA 8260D	11-25-20	11-25-20	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS6					
Laboratory ID:	11-131-07					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Tetrachloroethene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Dibromochloromethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Chlorobenzene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Bromoform	ND	0.0062	EPA 8260D	11-25-20	11-25-20	
Bromobenzene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
2-Chlorotoluene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
4-Chlorotoluene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromo-3-chloropropane	ND	0.0062	EPA 8260D	11-25-20	11-25-20	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
Hexachlorobutadiene	ND	0.0062	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>119</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS7					
Laboratory ID:	11-131-08					
Dichlorodifluoromethane	ND	0.0028	EPA 8260D	11-25-20	11-25-20	
Chloromethane	ND	0.012	EPA 8260D	11-25-20	11-25-20	
Vinyl Chloride	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
Bromomethane	ND	0.0079	EPA 8260D	11-25-20	11-25-20	
Chloroethane	ND	0.0079	EPA 8260D	11-25-20	11-25-20	
Trichlorofluoromethane	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethene	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
Iodomethane	ND	0.0079	EPA 8260D	11-25-20	11-25-20	
Methylene Chloride	ND	0.0079	EPA 8260D	11-25-20	11-25-20	
(trans) 1,2-Dichloroethene	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
Methyl t-Butyl Ether	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethane	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
2,2-Dichloropropane	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
(cis) 1,2-Dichloroethene	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
Bromochloromethane	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
Chloroform	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
1,1,1-Trichloroethane	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
Carbon Tetrachloride	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloropropene	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloroethane	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
Trichloroethene	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloropropane	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
Dibromomethane	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
Bromodichloromethane	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
2-Chloroethyl Vinyl Ether	ND	0.0079	EPA 8260D	11-25-20	11-25-20	
(cis) 1,3-Dichloropropene	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
(trans) 1,3-Dichloropropene	ND	0.0016	EPA 8260D	11-25-20	11-25-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS7					
Laboratory ID:	11-131-08					
1,1,2-Trichloroethane	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
Tetrachloroethene	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
1,3-Dichloropropane	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
Dibromochloromethane	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromoethane	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
Chlorobenzene	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.0016	EPA 8260D	11-25-20	11-25-20	
Bromoform	ND	0.0079	EPA 8260D	11-25-20	11-25-20	
Bromobenzene	ND	0.12	EPA 8260D	11-30-20	11-30-20	
1,1,1,2-Tetrachloroethane	ND	0.12	EPA 8260D	11-30-20	11-30-20	
1,2,3-Trichloropropane	ND	0.12	EPA 8260D	11-30-20	11-30-20	
2-Chlorotoluene	ND	0.12	EPA 8260D	11-30-20	11-30-20	
4-Chlorotoluene	ND	0.12	EPA 8260D	11-30-20	11-30-20	
1,3-Dichlorobenzene	ND	0.12	EPA 8260D	11-30-20	11-30-20	
1,4-Dichlorobenzene	ND	0.12	EPA 8260D	11-30-20	11-30-20	
1,2-Dichlorobenzene	ND	0.12	EPA 8260D	11-30-20	11-30-20	
1,2-Dibromo-3-chloropropane	ND	0.60	EPA 8260D	11-30-20	11-30-20	
1,2,4-Trichlorobenzene	ND	0.12	EPA 8260D	11-30-20	11-30-20	
Hexachlorobutadiene	ND	0.60	EPA 8260D	11-30-20	11-30-20	
1,2,3-Trichlorobenzene	ND	0.12	EPA 8260D	11-30-20	11-30-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>120</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>110</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>78</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS10					
Laboratory ID:	11-131-11					
Dichlorodifluoromethane	ND	0.0019	EPA 8260D	11-25-20	11-25-20	
Chloromethane	ND	0.0083	EPA 8260D	11-25-20	11-25-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
Bromomethane	ND	0.0054	EPA 8260D	11-25-20	11-25-20	
Chloroethane	ND	0.0054	EPA 8260D	11-25-20	11-25-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
Iodomethane	ND	0.0054	EPA 8260D	11-25-20	11-25-20	
Methylene Chloride	ND	0.0054	EPA 8260D	11-25-20	11-25-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
Bromochloromethane	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
Chloroform	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
Trichloroethene	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
Dibromomethane	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260D	11-25-20	11-25-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	11-25-20	11-25-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS10					
Laboratory ID:	11-131-11					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
Chlorobenzene	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	11-25-20	11-25-20	
Bromoform	ND	0.0054	EPA 8260D	11-25-20	11-25-20	
Bromobenzene	ND	0.078	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.078	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichloropropane	ND	0.078	EPA 8260D	11-25-20	11-25-20	
2-Chlorotoluene	ND	0.078	EPA 8260D	11-25-20	11-25-20	
4-Chlorotoluene	ND	0.078	EPA 8260D	11-25-20	11-25-20	
1,3-Dichlorobenzene	ND	0.078	EPA 8260D	11-25-20	11-25-20	
1,4-Dichlorobenzene	ND	0.078	EPA 8260D	11-25-20	11-25-20	
1,2-Dichlorobenzene	ND	0.078	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromo-3-chloropropane	ND	0.39	EPA 8260D	11-25-20	11-25-20	
1,2,4-Trichlorobenzene	ND	0.078	EPA 8260D	11-25-20	11-25-20	
Hexachlorobutadiene	ND	0.39	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichlorobenzene	ND	0.078	EPA 8260D	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>73</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS11					
Laboratory ID:	11-131-12					
Dichlorodifluoromethane	ND	0.0031	EPA 8260D	11-25-20	11-25-20	
Chloromethane	ND	0.013	EPA 8260D	11-25-20	11-25-20	
Vinyl Chloride	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
Bromomethane	ND	0.0085	EPA 8260D	11-25-20	11-25-20	
Chloroethane	ND	0.0085	EPA 8260D	11-25-20	11-25-20	
Trichlorofluoromethane	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethene	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
Iodomethane	ND	0.0085	EPA 8260D	11-25-20	11-25-20	
Methylene Chloride	ND	0.0085	EPA 8260D	11-25-20	11-25-20	
(trans) 1,2-Dichloroethene	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
Methyl t-Butyl Ether	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethane	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
2,2-Dichloropropane	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
(cis) 1,2-Dichloroethene	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
Bromochloromethane	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
Chloroform	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
1,1,1-Trichloroethane	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
Carbon Tetrachloride	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloropropene	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloroethane	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
Trichloroethene	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloropropane	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
Dibromomethane	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
Bromodichloromethane	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
2-Chloroethyl Vinyl Ether	ND	0.0085	EPA 8260D	11-25-20	11-25-20	
(cis) 1,3-Dichloropropene	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
(trans) 1,3-Dichloropropene	ND	0.0017	EPA 8260D	11-25-20	11-25-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS11					
Laboratory ID:	11-131-12					
1,1,2-Trichloroethane	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
Tetrachloroethene	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
1,3-Dichloropropane	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
Dibromochloromethane	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromoethane	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
Chlorobenzene	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
Bromoform	ND	0.0085	EPA 8260D	11-25-20	11-25-20	
Bromobenzene	ND	0.12	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.12	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichloropropane	ND	0.12	EPA 8260D	11-25-20	11-25-20	
2-Chlorotoluene	ND	0.12	EPA 8260D	11-25-20	11-25-20	
4-Chlorotoluene	ND	0.12	EPA 8260D	11-25-20	11-25-20	
1,3-Dichlorobenzene	ND	0.12	EPA 8260D	11-25-20	11-25-20	
1,4-Dichlorobenzene	ND	0.12	EPA 8260D	11-25-20	11-25-20	
1,2-Dichlorobenzene	ND	0.12	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromo-3-chloropropane	ND	0.59	EPA 8260D	11-25-20	11-25-20	
1,2,4-Trichlorobenzene	ND	0.12	EPA 8260D	11-25-20	11-25-20	
Hexachlorobutadiene	ND	0.59	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichlorobenzene	ND	0.12	EPA 8260D	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>121</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>76</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS12					
Laboratory ID:	11-131-13					
Dichlorodifluoromethane	ND	0.0017	EPA 8260D	11-25-20	11-25-20	
Chloromethane	ND	0.0072	EPA 8260D	11-25-20	11-25-20	
Vinyl Chloride	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
Bromomethane	ND	0.0047	EPA 8260D	11-25-20	11-25-20	
Chloroethane	ND	0.0047	EPA 8260D	11-25-20	11-25-20	
Trichlorofluoromethane	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethene	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
Iodomethane	ND	0.0047	EPA 8260D	11-25-20	11-25-20	
Methylene Chloride	ND	0.0047	EPA 8260D	11-25-20	11-25-20	
(trans) 1,2-Dichloroethene	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
Methyl t-Butyl Ether	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethane	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
2,2-Dichloropropane	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
(cis) 1,2-Dichloroethene	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
Bromochloromethane	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
Chloroform	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
1,1,1-Trichloroethane	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
Carbon Tetrachloride	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloropropene	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloroethane	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
Trichloroethene	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloropropane	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
Dibromomethane	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
Bromodichloromethane	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
2-Chloroethyl Vinyl Ether	ND	0.0047	EPA 8260D	11-25-20	11-25-20	
(cis) 1,3-Dichloropropene	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
(trans) 1,3-Dichloropropene	ND	0.00094	EPA 8260D	11-25-20	11-25-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS12					
Laboratory ID:	11-131-13					
1,1,2-Trichloroethane	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
Tetrachloroethene	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
1,3-Dichloropropane	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
Dibromochloromethane	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromoethane	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
Chlorobenzene	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.00094	EPA 8260D	11-25-20	11-25-20	
Bromoform	ND	0.0047	EPA 8260D	11-25-20	11-25-20	
Bromobenzene	ND	0.062	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.062	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichloropropane	ND	0.062	EPA 8260D	11-25-20	11-25-20	
2-Chlorotoluene	ND	0.062	EPA 8260D	11-25-20	11-25-20	
4-Chlorotoluene	ND	0.062	EPA 8260D	11-25-20	11-25-20	
1,3-Dichlorobenzene	ND	0.062	EPA 8260D	11-25-20	11-25-20	
1,4-Dichlorobenzene	ND	0.062	EPA 8260D	11-25-20	11-25-20	
1,2-Dichlorobenzene	ND	0.062	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromo-3-chloropropane	ND	0.31	EPA 8260D	11-25-20	11-25-20	
1,2,4-Trichlorobenzene	ND	0.062	EPA 8260D	11-25-20	11-25-20	
Hexachlorobutadiene	ND	0.31	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichlorobenzene	ND	0.062	EPA 8260D	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>119</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>83</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS14					
Laboratory ID:	11-131-15					
Dichlorodifluoromethane	ND	0.00091	EPA 8260D	11-25-20	11-25-20	
Chloromethane	ND	0.0039	EPA 8260D	11-25-20	11-25-20	
Vinyl Chloride	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
Bromomethane	ND	0.0025	EPA 8260D	11-25-20	11-25-20	
Chloroethane	ND	0.0025	EPA 8260D	11-25-20	11-25-20	
Trichlorofluoromethane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
Iodomethane	ND	0.0025	EPA 8260D	11-25-20	11-25-20	
Methylene Chloride	ND	0.0025	EPA 8260D	11-25-20	11-25-20	
(trans) 1,2-Dichloroethene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
Methyl t-Butyl Ether	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
2,2-Dichloropropane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
(cis) 1,2-Dichloroethene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
Bromochloromethane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
Chloroform	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
1,1,1-Trichloroethane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
Carbon Tetrachloride	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloropropene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloroethane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
Trichloroethene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloropropane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
Dibromomethane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
Bromodichloromethane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
2-Chloroethyl Vinyl Ether	ND	0.0025	EPA 8260D	11-25-20	11-25-20	
(cis) 1,3-Dichloropropene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
(trans) 1,3-Dichloropropene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS14					
Laboratory ID:	11-131-15					
1,1,2-Trichloroethane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
Tetrachloroethene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
1,3-Dichloropropane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
Dibromochloromethane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromoethane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
Chlorobenzene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
Bromoform	ND	0.0025	EPA 8260D	11-25-20	11-25-20	
Bromobenzene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
1,1,2,2-Tetrachloroethane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichloropropane	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
2-Chlorotoluene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
4-Chlorotoluene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
1,3-Dichlorobenzene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
1,4-Dichlorobenzene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
1,2-Dichlorobenzene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromo-3-chloropropane	ND	0.0025	EPA 8260D	11-25-20	11-25-20	
1,2,4-Trichlorobenzene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
Hexachlorobutadiene	ND	0.0025	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichlorobenzene	ND	0.00051	EPA 8260D	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>106</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>86</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1125S1					
Dichlorodifluoromethane	ND	0.0018	EPA 8260D	11-25-20	11-25-20	
Chloromethane	ND	0.0077	EPA 8260D	11-25-20	11-25-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Bromomethane	ND	0.0050	EPA 8260D	11-25-20	11-25-20	
Chloroethane	ND	0.0050	EPA 8260D	11-25-20	11-25-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Iodomethane	ND	0.0050	EPA 8260D	11-25-20	11-25-20	
Methylene Chloride	ND	0.0050	EPA 8260D	11-25-20	11-25-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Bromochloromethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Chloroform	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Trichloroethene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Dibromomethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	11-25-20	11-25-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1125S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Chlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Bromoform	ND	0.0050	EPA 8260D	11-25-20	11-25-20	
Bromobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	11-25-20	11-25-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>117</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1130S2					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
Chloromethane	ND	0.0050	EPA 8260D	11-30-20	11-30-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
Bromomethane	ND	0.0050	EPA 8260D	11-30-20	11-30-20	
Chloroethane	ND	0.0050	EPA 8260D	11-30-20	11-30-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
Iodomethane	ND	0.0050	EPA 8260D	11-30-20	11-30-20	
Methylene Chloride	ND	0.0050	EPA 8260D	11-30-20	11-30-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
Bromochloromethane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
Chloroform	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
Trichloroethene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
Dibromomethane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	11-30-20	11-30-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1130S2					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
Chlorobenzene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
Bromoform	ND	0.0050	EPA 8260D	11-30-20	11-30-20	
Bromobenzene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	11-30-20	11-30-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	11-30-20	11-30-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	11-30-20	11-30-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>107</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>71-130</i>				



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**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID: SB1125S1										
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0458	0.0477	0.0500	0.0500	92	95	55-126	4	17	
Benzene	0.0486	0.0500	0.0500	0.0500	97	100	65-121	3	16	
Trichloroethene	0.0527	0.0595	0.0500	0.0500	105	119	74-126	12	16	
Toluene	0.0453	0.0497	0.0500	0.0500	91	99	71-121	9	16	
Chlorobenzene	0.0510	0.0536	0.0500	0.0500	102	107	72-123	5	16	
<i>Surrogate:</i>										
					111	109	74-131			
					106	106	78-128			
					97	96	71-130			
Laboratory ID: SB1130S2										
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0514	0.0510	0.0500	0.0500	103	102	55-126	1	17	
Benzene	0.0537	0.0529	0.0500	0.0500	107	106	65-121	2	16	
Trichloroethene	0.0601	0.0591	0.0500	0.0500	120	118	74-126	2	16	
Toluene	0.0505	0.0492	0.0500	0.0500	101	98	71-121	3	16	
Chlorobenzene	0.0562	0.0552	0.0500	0.0500	112	110	72-123	2	16	
<i>Surrogate:</i>										
					100	99	74-131			
					100	93	78-128			
					100	95	71-130			



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS1					
Laboratory ID:	11-131-01					
Naphthalene	0.010	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
2-Methylnaphthalene	ND	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
1-Methylnaphthalene	ND	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
Acenaphthylene	ND	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
Acenaphthene	ND	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
Fluorene	ND	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
Phenanthrene	0.013	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
Anthracene	ND	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
Fluoranthene	0.014	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
Pyrene	0.015	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
Benzo[a]anthracene	ND	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
Chrysene	0.015	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
Benzo[b]fluoranthene	0.014	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
Benzo(j,k)fluoranthene	ND	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
Benzo[a]pyrene	0.0093	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
Dibenz[a,h]anthracene	ND	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
Benzo[g,h,i]perylene	ND	0.0080	EPA 8270E/SIM	11-25-20	11-30-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>74</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>77</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>80</i>	<i>49 - 121</i>				



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 Project: 1903-00129-RI

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS3					
Laboratory ID:	11-131-04					
Naphthalene	0.081	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
2-Methylnaphthalene	0.044	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
1-Methylnaphthalene	ND	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
Acenaphthylene	0.045	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
Acenaphthene	ND	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
Fluorene	ND	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
Phenanthrene	0.10	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
Anthracene	0.056	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
Fluoranthene	0.17	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
Pyrene	0.17	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[a]anthracene	0.074	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
Chrysene	0.081	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[b]fluoranthene	0.10	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo(j,k)fluoranthene	0.031	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[a]pyrene	0.089	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
Indeno(1,2,3-c,d)pyrene	0.067	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
Dibenz[a,h]anthracene	ND	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[g,h,i]perylene	0.074	0.016	EPA 8270E/SIM	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>75</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>87</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>82</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS4					
Laboratory ID:	11-131-05					
Naphthalene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
2-Methylnaphthalene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
1-Methylnaphthalene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Acenaphthylene	0.017	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Acenaphthene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Fluorene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Phenanthrene	0.037	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Anthracene	0.014	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Fluoranthene	0.066	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Pyrene	0.090	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[a]anthracene	0.037	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Chrysene	0.044	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[b]fluoranthene	0.044	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo(j,k)fluoranthene	0.016	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[a]pyrene	0.046	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Indeno(1,2,3-c,d)pyrene	0.028	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Dibenz[a,h]anthracene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[g,h,i]perylene	0.028	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>88</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>97</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>93</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS5					
Laboratory ID:	11-131-06					
Naphthalene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
2-Methylnaphthalene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
1-Methylnaphthalene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Acenaphthylene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Acenaphthene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Fluorene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Phenanthrene	0.011	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Anthracene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Fluoranthene	0.012	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Pyrene	0.014	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[a]anthracene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Chrysene	0.0083	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[b]fluoranthene	0.012	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo(j,k)fluoranthene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[a]pyrene	0.0084	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Dibenz[a,h]anthracene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[g,h,i]perylene	ND	0.0075	EPA 8270E/SIM	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>84</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>104</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>91</i>	<i>49 - 121</i>				



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 Laboratory Reference: 2011-131
 Project: 1903-00129-RI

PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS6					
Laboratory ID:	11-131-07					
Naphthalene	0.015	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
2-Methylnaphthalene	ND	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
1-Methylnaphthalene	ND	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
Acenaphthylene	ND	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
Acenaphthene	ND	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
Fluorene	ND	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
Phenanthrene	0.053	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
Anthracene	0.011	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
Fluoranthene	0.077	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
Pyrene	0.081	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[a]anthracene	0.044	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
Chrysene	0.049	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[b]fluoranthene	0.071	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo(j,k)fluoranthene	0.019	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[a]pyrene	0.050	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
Indeno(1,2,3-c,d)pyrene	0.038	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
Dibenz[a,h]anthracene	ND	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[g,h,i]perylene	0.037	0.0082	EPA 8270E/SIM	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>80</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>100</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>93</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS7					
Laboratory ID:	11-131-08					
Naphthalene	ND	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
2-Methylnaphthalene	ND	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
1-Methylnaphthalene	ND	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
Acenaphthylene	ND	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
Acenaphthene	ND	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
Fluorene	ND	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
Phenanthrene	0.016	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
Anthracene	0.013	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
Fluoranthene	0.043	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
Pyrene	0.042	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[a]anthracene	0.019	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
Chrysene	0.042	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[b]fluoranthene	0.033	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo(j,k)fluoranthene	ND	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[a]pyrene	0.016	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
Indeno(1,2,3-c,d)pyrene	0.013	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
Dibenz[a,h]anthracene	ND	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[g,h,i]perylene	ND	0.011	EPA 8270E/SIM	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>71</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>88</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>78</i>	<i>49 - 121</i>				



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**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1125S1					
Naphthalene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
2-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
1-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
Acenaphthylene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
Acenaphthene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
Fluorene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
Phenanthrene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
Anthracene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
Fluoranthene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
Pyrene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
Chrysene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270E/SIM	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>97</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>104</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>94</i>	<i>49 - 121</i>				



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**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	11-131-07										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	0.0695	0.0701	0.0833	0.0833	0.0123	69	69	51 - 115	1	26	
Acenaphthylene	0.0788	0.0763	0.0833	0.0833	ND	95	92	53 - 121	3	24	
Acenaphthene	0.0728	0.0787	0.0833	0.0833	ND	87	94	52 - 121	8	25	
Fluorene	0.0823	0.0855	0.0833	0.0833	ND	99	103	58 - 127	4	23	
Phenanthrene	0.103	0.0999	0.0833	0.0833	0.0431	72	68	46 - 129	3	28	
Anthracene	0.0847	0.0844	0.0833	0.0833	0.00856	91	91	57 - 124	0	21	
Fluoranthene	0.135	0.121	0.0833	0.0833	0.0629	87	70	46 - 136	11	29	
Pyrene	0.130	0.113	0.0833	0.0833	0.0660	77	56	41 - 136	14	32	
Benzo[a]anthracene	0.110	0.100	0.0833	0.0833	0.0360	89	77	56 - 136	10	25	
Chrysene	0.108	0.104	0.0833	0.0833	0.0398	82	77	49 - 130	4	22	
Benzo[b]fluoranthene	0.122	0.119	0.0833	0.0833	0.0578	77	73	51 - 135	2	26	
Benzo(j,k)fluoranthene	0.0995	0.0892	0.0833	0.0833	0.0153	101	89	56 - 124	11	23	
Benzo[a]pyrene	0.120	0.112	0.0833	0.0833	0.0404	96	86	54 - 133	7	26	
Indeno(1,2,3-c,d)pyrene	0.107	0.107	0.0833	0.0833	0.0307	92	92	52 - 134	0	20	
Dibenz[a,h]anthracene	0.0927	0.0915	0.0833	0.0833	ND	111	110	58 - 127	1	17	
Benzo[g,h,i]perylene	0.104	0.100	0.0833	0.0833	0.0300	89	84	54 - 129	4	21	
<i>Surrogate:</i>											
<i>2-Fluorobiphenyl</i>						<i>80</i>	<i>80</i>	<i>46 - 113</i>			
<i>Pyrene-d10</i>						<i>93</i>	<i>91</i>	<i>45 - 114</i>			
<i>Terphenyl-d14</i>						<i>89</i>	<i>87</i>	<i>49 - 121</i>			



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PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS1					
Laboratory ID:	11-131-01					
Aroclor 1016	ND	0.060	EPA 8082A	11-19-20	11-25-20	
Aroclor 1221	ND	0.060	EPA 8082A	11-19-20	11-25-20	
Aroclor 1232	ND	0.060	EPA 8082A	11-19-20	11-25-20	
Aroclor 1242	ND	0.060	EPA 8082A	11-19-20	11-25-20	
Aroclor 1248	ND	0.060	EPA 8082A	11-19-20	11-25-20	
Aroclor 1254	ND	0.060	EPA 8082A	11-19-20	11-25-20	
Aroclor 1260	ND	0.060	EPA 8082A	11-19-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	81	46-125				
Client ID:	SS3					
Laboratory ID:	11-131-04					
Aroclor 1016	ND	0.059	EPA 8082A	11-19-20	11-25-20	
Aroclor 1221	ND	0.059	EPA 8082A	11-19-20	11-25-20	
Aroclor 1232	ND	0.059	EPA 8082A	11-19-20	11-25-20	
Aroclor 1242	ND	0.059	EPA 8082A	11-19-20	11-25-20	
Aroclor 1248	ND	0.059	EPA 8082A	11-19-20	11-25-20	
Aroclor 1254	ND	0.059	EPA 8082A	11-19-20	11-25-20	
Aroclor 1260	ND	0.059	EPA 8082A	11-19-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	104	46-125				
Client ID:	SS4					
Laboratory ID:	11-131-05					
Aroclor 1016	ND	0.056	EPA 8082A	11-19-20	11-25-20	
Aroclor 1221	ND	0.056	EPA 8082A	11-19-20	11-25-20	
Aroclor 1232	ND	0.056	EPA 8082A	11-19-20	11-25-20	
Aroclor 1242	ND	0.056	EPA 8082A	11-19-20	11-25-20	
Aroclor 1248	ND	0.056	EPA 8082A	11-19-20	11-25-20	
Aroclor 1254	ND	0.056	EPA 8082A	11-19-20	11-25-20	
Aroclor 1260	ND	0.056	EPA 8082A	11-19-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	111	46-125				



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PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS5					
Laboratory ID:	11-131-06					
Aroclor 1016	ND	0.056	EPA 8082A	11-19-20	11-25-20	
Aroclor 1221	ND	0.056	EPA 8082A	11-19-20	11-25-20	
Aroclor 1232	ND	0.056	EPA 8082A	11-19-20	11-25-20	
Aroclor 1242	ND	0.056	EPA 8082A	11-19-20	11-25-20	
Aroclor 1248	ND	0.056	EPA 8082A	11-19-20	11-25-20	
Aroclor 1254	ND	0.056	EPA 8082A	11-19-20	11-25-20	
Aroclor 1260	ND	0.056	EPA 8082A	11-19-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	103	46-125				
Client ID:	SS6					
Laboratory ID:	11-131-07					
Aroclor 1016	ND	0.061	EPA 8082A	11-19-20	11-25-20	
Aroclor 1221	ND	0.061	EPA 8082A	11-19-20	11-25-20	
Aroclor 1232	ND	0.061	EPA 8082A	11-19-20	11-25-20	
Aroclor 1242	ND	0.061	EPA 8082A	11-19-20	11-25-20	
Aroclor 1248	ND	0.061	EPA 8082A	11-19-20	11-25-20	
Aroclor 1254	ND	0.061	EPA 8082A	11-19-20	11-25-20	
Aroclor 1260	ND	0.061	EPA 8082A	11-19-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	98	46-125				
Client ID:	SS7					
Laboratory ID:	11-131-08					
Aroclor 1016	ND	0.085	EPA 8082A	11-19-20	11-25-20	
Aroclor 1221	ND	0.085	EPA 8082A	11-19-20	11-25-20	
Aroclor 1232	ND	0.085	EPA 8082A	11-19-20	11-25-20	
Aroclor 1242	ND	0.085	EPA 8082A	11-19-20	11-25-20	
Aroclor 1248	ND	0.085	EPA 8082A	11-19-20	11-25-20	
Aroclor 1254	ND	0.085	EPA 8082A	11-19-20	11-25-20	
Aroclor 1260	ND	0.085	EPA 8082A	11-19-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	72	46-125				



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PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS10					
Laboratory ID:	11-131-11					
Aroclor 1016	ND	0.072	EPA 8082A	11-19-20	11-25-20	
Aroclor 1221	ND	0.072	EPA 8082A	11-19-20	11-25-20	
Aroclor 1232	ND	0.072	EPA 8082A	11-19-20	11-25-20	
Aroclor 1242	ND	0.072	EPA 8082A	11-19-20	11-25-20	
Aroclor 1248	ND	0.072	EPA 8082A	11-19-20	11-25-20	
Aroclor 1254	ND	0.072	EPA 8082A	11-19-20	11-25-20	
Aroclor 1260	ND	0.072	EPA 8082A	11-19-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	114	46-125				
Client ID:	SS11					
Laboratory ID:	11-131-12					
Aroclor 1016	ND	0.090	EPA 8082A	11-19-20	11-25-20	
Aroclor 1221	ND	0.090	EPA 8082A	11-19-20	11-25-20	
Aroclor 1232	ND	0.090	EPA 8082A	11-19-20	11-25-20	
Aroclor 1242	ND	0.090	EPA 8082A	11-19-20	11-25-20	
Aroclor 1248	ND	0.090	EPA 8082A	11-19-20	11-25-20	
Aroclor 1254	ND	0.090	EPA 8082A	11-19-20	11-25-20	
Aroclor 1260	ND	0.090	EPA 8082A	11-19-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	107	46-125				
Client ID:	SS12					
Laboratory ID:	11-131-13					
Aroclor 1016	ND	0.075	EPA 8082A	11-19-20	11-25-20	
Aroclor 1221	ND	0.075	EPA 8082A	11-19-20	11-25-20	
Aroclor 1232	ND	0.075	EPA 8082A	11-19-20	11-25-20	
Aroclor 1242	ND	0.075	EPA 8082A	11-19-20	11-25-20	
Aroclor 1248	ND	0.075	EPA 8082A	11-19-20	11-25-20	
Aroclor 1254	ND	0.075	EPA 8082A	11-19-20	11-25-20	
Aroclor 1260	ND	0.075	EPA 8082A	11-19-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	112	46-125				



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PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS14					
Laboratory ID:	11-131-15					
Aroclor 1016	ND	0.061	EPA 8082A	11-19-20	11-25-20	
Aroclor 1221	ND	0.061	EPA 8082A	11-19-20	11-25-20	
Aroclor 1232	ND	0.061	EPA 8082A	11-19-20	11-25-20	
Aroclor 1242	ND	0.061	EPA 8082A	11-19-20	11-25-20	
Aroclor 1248	ND	0.061	EPA 8082A	11-19-20	11-25-20	
Aroclor 1254	ND	0.061	EPA 8082A	11-19-20	11-25-20	
Aroclor 1260	ND	0.061	EPA 8082A	11-19-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>DCB</i>	<i>106</i>	<i>46-125</i>				



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**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1119S2					
Aroclor 1016	ND	0.050	EPA 8082A	11-19-20	11-25-20	
Aroclor 1221	ND	0.050	EPA 8082A	11-19-20	11-25-20	
Aroclor 1232	ND	0.050	EPA 8082A	11-19-20	11-25-20	
Aroclor 1242	ND	0.050	EPA 8082A	11-19-20	11-25-20	
Aroclor 1248	ND	0.050	EPA 8082A	11-19-20	11-25-20	
Aroclor 1254	ND	0.050	EPA 8082A	11-19-20	11-25-20	
Aroclor 1260	ND	0.050	EPA 8082A	11-19-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>		<i>Control Limits</i>			
DCB	115		46-125			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB1119S2										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	0.600	0.581	0.500	0.500	N/A	120	116	50-134	3	18	
<i>Surrogate:</i>											
DCB						118	121	46-125			



Date of Report: December 4, 2020
Samples Submitted: November 13, 2020
Laboratory Reference: 2011-131
Project: 1903-00129-RI

TOTAL LEAD
EPA 6010D

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS1					
Laboratory ID:	11-131-01					
Lead	17	6.0	EPA 6010D	12-2-20	12-2-20	



Date of Report: December 4, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-131
 Project: 1903-00129-RI

**TOTAL LEAD
 EPA 6010D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1202SM1					
Lead	ND	5.0	EPA 6010D	12-2-20	12-2-20	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-131-01							
	ORIG	DUP						
Lead	14.5	12.7	NA	NA	NA	NA	14	20

MATRIX SPIKES

Laboratory ID:	11-131-01									
	MS	MSD	MS	MSD	MS	MSD				
Lead	250	240	250	250	14.5	94	90	75-125	4	20



Date of Report: December 4, 2020
Samples Submitted: November 13, 2020
Laboratory Reference: 2011-131
Project: 1903-00129-RI

TCLP LEAD
EPA 1311/6010D

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS3					
Laboratory ID:	11-131-04					
Lead	ND	0.20	EPA 6010D	12-2-20	12-2-20	



Date of Report: December 4, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-131
 Project: 1903-00129-RI

**TCLP LEAD
 EPA 1311/6010D
 QUALITY CONTROL**

Matrix: TCLP Extract
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1202TM1					
Lead	ND	0.20	EPA 6010D	12-2-20	12-2-20	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-079-07							
	ORIG	DUP						
Lead	0.290	0.262	NA	NA	NA	NA	10	20

MATRIX SPIKES

Laboratory ID:	11-079-07									
	MS	MSD	MS	MSD		MS	MSD			
Lead	9.86	9.87	10.0	10.0	0.290	96	96	75-125	0	20



Date of Report: December 4, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-131
 Project: 1903-00129-RI

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
SS1	11-131-01	16	11-18-20
SS2	11-131-02	20	11-18-20
SS2-A	11-131-03	13	11-18-20
SS3	11-131-04	16	11-18-20
SS4	11-131-05	11	11-18-20
SS5	11-131-06	11	11-18-20
SS6	11-131-07	19	11-18-20
SS7	11-131-08	41	11-18-20
SS8	11-131-09	27	11-18-20
SS9	11-131-10	12	11-18-20
SS10	11-131-11	30	11-18-20
SS11	11-131-12	44	11-18-20
SS12	11-131-13	34	11-18-20
SS13	11-131-14	18	11-18-20
SS14	11-131-15	17	11-18-20
SS15	11-131-16	22	11-18-20





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





OnSite Environmental Inc.
 Analytical Laboratory Testing Services
 14648 NE 95th Street • Redmond, WA 98052
 Phone: (425) 883-3981 • www.onsite-env.com

Chain of Custody

Turnaround Request
(in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

(other) _____

Laboratory Number: **11-131**

Company: **ENP&O ENVIRONMENTAL**
 Project Number: **1903-00129-R1**
 Project Name: **GREEN COVE PARK**
 Project Manager: **KIM KIM**
 Sampled by: **HOND ROSARIO**

Lab ID	Sample Identification	Date		Matrix	Number of Containers
		Sampled	Time Sampled		
1	SS1	4/14/2020	8:00	SOIL	6
2	SS2		8:15		
3	SS2-A		8:30		
4	SS3		9:00		
5	SS4		9:15		
6	SS5		9:30		
7	SS6		9:45		
8	SS7		10:00		
9	SS8		10:15		
10	SS9		10:30		

Date	Time	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total HFOA Metals	TCLP Metals	HEM (oil and grease) 1004A	EDC	MTBE	DIOXINS/FURANS	TOTAL Pb	% Moisture
4/13/2020	8:20	X	X	X	X	H	H	H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4/13	8:25	X	X	X	X	H	H	H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11/13/20	10:00	X	X	X	X	H	H	H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Comments/Special Instructions

X=TO BE ANALYZED
 H=HOLD PENDING FURTHER INSTRUCTION
 Added 11/25/2020. DR (STA)

Signature	Company	Date	Time	Received	Reviewed/Date
<i>[Signature]</i>	ENP&O Environmental	4/13/2020	8:20	Received	Reviewed/Date
<i>[Signature]</i>	AIRDA	4/13	8:25	Received	Reviewed/Date
<i>[Signature]</i>	11	11/13/20	10:00	Received	Reviewed/Date
<i>[Signature]</i>	COSE			Received	Reviewed/Date
<i>[Signature]</i>				Received	Reviewed/Date

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)



OnSite Environmental Inc.

Analytical Laboratory Testing Services
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Chain of Custody

Company: **ENRPO ENVIRONMENTAL**

Project Number: **1903-00129-R1**

Project Name: **GREEN COVE PARK**

Project Manager: **KIM KIM**

Sampled by: **HOAND ROSARIO**

Turnaround Request (in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

(other) _____

Sample Identification

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
11	SS10	11/11/2020	1045	Soil	6
12	SS11		1100		
13	SS12		1115		
14	SS13		1230		
15	SS14		1245		
16	SS15		1300		

LAST ENTRY

[Handwritten signature and notes across the table]

Signature

Company

Date

Time

Comments/Special Instructions

Laboratory Number: **11-131**

<input type="checkbox"/>	NWTPH-HCID
X	NWTPH-Gx/BTEX
	NWTPH-Gx
X	NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)
	Volatiles 8260C
	Halogenated Volatiles 8260C
H	EDB EPA 8011 (Water Only) 11/12/2020
	Semivolatiles 8270D/SIM (with low-level PAHs)
X	PAHs 8270D/SIM (low-level)
	PCBs 8082A
	Organochlorine Pesticides 8081B
	Organophosphorus Pesticides 8270D/SIM
	Chlorinated Acid Herbicides 8151A
X	Total RCRA Metals
	Total MTCA Metals
H	TCLP Metals
	HEM (oil and grease) 1664A
H	EDC
H	MTBE
	DIOXINS/FURANS
	TOTAL Pb
X	% Moisture

ENRPO Environmental

11/13/2020 820

11/13/2020 1000

Relinquished	Signature	Company	Date	Time	Comments/Special Instructions
Received					
Relinquished					
Received					
Relinquished					
Received					
Relinquished					
Reviewed/Date					

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 25, 2020

Kim Kim
EnPro Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734

Re: Analytical Data for Project 1903-00129-RI
Laboratory Reference No. 2011-132

Dear Kim:

Enclosed are the analytical results and associated quality control data for samples submitted on November 13, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 25, 2020
Samples Submitted: November 13, 2020
Laboratory Reference: 2011-132
Project: 1903-00129-RI

Case Narrative

Samples were collected on November 11, 2020 and received by the laboratory on November 13, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS16					
Laboratory ID:	11-132-01					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-16-20	
Toluene	ND	0.071	EPA 8021B	11-16-20	11-16-20	
Ethyl Benzene	ND	0.071	EPA 8021B	11-16-20	11-16-20	
m,p-Xylene	ND	0.071	EPA 8021B	11-16-20	11-16-20	
o-Xylene	ND	0.071	EPA 8021B	11-16-20	11-16-20	
Gasoline	ND	7.1	NWTPH-Gx	11-16-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	58-129				
Client ID:	SS17					
Laboratory ID:	11-132-02					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-16-20	
Toluene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
Ethyl Benzene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
m,p-Xylene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
o-Xylene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
Gasoline	ND	5.0	NWTPH-Gx	11-16-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	94	58-129				
Client ID:	SS18					
Laboratory ID:	11-132-03					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-16-20	
Toluene	ND	0.042	EPA 8021B	11-16-20	11-16-20	
Ethyl Benzene	ND	0.042	EPA 8021B	11-16-20	11-16-20	
m,p-Xylene	ND	0.042	EPA 8021B	11-16-20	11-16-20	
o-Xylene	ND	0.042	EPA 8021B	11-16-20	11-16-20	
Gasoline	ND	4.2	NWTPH-Gx	11-16-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	92	58-129				



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS19					
Laboratory ID:	11-132-04					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-16-20	
Toluene	ND	0.038	EPA 8021B	11-16-20	11-16-20	
Ethyl Benzene	ND	0.038	EPA 8021B	11-16-20	11-16-20	
m,p-Xylene	ND	0.038	EPA 8021B	11-16-20	11-16-20	
o-Xylene	ND	0.038	EPA 8021B	11-16-20	11-16-20	
Gasoline	ND	3.8	NWTPH-Gx	11-16-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	88	58-129				
Client ID:	SS20					
Laboratory ID:	11-132-05					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-16-20	
Toluene	ND	0.047	EPA 8021B	11-16-20	11-16-20	
Ethyl Benzene	ND	0.047	EPA 8021B	11-16-20	11-16-20	
m,p-Xylene	ND	0.047	EPA 8021B	11-16-20	11-16-20	
o-Xylene	ND	0.047	EPA 8021B	11-16-20	11-16-20	
Gasoline	ND	4.7	NWTPH-Gx	11-16-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	58-129				
Client ID:	SS20-A					
Laboratory ID:	11-132-06					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-16-20	
Toluene	ND	0.060	EPA 8021B	11-16-20	11-16-20	
Ethyl Benzene	ND	0.060	EPA 8021B	11-16-20	11-16-20	
m,p-Xylene	ND	0.060	EPA 8021B	11-16-20	11-16-20	
o-Xylene	ND	0.060	EPA 8021B	11-16-20	11-16-20	
Gasoline	ND	6.0	NWTPH-Gx	11-16-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	94	58-129				



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS21					
Laboratory ID:	11-132-07					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-16-20	
Toluene	ND	0.035	EPA 8021B	11-16-20	11-16-20	
Ethyl Benzene	ND	0.035	EPA 8021B	11-16-20	11-16-20	
m,p-Xylene	ND	0.035	EPA 8021B	11-16-20	11-16-20	
o-Xylene	ND	0.035	EPA 8021B	11-16-20	11-16-20	
Gasoline	ND	3.5	NWTPH-Gx	11-16-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	88	58-129				
Client ID:	SS22					
Laboratory ID:	11-132-08					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-16-20	
Toluene	ND	0.045	EPA 8021B	11-16-20	11-16-20	
Ethyl Benzene	ND	0.045	EPA 8021B	11-16-20	11-16-20	
m,p-Xylene	ND	0.045	EPA 8021B	11-16-20	11-16-20	
o-Xylene	ND	0.045	EPA 8021B	11-16-20	11-16-20	
Gasoline	ND	4.5	NWTPH-Gx	11-16-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	94	58-129				
Client ID:	SS23					
Laboratory ID:	11-132-09					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-16-20	
Toluene	ND	0.064	EPA 8021B	11-16-20	11-16-20	
Ethyl Benzene	ND	0.064	EPA 8021B	11-16-20	11-16-20	
m,p-Xylene	ND	0.064	EPA 8021B	11-16-20	11-16-20	
o-Xylene	ND	0.064	EPA 8021B	11-16-20	11-16-20	
Gasoline	ND	6.4	NWTPH-Gx	11-16-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	105	58-129				



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS24					
Laboratory ID:	11-132-10					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-16-20	
Toluene	ND	0.045	EPA 8021B	11-16-20	11-16-20	
Ethyl Benzene	ND	0.045	EPA 8021B	11-16-20	11-16-20	
m,p-Xylene	ND	0.045	EPA 8021B	11-16-20	11-16-20	
o-Xylene	ND	0.045	EPA 8021B	11-16-20	11-16-20	
Gasoline	ND	4.5	NWTPH-Gx	11-16-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	106	58-129				
Client ID:	SS25					
Laboratory ID:	11-132-11					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-16-20	
Toluene	ND	0.055	EPA 8021B	11-16-20	11-16-20	
Ethyl Benzene	ND	0.055	EPA 8021B	11-16-20	11-16-20	
m,p-Xylene	ND	0.055	EPA 8021B	11-16-20	11-16-20	
o-Xylene	ND	0.055	EPA 8021B	11-16-20	11-16-20	
Gasoline	ND	5.5	NWTPH-Gx	11-16-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	58-129				



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1116S2					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-16-20	
Toluene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
Ethyl Benzene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
m,p-Xylene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
o-Xylene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
Gasoline	ND	5.0	NWTPH-Gx	11-16-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	91	58-129				
Laboratory ID:	MB1116S3					
Benzene	ND	0.020	EPA 8021B	11-16-20	11-16-20	
Toluene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
Ethyl Benzene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
m,p-Xylene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
o-Xylene	ND	0.050	EPA 8021B	11-16-20	11-16-20	
Gasoline	ND	5.0	NWTPH-Gx	11-16-20	11-16-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	92	58-129				



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-136-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
Fluorobenzene				87	87	58-129		
DUPLICATE								
Laboratory ID:	11-132-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
Fluorobenzene				97	97	58-129		
SPIKE BLANKS								
Laboratory ID:	SB1116S1							
	SB	SBD	SB	SBD	SB	SBD		
Benzene	0.950	0.930	1.00	1.00	95	93	68-112	2 10
Toluene	0.976	0.953	1.00	1.00	98	95	70-114	2 10
Ethyl Benzene	0.966	0.947	1.00	1.00	97	95	70-115	2 10
m,p-Xylene	0.966	0.952	1.00	1.00	97	95	69-117	1 11
o-Xylene	0.979	0.958	1.00	1.00	98	96	71-115	2 11
<i>Surrogate:</i>								
Fluorobenzene					94	91	58-129	



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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS16					
Laboratory ID:	11-132-01					
Diesel Range Organics	ND	30	NWTPH-Dx	11-17-20	11-17-20	
Lube Oil Range Organics	ND	60	NWTPH-Dx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				
Client ID:	SS17					
Laboratory ID:	11-132-02					
Diesel Range Organics	ND	29	NWTPH-Dx	11-17-20	11-17-20	
Lube Oil Range Organics	ND	57	NWTPH-Dx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	82	50-150				
Client ID:	SS18					
Laboratory ID:	11-132-03					
Diesel Range Organics	ND	28	NWTPH-Dx	11-17-20	11-17-20	
Lube Oil Range Organics	ND	57	NWTPH-Dx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	90	50-150				
Client ID:	SS19					
Laboratory ID:	11-132-04					
Diesel Range Organics	ND	27	NWTPH-Dx	11-17-20	11-17-20	
Lube Oil Range Organics	ND	53	NWTPH-Dx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	71	50-150				
Client ID:	SS20					
Laboratory ID:	11-132-05					
Diesel Range Organics	ND	31	NWTPH-Dx	11-17-20	11-17-20	
Lube Oil Range Organics	ND	62	NWTPH-Dx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				
Client ID:	SS20-A					
Laboratory ID:	11-132-06					
Diesel Range Organics	ND	31	NWTPH-Dx	11-17-20	11-17-20	
Lube Oil Range Organics	ND	62	NWTPH-Dx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	82	50-150				



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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS21					
Laboratory ID:	11-132-07					
Diesel Range Organics	ND	27	NWTPH-Dx	11-17-20	11-17-20	
Lube Oil Range Organics	ND	54	NWTPH-Dx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	101	50-150				
Client ID:	SS22					
Laboratory ID:	11-132-08					
Diesel Range Organics	ND	29	NWTPH-Dx	11-17-20	11-17-20	
Lube Oil Range Organics	ND	59	NWTPH-Dx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				
Client ID:	SS23					
Laboratory ID:	11-132-09					
Diesel Range Organics	ND	35	NWTPH-Dx	11-17-20	11-17-20	
Lube Oil Range Organics	ND	70	NWTPH-Dx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				
Client ID:	SS24					
Laboratory ID:	11-132-10					
Diesel Range Organics	ND	32	NWTPH-Dx	11-17-20	11-17-20	
Lube Oil	280	65	NWTPH-Dx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	80	50-150				
Client ID:	SS25					
Laboratory ID:	11-132-11					
Diesel Range Organics	ND	32	NWTPH-Dx	11-17-20	11-17-20	
Lube Oil	160	64	NWTPH-Dx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				



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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117S1					
Diesel Range Organics	ND	25	NWTPH-Dx	11-17-20	11-17-20	
Lube Oil Range Organics	ND	50	NWTPH-Dx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	82	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	SB1117S1							
	ORIG	DUP						
Diesel Fuel #2	98.9	90.0	NA	NA	NA	NA	9	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				103	97	50-150		
Laboratory ID:	11-169-02							
	ORIG	DUP						
Diesel Fuel #2	35500	34000	NA	NA	NA	NA	4	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				---	---	50-150	S,S	



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS16					
Laboratory ID:	11-132-01					
Naphthalene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
2-Methylnaphthalene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
1-Methylnaphthalene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthylene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
Fluorene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
Phenanthrene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
Anthracene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
Fluoranthene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
Pyrene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]anthracene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
Chrysene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[b]fluoranthene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo(j,k)fluoranthene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]pyrene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
Dibenz[a,h]anthracene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[g,h,i]perylene	ND	0.0080	EPA 8270E/SIM	11-19-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	87	46 - 113				
Pyrene-d10	101	45 - 114				
Terphenyl-d14	98	49 - 121				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS17					
Laboratory ID:	11-132-02					
Naphthalene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
2-Methylnaphthalene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
1-Methylnaphthalene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthylene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Fluorene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Phenanthrene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Anthracene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Fluoranthene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Pyrene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]anthracene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Chrysene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[b]fluoranthene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo(j,k)fluoranthene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]pyrene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Dibenz[a,h]anthracene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[g,h,i]perylene	ND	0.0076	EPA 8270E/SIM	11-19-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	88	46 - 113				
Pyrene-d10	97	45 - 114				
Terphenyl-d14	94	49 - 121				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS24					
Laboratory ID:	11-132-10					
Naphthalene	0.078	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
2-Methylnaphthalene	0.090	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
1-Methylnaphthalene	0.13	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthylene	0.040	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthene	0.036	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Fluorene	0.046	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Phenanthrene	0.25	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Anthracene	0.033	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Fluoranthene	0.062	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Pyrene	0.11	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]anthracene	0.032	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Chrysene	0.048	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[b]fluoranthene	0.031	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo(j,k)fluoranthene	ND	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]pyrene	0.029	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Indeno(1,2,3-c,d)pyrene	0.014	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Dibenz[a,h]anthracene	ND	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[g,h,i]perylene	0.023	0.0086	EPA 8270E/SIM	11-19-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>91</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>103</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>96</i>	<i>49 - 121</i>				



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PAHs EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS25					
Laboratory ID:	11-132-11					
Naphthalene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
2-Methylnaphthalene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
1-Methylnaphthalene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthylene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
Acenaphthene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
Fluorene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
Phenanthrene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
Anthracene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
Fluoranthene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
Pyrene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]anthracene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
Chrysene	0.012	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[b]fluoranthene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo(j,k)fluoranthene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[a]pyrene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
Dibenz[a,h]anthracene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
Benzo[g,h,i]perylene	ND	0.0085	EPA 8270E/SIM	11-19-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>94</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>98</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>100</i>	<i>49 - 121</i>				



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**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1119S2					
Naphthalene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
2-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
1-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Acenaphthylene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Acenaphthene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Fluorene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Phenanthrene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Anthracene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Fluoranthene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Pyrene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Chrysene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270E/SIM	11-19-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>100</i>	<i>46 - 113</i>				
<i>Pyrene-d10</i>	<i>102</i>	<i>45 - 114</i>				
<i>Terphenyl-d14</i>	<i>105</i>	<i>49 - 121</i>				



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**PAHs EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	11-201-05										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	0.0700	0.0710	0.0833	0.0833	ND	84	85	51 - 115	1	26	
Acenaphthylene	0.0738	0.0769	0.0833	0.0833	ND	89	92	53 - 121	4	24	
Acenaphthene	0.0762	0.0808	0.0833	0.0833	ND	91	97	52 - 121	6	25	
Fluorene	0.0763	0.0786	0.0833	0.0833	ND	92	94	58 - 127	3	23	
Phenanthrene	0.0733	0.0738	0.0833	0.0833	ND	88	89	46 - 129	1	28	
Anthracene	0.0770	0.0758	0.0833	0.0833	ND	92	91	57 - 124	2	21	
Fluoranthene	0.0755	0.0728	0.0833	0.0833	ND	91	87	46 - 136	4	29	
Pyrene	0.0728	0.0763	0.0833	0.0833	ND	87	92	41 - 136	5	32	
Benzo[a]anthracene	0.0778	0.0784	0.0833	0.0833	ND	93	94	56 - 136	1	25	
Chrysene	0.0758	0.0754	0.0833	0.0833	ND	91	91	49 - 130	1	22	
Benzo[b]fluoranthene	0.0716	0.0738	0.0833	0.0833	ND	86	89	51 - 135	3	26	
Benzo(j,k)fluoranthene	0.0783	0.0781	0.0833	0.0833	ND	94	94	56 - 124	0	23	
Benzo[a]pyrene	0.0714	0.0728	0.0833	0.0833	ND	86	87	54 - 133	2	26	
Indeno(1,2,3-c,d)pyrene	0.0726	0.0759	0.0833	0.0833	ND	87	91	52 - 134	4	20	
Dibenz[a,h]anthracene	0.0730	0.0739	0.0833	0.0833	ND	88	89	58 - 127	1	17	
Benzo[g,h,i]perylene	0.0721	0.0729	0.0833	0.0833	ND	87	88	54 - 129	1	21	
<i>Surrogate:</i>											
<i>2-Fluorobiphenyl</i>						<i>84</i>	<i>88</i>	<i>46 - 113</i>			
<i>Pyrene-d10</i>						<i>86</i>	<i>85</i>	<i>45 - 114</i>			
<i>Terphenyl-d14</i>						<i>85</i>	<i>86</i>	<i>49 - 121</i>			



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 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS18					
Laboratory ID:	11-132-03					
Naphthalene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
2-Methylnaphthalene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
1-Methylnaphthalene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
Acenaphthylene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
Acenaphthene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
Fluorene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
Pentachlorophenol	ND	0.19	EPA 8270E	11-17-20	11-21-20	
Phenanthrene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
Anthracene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
Fluoranthene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
Pyrene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[a]anthracene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
Chrysene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[b]fluoranthene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo(j,k)fluoranthene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[a]pyrene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
Indeno[1,2,3-cd]pyrene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
Dibenz[a,h]anthracene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[g,h,i]perylene	ND	0.0076	EPA 8270E/SIM	11-17-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>50</i>	<i>22 - 109</i>				
<i>Phenol-d6</i>	<i>58</i>	<i>36 - 110</i>				
<i>Nitrobenzene-d5</i>	<i>55</i>	<i>31 - 109</i>				
<i>2-Fluorobiphenyl</i>	<i>65</i>	<i>45 - 107</i>				
<i>2,4,6-Tribromophenol</i>	<i>78</i>	<i>43 - 124</i>				
<i>Terphenyl-d14</i>	<i>71</i>	<i>52 - 118</i>				



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS19					
Laboratory ID:	11-132-04					
Naphthalene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
2-Methylnaphthalene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
1-Methylnaphthalene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
Acenaphthylene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
Acenaphthene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
Fluorene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
Pentachlorophenol	ND	0.18	EPA 8270E	11-17-20	11-21-20	
Phenanthrene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
Anthracene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
Fluoranthene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
Pyrene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[a]anthracene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
Chrysene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[b]fluoranthene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo(j,k)fluoranthene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[a]pyrene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
Indeno[1,2,3-cd]pyrene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
Dibenz[a,h]anthracene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[g,h,i]perylene	ND	0.0071	EPA 8270E/SIM	11-17-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>63</i>	<i>22 - 109</i>				
<i>Phenol-d6</i>	<i>65</i>	<i>36 - 110</i>				
<i>Nitrobenzene-d5</i>	<i>66</i>	<i>31 - 109</i>				
<i>2-Fluorobiphenyl</i>	<i>71</i>	<i>45 - 107</i>				
<i>2,4,6-Tribromophenol</i>	<i>80</i>	<i>43 - 124</i>				
<i>Terphenyl-d14</i>	<i>73</i>	<i>52 - 118</i>				



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 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS20					
Laboratory ID:	11-132-05					
Naphthalene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
2-Methylnaphthalene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
1-Methylnaphthalene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Acenaphthylene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Acenaphthene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Fluorene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Pentachlorophenol	ND	0.21	EPA 8270E	11-17-20	11-21-20	
Phenanthrene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Anthracene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Fluoranthene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Pyrene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[a]anthracene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Chrysene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[b]fluoranthene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo(j,k)fluoranthene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[a]pyrene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Indeno[1,2,3-cd]pyrene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Dibenz[a,h]anthracene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[g,h,i]perylene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>56</i>	<i>22 - 109</i>				
<i>Phenol-d6</i>	<i>62</i>	<i>36 - 110</i>				
<i>Nitrobenzene-d5</i>	<i>61</i>	<i>31 - 109</i>				
<i>2-Fluorobiphenyl</i>	<i>72</i>	<i>45 - 107</i>				
<i>2,4,6-Tribromophenol</i>	<i>81</i>	<i>43 - 124</i>				
<i>Terphenyl-d14</i>	<i>72</i>	<i>52 - 118</i>				



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS20-A					
Laboratory ID:	11-132-06					
Naphthalene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
2-Methylnaphthalene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
1-Methylnaphthalene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Acenaphthylene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Acenaphthene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Fluorene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Pentachlorophenol	ND	0.21	EPA 8270E	11-17-20	11-21-20	
Phenanthrene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Anthracene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Fluoranthene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Pyrene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[a]anthracene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Chrysene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[b]fluoranthene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo(j,k)fluoranthene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[a]pyrene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Indeno[1,2,3-cd]pyrene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Dibenz[a,h]anthracene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[g,h,i]perylene	ND	0.0083	EPA 8270E/SIM	11-17-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>53</i>	<i>22 - 109</i>				
<i>Phenol-d6</i>	<i>59</i>	<i>36 - 110</i>				
<i>Nitrobenzene-d5</i>	<i>58</i>	<i>31 - 109</i>				
<i>2-Fluorobiphenyl</i>	<i>70</i>	<i>45 - 107</i>				
<i>2,4,6-Tribromophenol</i>	<i>77</i>	<i>43 - 124</i>				
<i>Terphenyl-d14</i>	<i>68</i>	<i>52 - 118</i>				



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS21					
Laboratory ID:	11-132-07					
Naphthalene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
2-Methylnaphthalene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
1-Methylnaphthalene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
Acenaphthylene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
Acenaphthene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
Fluorene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
Pentachlorophenol	ND	0.18	EPA 8270E	11-17-20	11-21-20	
Phenanthrene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
Anthracene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
Fluoranthene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
Pyrene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[a]anthracene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
Chrysene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[b]fluoranthene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo(j,k)fluoranthene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[a]pyrene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
Indeno[1,2,3-cd]pyrene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
Dibenz[a,h]anthracene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[g,h,i]perylene	ND	0.0072	EPA 8270E/SIM	11-17-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>48</i>	<i>22 - 109</i>				
<i>Phenol-d6</i>	<i>48</i>	<i>36 - 110</i>				
<i>Nitrobenzene-d5</i>	<i>49</i>	<i>31 - 109</i>				
<i>2-Fluorobiphenyl</i>	<i>50</i>	<i>45 - 107</i>				
<i>2,4,6-Tribromophenol</i>	<i>58</i>	<i>43 - 124</i>				
<i>Terphenyl-d14</i>	<i>55</i>	<i>52 - 118</i>				



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 Samples Submitted: November 13, 2020
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 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS22					
Laboratory ID:	11-132-08					
Naphthalene	ND	0.0078	EPA 8270E/SIM	11-17-20	11-20-20	
2-Methylnaphthalene	ND	0.0078	EPA 8270E/SIM	11-17-20	11-20-20	
1-Methylnaphthalene	ND	0.0078	EPA 8270E/SIM	11-17-20	11-20-20	
Acenaphthylene	ND	0.0078	EPA 8270E/SIM	11-17-20	11-20-20	
Acenaphthene	ND	0.0078	EPA 8270E/SIM	11-17-20	11-20-20	
Fluorene	ND	0.0078	EPA 8270E/SIM	11-17-20	11-20-20	
Pentachlorophenol	ND	0.19	EPA 8270E	11-17-20	11-21-20	
Phenanthrene	0.11	0.039	EPA 8270E	11-17-20	11-21-20	
Anthracene	0.014	0.0078	EPA 8270E/SIM	11-17-20	11-20-20	
Fluoranthene	0.17	0.039	EPA 8270E	11-17-20	11-21-20	
Pyrene	0.15	0.039	EPA 8270E	11-17-20	11-21-20	
Benzo[a]anthracene	0.051	0.039	EPA 8270E	11-17-20	11-21-20	
Chrysene	0.067	0.039	EPA 8270E	11-17-20	11-21-20	
Benzo[b]fluoranthene	0.081	0.039	EPA 8270E	11-17-20	11-21-20	
Benzo(j,k)fluoranthene	0.031	0.0078	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[a]pyrene	0.062	0.039	EPA 8270E	11-17-20	11-21-20	
Indeno[1,2,3-cd]pyrene	0.041	0.039	EPA 8270E	11-17-20	11-21-20	
Dibenz[a,h]anthracene	0.010	0.0078	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[g,h,i]perylene	0.042	0.039	EPA 8270E	11-17-20	11-21-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>58</i>	<i>22 - 109</i>				
<i>Phenol-d6</i>	<i>64</i>	<i>36 - 110</i>				
<i>Nitrobenzene-d5</i>	<i>63</i>	<i>31 - 109</i>				
<i>2-Fluorobiphenyl</i>	<i>73</i>	<i>45 - 107</i>				
<i>2,4,6-Tribromophenol</i>	<i>83</i>	<i>43 - 124</i>				
<i>Terphenyl-d14</i>	<i>71</i>	<i>52 - 118</i>				



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 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS23					
Laboratory ID:	11-132-09					
Naphthalene	0.016	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
2-Methylnaphthalene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
1-Methylnaphthalene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
Acenaphthylene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
Acenaphthene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
Fluorene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
Pentachlorophenol	ND	0.23	EPA 8270E	11-17-20	11-21-20	
Phenanthrene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
Anthracene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
Fluoranthene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
Pyrene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[a]anthracene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
Chrysene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[b]fluoranthene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo(j,k)fluoranthene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[a]pyrene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
Indeno[1,2,3-cd]pyrene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
Dibenz[a,h]anthracene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
Benzo[g,h,i]perylene	ND	0.0093	EPA 8270E/SIM	11-17-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>58</i>	<i>22 - 109</i>				
<i>Phenol-d6</i>	<i>61</i>	<i>36 - 110</i>				
<i>Nitrobenzene-d5</i>	<i>59</i>	<i>31 - 109</i>				
<i>2-Fluorobiphenyl</i>	<i>63</i>	<i>45 - 107</i>				
<i>2,4,6-Tribromophenol</i>	<i>71</i>	<i>43 - 124</i>				
<i>Terphenyl-d14</i>	<i>63</i>	<i>52 - 118</i>				



Date of Report: November 25, 2020
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**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117S1					
Naphthalene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Pentachlorophenol	ND	0.17	EPA 8270E	11-17-20	11-18-20	
Phenanthrene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270E/SIM	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>67</i>	<i>22 - 109</i>				
<i>Phenol-d6</i>	<i>71</i>	<i>36 - 110</i>				
<i>Nitrobenzene-d5</i>	<i>63</i>	<i>31 - 109</i>				
<i>2-Fluorobiphenyl</i>	<i>71</i>	<i>45 - 107</i>				
<i>2,4,6-Tribromophenol</i>	<i>81</i>	<i>43 - 124</i>				
<i>Terphenyl-d14</i>	<i>77</i>	<i>52 - 118</i>				



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limit			
SPIKE BLANKS										
Laboratory ID:	SB1117S1									
	SB	SBD	SB	SBD	SB	SBD				
Phenol	1.04	0.950	1.33	1.33	78	71	47 - 104	9	30	
2-Chlorophenol	1.15	1.04	1.33	1.33	86	78	45 - 108	10	31	
1,4-Dichlorobenzene	0.532	0.472	0.667	0.667	80	71	41 - 105	12	32	
n-Nitroso-di-n-propylamine	0.540	0.493	0.667	0.667	81	74	47 - 103	9	28	
1,2,4-Trichlorobenzene	0.576	0.521	0.667	0.667	86	78	42 - 111	10	32	
4-Chloro-3-methylphenol	1.22	1.15	1.33	1.33	92	86	61 - 108	6	25	
Acenaphthene	0.539	0.507	0.667	0.667	81	76	54 - 102	6	23	
4-Nitrophenol	1.20	1.11	1.33	1.33	90	83	53 - 122	8	24	
2,4-Dinitrotoluene	0.582	0.520	0.667	0.667	87	78	57 - 107	11	22	
Pentachlorophenol	1.01	1.01	1.33	1.33	76	76	44 - 132	0	23	
Pyrene	0.583	0.556	0.667	0.667	87	83	58 - 111	5	21	
<i>Surrogate:</i>										
2-Fluorophenol					83	72	22 - 109			
Phenol-d6					81	74	36 - 110			
Nitrobenzene-d5					77	71	31 - 109			
2-Fluorobiphenyl					81	74	45 - 107			
2,4,6-Tribromophenol					87	85	43 - 124			
Terphenyl-d14					78	76	52 - 118			



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**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS16					
Laboratory ID:	11-132-01					
Arsenic	ND	12	EPA 6010D	11-23-20	11-23-20	
Barium	30	3.0	EPA 6010D	11-23-20	11-23-20	
Cadmium	ND	0.60	EPA 6010D	11-23-20	11-23-20	
Chromium	31	0.60	EPA 6010D	11-23-20	11-23-20	
Lead	ND	6.0	EPA 6010D	11-23-20	11-23-20	
Mercury	ND	0.30	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	12	EPA 6010D	11-23-20	11-23-20	
Silver	ND	1.2	EPA 6010D	11-23-20	11-23-20	

Client ID:	SS17					
Laboratory ID:	11-132-02					
Arsenic	ND	11	EPA 6010D	11-23-20	11-23-20	
Barium	48	2.8	EPA 6010D	11-23-20	11-23-20	
Cadmium	ND	0.57	EPA 6010D	11-23-20	11-23-20	
Chromium	20	0.57	EPA 6010D	11-23-20	11-23-20	
Lead	ND	5.7	EPA 6010D	11-23-20	11-23-20	
Mercury	ND	0.28	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	11	EPA 6010D	11-23-20	11-23-20	
Silver	ND	1.1	EPA 6010D	11-23-20	11-23-20	

Client ID:	SS18					
Laboratory ID:	11-132-03					
Arsenic	ND	11	EPA 6010D	11-23-20	11-23-20	
Barium	37	2.8	EPA 6010D	11-23-20	11-23-20	
Cadmium	ND	0.57	EPA 6010D	11-23-20	11-23-20	
Chromium	21	0.57	EPA 6010D	11-23-20	11-23-20	
Copper	11	1.1	EPA 6010D	11-23-20	11-23-20	
Lead	ND	5.7	EPA 6010D	11-23-20	11-23-20	
Mercury	ND	0.28	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	11	EPA 6010D	11-23-20	11-23-20	
Silver	ND	1.1	EPA 6010D	11-23-20	11-23-20	



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**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS19					
Laboratory ID:	11-132-04					
Arsenic	ND	11	EPA 6010D	11-23-20	11-23-20	
Barium	46	2.7	EPA 6010D	11-23-20	11-23-20	
Cadmium	ND	0.53	EPA 6010D	11-23-20	11-23-20	
Chromium	17	0.53	EPA 6010D	11-23-20	11-23-20	
Copper	12	1.1	EPA 6010D	11-23-20	11-23-20	
Lead	ND	5.3	EPA 6010D	11-23-20	11-23-20	
Mercury	ND	0.27	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	11	EPA 6010D	11-23-20	11-23-20	
Silver	ND	1.1	EPA 6010D	11-23-20	11-23-20	

Client ID:	SS20					
Laboratory ID:	11-132-05					
Arsenic	ND	12	EPA 6010D	11-23-20	11-23-20	
Barium	66	3.1	EPA 6010D	11-23-20	11-23-20	
Cadmium	ND	0.62	EPA 6010D	11-23-20	11-23-20	
Chromium	29	0.62	EPA 6010D	11-23-20	11-23-20	
Copper	17	1.2	EPA 6010D	11-23-20	11-23-20	
Lead	ND	6.2	EPA 6010D	11-23-20	11-23-20	
Mercury	ND	0.31	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	12	EPA 6010D	11-23-20	11-23-20	
Silver	ND	1.2	EPA 6010D	11-23-20	11-23-20	

Client ID:	SS20-A					
Laboratory ID:	11-132-06					
Arsenic	ND	12	EPA 6010D	11-23-20	11-23-20	
Barium	71	3.1	EPA 6010D	11-23-20	11-23-20	
Cadmium	ND	0.62	EPA 6010D	11-23-20	11-23-20	
Chromium	29	0.62	EPA 6010D	11-23-20	11-23-20	
Copper	17	1.2	EPA 6010D	11-23-20	11-23-20	
Lead	ND	6.2	EPA 6010D	11-23-20	11-23-20	
Mercury	ND	0.31	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	12	EPA 6010D	11-23-20	11-23-20	
Silver	ND	1.2	EPA 6010D	11-23-20	11-23-20	



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**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS21					
Laboratory ID:	11-132-07					
Arsenic	ND	11	EPA 6010D	11-23-20	11-23-20	
Barium	28	2.7	EPA 6010D	11-23-20	11-23-20	
Cadmium	ND	0.54	EPA 6010D	11-23-20	11-23-20	
Chromium	18	0.54	EPA 6010D	11-23-20	11-23-20	
Copper	7.5	1.1	EPA 6010D	11-23-20	11-23-20	
Lead	ND	5.4	EPA 6010D	11-23-20	11-23-20	
Mercury	ND	0.27	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	11	EPA 6010D	11-23-20	11-23-20	
Silver	ND	1.1	EPA 6010D	11-23-20	11-23-20	

Client ID:	SS22					
Laboratory ID:	11-132-08					
Arsenic	ND	12	EPA 6010D	11-23-20	11-23-20	
Barium	57	2.9	EPA 6010D	11-23-20	11-23-20	
Cadmium	ND	0.58	EPA 6010D	11-23-20	11-23-20	
Chromium	26	0.58	EPA 6010D	11-23-20	11-23-20	
Copper	19	1.2	EPA 6010D	11-23-20	11-23-20	
Lead	ND	5.8	EPA 6010D	11-23-20	11-23-20	
Mercury	ND	0.29	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	12	EPA 6010D	11-23-20	11-23-20	
Silver	ND	1.2	EPA 6010D	11-23-20	11-23-20	

Client ID:	SS23					
Laboratory ID:	11-132-09					
Arsenic	ND	14	EPA 6010D	11-23-20	11-23-20	
Barium	56	3.5	EPA 6010D	11-23-20	11-23-20	
Cadmium	ND	0.70	EPA 6010D	11-23-20	11-23-20	
Chromium	25	0.70	EPA 6010D	11-23-20	11-23-20	
Copper	13	1.4	EPA 6010D	11-23-20	11-23-20	
Lead	ND	7.0	EPA 6010D	11-23-20	11-23-20	
Mercury	ND	0.35	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	14	EPA 6010D	11-23-20	11-23-20	
Silver	ND	1.4	EPA 6010D	11-23-20	11-23-20	



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**TOTAL METALS
 EPA 6010D/7471B**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS24					
Laboratory ID:	11-132-10					
Arsenic	ND	13	EPA 6010D	11-23-20	11-23-20	
Barium	48	3.2	EPA 6010D	11-23-20	11-23-20	
Cadmium	ND	0.65	EPA 6010D	11-23-20	11-23-20	
Chromium	23	0.65	EPA 6010D	11-23-20	11-23-20	
Lead	8.5	6.5	EPA 6010D	11-23-20	11-23-20	
Mercury	ND	0.32	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	13	EPA 6010D	11-23-20	11-23-20	
Silver	ND	1.3	EPA 6010D	11-23-20	11-23-20	

Client ID:	SS25					
Laboratory ID:	11-132-11					
Arsenic	ND	13	EPA 6010D	11-23-20	11-23-20	
Barium	61	3.2	EPA 6010D	11-23-20	11-23-20	
Cadmium	ND	0.64	EPA 6010D	11-23-20	11-23-20	
Chromium	23	0.64	EPA 6010D	11-23-20	11-23-20	
Lead	35	6.4	EPA 6010D	11-23-20	11-23-20	
Mercury	ND	0.32	EPA 7471B	11-23-20	11-23-20	
Selenium	ND	13	EPA 6010D	11-23-20	11-23-20	
Silver	ND	1.3	EPA 6010D	11-23-20	11-23-20	



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**TOTAL METALS
 EPA 6010D/7471B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1123SM2					
Arsenic	ND	10	EPA 6010D	11-23-20	11-23-20	
Barium	ND	2.5	EPA 6010D	11-23-20	11-23-20	
Cadmium	ND	0.50	EPA 6010D	11-23-20	11-23-20	
Chromium	ND	0.50	EPA 6010D	11-23-20	11-23-20	
Copper	ND	1.0	EPA 6010D	11-23-20	11-23-20	
Lead	ND	5.0	EPA 6010D	11-23-20	11-23-20	
Selenium	ND	10	EPA 6010D	11-23-20	11-23-20	
Silver	ND	1.0	EPA 6010D	11-23-20	11-23-20	
Laboratory ID:	MB1123S3					
Mercury	ND	0.25	EPA 7471B	11-23-20	11-23-20	



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**TOTAL METALS
 EPA 6010D/7471B
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	11-132-02									
	ORIG	DUP								
Arsenic	ND	ND	NA	NA		NA	NA	NA	20	
Barium	41.8	37.8	NA	NA		NA	NA	10	20	
Cadmium	ND	ND	NA	NA		NA	NA	NA	20	
Chromium	18.0	17.3	NA	NA		NA	NA	4	20	
Copper	8.05	8.00	NA	NA		NA	NA	1	20	
Lead	ND	ND	NA	NA		NA	NA	NA	20	
Selenium	ND	ND	NA	NA		NA	NA	NA	20	
Silver	ND	ND	NA	NA		NA	NA	NA	20	

Laboratory ID:	11-132-02									
Mercury	ND	ND	NA	NA		NA	NA	NA	20	

MATRIX SPIKES

Laboratory ID:	11-132-02									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	94.8	95.2	100	100	ND	95	95	75-125	0	20
Barium	134	133	100	100	41.8	92	92	75-125	0	20
Cadmium	46.5	46.8	50.0	50.0	ND	93	94	75-125	1	20
Chromium	111	113	100	100	18.0	93	95	75-125	2	20
Copper	53.6	54.4	50.0	50.0	8.05	91	93	75-125	1	20
Lead	234	234	250	250	ND	94	94	75-125	0	20
Selenium	91.4	92.1	100	100	ND	91	92	75-125	1	20
Silver	21.6	21.6	25.0	25.0	ND	86	86	75-125	0	20

Laboratory ID:	11-132-02									
Mercury	0.561	0.557	0.500	0.500	0.0177	109	108	80-120	1	20



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS24					
Laboratory ID:	11-132-10					
Dichlorodifluoromethane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
Chloromethane	ND	0.0024	EPA 8260D	11-20-20	11-20-20	
Vinyl Chloride	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
Bromomethane	ND	0.0024	EPA 8260D	11-20-20	11-20-20	
Chloroethane	ND	0.0024	EPA 8260D	11-20-20	11-20-20	
Trichlorofluoromethane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
1,1-Dichloroethene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
Iodomethane	ND	0.0024	EPA 8260D	11-20-20	11-20-20	
Methylene Chloride	ND	0.0024	EPA 8260D	11-20-20	11-20-20	
(trans) 1,2-Dichloroethene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
Methyl t-Butyl Ether	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
1,1-Dichloroethane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
2,2-Dichloropropane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
(cis) 1,2-Dichloroethene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
Bromochloromethane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
Chloroform	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
1,1,1-Trichloroethane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
Carbon Tetrachloride	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
1,1-Dichloropropene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
1,2-Dichloroethane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
Trichloroethene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
1,2-Dichloropropane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
Dibromomethane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
Bromodichloromethane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
2-Chloroethyl Vinyl Ether	ND	0.0024	EPA 8260D	11-20-20	11-20-20	
(cis) 1,3-Dichloropropene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
(trans) 1,3-Dichloropropene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS24					
Laboratory ID:	11-132-10					
1,1,2-Trichloroethane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
Tetrachloroethene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
1,3-Dichloropropane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
Dibromochloromethane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
1,2-Dibromoethane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
Chlorobenzene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
1,1,1,2-Tetrachloroethane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
Bromoform	ND	0.0024	EPA 8260D	11-20-20	11-20-20	
Bromobenzene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
1,1,1,2-Tetrachloroethane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichloropropane	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
2-Chlorotoluene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
4-Chlorotoluene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
1,3-Dichlorobenzene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
1,4-Dichlorobenzene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
1,2-Dichlorobenzene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
1,2-Dibromo-3-chloropropane	ND	0.0024	EPA 8260D	11-20-20	11-20-20	
1,2,4-Trichlorobenzene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
Hexachlorobutadiene	ND	0.0024	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichlorobenzene	ND	0.00047	EPA 8260D	11-20-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>113</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>86</i>	<i>71-130</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS25					
Laboratory ID:	11-132-11					
Dichlorodifluoromethane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
Chloromethane	ND	0.0027	EPA 8260D	11-20-20	11-20-20	
Vinyl Chloride	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
Bromomethane	ND	0.0027	EPA 8260D	11-20-20	11-20-20	
Chloroethane	ND	0.0027	EPA 8260D	11-20-20	11-20-20	
Trichlorofluoromethane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
1,1-Dichloroethene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
Iodomethane	ND	0.0027	EPA 8260D	11-20-20	11-20-20	
Methylene Chloride	ND	0.0027	EPA 8260D	11-20-20	11-20-20	
(trans) 1,2-Dichloroethene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
Methyl t-Butyl Ether	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
1,1-Dichloroethane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
2,2-Dichloropropane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
(cis) 1,2-Dichloroethene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
Bromochloromethane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
Chloroform	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
1,1,1-Trichloroethane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
Carbon Tetrachloride	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
1,1-Dichloropropene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
1,2-Dichloroethane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
Trichloroethene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
1,2-Dichloropropane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
Dibromomethane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
Bromodichloromethane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
2-Chloroethyl Vinyl Ether	ND	0.0027	EPA 8260D	11-20-20	11-20-20	
(cis) 1,3-Dichloropropene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
(trans) 1,3-Dichloropropene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
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 Project: 1903-00129-RI

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS25					
Laboratory ID:	11-132-11					
1,1,2-Trichloroethane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
Tetrachloroethene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
1,3-Dichloropropane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
Dibromochloromethane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
1,2-Dibromoethane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
Chlorobenzene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
1,1,1,2-Tetrachloroethane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
Bromoform	ND	0.0027	EPA 8260D	11-20-20	11-20-20	
Bromobenzene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
1,1,2,2-Tetrachloroethane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichloropropane	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
2-Chlorotoluene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
4-Chlorotoluene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
1,3-Dichlorobenzene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
1,4-Dichlorobenzene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
1,2-Dichlorobenzene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
1,2-Dibromo-3-chloropropane	ND	0.0027	EPA 8260D	11-20-20	11-20-20	
1,2,4-Trichlorobenzene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
Hexachlorobutadiene	ND	0.0027	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichlorobenzene	ND	0.00055	EPA 8260D	11-20-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>112</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>71-130</i>				



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1120S2					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Chloromethane	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Bromomethane	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
Chloroethane	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Iodomethane	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
Methylene Chloride	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Bromochloromethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Chloroform	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Trichloroethene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Dibromomethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
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VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1120S2					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Chlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Bromoform	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
Bromobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	11-20-20	11-20-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	11-20-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>116</i>	<i>74-131</i>				
<i>Toluene-d8</i>	<i>113</i>	<i>78-128</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>71-130</i>				



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB1120S2									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0549	0.0536	0.0500	0.0500	110	107	55-126	2	17	
Benzene	0.0542	0.0543	0.0500	0.0500	108	109	65-121	0	16	
Trichloroethene	0.0583	0.0576	0.0500	0.0500	117	115	74-126	1	16	
Toluene	0.0500	0.0490	0.0500	0.0500	100	98	71-121	2	16	
Chlorobenzene	0.0563	0.0553	0.0500	0.0500	113	111	72-123	2	16	
<i>Surrogate:</i>										
Dibromofluoromethane					108	108	74-131			
Toluene-d8					102	104	78-128			
4-Bromofluorobenzene					100	96	71-130			



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

PCBs EPA 8082A

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SS24					
Laboratory ID:	11-132-10					
Aroclor 1016	ND	0.065	EPA 8082A	11-17-20	11-23-20	
Aroclor 1221	ND	0.065	EPA 8082A	11-17-20	11-23-20	
Aroclor 1232	ND	0.065	EPA 8082A	11-17-20	11-23-20	
Aroclor 1242	ND	0.065	EPA 8082A	11-17-20	11-23-20	
Aroclor 1248	ND	0.065	EPA 8082A	11-17-20	11-23-20	
Aroclor 1254	ND	0.065	EPA 8082A	11-17-20	11-23-20	
Aroclor 1260	ND	0.065	EPA 8082A	11-17-20	11-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	112	46-125				
Client ID:	SS25					
Laboratory ID:	11-132-11					
Aroclor 1016	ND	0.064	EPA 8082A	11-17-20	11-23-20	
Aroclor 1221	ND	0.064	EPA 8082A	11-17-20	11-23-20	
Aroclor 1232	ND	0.064	EPA 8082A	11-17-20	11-23-20	
Aroclor 1242	ND	0.064	EPA 8082A	11-17-20	11-23-20	
Aroclor 1248	ND	0.064	EPA 8082A	11-17-20	11-23-20	
Aroclor 1254	ND	0.064	EPA 8082A	11-17-20	11-23-20	
Aroclor 1260	ND	0.064	EPA 8082A	11-17-20	11-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
DCB	107	46-125				



Date of Report: November 25, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-132
 Project: 1903-00129-RI

**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117S1					
Aroclor 1016	ND	0.050	EPA 8082A	11-17-20	11-23-20	
Aroclor 1221	ND	0.050	EPA 8082A	11-17-20	11-23-20	
Aroclor 1232	ND	0.050	EPA 8082A	11-17-20	11-23-20	
Aroclor 1242	ND	0.050	EPA 8082A	11-17-20	11-23-20	
Aroclor 1248	ND	0.050	EPA 8082A	11-17-20	11-23-20	
Aroclor 1254	ND	0.050	EPA 8082A	11-17-20	11-23-20	
Aroclor 1260	ND	0.050	EPA 8082A	11-17-20	11-23-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>		<i>Control Limits</i>			
DCB	116		46-125			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB1117S1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	0.593	0.635	0.500	0.500	N/A	119	127	50-134	7	18	
<i>Surrogate:</i>											
DCB						118	115	46-125			



Date of Report: November 25, 2020
Samples Submitted: November 13, 2020
Laboratory Reference: 2011-132
Project: 1903-00129-RI

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
SS16	11-132-01	16	11-17-20
SS17	11-132-02	12	11-17-20
SS18	11-132-03	12	11-17-20
SS19	11-132-04	6	11-17-20
SS20	11-132-05	20	11-17-20
SS20-A	11-132-06	20	11-17-20
SS21	11-132-07	8	11-17-20
SS22	11-132-08	14	11-17-20
SS23	11-132-09	28	11-17-20
SS24	11-132-10	23	11-17-20
SS25	11-132-11	21	11-17-20





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





OnSite Environmental Inc.

Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Turnaround Request
(in working days)

Laboratory Number: **11-132**

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

(other)

Company: **ENPRO Environmental**

Project Number: **1903-00129-R1**

Project Name: **GREEN COKE PACT**

Project Manager: **KIM KIM**

Sampled by: **HANO ROSARIO**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	SS 16	11/11/2020	1330	SOIL	6
2	SS 17		1400		
3	SS 18		1415		
4	SS 19		1430		
5	SS 20		1445		
6	SS 20-A		1445		
7	SS 21		1500		
8	SS 22		1545		
9	SS 23		1600		
10	SS 24		1630		

Parameter	1	2	3	4	5	6	7	8	9	10
NWTPH-HCID										
NWTPH-Gx/BTEX	X									
NWTPH-Gx										
NWTPH-Dx (Acid / SG Clean-up)	X									
Volatiles 8260C										
Halogenated Volatiles 8260C	H	H								
EDB EPA 8011 (Waters Only)	H	H								
Semivolatiles 8270D/SIM (with low-level PAHs)										
PAHs 8270D/SIM (low-level)	X	H								
PCBs 8082A										
Organochlorine Pesticides 8081B										
Organophosphorus Pesticides 8270D/SIM										
Chlorinated Acid Herbicides 8151A										
Total RCRA Metals	X									
Total MTCA Metals										
PENTACHLOROPHENOL										
TCLP Metals	H	H								
HEM (oil and grease) 1661A										
TOTAL Cu										
EDC										
MTBE 8260										
DIOXINS/FURANS										
TOTAL Pb										
% Moisture										

Company	Signature	Date	Time	Comments/Special Instructions
ENPRO Environmental	<i>[Signature]</i>	11/12/2020	820	X = TO BE ANALYZED
AICONS	<i>[Signature]</i>	11/20/2020	8125	H = HOLD REMOIVE FURTHER INSTRUCTION
VI	<i>[Signature]</i>	11/13/2020	10:57	Added 11/20/2020. DB (STA)
OSBE	<i>[Signature]</i>	11/13/2020	1007	

Received: _____

Relinquished: _____

Received: _____

Relinquished: _____

Received: _____

Relinquished: _____

Reviewed/Date: _____

Reviewed/Date: _____

Reviewed/Date: _____

Reviewed/Date: _____

Reviewed/Date: _____

Chromatograms with final report Electronic Data Deliverables (EDDs)



Onsite Environmental Inc.
 Analytical Laboratory Testing Services
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Chain of Custody

Terraround Request
(in working days)

Laboratory Number: **11-132**

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

(other) _____

Company: **ENRLO ENVIRONMENTAL**
 Project Number: **1953-09129-R1**
 Project Name: **GREEN COVE PARK**
 Project Manager: **KIM KIM**
 Sampled by: **THOMAS ROSARIO**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
11	SS25	11/1/2020	1645	SOIL	6

Analysis	Result
NWTPH-HCID	
NWTPH-Gx/BTEX	X
NWTPH-Gx	
NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	X
Volatiles 8260C	
Halogenated Volatiles 8260C	●
EDB EPA 8011 (Waters Only)	H
Semivolatiles 8270D/SIM (with low-level PAHs)	
PAHs 8270D/SIM (low-level)	X
PCBs 8082A	●
Organochlorine Pesticides 8081B	
Organophosphorus Pesticides 8270D/SIM	
Chlorinated Acid Herbicides 8151A	
Total RCRA Metals	X
Total MTCA Metals	
TCLP Metals	H
HEM (oil and grease) 1664A	
EDC	H
MTBE 8260	●
% Moisture	X

[Large handwritten signature/initials across the middle of the page]

Received	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	<i>[Signature]</i>	ENRLO Environmental	11/1/2020	8:20	
Received	<i>[Signature]</i>	AVB Inc	11/13	8:25	
Relinquished	<i>[Signature]</i>	ORR	11/13/20	1001	
Received					
Relinquished					
Received					
Relinquished					
Reviewed/Date		Reviewed/Date			

Data Package: Standard Level III Level IV
 Chromatograms with final report Electronic Data Deliverables (EDDs)



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 24, 2020

Kim Kim
EnPro Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734

Re: Analytical Data for Project 1903-00129-RI
Laboratory Reference No. 2011-133

Dear Kim:

Enclosed are the analytical results and associated quality control data for samples submitted on November 13, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 24, 2020
Samples Submitted: November 13, 2020
Laboratory Reference: 2011-133
Project: 1903-00129-RI

Case Narrative

Samples were collected on November 12, 2020 and received by the laboratory on November 13, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-133
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW6-111220					
Laboratory ID:	11-133-01					
Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	100	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	65-120				
Client ID:	MW7-111220					
Laboratory ID:	11-133-02					
Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	100	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	99	65-120				



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-133
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1113W2					
Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	100	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	65-120				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-109-18							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	30	
Toluene	ND	ND	NA	NA	NA	NA	30	
Ethyl Benzene	ND	ND	NA	NA	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA	NA	NA	30	
o-Xylene	ND	ND	NA	NA	NA	NA	30	
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				99	100	65-120		

SPIKE BLANKS

Laboratory ID:	SB1113W1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	52.2	50.1	50.0	50.0	104	100	83-117	4	11
Toluene	54.1	52.1	50.0	50.0	108	104	86-115	4	12
Ethyl Benzene	53.6	51.5	50.0	50.0	107	103	86-117	4	12
m,p-Xylene	54.5	52.3	50.0	50.0	109	105	85-118	4	12
o-Xylene	52.9	51.2	50.0	50.0	106	102	86-115	3	11
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					81	104	65-120		



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-133
 Project: 1903-00129-RI

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW6-111220					
Laboratory ID:	11-133-01					
Diesel Range Organics	ND	0.21	NWTPH-Dx	11-18-20	11-19-20	
Lube Oil Range Organics	0.23	0.21	NWTPH-Dx	11-18-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	102	50-150				

Client ID:	MW7-111220					
Laboratory ID:	11-133-02					
Diesel Range Organics	0.38	0.21	NWTPH-Dx	11-18-20	11-19-20	
Lube Oil Range Organics	0.63	0.21	NWTPH-Dx	11-18-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
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 Project: 1903-00129-RI

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1118W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	11-18-20	11-19-20	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	11-18-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	97	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-153-01							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	NA	NA
Lube Oil Range Organics	0.249	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				97	89	50-150		



Date of Report: November 24, 2020
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 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW6-111220					
Laboratory ID:	11-133-01					
Naphthalene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Phenanthrene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo(j,k)fluoranthene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Benzoic Acid	ND	26	EPA 8270E	11-17-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>30</i>	<i>10 - 80</i>				
<i>Phenol-d6</i>	<i>20</i>	<i>10 - 87</i>				
<i>Nitrobenzene-d5</i>	<i>56</i>	<i>33 - 105</i>				
<i>2-Fluorobiphenyl</i>	<i>60</i>	<i>41 - 105</i>				
<i>2,4,6-Tribromophenol</i>	<i>72</i>	<i>25 - 124</i>				
<i>Terphenyl-d14</i>	<i>69</i>	<i>47 - 116</i>				



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-133
 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW7-111220					
Laboratory ID:	11-133-02					
Naphthalene	ND	0.098	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.098	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.098	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.098	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	0.11	0.098	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.098	EPA 8270E/SIM	11-17-20	11-17-20	
Phenanthrene	ND	0.098	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.098	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.098	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.098	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.0098	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.0098	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.0098	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[j,k]fluoranthene	ND	0.0098	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.0098	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.0098	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.0098	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.0098	EPA 8270E/SIM	11-17-20	11-17-20	
Benzoic Acid	ND	26	EPA 8270E	11-17-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>20</i>	<i>10 - 80</i>				
<i>Phenol-d6</i>	<i>15</i>	<i>10 - 87</i>				
<i>Nitrobenzene-d5</i>	<i>36</i>	<i>33 - 105</i>				
<i>2-Fluorobiphenyl</i>	<i>46</i>	<i>41 - 105</i>				
<i>2,4,6-Tribromophenol</i>	<i>69</i>	<i>25 - 124</i>				
<i>Terphenyl-d14</i>	<i>67</i>	<i>47 - 116</i>				



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 Laboratory Reference: 2011-133
 Project: 1903-00129-RI

**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117W1					
Naphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Phenanthrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzoic Acid	ND	27	EPA 8270E	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>33</i>	<i>10 - 80</i>				
<i>Phenol-d6</i>	<i>22</i>	<i>10 - 87</i>				
<i>Nitrobenzene-d5</i>	<i>62</i>	<i>33 - 105</i>				
<i>2-Fluorobiphenyl</i>	<i>60</i>	<i>41 - 105</i>				
<i>2,4,6-Tribromophenol</i>	<i>69</i>	<i>25 - 124</i>				
<i>Terphenyl-d14</i>	<i>69</i>	<i>47 - 116</i>				



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 Laboratory Reference: 2011-133
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**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
					SB	SBD	SB	SBD	SB	SBD
SPIKE BLANKS										
Laboratory ID:	SB1117W1									
	SB	SBD	SB	SBD	SB	SBD				
Phenol	10.0	9.18	40.0	40.0	25	23	21 - 53	9	25	
2-Chlorophenol	26.1	24.0	40.0	40.0	65	60	38 - 92	8	29	
1,4-Dichlorobenzene	11.7	10.4	20.0	20.0	59	52	30 - 88	12	29	
n-Nitroso-di-n-propylamine	13.2	12.7	20.0	20.0	66	64	40 - 103	4	22	
1,2,4-Trichlorobenzene	12.8	11.5	20.0	20.0	64	58	37 - 95	11	25	
4-Chloro-3-methylphenol	30.7	29.0	40.0	40.0	77	73	57 - 101	6	17	
Acenaphthene	14.1	12.7	20.0	20.0	71	64	51 - 97	10	18	
4-Nitrophenol	14.5	13.1	40.0	40.0	36	33	23 - 64	10	34	
2,4-Dinitrotoluene	15.0	13.9	20.0	20.0	75	70	52 - 103	8	17	
Pentachlorophenol	34.7	31.8	40.0	40.0	87	80	40 - 124	9	35	
Pyrene	16.2	15.2	20.0	20.0	81	76	52 - 107	6	19	
<i>Surrogate:</i>										
2-Fluorophenol					38	33	10 - 80			
Phenol-d6					25	23	10 - 87			
Nitrobenzene-d5					63	57	33 - 105			
2-Fluorobiphenyl					65	62	41 - 105			
2,4,6-Tribromophenol					77	73	25 - 124			
Terphenyl-d14					73	69	47 - 116			



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TOTAL METALS
EPA 200.8/6010D/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW6-111220					
Laboratory ID:	11-133-01					
Arsenic	18	3.3	EPA 200.8	11-18-20	11-19-20	
Barium	33	28	EPA 200.8	11-18-20	11-19-20	
Cadmium	ND	4.4	EPA 200.8	11-18-20	11-19-20	
Chromium	ND	11	EPA 200.8	11-18-20	11-19-20	
Iron	18000	280	EPA 6010D	11-18-20	11-23-20	
Lead	ND	1.1	EPA 200.8	11-18-20	11-19-20	
Manganese	4500	56	EPA 6010D	11-18-20	11-23-20	
Mercury	ND	0.50	EPA 7470A	11-20-20	11-20-20	
Selenium	ND	5.6	EPA 200.8	11-18-20	11-19-20	
Silver	ND	11	EPA 200.8	11-18-20	11-19-20	

Client ID:	MW7-111220					
Laboratory ID:	11-133-02					
Arsenic	36	3.3	EPA 200.8	11-18-20	11-19-20	
Barium	62	28	EPA 200.8	11-18-20	11-19-20	
Cadmium	ND	4.4	EPA 200.8	11-18-20	11-19-20	
Chromium	ND	11	EPA 200.8	11-18-20	11-19-20	
Iron	47000	280	EPA 6010D	11-18-20	11-20-20	
Lead	ND	1.1	EPA 200.8	11-18-20	11-19-20	
Manganese	7100	56	EPA 6010D	11-18-20	11-20-20	
Mercury	ND	0.50	EPA 7470A	11-20-20	11-20-20	
Selenium	ND	5.6	EPA 200.8	11-18-20	11-19-20	
Silver	ND	11	EPA 200.8	11-18-20	11-19-20	



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**TOTAL METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1118WM1					
Arsenic	ND	3.3	EPA 200.8	11-18-20	11-18-20	
Barium	ND	28	EPA 200.8	11-18-20	11-18-20	
Cadmium	ND	4.4	EPA 200.8	11-18-20	11-18-20	
Chromium	ND	11	EPA 200.8	11-18-20	11-18-20	
Lead	ND	1.1	EPA 200.8	11-18-20	11-19-20	
Selenium	ND	5.6	EPA 200.8	11-18-20	11-18-20	
Silver	ND	11	EPA 200.8	11-18-20	11-18-20	
Laboratory ID:	MB1118WM1					
Iron	ND	56	EPA 6010D	11-18-20	11-20-20	
Manganese	ND	11	EPA 6010D	11-18-20	11-20-20	
Laboratory ID:	MB1120W1					
Mercury	ND	0.50	EPA 7470A	11-20-20	11-20-20	



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 Project: 1903-00129-RI

**TOTAL METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-072-04							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	35.3	36.0	NA	NA	NA	2	20	
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	ND	ND	NA	NA	NA	NA	20	
Lead	ND	ND	NA	NA	NA	NA	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	
Laboratory ID:	11-072-04							
Iron	ND	ND	NA	NA	NA	NA	20	
Manganese	ND	ND	NA	NA	NA	NA	20	
Laboratory ID:	11-133-01							
Mercury	ND	ND	NA	NA	NA	NA	20	
MATRIX SPIKES								
Laboratory ID:	11-072-04							
	MS	MSD	MS	MSD	MS	MSD		
Arsenic	214	211	222	222	ND	96 95	75-125	2 20
Barium	224	224	222	222	35.3	85 85	75-125	0 20
Cadmium	214	212	222	222	ND	97 96	75-125	1 20
Chromium	183	181	222	222	ND	82 81	75-125	1 20
Lead	198	193	222	222	ND	89 87	75-125	3 20
Selenium	219	223	222	222	ND	99 101	75-125	2 20
Silver	213	208	222	222	ND	96 94	75-125	2 20
Laboratory ID:	11-072-04							
Iron	20700	20700	22200	22200	ND	93 93	75-125	0 20
Manganese	207	206	222	222	ND	93 93	75-125	1 20
Laboratory ID:	11-133-01							
Mercury	11.9	11.9	12.5	12.5	ND	95 95	75-125	1 20



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
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 Project: 1903-00129-RI

DISSOLVED METALS
EPA 200.8/6010D/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW6-111220					
Laboratory ID:	11-133-01					
Arsenic	15	3.0	EPA 200.8	11-13-20	11-18-20	
Barium	ND	25	EPA 200.8	11-13-20	11-18-20	
Cadmium	ND	4.0	EPA 200.8	11-13-20	11-18-20	
Chromium	ND	10	EPA 200.8	11-13-20	11-18-20	
Iron	16000	500	EPA 6010D	11-13-20	11-18-20	
Lead	ND	1.0	EPA 200.8	11-13-20	11-18-20	
Manganese	4500	100	EPA 6010D	11-13-20	11-18-20	
Mercury	ND	0.50	EPA 7470A	11-13-20	11-20-20	
Selenium	ND	5.0	EPA 200.8	11-13-20	11-18-20	
Silver	ND	10	EPA 200.8	11-13-20	11-18-20	

Client ID:	MW7-111220					
Laboratory ID:	11-133-02					
Arsenic	21	3.0	EPA 200.8	11-13-20	11-18-20	
Barium	40	25	EPA 200.8	11-13-20	11-18-20	
Cadmium	ND	4.0	EPA 200.8	11-13-20	11-18-20	
Chromium	ND	10	EPA 200.8	11-13-20	11-18-20	
Iron	37000	500	EPA 6010D	11-13-20	11-18-20	
Lead	ND	1.0	EPA 200.8	11-13-20	11-18-20	
Manganese	7600	100	EPA 6010D	11-13-20	11-18-20	
Mercury	ND	0.50	EPA 7470A	11-13-20	11-20-20	
Selenium	ND	5.0	EPA 200.8	11-13-20	11-18-20	
Silver	ND	10	EPA 200.8	11-13-20	11-18-20	



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-133
 Project: 1903-00129-RI

**DISSOLVED METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1113F1					
Arsenic	ND	3.0	EPA 200.8	11-13-20	11-18-20	
Barium	ND	25	EPA 200.8	11-13-20	11-18-20	
Cadmium	ND	4.0	EPA 200.8	11-13-20	11-18-20	
Chromium	ND	10	EPA 200.8	11-13-20	11-18-20	
Lead	ND	1.0	EPA 200.8	11-13-20	11-18-20	
Selenium	ND	5.0	EPA 200.8	11-13-20	11-18-20	
Silver	ND	10	EPA 200.8	11-13-20	11-18-20	
METHOD BLANK						
Laboratory ID:	MB1113F1					
Iron	ND	56	EPA 6010D	11-13-20	11-18-20	
Manganese	ND	11	EPA 6010D	11-13-20	11-18-20	
METHOD BLANK						
Laboratory ID:	MB1113F1					
Mercury	ND	0.50	EPA 7470A	11-13-20	11-20-20	



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-133
 Project: 1903-00129-RI

**DISSOLVED METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-119-37							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	ND	ND	NA	NA	NA	NA	20	
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	ND	ND	NA	NA	NA	NA	20	
Lead	ND	ND	NA	NA	NA	NA	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	
Laboratory ID:	11-134-01							
Iron	ND	ND	NA	NA	NA	NA	20	
Manganese	565	577	NA	NA	NA	2	20	
Laboratory ID:	11-134-02							
Mercury	ND	ND	NA	NA	NA	NA	20	
MATRIX SPIKES								
Laboratory ID:	11-119-37							
	MS	MSD	MS	MSD	MS	MSD		
Arsenic	74.4	76.4	80.0	80.0	ND	93 96	75-125	3 20
Barium	91.2	90.6	80.0	80.0	20.2	89 88	75-125	1 20
Cadmium	76.4	76.4	80.0	80.0	ND	96 96	75-125	0 20
Chromium	68.2	68.4	80.0	80.0	ND	85 86	75-125	0 20
Lead	75.2	67.4	80.0	80.0	ND	94 84	75-125	11 20
Selenium	77.2	78.2	80.0	80.0	ND	97 98	75-125	1 20
Silver	76.0	77.4	80.0	80.0	ND	95 97	75-125	2 20
Laboratory ID:	11-134-01							
Iron	22500	22400	22200	22200	ND	102 101	75-125	0 20
Manganese	1150	1140	556	556	565	106 104	75-125	1 20
Laboratory ID:	11-134-02							
Mercury	12.0	11.8	12.5	12.5	ND	96 95	75-125	1 20



Date of Report: November 24, 2020
Samples Submitted: November 13, 2020
Laboratory Reference: 2011-133
Project: 1903-00129-RI

AMMONIA (as Nitrogen)
SM 4500-NH₃ D

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW6-111220					
Laboratory ID:	11-133-01					
Ammonia	1.2	0.050	SM 4500-NH3 D	11-17-20	11-17-20	

Client ID:	MW7-111220					
Laboratory ID:	11-133-02					
Ammonia	3.8	0.050	SM 4500-NH3 D	11-17-20	11-17-20	



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-133
 Project: 1903-00129-RI

**AMMONIA (as Nitrogen)
 SM 4500-NH₃ D
 QUALITY CONTROL**

Matrix: Water
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117W1					
Ammonia	ND	0.050	SM 4500-NH3 D	11-17-20	11-17-20	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-176-01							
	ORIG	DUP						
Ammonia	0.502	0.523	NA	NA	NA	4	11	

MATRIX SPIKE								
Laboratory ID:	11-176-01							
	MS	MS		MS				
Ammonia	5.64	5.00	0.502	103	76-118	NA	NA	

SPIKE BLANK								
Laboratory ID:	SB1117W1							
	SB	SB		SB				
Ammonia	5.01	5.00	NA	100	88-110	NA	NA	



Date of Report: November 24, 2020
Samples Submitted: November 13, 2020
Laboratory Reference: 2011-133
Project: 1903-00129-RI

pH
SM 4500-H B

Matrix: Water
Units: pH (@ 25°C)

Analyte	Result	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW6-111220				
Laboratory ID:	11-133-01				
pH	6.5	SM 4500-H B	11-13-20	11-13-20	

Client ID:	MW7-111220				
Laboratory ID:	11-133-02				
pH	6.5	SM 4500-H B	11-13-20	11-13-20	





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664

*Professional
Analytical
Services*

Nov 20 2020
On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister

Dear David Baumeister:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
MW6-111220	Water	20-A018406	Redox
MW7-111220	Water	20-A018407	Redox

Your samples were received on Friday, November 13, 2020. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

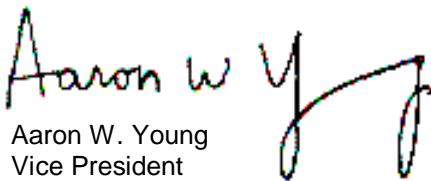
The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to contact me.

Sincerely,


Aaron W. Young
Vice President

Project #: 1903-00129-RI
PO Number: 11-133

BACT = Bacteriological
CONV = Conventionals

MET = Metals
ORG = Organics

NUT=Nutrients
DEM=Demand

MIN=Minerals

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com



Professional
Analytical
Services

ANALYSIS REPORT

On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister
Project #: 1903-00129-RI
PO Number: 11-133
All results reported on an as received basis.

Date Received: 11/13/20
Date Reported: 11/20/20

AMTEST Identification Number 20-A018406
Client Identification MW6-111220
Sampling Date 11/12/20, 12:20

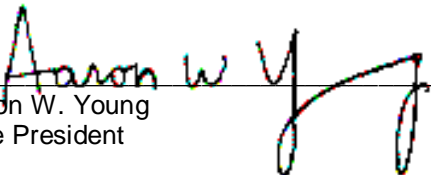
Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Redox Potential	237.	unit		200	ASTM D1498-76	DM	11/13/20

AMTEST Identification Number 20-A018407
Client Identification MW7-111220
Sampling Date 11/12/20, 13:45

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Redox Potential	250.	unit		200	ASTM D1498-76	DM	11/13/20


Aaron W. Young
Vice President

Am Test Inc.
 13600 NE 126th PL
 Suite C
 Kirkland, WA, 98034
 (425) 885-1664
 www.amtestlab.com



*Professional
 Analytical
 Services*

QC Summary for sample numbers: 20-A018406 to 20-A018407

DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	DUP VALUE	RPD
20-A018446	Redox Potential	unit	205.	218.	6.1
20-A018406	Redox Potential	unit	237.	256.	7.7

STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Redox Potential	unit	438.	438.	100. %
Redox Potential	unit	438.	442.	101. %



OnSite Environmental Inc.
 Analytical Laboratory/ Testing Services
 14648 NE 95th Street • Redmond, WA 98052
 Phone: (425) 893-3881 • www.onsite-env.com

Chain of Custody

Turnaround Request
(in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

(other) _____

Laboratory Number: **11-133**

Company: **EVERSO ENVIRONMENTAL**
 Project Number: **1903-00129-R1**
 Project Name: **GREEN LOVE PARK**
 Project Manager: **KIM KIM**
 Sampled by: **LEAND ROSARIO**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
1	MWB-111220	11/13/20	1220	Water
2	MW1-111220	11/13/20	1345	Water

Number of Containers	
NWTPH-HCID	
NWTPH-Gx/BTEX	X
NWTPH-Gx	
NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	X
Volatiles 8260C	
Halogenated Volatiles 8260C	
EDB EPA 8011 (Waters Only)	
Semivolatiles 8270D/SIM (with low-level PAHs)	
PAHs 8270D/SIM (low-level)	X
PCBs 8082A	
Organochlorine Pesticides 8081B	
Organophosphorus Pesticides 8270D/SIM	
Chlorinated Acid Herbicides 8151A	
Total RCRA Metals	X
Total MTCA Metals	
TCLP Metals	X
BENZOIC ACID	X
HEM (oil and grease) 1664A	X
AMMONIA	X
pH	X
En (ORP)	X
Mn	X
Fe	X
% Moisture	

[Large handwritten signature across the top of the table]

[Large handwritten signature across the middle of the table]

[Large handwritten signature across the bottom of the table]

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	EVERSO Environmental	11/13/20	820	• For RCRA METALS, PLEASE RETURN TOTAL AND DISSOLVED ANALYSES, FILTER AS NECESSARY • HOLD REMAINDER OF SAMPLES PENDING FURTHER INSTRUCTION
<i>[Signature]</i>	AIR-PA	11/13	820	
<i>[Signature]</i>	OSRE	11/13/20	1000	
<i>[Signature]</i>				
Received				Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>
Reviewed/Date				Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 24, 2020

Kim Kim
EnPro Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734

Re: Analytical Data for Project 1903-00129-RI
Laboratory Reference No. 2011-134

Dear Kim:

Enclosed are the analytical results and associated quality control data for samples submitted on November 13, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 24, 2020
Samples Submitted: November 13, 2020
Laboratory Reference: 2011-134
Project: 1903-00129-RI

Case Narrative

Samples were collected on November 12, 2020 and received by the laboratory on November 13, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Semivolatiles EPA 8270E/SIM Analysis

Sample MW5-111220 had two surrogate recoveries outside of control limits. The results from the re-extracted sample confirmed the original results.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-134
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW1-111220					
Laboratory ID:	11-134-01					
Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	100	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	99	65-120				
Client ID:	MW5-111220					
Laboratory ID:	11-134-02					
Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	100	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	65-120				



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-134
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1113W2					
Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	100	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	65-120				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-109-18							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				99	100	65-120		

SPIKE BLANKS

Laboratory ID:	SB1113W1							
	SB	SBD	SB	SBD	SB	SBD		
Benzene	52.2	50.1	50.0	50.0	104	100	83-117	4 11
Toluene	54.1	52.1	50.0	50.0	108	104	86-115	4 12
Ethyl Benzene	53.6	51.5	50.0	50.0	107	103	86-117	4 12
m,p-Xylene	54.5	52.3	50.0	50.0	109	105	85-118	4 12
o-Xylene	52.9	51.2	50.0	50.0	106	102	86-115	3 11
<i>Surrogate:</i>								
<i>Fluorobenzene</i>					81	104	65-120	



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-134
 Project: 1903-00129-RI

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW1-111220					
Laboratory ID:	11-134-01					
Diesel Range Organics	ND	0.22	NWTPH-Dx	11-18-20	11-19-20	
Lube Oil Range Organics	ND	0.22	NWTPH-Dx	11-18-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	98	50-150				
Client ID:	MW5-111220					
Laboratory ID:	11-134-02					
Diesel Range Organics	ND	0.21	NWTPH-Dx	11-18-20	11-19-20	
Lube Oil Range Organics	0.27	0.21	NWTPH-Dx	11-18-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-134
 Project: 1903-00129-RI

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1118W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	11-18-20	11-19-20	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	11-18-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	97	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-153-01							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	NA	NA
Lube Oil Range Organics	0.249	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				97	89	50-150		



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-134
 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW1-111220					
Laboratory ID:	11-134-01					
Benzoic Acid	ND	26	EPA 8270E	11-17-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	35	10 - 80				
Phenol-d6	23	10 - 87				
Nitrobenzene-d5	64	33 - 105				
2-Fluorobiphenyl	67	41 - 105				
2,4,6-Tribromophenol	74	25 - 124				
Terphenyl-d14	72	47 - 116				



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-134
 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW5-111220					
Laboratory ID:	11-134-02					
Naphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Phenanthrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[j,k]fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzoic Acid	ND	27	EPA 8270E	11-17-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	13	10 - 80				
Phenol-d6	9.7	10 - 87				
Nitrobenzene-d5	24	33 - 105				Q
2-Fluorobiphenyl	32	41 - 105				Q
2,4,6-Tribromophenol	65	25 - 124				
Terphenyl-d14	65	47 - 116				



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-134
 Project: 1903-00129-RI

**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117W1					
Naphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Phenanthrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzoic Acid	ND	27	EPA 8270E	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>33</i>	<i>10 - 80</i>				
<i>Phenol-d6</i>	<i>22</i>	<i>10 - 87</i>				
<i>Nitrobenzene-d5</i>	<i>62</i>	<i>33 - 105</i>				
<i>2-Fluorobiphenyl</i>	<i>60</i>	<i>41 - 105</i>				
<i>2,4,6-Tribromophenol</i>	<i>69</i>	<i>25 - 124</i>				
<i>Terphenyl-d14</i>	<i>69</i>	<i>47 - 116</i>				



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-134
 Project: 1903-00129-RI

**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limits	Limit		
SPIKE BLANKS										
Laboratory ID:	SB1117W1									
	SB	SBD	SB	SBD	SB	SBD				
Phenol	10.0	9.18	40.0	40.0	25	23	21 - 53	9	25	
2-Chlorophenol	26.1	24.0	40.0	40.0	65	60	38 - 92	8	29	
1,4-Dichlorobenzene	11.7	10.4	20.0	20.0	59	52	30 - 88	12	29	
n-Nitroso-di-n-propylamine	13.2	12.7	20.0	20.0	66	64	40 - 103	4	22	
1,2,4-Trichlorobenzene	12.8	11.5	20.0	20.0	64	58	37 - 95	11	25	
4-Chloro-3-methylphenol	30.7	29.0	40.0	40.0	77	73	57 - 101	6	17	
Acenaphthene	14.1	12.7	20.0	20.0	71	64	51 - 97	10	18	
4-Nitrophenol	14.5	13.1	40.0	40.0	36	33	23 - 64	10	34	
2,4-Dinitrotoluene	15.0	13.9	20.0	20.0	75	70	52 - 103	8	17	
Pentachlorophenol	34.7	31.8	40.0	40.0	87	80	40 - 124	9	35	
Pyrene	16.2	15.2	20.0	20.0	81	76	52 - 107	6	19	
<i>Surrogate:</i>										
2-Fluorophenol					38	33	10 - 80			
Phenol-d6					25	23	10 - 87			
Nitrobenzene-d5					63	57	33 - 105			
2-Fluorobiphenyl					65	62	41 - 105			
2,4,6-Tribromophenol					77	73	25 - 124			
Terphenyl-d14					73	69	47 - 116			



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-134
 Project: 1903-00129-RI

TOTAL METALS
EPA 200.8/6010D/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW1-111220					
Laboratory ID:	11-134-01					
Arsenic	ND	3.3	EPA 200.8	11-18-20	11-19-20	
Barium	30	28	EPA 200.8	11-18-20	11-19-20	
Cadmium	ND	4.4	EPA 200.8	11-18-20	11-19-20	
Chromium	ND	11	EPA 200.8	11-18-20	11-19-20	
Iron	2700	56	EPA 6010D	11-18-20	11-20-20	
Lead	ND	1.1	EPA 200.8	11-18-20	11-19-20	
Manganese	630	11	EPA 6010D	11-18-20	11-20-20	
Mercury	ND	0.50	EPA 7470A	11-20-20	11-20-20	
Selenium	ND	5.6	EPA 200.8	11-18-20	11-19-20	
Silver	ND	11	EPA 200.8	11-18-20	11-19-20	

Client ID:	MW5-111220					
Laboratory ID:	11-134-02					
Arsenic	73	3.3	EPA 200.8	11-18-20	11-19-20	
Barium	50	28	EPA 200.8	11-18-20	11-19-20	
Cadmium	ND	4.4	EPA 200.8	11-18-20	11-19-20	
Chromium	ND	11	EPA 200.8	11-18-20	11-19-20	
Iron	58000	560	EPA 6010D	11-18-20	11-20-20	
Lead	ND	1.1	EPA 200.8	11-18-20	11-19-20	
Manganese	11000	110	EPA 6010D	11-18-20	11-20-20	
Mercury	ND	0.50	EPA 7470A	11-20-20	11-20-20	
Selenium	ND	5.6	EPA 200.8	11-18-20	11-19-20	
Silver	ND	11	EPA 200.8	11-18-20	11-19-20	



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-134
 Project: 1903-00129-RI

TOTAL METALS
EPA 200.8/6010D/7470A
QUALITY CONTROL

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1118WM1					
Arsenic	ND	3.3	EPA 200.8	11-18-20	11-18-20	
Barium	ND	28	EPA 200.8	11-18-20	11-18-20	
Cadmium	ND	4.4	EPA 200.8	11-18-20	11-18-20	
Chromium	ND	11	EPA 200.8	11-18-20	11-18-20	
Lead	ND	1.1	EPA 200.8	11-18-20	11-19-20	
Selenium	ND	5.6	EPA 200.8	11-18-20	11-18-20	
Silver	ND	11	EPA 200.8	11-18-20	11-18-20	
Laboratory ID:	MB1118WM1					
Iron	ND	56	EPA 6010D	11-18-20	11-20-20	
Manganese	ND	11	EPA 6010D	11-18-20	11-20-20	
Laboratory ID:	MB1120W1					
Mercury	ND	0.50	EPA 7470A	11-20-20	11-20-20	



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-134
 Project: 1903-00129-RI

**TOTAL METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-072-04							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	35.3	36.0	NA	NA	NA	2	20	
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	ND	ND	NA	NA	NA	NA	20	
Lead	ND	ND	NA	NA	NA	NA	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	
Laboratory ID:	11-072-04							
Iron	ND	ND	NA	NA	NA	NA	20	
Manganese	ND	ND	NA	NA	NA	NA	20	
Laboratory ID:	11-133-01							
Mercury	ND	ND	NA	NA	NA	NA	20	
MATRIX SPIKES								
Laboratory ID:	11-072-04							
	MS	MSD	MS	MSD	MS	MSD		
Arsenic	214	211	222	222	ND	96 95	75-125	2 20
Barium	224	224	222	222	35.3	85 85	75-125	0 20
Cadmium	214	212	222	222	ND	97 96	75-125	1 20
Chromium	183	181	222	222	ND	82 81	75-125	1 20
Lead	198	193	222	222	ND	89 87	75-125	3 20
Selenium	219	223	222	222	ND	99 101	75-125	2 20
Silver	213	208	222	222	ND	96 94	75-125	2 20
Laboratory ID:	11-072-04							
Iron	20700	20700	22200	22200	ND	93 93	75-125	0 20
Manganese	207	206	222	222	ND	93 93	75-125	1 20
Laboratory ID:	11-133-01							
Mercury	11.9	11.9	12.5	12.5	ND	95 95	75-125	1 20



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-134
 Project: 1903-00129-RI

DISSOLVED METALS
EPA 200.8/6010D/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW1-111220					
Laboratory ID:	11-134-01					
Arsenic	ND	3.0	EPA 200.8	11-13-20	11-18-20	
Barium	ND	25	EPA 200.8	11-13-20	11-18-20	
Cadmium	ND	4.0	EPA 200.8	11-13-20	11-18-20	
Chromium	ND	10	EPA 200.8	11-13-20	11-18-20	
Iron	ND	56	EPA 6010D	11-13-20	11-18-20	
Lead	ND	1.0	EPA 200.8	11-13-20	11-18-20	
Manganese	560	11	EPA 6010D	11-13-20	11-18-20	
Mercury	ND	0.50	EPA 7470A	11-13-20	11-20-20	
Selenium	ND	5.0	EPA 200.8	11-13-20	11-18-20	
Silver	ND	10	EPA 200.8	11-13-20	11-18-20	

Client ID:	MW5-111220					
Laboratory ID:	11-134-02					
Arsenic	42	3.0	EPA 200.8	11-13-20	11-18-20	
Barium	26	25	EPA 200.8	11-13-20	11-18-20	
Cadmium	ND	4.0	EPA 200.8	11-13-20	11-18-20	
Chromium	ND	10	EPA 200.8	11-13-20	11-18-20	
Iron	42000	500	EPA 6010D	11-13-20	11-18-20	
Lead	ND	1.0	EPA 200.8	11-13-20	11-18-20	
Manganese	13000	100	EPA 6010D	11-13-20	11-18-20	
Mercury	ND	0.50	EPA 7470A	11-13-20	11-20-20	
Selenium	ND	5.0	EPA 200.8	11-13-20	11-18-20	
Silver	ND	10	EPA 200.8	11-13-20	11-18-20	



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-134
 Project: 1903-00129-RI

**DISSOLVED METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1113F1					
Arsenic	ND	3.0	EPA 200.8	11-13-20	11-18-20	
Barium	ND	25	EPA 200.8	11-13-20	11-18-20	
Cadmium	ND	4.0	EPA 200.8	11-13-20	11-18-20	
Chromium	ND	10	EPA 200.8	11-13-20	11-18-20	
Lead	ND	1.0	EPA 200.8	11-13-20	11-18-20	
Selenium	ND	5.0	EPA 200.8	11-13-20	11-18-20	
Silver	ND	10	EPA 200.8	11-13-20	11-18-20	
Laboratory ID:	MB1113F1					
Iron	ND	56	EPA 6010D	11-13-20	11-18-20	
Manganese	ND	11	EPA 6010D	11-13-20	11-18-20	
Laboratory ID:	MB1113F1					
Mercury	ND	0.50	EPA 7470A	11-13-20	11-20-20	



Date of Report: November 24, 2020
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 Laboratory Reference: 2011-134
 Project: 1903-00129-RI

**DISSOLVED METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-119-37							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	NA	20
Barium	ND	ND	NA	NA	NA	NA	NA	20
Cadmium	ND	ND	NA	NA	NA	NA	NA	20
Chromium	ND	ND	NA	NA	NA	NA	NA	20
Lead	ND	ND	NA	NA	NA	NA	NA	20
Selenium	ND	ND	NA	NA	NA	NA	NA	20
Silver	ND	ND	NA	NA	NA	NA	NA	20
Laboratory ID:	11-134-01							
Iron	ND	ND	NA	NA	NA	NA	NA	20
Manganese	565	577	NA	NA	NA	NA	2	20
Laboratory ID:	11-134-02							
Mercury	ND	ND	NA	NA	NA	NA	NA	20
MATRIX SPIKES								
Laboratory ID:	11-119-37							
	MS	MSD	MS	MSD		MS	MSD	
Arsenic	74.4	76.4	80.0	80.0	ND	93	96	75-125 3 20
Barium	91.2	90.6	80.0	80.0	20.2	89	88	75-125 1 20
Cadmium	76.4	76.4	80.0	80.0	ND	96	96	75-125 0 20
Chromium	68.2	68.4	80.0	80.0	ND	85	86	75-125 0 20
Lead	75.2	67.4	80.0	80.0	ND	94	84	75-125 11 20
Selenium	77.2	78.2	80.0	80.0	ND	97	98	75-125 1 20
Silver	76.0	77.4	80.0	80.0	ND	95	97	75-125 2 20
Laboratory ID:	11-134-01							
Iron	22500	22400	22200	22200	ND	102	101	75-125 0 20
Manganese	1150	1140	556	556	565	106	104	75-125 1 20
Laboratory ID:	11-134-02							
Mercury	12.0	11.8	12.5	12.5	ND	96	95	75-125 1 20



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-134
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AMMONIA (as Nitrogen)
SM 4500-NH₃ D

Matrix: Water
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW1-111220					
Laboratory ID:	11-134-01					
Ammonia	ND	0.050	SM 4500-NH3 D	11-17-20	11-17-20	

Client ID:	MW5-111220					
Laboratory ID:	11-134-02					
Ammonia	0.81	0.050	SM 4500-NH3 D	11-17-20	11-17-20	



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 Project: 1903-00129-RI

**AMMONIA (as Nitrogen)
 SM 4500-NH₃ D
 QUALITY CONTROL**

Matrix: Water
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117W1					
Ammonia	ND	0.050	SM 4500-NH3 D	11-17-20	11-17-20	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-176-01							
	ORIG	DUP						
Ammonia	0.502	0.523	NA	NA	NA	NA	4	11

MATRIX SPIKE								
Laboratory ID:	11-176-01							
	MS	MS		MS				
Ammonia	5.64	5.00	0.502	103	76-118	NA	NA	

SPIKE BLANK								
Laboratory ID:	SB1117W1							
	SB	SB		SB				
Ammonia	5.01	5.00	NA	100	88-110	NA	NA	



Date of Report: November 24, 2020
Samples Submitted: November 13, 2020
Laboratory Reference: 2011-134
Project: 1903-00129-RI

pH
SM 4500-H B

Matrix: Water
Units: pH (@ 25°C)

Analyte	Result	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW1-111220				
Laboratory ID:	11-134-01				
pH	6.6	SM 4500-H B	11-13-20	11-13-20	

Client ID:	MW5-111220				
Laboratory ID:	11-134-02				
pH	6.7	SM 4500-H B	11-13-20	11-13-20	





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664

Professional
Analytical
Services

Nov 20 2020
On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister

Dear David Baumeister:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
MW1-111220	Water	20-A018408	Redox
MW5-111220	Water	20-A018409	Redox

Your samples were received on Friday, November 13, 2020. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

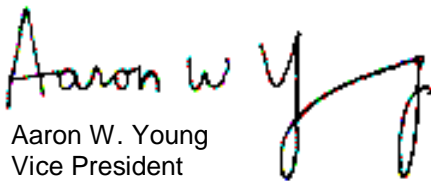
The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to contact me.

Sincerely,


Aaron W. Young
Vice President

Project #: 1903-00129-RI
PO Number: 11-134

BACT = Bacteriological
CONV = Conventionals

MET = Metals
ORG = Organics

NUT=Nutrients
DEM=Demand

MIN=Minerals

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com



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ANALYSIS REPORT

On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister
Project #: 1903-00129-RI
PO Number: 11-134
All results reported on an as received basis.

Date Received: 11/13/20
Date Reported: 11/20/20

AMTEST Identification Number 20-A018408
Client Identification MW1-111220
Sampling Date 11/12/20, 15:00

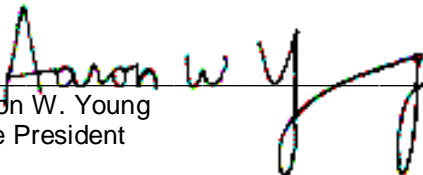
Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Redox Potential	293.	unit		200	ASTM D1498-76	DM	11/13/20

AMTEST Identification Number 20-A018409
Client Identification MW5-111220
Sampling Date 11/12/20, 16:15

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Redox Potential	245.	unit		200	ASTM D1498-76	DM	11/13/20


Aaron W. Young
Vice President

Am Test Inc.
13600 NE 126th PL
Suite C
Kirkland, WA, 98034
(425) 885-1664
www.amtestlab.com



*Professional
Analytical
Services*

QC Summary for sample numbers: 20-A018408 to 20-A018409

DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	DUP VALUE	RPD
20-A018446	Redox Potential	unit	205.	218.	6.1
20-A018406	Redox Potential	unit	237.	256.	7.7

STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Redox Potential	unit	438.	438.	100. %
Redox Potential	unit	438.	442.	101. %



Mn Onsite Environmental Inc.
 Analytical Laboratory Testing Services
 14648 NE 95th Street • Redmond, WA 98052
 Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Turnaround Request
(in Working Days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

(other) _____

Laboratory Number: **11-134**

Company: **ENPRO ENVIRONMENTAL**
 Project Number: **1903-00129-R1**
 Project Name: **GREEN COVE PARK**
 Project Manager: **KIM KIM**
 Sampled by: **HOND ROSARIO**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	NW1-11220	4/12/20	1500	WATER	17
2	NW5-11220	4/12/20	1615	WATER	12

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1064A	% Moisture
		X							X					X		X		
		X	X											X		X		

[Large handwritten signature/initials across the table]

Relinquished	Signature	Company	Date	Time	Comments/Special Instructions
Received	<i>[Signature]</i>	ENPRO Environmental	4/13/20	8:20	• FOR RCRA METALS, PLEASE PERFORM TOTAL AND DISSOLVED ANALYSES, FILTER AS NECESSARY • HOLD REMAINDER OF SAMPLES PENDING FURTHER INSTRUCTION
Relinquished	<i>[Signature]</i>	ALTAOL	4/13/20	8:25	
Received	<i>[Signature]</i>		4/13/20	10:05	
Relinquished	<i>[Signature]</i>	ORTE	4/13/20	10:06	
Received					Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>
Reviewed/Date					Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 24, 2020

Kim Kim
EnPro Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734

Re: Analytical Data for Project 1903-00129-RI
Laboratory Reference No. 2011-137

Dear Kim:

Enclosed are the analytical results and associated quality control data for samples submitted on November 13, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 24, 2020
Samples Submitted: November 13, 2020
Laboratory Reference: 2011-137
Project: 1903-00129-RI

Case Narrative

Samples were collected on November 13, 2020 and received by the laboratory on November 13, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW4-111320					
Laboratory ID:	11-137-01					
Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	100	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	78	65-120				
Client ID:	MW2-111320					
Laboratory ID:	11-137-02					
Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	100	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	65-120				



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1113W2					
Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Toluene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Ethyl Benzene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
m,p-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
o-Xylene	ND	1.0	EPA 8021B	11-13-20	11-13-20	
Gasoline	ND	100	NWTPH-Gx	11-13-20	11-13-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	65-120				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-109-18							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				99	100	65-120		

SPIKE BLANKS

Laboratory ID:	SB1113W1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	52.2	50.1	50.0	50.0	104	100	83-117	4	11
Toluene	54.1	52.1	50.0	50.0	108	104	86-115	4	12
Ethyl Benzene	53.6	51.5	50.0	50.0	107	103	86-117	4	12
m,p-Xylene	54.5	52.3	50.0	50.0	109	105	85-118	4	12
o-Xylene	52.9	51.2	50.0	50.0	106	102	86-115	3	11
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					81	104	65-120		



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW4-111320					
Laboratory ID:	11-137-01					
Diesel Range Organics	ND	0.22	NWTPH-Dx	11-18-20	11-19-20	
Lube Oil Range Organics	0.31	0.22	NWTPH-Dx	11-18-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	96	50-150				

Client ID:	MW2-111320					
Laboratory ID:	11-137-02					
Diesel Range Organics	ND	0.21	NWTPH-Dx	11-18-20	11-19-20	
Lube Oil Range Organics	0.54	0.21	NWTPH-Dx	11-18-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	102	50-150				



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1118W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	11-18-20	11-19-20	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	11-18-20	11-19-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	97	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-153-01							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	NA	NA
Lube Oil Range Organics	0.249	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				97	89	50-150		



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW4-111320					
Laboratory ID:	11-137-01					
Naphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Phenanthrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[j,k]fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzoic Acid	ND	27	EPA 8270E	11-17-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>38</i>	<i>10 - 80</i>				
<i>Phenol-d6</i>	<i>27</i>	<i>10 - 87</i>				
<i>Nitrobenzene-d5</i>	<i>58</i>	<i>33 - 105</i>				
<i>2-Fluorobiphenyl</i>	<i>62</i>	<i>41 - 105</i>				
<i>2,4,6-Tribromophenol</i>	<i>79</i>	<i>25 - 124</i>				
<i>Terphenyl-d14</i>	<i>71</i>	<i>47 - 116</i>				



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW2-111320					
Laboratory ID:	11-137-02					
Naphthalene	ND	0.099	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.099	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.099	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.099	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.099	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.099	EPA 8270E/SIM	11-17-20	11-17-20	
Phenanthrene	ND	0.099	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.099	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.099	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.099	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.0099	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.0099	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.0099	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo(j,k)fluoranthene	ND	0.0099	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.0099	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.0099	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.0099	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.0099	EPA 8270E/SIM	11-17-20	11-17-20	
Benzoic Acid	ND	27	EPA 8270E	11-17-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>37</i>	<i>10 - 80</i>				
<i>Phenol-d6</i>	<i>24</i>	<i>10 - 87</i>				
<i>Nitrobenzene-d5</i>	<i>55</i>	<i>33 - 105</i>				
<i>2-Fluorobiphenyl</i>	<i>59</i>	<i>41 - 105</i>				
<i>2,4,6-Tribromophenol</i>	<i>65</i>	<i>25 - 124</i>				
<i>Terphenyl-d14</i>	<i>61</i>	<i>47 - 116</i>				



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117W1					
Naphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Phenanthrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzoic Acid	ND	27	EPA 8270E	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>33</i>	<i>10 - 80</i>				
<i>Phenol-d6</i>	<i>22</i>	<i>10 - 87</i>				
<i>Nitrobenzene-d5</i>	<i>62</i>	<i>33 - 105</i>				
<i>2-Fluorobiphenyl</i>	<i>60</i>	<i>41 - 105</i>				
<i>2,4,6-Tribromophenol</i>	<i>69</i>	<i>25 - 124</i>				
<i>Terphenyl-d14</i>	<i>69</i>	<i>47 - 116</i>				



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limit			
SPIKE BLANKS										
Laboratory ID:	SB1117W1									
	SB	SBD	SB	SBD	SB	SBD				
Phenol	10.0	9.18	40.0	40.0	25	23	21 - 53	9	25	
2-Chlorophenol	26.1	24.0	40.0	40.0	65	60	38 - 92	8	29	
1,4-Dichlorobenzene	11.7	10.4	20.0	20.0	59	52	30 - 88	12	29	
n-Nitroso-di-n-propylamine	13.2	12.7	20.0	20.0	66	64	40 - 103	4	22	
1,2,4-Trichlorobenzene	12.8	11.5	20.0	20.0	64	58	37 - 95	11	25	
4-Chloro-3-methylphenol	30.7	29.0	40.0	40.0	77	73	57 - 101	6	17	
Acenaphthene	14.1	12.7	20.0	20.0	71	64	51 - 97	10	18	
4-Nitrophenol	14.5	13.1	40.0	40.0	36	33	23 - 64	10	34	
2,4-Dinitrotoluene	15.0	13.9	20.0	20.0	75	70	52 - 103	8	17	
Pentachlorophenol	34.7	31.8	40.0	40.0	87	80	40 - 124	9	35	
Pyrene	16.2	15.2	20.0	20.0	81	76	52 - 107	6	19	
<i>Surrogate:</i>										
2-Fluorophenol					38	33	10 - 80			
Phenol-d6					25	23	10 - 87			
Nitrobenzene-d5					63	57	33 - 105			
2-Fluorobiphenyl					65	62	41 - 105			
2,4,6-Tribromophenol					77	73	25 - 124			
Terphenyl-d14					73	69	47 - 116			



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

TOTAL METALS
EPA 200.8/6010D/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW4-111320					
Laboratory ID:	11-137-01					
Arsenic	ND	3.3	EPA 200.8	11-18-20	11-19-20	
Barium	90	28	EPA 200.8	11-18-20	11-19-20	
Cadmium	ND	4.4	EPA 200.8	11-18-20	11-19-20	
Chromium	ND	11	EPA 200.8	11-18-20	11-19-20	
Iron	7300	56	EPA 6010D	11-18-20	11-20-20	
Lead	5.9	1.1	EPA 200.8	11-18-20	11-19-20	
Manganese	6200	56	EPA 6010D	11-18-20	11-20-20	
Mercury	ND	0.50	EPA 7470A	11-20-20	11-20-20	
Selenium	ND	5.6	EPA 200.8	11-18-20	11-19-20	
Silver	ND	11	EPA 200.8	11-18-20	11-19-20	

Client ID:	MW2-111320					
Laboratory ID:	11-137-02					
Arsenic	8.2	3.3	EPA 200.8	11-18-20	11-19-20	
Barium	55	28	EPA 200.8	11-18-20	11-19-20	
Cadmium	ND	4.4	EPA 200.8	11-18-20	11-19-20	
Chromium	ND	11	EPA 200.8	11-18-20	11-19-20	
Iron	4600	56	EPA 6010D	11-18-20	11-20-20	
Lead	ND	1.1	EPA 200.8	11-18-20	11-19-20	
Manganese	17000	220	EPA 6010D	11-18-20	11-20-20	
Mercury	ND	0.50	EPA 7470A	11-20-20	11-20-20	
Selenium	ND	5.6	EPA 200.8	11-18-20	11-19-20	
Silver	ND	11	EPA 200.8	11-18-20	11-19-20	



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

**TOTAL METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1118WM1					
Arsenic	ND	3.3	EPA 200.8	11-18-20	11-18-20	
Barium	ND	28	EPA 200.8	11-18-20	11-18-20	
Cadmium	ND	4.4	EPA 200.8	11-18-20	11-18-20	
Chromium	ND	11	EPA 200.8	11-18-20	11-18-20	
Lead	ND	1.1	EPA 200.8	11-18-20	11-19-20	
Selenium	ND	5.6	EPA 200.8	11-18-20	11-18-20	
Silver	ND	11	EPA 200.8	11-18-20	11-18-20	
Laboratory ID:	MB1118WM1					
Iron	ND	56	EPA 6010D	11-18-20	11-20-20	
Manganese	ND	11	EPA 6010D	11-18-20	11-20-20	
Laboratory ID:	MB1120W1					
Mercury	ND	0.50	EPA 7470A	11-20-20	11-20-20	



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

**TOTAL METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-072-04							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	35.3	36.0	NA	NA	NA	2	20	
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	ND	ND	NA	NA	NA	NA	20	
Lead	ND	ND	NA	NA	NA	NA	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	
Laboratory ID:	11-072-04							
Iron	ND	ND	NA	NA	NA	NA	20	
Manganese	ND	ND	NA	NA	NA	NA	20	
Laboratory ID:	11-133-01							
Mercury	ND	ND	NA	NA	NA	NA	20	
MATRIX SPIKES								
Laboratory ID:	11-072-04							
	MS	MSD	MS	MSD	MS	MSD		
Arsenic	214	211	222	222	ND	96 95	75-125	2 20
Barium	224	224	222	222	35.3	85 85	75-125	0 20
Cadmium	214	212	222	222	ND	97 96	75-125	1 20
Chromium	183	181	222	222	ND	82 81	75-125	1 20
Lead	198	193	222	222	ND	89 87	75-125	3 20
Selenium	219	223	222	222	ND	99 101	75-125	2 20
Silver	213	208	222	222	ND	96 94	75-125	2 20
Laboratory ID:	11-072-04							
Iron	20700	20700	22200	22200	ND	93 93	75-125	0 20
Manganese	207	206	222	222	ND	93 93	75-125	1 20
Laboratory ID:	11-133-01							
Mercury	11.9	11.9	12.5	12.5	ND	95 95	75-125	1 20



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

DISSOLVED METALS
EPA 200.8/6010D/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW4-111320					
Laboratory ID:	11-137-01					
Arsenic	ND	3.0	EPA 200.8	11-13-20	11-18-20	
Barium	52	25	EPA 200.8	11-13-20	11-18-20	
Cadmium	ND	4.0	EPA 200.8	11-13-20	11-18-20	
Chromium	ND	10	EPA 200.8	11-13-20	11-18-20	
Iron	260	56	EPA 6010D	11-13-20	11-18-20	
Lead	ND	1.0	EPA 200.8	11-13-20	11-18-20	
Manganese	6200	100	EPA 6010D	11-13-20	11-18-20	
Mercury	ND	0.50	EPA 7470A	11-13-20	11-20-20	
Selenium	ND	5.0	EPA 200.8	11-13-20	11-18-20	
Silver	ND	10	EPA 200.8	11-13-20	11-18-20	

Client ID:	MW2-111320					
Laboratory ID:	11-137-02					
Arsenic	7.4	3.0	EPA 200.8	11-13-20	11-18-20	
Barium	38	25	EPA 200.8	11-13-20	11-18-20	
Cadmium	ND	4.0	EPA 200.8	11-13-20	11-18-20	
Chromium	ND	10	EPA 200.8	11-13-20	11-18-20	
Iron	2100	56	EPA 6010D	11-13-20	11-18-20	
Lead	ND	1.0	EPA 200.8	11-13-20	11-18-20	
Manganese	18000	100	EPA 6010D	11-13-20	11-18-20	
Mercury	ND	0.50	EPA 7470A	11-13-20	11-20-20	
Selenium	ND	5.0	EPA 200.8	11-13-20	11-18-20	
Silver	ND	10	EPA 200.8	11-13-20	11-18-20	



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

**DISSOLVED METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1113F1					
Arsenic	ND	3.0	EPA 200.8	11-13-20	11-18-20	
Barium	ND	25	EPA 200.8	11-13-20	11-18-20	
Cadmium	ND	4.0	EPA 200.8	11-13-20	11-18-20	
Chromium	ND	10	EPA 200.8	11-13-20	11-18-20	
Lead	ND	1.0	EPA 200.8	11-13-20	11-18-20	
Selenium	ND	5.0	EPA 200.8	11-13-20	11-18-20	
Silver	ND	10	EPA 200.8	11-13-20	11-18-20	
Laboratory ID:	MB1113F1					
Iron	ND	56	EPA 6010D	11-13-20	11-18-20	
Manganese	ND	11	EPA 6010D	11-13-20	11-18-20	
Laboratory ID:	MB1113F1					
Mercury	ND	0.50	EPA 7470A	11-13-20	11-20-20	



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

**DISSOLVED METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-119-37							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	20	
Barium	ND	ND	NA	NA	NA	NA	20	
Cadmium	ND	ND	NA	NA	NA	NA	20	
Chromium	ND	ND	NA	NA	NA	NA	20	
Lead	ND	ND	NA	NA	NA	NA	20	
Selenium	ND	ND	NA	NA	NA	NA	20	
Silver	ND	ND	NA	NA	NA	NA	20	
Laboratory ID:	11-134-01							
Iron	ND	ND	NA	NA	NA	NA	20	
Manganese	565	577	NA	NA	NA	2	20	
Laboratory ID:	11-134-02							
Mercury	ND	ND	NA	NA	NA	NA	20	
MATRIX SPIKES								
Laboratory ID:	11-119-37							
	MS	MSD	MS	MSD	MS	MSD		
Arsenic	74.4	76.4	80.0	80.0	ND	93 96	75-125	3 20
Barium	91.2	90.6	80.0	80.0	20.2	89 88	75-125	1 20
Cadmium	76.4	76.4	80.0	80.0	ND	96 96	75-125	0 20
Chromium	68.2	68.4	80.0	80.0	ND	85 86	75-125	0 20
Lead	75.2	67.4	80.0	80.0	ND	94 84	75-125	11 20
Selenium	77.2	78.2	80.0	80.0	ND	97 98	75-125	1 20
Silver	76.0	77.4	80.0	80.0	ND	95 97	75-125	2 20
Laboratory ID:	11-134-01							
Iron	22500	22400	22200	22200	ND	102 101	75-125	0 20
Manganese	1150	1140	556	556	565	106 104	75-125	1 20
Laboratory ID:	11-134-02							
Mercury	12.0	11.8	12.5	12.5	ND	96 95	75-125	1 20



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

AMMONIA (as Nitrogen)
SM 4500-NH₃ D

Matrix: Water
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW4-111320					
Laboratory ID:	11-137-01					
Ammonia	ND	0.050	SM 4500-NH3 D	11-17-20	11-17-20	

Client ID:	MW2-111320					
Laboratory ID:	11-137-02					
Ammonia	0.13	0.050	SM 4500-NH3 D	11-17-20	11-17-20	



Date of Report: November 24, 2020
 Samples Submitted: November 13, 2020
 Laboratory Reference: 2011-137
 Project: 1903-00129-RI

**AMMONIA (as Nitrogen)
 SM 4500-NH₃ D
 QUALITY CONTROL**

Matrix: Water
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117W1					
Ammonia	ND	0.050	SM 4500-NH3 D	11-17-20	11-17-20	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-176-01							
	ORIG	DUP						
Ammonia	0.502	0.523	NA	NA	NA	NA	4	11

MATRIX SPIKE								
Laboratory ID:	11-176-01							
	MS	MS		MS				
Ammonia	5.64	5.00	0.502	103	76-118	NA	NA	

SPIKE BLANK								
Laboratory ID:	SB1117W1							
	SB	SB		SB				
Ammonia	5.01	5.00	NA	100	88-110	NA	NA	



Date of Report: November 24, 2020
Samples Submitted: November 13, 2020
Laboratory Reference: 2011-137
Project: 1903-00129-RI

pH
SM 4500-H B

Matrix: Water
Units: pH (@ 25°C)

Analyte	Result	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW4-111320				
Laboratory ID:	11-137-01				
pH	6.7	SM 4500-H B	11-13-20	11-13-20	

Client ID:	MW2-111320				
Laboratory ID:	11-137-02				
pH	6.6	SM 4500-H B	11-13-20	11-13-20	





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664

Professional
Analytical
Services

Nov 20 2020
On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister

Dear David Baumeister:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
MW4-111320	Water	20-A018445	Redox
MW2-111320	Water	20-A018446	Redox

Your samples were received on Friday, November 13, 2020. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

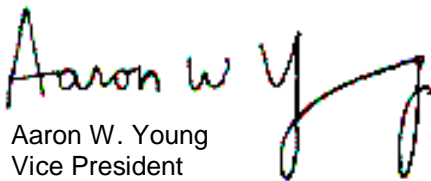
The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to contact me.

Sincerely,


Aaron W. Young
Vice President

Project #: 1903-00129-RI
PO Number: 11-137

BACT = Bacteriological
CONV = Conventionals

MET = Metals
ORG = Organics

NUT=Nutrients
DEM=Demand

MIN=Minerals

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com



Professional
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ANALYSIS REPORT

On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister
Project #: 1903-00129-RI
PO Number: 11-137
All results reported on an as received basis.

Date Received: 11/13/20
Date Reported: 11/20/20

AMTEST Identification Number 20-A018445
Client Identification MW4-111320
Sampling Date 11/13/20, 09:30

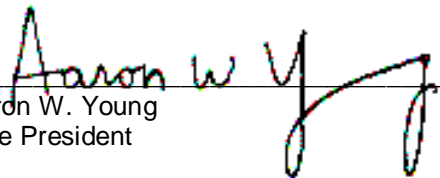
Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Redox Potential	< 200	unit		200	ASTM D1498-76	DM	11/13/20

AMTEST Identification Number 20-A018446
Client Identification MW2-111320
Sampling Date 11/13/20, 11:30

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Redox Potential	205.	unit		200	ASTM D1498-76	DM	11/13/20


Aaron W. Young
Vice President

Am Test Inc.
 13600 NE 126th PL
 Suite C
 Kirkland, WA, 98034
 (425) 885-1664
 www.amtestlab.com



*Professional
 Analytical
 Services*

QC Summary for sample numbers: 20-A018445 to 20-A018446

DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	DUP VALUE	RPD
20-A018446	Redox Potential	unit	205.	218.	6.1
20-A018406	Redox Potential	unit	237.	256.	7.7

STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Redox Potential	unit	438.	438.	100. %
Redox Potential	unit	438.	442.	101. %



MA Onsite Environmental Inc.
 Analytical Laboratory Testing Services
 14648 NE 95th Street • Redmond, WA 98052
 Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Turnaround Request
(in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

_____ (other)

Laboratory Number: **11-137**

Company: **EMPRO Environmental**
 Project Number: **1903-00129-RI**
 Project Name: **Green Cove Park**
 Project Manager: **Kim Kim**
 Sampled by: **Hoana Rosario**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	MW4-W1320	11-13-20	0930	water	17
2	MW2-W1320	↓	1130	↓	17

NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	CLP Metals Benzoic Acid	HEM (oil and grease) Top 4A Ammonia	pH	EH (OPP)	Mn	Fe	% Moisture
	X		X					X					X		X	X	X	X	X	X	
	X		X					X					X		X	X	X	X	X	X	

Last Entry
 11-13-20

Relinquished	Received	Relinquished	Received	Relinquished	Received	Relinquished	Received
	Ken Beal		Matthew Clark				

Signature: _____

Company: **EMPRO Environmental**

Date: **11-13-20**

Time: **2:10 pm**

Comments/Special Instructions: **For RCRA Metals, please perform total & dissolved analyses, filter as necessary. Please hold remainder of samples pending further instruction. AS W1320**

Data Package: Standard Level III Level IV
 Chromatograms with final report Electronic Data Deliverables (EDDs)



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

December 2, 2020

Kim Kim
EnPro Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734

Re: Analytical Data for Project 1903-00129-RI
Laboratory Reference No. 2011-156

Dear Kim:

Enclosed are the analytical results and associated quality control data for samples submitted on November 14, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: December 2, 2020
Samples Submitted: November 14, 2020
Laboratory Reference: 2011-156
Project: 1903-00129-RI

Case Narrative

Samples were collected on November 14, 2020 and received by the laboratory on November 14, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: December 2, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-156
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3-111420					
Laboratory ID:	11-156-01					
Benzene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Toluene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Ethyl Benzene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
m,p-Xylene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
o-Xylene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Gasoline	ND	100	NWTPH-Gx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	65-120				
Client ID:	MW3A-111420					
Laboratory ID:	11-156-02					
Benzene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Toluene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Ethyl Benzene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
m,p-Xylene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
o-Xylene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Gasoline	ND	100	NWTPH-Gx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	65-120				



Date of Report: December 2, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-156
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117W1					
Benzene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Toluene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Ethyl Benzene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
m,p-Xylene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
o-Xylene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Gasoline	ND	100	NWTPH-Gx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	65-120				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-156-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	30	
Toluene	ND	ND	NA	NA	NA	NA	30	
Ethyl Benzene	ND	ND	NA	NA	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA	NA	NA	30	
o-Xylene	ND	ND	NA	NA	NA	NA	30	
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				98	93	65-120		

SPIKE BLANKS

Laboratory ID:	SB1117W1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	49.8	49.0	50.0	50.0	100	98	83-117	2	11
Toluene	52.0	51.2	50.0	50.0	104	102	86-115	2	12
Ethyl Benzene	51.5	50.6	50.0	50.0	103	101	86-117	2	12
m,p-Xylene	52.1	51.4	50.0	50.0	104	103	85-118	1	12
o-Xylene	51.1	50.3	50.0	50.0	102	101	86-115	2	11
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					99	103	65-120		



Date of Report: December 2, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-156
 Project: 1903-00129-RI

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3-111420					
Laboratory ID:	11-156-01					
Diesel Range Organics	ND	0.21	NWTPH-Dx	11-20-20	11-20-20	
Lube Oil Range Organics	0.26	0.21	NWTPH-Dx	11-20-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	82	50-150				

Client ID:	MW3A-111420					
Laboratory ID:	11-156-02					
Diesel Range Organics	ND	0.22	NWTPH-Dx	11-20-20	11-20-20	
Lube Oil Range Organics	0.26	0.22	NWTPH-Dx	11-20-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				



Date of Report: December 2, 2020
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**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1120W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	11-20-20	11-20-20	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	11-20-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	102	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	SB1120W1							
	ORIG	DUP						
Diesel Fuel #2	0.419	0.307	NA	NA	NA	NA	31	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				108	95	50-150		



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SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3-111420					
Laboratory ID:	11-156-01					
Naphthalene	0.12	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Phenanthrene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.097	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo(j,k)fluoranthene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.0097	EPA 8270E/SIM	11-17-20	11-17-20	
Benzoic Acid	ND	26	EPA 8270E	11-17-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>27</i>	<i>10 - 80</i>				
<i>Phenol-d6</i>	<i>20</i>	<i>10 - 87</i>				
<i>Nitrobenzene-d5</i>	<i>44</i>	<i>33 - 105</i>				
<i>2-Fluorobiphenyl</i>	<i>47</i>	<i>41 - 105</i>				
<i>2,4,6-Tribromophenol</i>	<i>61</i>	<i>25 - 124</i>				
<i>Terphenyl-d14</i>	<i>55</i>	<i>47 - 116</i>				



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SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3A-111420					
Laboratory ID:	11-156-02					
Naphthalene	0.17	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Phenanthrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	0.12	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[j,k]fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzoic Acid	ND	27	EPA 8270E	11-17-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>35</i>	<i>10 - 80</i>				
<i>Phenol-d6</i>	<i>25</i>	<i>10 - 87</i>				
<i>Nitrobenzene-d5</i>	<i>54</i>	<i>33 - 105</i>				
<i>2-Fluorobiphenyl</i>	<i>59</i>	<i>41 - 105</i>				
<i>2,4,6-Tribromophenol</i>	<i>66</i>	<i>25 - 124</i>				
<i>Terphenyl-d14</i>	<i>64</i>	<i>47 - 116</i>				



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**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117W1					
Naphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Phenanthrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzoic Acid	ND	27	EPA 8270E	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>33</i>	<i>10 - 80</i>				
<i>Phenol-d6</i>	<i>22</i>	<i>10 - 87</i>				
<i>Nitrobenzene-d5</i>	<i>62</i>	<i>33 - 105</i>				
<i>2-Fluorobiphenyl</i>	<i>60</i>	<i>41 - 105</i>				
<i>2,4,6-Tribromophenol</i>	<i>69</i>	<i>25 - 124</i>				
<i>Terphenyl-d14</i>	<i>69</i>	<i>47 - 116</i>				



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**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limit			
SPIKE BLANKS										
Laboratory ID:	SB1117W1									
	SB	SBD	SB	SBD	SB	SBD				
Phenol	10.0	9.18	40.0	40.0	25	23	21 - 53	9	25	
2-Chlorophenol	26.1	24.0	40.0	40.0	65	60	38 - 92	8	29	
1,4-Dichlorobenzene	11.7	10.4	20.0	20.0	59	52	30 - 88	12	29	
n-Nitroso-di-n-propylamine	13.2	12.7	20.0	20.0	66	64	40 - 103	4	22	
1,2,4-Trichlorobenzene	12.8	11.5	20.0	20.0	64	58	37 - 95	11	25	
4-Chloro-3-methylphenol	30.7	29.0	40.0	40.0	77	73	57 - 101	6	17	
Acenaphthene	14.1	12.7	20.0	20.0	71	64	51 - 97	10	18	
4-Nitrophenol	14.5	13.1	40.0	40.0	36	33	23 - 64	10	34	
2,4-Dinitrotoluene	15.0	13.9	20.0	20.0	75	70	52 - 103	8	17	
Pentachlorophenol	34.7	31.8	40.0	40.0	87	80	40 - 124	9	35	
Pyrene	16.2	15.2	20.0	20.0	81	76	52 - 107	6	19	
<i>Surrogate:</i>										
2-Fluorophenol					38	33	10 - 80			
Phenol-d6					25	23	10 - 87			
Nitrobenzene-d5					63	57	33 - 105			
2-Fluorobiphenyl					65	62	41 - 105			
2,4,6-Tribromophenol					77	73	25 - 124			
Terphenyl-d14					73	69	47 - 116			



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TOTAL METALS
EPA 200.8/6010D/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3-111420					
Laboratory ID:	11-156-01					
Arsenic	ND	3.3	EPA 200.8	11-18-20	11-19-20	
Barium	ND	28	EPA 200.8	11-18-20	11-19-20	
Cadmium	ND	4.4	EPA 200.8	11-18-20	11-19-20	
Chromium	ND	11	EPA 200.8	11-18-20	11-19-20	
Iron	13000	56	EPA 6010D	11-18-20	11-20-20	
Lead	1.2	1.1	EPA 200.8	11-18-20	11-19-20	
Manganese	1000	11	EPA 6010D	11-18-20	11-20-20	
Mercury	ND	0.50	EPA 7470A	11-20-20	11-20-20	
Selenium	ND	5.6	EPA 200.8	11-18-20	11-19-20	
Silver	ND	11	EPA 200.8	11-18-20	11-19-20	

Client ID:	MW3A-111420					
Laboratory ID:	11-156-02					
Arsenic	ND	3.3	EPA 200.8	11-18-20	11-19-20	
Barium	ND	28	EPA 200.8	11-18-20	11-19-20	
Cadmium	ND	4.4	EPA 200.8	11-18-20	11-19-20	
Chromium	ND	11	EPA 200.8	11-18-20	11-19-20	
Iron	13000	56	EPA 6010D	11-18-20	11-20-20	
Lead	1.3	1.1	EPA 200.8	11-18-20	11-19-20	
Manganese	1000	11	EPA 6010D	11-18-20	11-20-20	
Mercury	ND	0.50	EPA 7470A	11-20-20	11-20-20	
Selenium	ND	5.6	EPA 200.8	11-18-20	11-19-20	
Silver	ND	11	EPA 200.8	11-18-20	11-19-20	



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TOTAL METALS
EPA 200.8/6010D/7470A
QUALITY CONTROL

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1118WM1					
Arsenic	ND	3.3	EPA 200.8	11-18-20	11-18-20	
Barium	ND	28	EPA 200.8	11-18-20	11-18-20	
Cadmium	ND	4.4	EPA 200.8	11-18-20	11-18-20	
Chromium	ND	11	EPA 200.8	11-18-20	11-18-20	
Lead	ND	1.1	EPA 200.8	11-18-20	11-19-20	
Selenium	ND	5.6	EPA 200.8	11-18-20	11-18-20	
Silver	ND	11	EPA 200.8	11-18-20	11-18-20	
Laboratory ID:	MB1118WM1					
Iron	ND	56	EPA 6010D	11-18-20	11-20-20	
Manganese	ND	11	EPA 6010D	11-18-20	11-20-20	
Laboratory ID:	MB1120W1					
Mercury	ND	0.50	EPA 7470A	11-20-20	11-20-20	



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TOTAL METALS
EPA 200.8/6010D/7470A
QUALITY CONTROL

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags		
DUPLICATE										
Laboratory ID:	11-072-04									
	ORIG	DUP								
Arsenic	ND	ND	NA	NA	NA	NA	20			
Barium	35.3	36.0	NA	NA	NA	2	20			
Cadmium	ND	ND	NA	NA	NA	NA	20			
Chromium	ND	ND	NA	NA	NA	NA	20			
Lead	ND	ND	NA	NA	NA	NA	20			
Selenium	ND	ND	NA	NA	NA	NA	20			
Silver	ND	ND	NA	NA	NA	NA	20			
Laboratory ID:	11-072-04									
Iron	ND	ND	NA	NA	NA	NA	20			
Manganese	ND	ND	NA	NA	NA	NA	20			
Laboratory ID:	11-133-01									
Mercury	ND	ND	NA	NA	NA	NA	20			
MATRIX SPIKES										
Laboratory ID:	11-072-04									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	214	211	222	222	ND	96	95	75-125	2	20
Barium	224	224	222	222	35.3	85	85	75-125	0	20
Cadmium	214	212	222	222	ND	97	96	75-125	1	20
Chromium	183	181	222	222	ND	82	81	75-125	1	20
Lead	198	193	222	222	ND	89	87	75-125	3	20
Selenium	219	223	222	222	ND	99	101	75-125	2	20
Silver	213	208	222	222	ND	96	94	75-125	2	20
Laboratory ID:	11-072-04									
Iron	20700	20700	22200	22200	ND	93	93	75-125	0	20
Manganese	207	206	222	222	ND	93	93	75-125	1	20
Laboratory ID:	11-133-01									
Mercury	11.9	11.9	12.5	12.5	ND	95	95	75-125	1	20



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DISSOLVED METALS
EPA 200.8/6010D/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3-111420					
Laboratory ID:	11-156-01					
Arsenic	ND	3.0	EPA 200.8	11-16-20	11-18-20	
Barium	ND	25	EPA 200.8	11-16-20	11-18-20	
Cadmium	ND	4.0	EPA 200.8	11-16-20	11-18-20	
Chromium	ND	10	EPA 200.8	11-16-20	11-18-20	
Iron	9400	56	EPA 6010D	11-16-20	11-18-20	
Lead	ND	1.0	EPA 200.8	11-16-20	11-18-20	
Manganese	1000	11	EPA 6010D	11-16-20	11-18-20	
Mercury	ND	0.50	EPA 7470A	11-16-20	11-20-20	
Selenium	ND	5.0	EPA 200.8	11-16-20	11-18-20	
Silver	ND	10	EPA 200.8	11-16-20	11-18-20	

Client ID:	MW3A-111420					
Laboratory ID:	11-156-02					
Arsenic	ND	3.0	EPA 200.8	11-16-20	11-18-20	
Barium	ND	25	EPA 200.8	11-16-20	11-18-20	
Cadmium	ND	4.0	EPA 200.8	11-16-20	11-18-20	
Chromium	ND	10	EPA 200.8	11-16-20	11-18-20	
Iron	9600	56	EPA 6010D	11-16-20	11-18-20	
Lead	ND	1.0	EPA 200.8	11-16-20	11-18-20	
Manganese	990	11	EPA 6010D	11-16-20	11-18-20	
Mercury	ND	0.50	EPA 7470A	11-16-20	11-20-20	
Selenium	ND	5.0	EPA 200.8	11-16-20	11-18-20	
Silver	ND	10	EPA 200.8	11-16-20	11-18-20	



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**DISSOLVED METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1116F1					
Arsenic	ND	3.0	EPA 200.8	11-16-20	11-18-20	
Barium	ND	25	EPA 200.8	11-16-20	11-18-20	
Cadmium	ND	4.0	EPA 200.8	11-16-20	11-18-20	
Chromium	ND	10	EPA 200.8	11-16-20	11-18-20	
Lead	ND	1.0	EPA 200.8	11-16-20	11-18-20	
Selenium	ND	5.0	EPA 200.8	11-16-20	11-18-20	
Silver	ND	10	EPA 200.8	11-16-20	11-18-20	
Laboratory ID:	MB1116F1					
Iron	ND	56	EPA 6010D	11-16-20	11-18-20	
Manganese	ND	11	EPA 6010D	11-16-20	11-18-20	
Laboratory ID:	MB1116F1					
Mercury	ND	0.50	EPA 7470A	11-16-20	11-20-20	



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**DISSOLVED METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-119-37							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	NA	20
Barium	ND	ND	NA	NA	NA	NA	NA	20
Cadmium	ND	ND	NA	NA	NA	NA	NA	20
Chromium	ND	ND	NA	NA	NA	NA	NA	20
Lead	ND	ND	NA	NA	NA	NA	NA	20
Selenium	ND	ND	NA	NA	NA	NA	NA	20
Silver	ND	ND	NA	NA	NA	NA	NA	20
Laboratory ID:	11-134-01							
Iron	ND	ND	NA	NA	NA	NA	NA	20
Manganese	565	577	NA	NA	NA	NA	2	20
Laboratory ID:	11-134-02							
Mercury	ND	ND	NA	NA	NA	NA	NA	20
MATRIX SPIKES								
Laboratory ID:	11-119-37							
	MS	MSD	MS	MSD		MS	MSD	
Arsenic	74.4	76.4	80.0	80.0	ND	93	96	75-125 3 20
Barium	91.2	90.6	80.0	80.0	20.2	89	88	75-125 1 20
Cadmium	76.4	76.4	80.0	80.0	ND	96	96	75-125 0 20
Chromium	68.2	68.4	80.0	80.0	ND	85	86	75-125 0 20
Lead	75.2	67.4	80.0	80.0	ND	94	84	75-125 11 20
Selenium	77.2	78.2	80.0	80.0	ND	97	98	75-125 1 20
Silver	76.0	77.4	80.0	80.0	ND	95	97	75-125 2 20
Laboratory ID:	11-134-01							
Iron	22500	22400	22200	22200	ND	102	101	75-125 0 20
Manganese	1150	1140	556	556	565	106	104	75-125 1 20
Laboratory ID:	11-134-02							
Mercury	12.0	11.8	12.5	12.5	ND	96	95	75-125 1 20



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AMMONIA (as Nitrogen)
SM 4500-NH₃ D

Matrix: Water
Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3-111420					
Laboratory ID:	11-156-01					
Ammonia	0.96	0.050	SM 4500-NH3 D	11-17-20	11-17-20	

Client ID:	MW3A-111420					
Laboratory ID:	11-156-02					
Ammonia	0.82	0.050	SM 4500-NH3 D	11-17-20	11-17-20	



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**AMMONIA (as Nitrogen)
 SM 4500-NH₃ D
 QUALITY CONTROL**

Matrix: Water
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117W1					
Ammonia	ND	0.050	SM 4500-NH3 D	11-17-20	11-17-20	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-176-01							
	ORIG	DUP						
Ammonia	0.502	0.523	NA	NA	NA	4	11	

MATRIX SPIKE								
Laboratory ID:	11-176-01							
	MS	MS		MS				
Ammonia	5.64	5.00	0.502	103	76-118	NA	NA	

SPIKE BLANK								
Laboratory ID:	SB1117W1							
	SB	SB		SB				
Ammonia	5.01	5.00	NA	100	88-110	NA	NA	



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pH
SM 4500-H B

Matrix: Water
Units: pH (@ 25°C)

Analyte	Result	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3-111420				
Laboratory ID:	11-156-01				
pH	5.7	SM 4500-H B	11-16-20	11-16-20	

Client ID:	MW3A-111420				
Laboratory ID:	11-156-02				
pH	5.7	SM 4500-H B	11-16-20	11-16-20	



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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3-111420					
Laboratory ID:	11-156-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Chloromethane	ND	1.0	EPA 8260D	11-25-20	11-25-20	
Vinyl Chloride	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Bromomethane	ND	2.0	EPA 8260D	11-25-20	11-25-20	
Chloroethane	ND	1.0	EPA 8260D	11-25-20	11-25-20	
Trichlorofluoromethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Iodomethane	ND	5.0	EPA 8260D	11-25-20	11-25-20	
Methylene Chloride	ND	1.0	EPA 8260D	11-25-20	11-25-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
2,2-Dichloropropane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Bromochloromethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Chloroform	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Carbon Tetrachloride	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloropropene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Trichloroethene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloropropane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Dibromomethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Bromodichloromethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
2-Chloroethyl Vinyl Ether	ND	30	EPA 8260D	11-25-20	11-25-20	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	11-25-20	11-25-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3-111420					
Laboratory ID:	11-156-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Tetrachloroethene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Dibromochloromethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Chlorobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Bromoform	ND	1.0	EPA 8260D	11-25-20	11-25-20	
Bromobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	11-25-20	11-25-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichlorobenzene	ND	1.0	EPA 8260D	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	98	75-127				
<i>Toluene-d8</i>	106	80-127				
<i>4-Bromofluorobenzene</i>	82	78-125				



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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3A-111420					
Laboratory ID:	11-156-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Chloromethane	ND	1.0	EPA 8260D	11-25-20	11-25-20	
Vinyl Chloride	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Bromomethane	ND	2.0	EPA 8260D	11-25-20	11-25-20	
Chloroethane	ND	1.0	EPA 8260D	11-25-20	11-25-20	
Trichlorofluoromethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Iodomethane	ND	5.0	EPA 8260D	11-25-20	11-25-20	
Methylene Chloride	ND	1.0	EPA 8260D	11-25-20	11-25-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
2,2-Dichloropropane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Bromochloromethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Chloroform	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Carbon Tetrachloride	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloropropene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Trichloroethene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloropropane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Dibromomethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Bromodichloromethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
2-Chloroethyl Vinyl Ether	ND	30	EPA 8260D	11-25-20	11-25-20	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	11-25-20	11-25-20	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3A-111420					
Laboratory ID:	11-156-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Tetrachloroethene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Dibromochloromethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Chlorobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Bromoform	ND	1.0	EPA 8260D	11-25-20	11-25-20	
Bromobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	11-25-20	11-25-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichlorobenzene	ND	1.0	EPA 8260D	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>84</i>	<i>78-125</i>				



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QUALITY CONTROL
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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1125W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Chloromethane	ND	1.0	EPA 8260D	11-25-20	11-25-20	
Vinyl Chloride	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Bromomethane	ND	2.0	EPA 8260D	11-25-20	11-25-20	
Chloroethane	ND	1.0	EPA 8260D	11-25-20	11-25-20	
Trichlorofluoromethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Iodomethane	ND	5.0	EPA 8260D	11-25-20	11-25-20	
Methylene Chloride	ND	1.0	EPA 8260D	11-25-20	11-25-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
2,2-Dichloropropane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Bromochloromethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Chloroform	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Carbon Tetrachloride	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1-Dichloropropene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Trichloroethene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2-Dichloropropane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Dibromomethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Bromodichloromethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
2-Chloroethyl Vinyl Ether	ND	30	EPA 8260D	11-25-20	11-25-20	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	11-25-20	11-25-20	



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QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1125W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Tetrachloroethene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Dibromochloromethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Chlorobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Bromoform	ND	1.0	EPA 8260D	11-25-20	11-25-20	
Bromobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	11-25-20	11-25-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	11-25-20	11-25-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	11-25-20	11-25-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	11-25-20	11-25-20	
1,2,3-Trichlorobenzene	ND	1.0	EPA 8260D	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>118</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>78-125</i>				



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**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB1125W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	11.6	11.8	10.0	10.0	116	118	65-126	2	19	
Benzene	11.1	11.5	10.0	10.0	111	115	71-119	4	16	
Trichloroethene	11.2	11.5	10.0	10.0	112	115	82-123	3	18	
Toluene	10.9	11.2	10.0	10.0	109	112	77-119	3	18	
Chlorobenzene	10.7	11.1	10.0	10.0	107	111	80-120	4	17	
<i>Surrogate:</i>										
Dibromofluoromethane					119	120	75-127			
Toluene-d8					107	107	80-127			
4-Bromofluorobenzene					91	90	78-125			



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**1,2-DIBROMOETHANE (EDB)
 EPA 8011**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3-111420					
Laboratory ID:	11-156-01					
EDB	ND	0.0096	EPA 8011	11-25-20	12-1-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
TCMX	91	25-142				
Client ID:	MW3A-111420					
Laboratory ID:	11-156-02					
EDB	ND	0.0095	EPA 8011	11-25-20	12-1-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
TCMX	99	25-142				



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**1,2-DIBROMOETHANE (EDB)
 EPA 8011
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1125W1					
EDB	ND	0.010	EPA 8011	11-25-20	12-1-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
TCMX	117	25-142				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB1125W1										
	SB	SBD	SB	SBD		SB	SBD				
EDB	0.0965	0.0907	0.100	0.100	N/A	97	91	53-118	6	15	
<i>Surrogate:</i>											
TCMX						113	119	25-142			



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PCBs EPA 8082A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3-111420					
Laboratory ID:	11-156-01					
Aroclor 1016	ND	0.049	EPA 8082A	11-25-20	11-30-20	
Aroclor 1221	ND	0.049	EPA 8082A	11-25-20	11-30-20	
Aroclor 1232	ND	0.049	EPA 8082A	11-25-20	11-30-20	
Aroclor 1242	ND	0.049	EPA 8082A	11-25-20	11-30-20	
Aroclor 1248	ND	0.049	EPA 8082A	11-25-20	11-30-20	
Aroclor 1254	ND	0.049	EPA 8082A	11-25-20	11-30-20	
Aroclor 1260	ND	0.049	EPA 8082A	11-25-20	11-30-20	

Surrogate: *Percent Recovery* *Control Limits*
 DCB 99 49-143

Client ID:	MW3A-111420					
Laboratory ID:	11-156-02					
Aroclor 1016	ND	0.049	EPA 8082A	11-25-20	11-30-20	
Aroclor 1221	ND	0.049	EPA 8082A	11-25-20	11-30-20	
Aroclor 1232	ND	0.049	EPA 8082A	11-25-20	11-30-20	
Aroclor 1242	ND	0.049	EPA 8082A	11-25-20	11-30-20	
Aroclor 1248	ND	0.049	EPA 8082A	11-25-20	11-30-20	
Aroclor 1254	ND	0.049	EPA 8082A	11-25-20	11-30-20	
Aroclor 1260	ND	0.049	EPA 8082A	11-25-20	11-30-20	

Surrogate: *Percent Recovery* *Control Limits*
 DCB 98 49-143



Date of Report: December 2, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-156
 Project: 1903-00129-RI

**PCBs EPA 8082A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1125W1					
Aroclor 1016	ND	0.050	EPA 8082A	11-25-20	11-25-20	
Aroclor 1221	ND	0.050	EPA 8082A	11-25-20	11-25-20	
Aroclor 1232	ND	0.050	EPA 8082A	11-25-20	11-25-20	
Aroclor 1242	ND	0.050	EPA 8082A	11-25-20	11-25-20	
Aroclor 1248	ND	0.050	EPA 8082A	11-25-20	11-25-20	
Aroclor 1254	ND	0.050	EPA 8082A	11-25-20	11-25-20	
Aroclor 1260	ND	0.050	EPA 8082A	11-25-20	11-25-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>		<i>Control Limits</i>			
DCB	119		49-143			

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB1125W2										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	0.499	0.484	0.500	0.500	N/A	100	97	64-144	3	12	
<i>Surrogate:</i>											
DCB						104	100	49-143			





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





*Professional
Analytical
Services*

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664

Nov 30 2020
On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister

Dear David Baumeister:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
MW-3-111420	Water	20-A018478	Redox
MW3A-111420	Water	20-A018479	Redox

Your samples were received on Monday, November 16, 2020. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

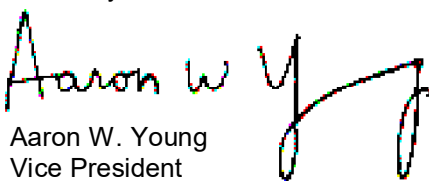
The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to contact me.

Sincerely,



Aaron W. Young
Vice President

Project #: 1903-00129-RI
PO Number: 11-156

BACT = Bacteriological
CONV = Conventionals

MET = Metals
ORG = Organics

NUT=Nutrients
DEM=Demand

MIN=Minerals

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com



*Professional
Analytical
Services*

ANALYSIS REPORT

On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister
Project #: 1903-00129-RI
PO Number: 11-156
All results reported on an as received basis.

Date Received: 11/16/20
Date Reported: 11/30/20

AMTEST Identification Number 20-A018478
Client Identification MW-3-111420
Sampling Date 11/14/20, 09:15


Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Redox Potential	407.	unit		200	ASTM D1498-76	DM	11/19/20

AMTEST Identification Number 20-A018479
Client Identification MW3A-111420
Sampling Date 11/14/20, 09:30

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Redox Potential	399.	unit		200	ASTM D1498-76	DM	11/19/20


Aaron W. Young
Vice President

Am Test Inc.
13600 NE 126th PL
Suite C
Kirkland, WA, 98034
(425) 885-1664
www.amtestlab.com



*Professional
Analytical
Services*

QC Summary for sample numbers: 20-A018478 to 20-A018479

DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	DUP VALUE	RPD
20-A018478	Redox Potential	unit	407.	420.	3.1

STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Redox Potential	unit	440.	437.	99.3 %



Onsite Environmental Inc.
 Analytical Laboratory Testing Services
 14648 NE 95th Street • Redmond, WA 98052
 Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Turnaround Request
 (in working days)
 (Check One)

Laboratory Number: **11-156**

Same Day

1 Day

2 Days

3 Days

Standard (7 Days)

(other) _____

Company: **ENRPO ENVIRONMENTAL**

Project Number: **1903-00129-PI**

Project Name: **GREEN COVE PARK**

Project Manager: **KIM KIM**

Sampled by: **HUBANO ROSARIO**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1004A	% Moisture	
1	MW3-111420	11/14/2020	915	WATER	17		X				X	X	X	X	X				X		X	X	X	X
2	MW3A-111420	11/14/2020	930	T			X				X	X	X	X	X				X		X	X	X	X

LAST ENTRY

[Large handwritten signature/initials across the table]

Signature _____ Company: **ENRPO ENVIRONMENTAL** Date: **11/14/2020** Time: **1430**

[Handwritten signature]

Company: **OSE** Date: **11/14/2020** Time: **1900**

Comments/Special Instructions
 FOR RCRA METALS, PLEASE PERFORM TOTAL AND DISSOLVED ANALYSES, FILTER AS NECESSARY
 HOLD REMAINDER OF SAMPLES PENDING FURTHER INSTRUCTION
 X Added 11/25/2020 DB (574)

Received _____
 Relinquished _____
 Received _____
 Relinquished _____
 Reviewed/Date _____

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 30, 2020

Kim Kim
EnPro Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734

Re: Analytical Data for Project 1903-00129-RI
Laboratory Reference No. 2011-157

Dear Kim:

Enclosed are the analytical results and associated quality control data for samples submitted on November 14, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 30, 2020
Samples Submitted: November 14, 2020
Laboratory Reference: 2011-157
Project: 1903-00129-RI

Case Narrative

Samples were collected on November 14, 2020 and received by the laboratory on November 14, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Semivolatiles EPA 8270E/SIM Analysis

Sample MW11-111420 had two surrogate recoveries outside of control limits. The results from the re-extracted sample confirmed the original results.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



Date of Report: November 30, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-157
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW11-111420					
Laboratory ID:	11-157-01					
Benzene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Toluene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Ethyl Benzene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
m,p-Xylene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
o-Xylene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Gasoline	ND	100	NWTPH-Gx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	94	65-120				
Client ID:	MW8-111420					
Laboratory ID:	11-157-02					
Benzene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Toluene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Ethyl Benzene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
m,p-Xylene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
o-Xylene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Gasoline	ND	100	NWTPH-Gx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	65-120				



Date of Report: November 30, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-157
 Project: 1903-00129-RI

**GASOLINE RANGE ORGANICS/BTEX
 NWTPH-Gx/EPA 8021B
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117W1					
Benzene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Toluene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Ethyl Benzene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
m,p-Xylene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
o-Xylene	ND	1.0	EPA 8021B	11-17-20	11-17-20	
Gasoline	ND	100	NWTPH-Gx	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	65-120				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-156-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	30	
Toluene	ND	ND	NA	NA	NA	NA	30	
Ethyl Benzene	ND	ND	NA	NA	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA	NA	NA	30	
o-Xylene	ND	ND	NA	NA	NA	NA	30	
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				98	93	65-120		

SPIKE BLANKS

Laboratory ID:	SB1117W1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	49.8	49.0	50.0	50.0	100	98	83-117	2	11
Toluene	52.0	51.2	50.0	50.0	104	102	86-115	2	12
Ethyl Benzene	51.5	50.6	50.0	50.0	103	101	86-117	2	12
m,p-Xylene	52.1	51.4	50.0	50.0	104	103	85-118	1	12
o-Xylene	51.1	50.3	50.0	50.0	102	101	86-115	2	11
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					99	103	65-120		



Date of Report: November 30, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-157
 Project: 1903-00129-RI

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW11-111420					
Laboratory ID:	11-157-01					
Diesel Range Organics	ND	0.21	NWTPH-Dx	11-20-20	11-20-20	
Lube Oil Range Organics	ND	0.21	NWTPH-Dx	11-20-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	70	50-150				

Client ID:	MW8-111420					
Laboratory ID:	11-157-02					
Diesel Range Organics	ND	0.21	NWTPH-Dx	11-20-20	11-20-20	
Lube Oil Range Organics	ND	0.21	NWTPH-Dx	11-20-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	72	50-150				



Date of Report: November 30, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-157
 Project: 1903-00129-RI

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1120W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	11-20-20	11-20-20	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	11-20-20	11-20-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	102	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	SB1120W1							
	ORIG	DUP						
Diesel Fuel #2	0.419	0.307	NA	NA	NA	NA	31	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				108	95	50-150		



Date of Report: November 30, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-157
 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW11-111420					
Laboratory ID:	11-157-01					
Naphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Pentachlorophenol	ND	5.0	EPA 8270E	11-17-20	11-18-20	
Phenanthrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzoic Acid	ND	27	EPA 8270E	11-17-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>18</i>	<i>10 - 80</i>				
<i>Phenol-d6</i>	<i>13</i>	<i>10 - 87</i>				
<i>Nitrobenzene-d5</i>	<i>30</i>	<i>33 - 105</i>				Q
<i>2-Fluorobiphenyl</i>	<i>33</i>	<i>41 - 105</i>				Q
<i>2,4,6-Tribromophenol</i>	<i>59</i>	<i>25 - 124</i>				
<i>Terphenyl-d14</i>	<i>60</i>	<i>47 - 116</i>				



Date of Report: November 30, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-157
 Project: 1903-00129-RI

SEMIVOLATILE ORGANICS EPA 8270E/SIM

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW8-111420					
Laboratory ID:	11-157-02					
Naphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Phenanthrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzoic Acid	ND	27	EPA 8270E	11-17-20	11-18-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>23</i>	<i>10 - 80</i>				
<i>Phenol-d6</i>	<i>17</i>	<i>10 - 87</i>				
<i>Nitrobenzene-d5</i>	<i>37</i>	<i>33 - 105</i>				
<i>2-Fluorobiphenyl</i>	<i>45</i>	<i>41 - 105</i>				
<i>2,4,6-Tribromophenol</i>	<i>63</i>	<i>25 - 124</i>				
<i>Terphenyl-d14</i>	<i>64</i>	<i>47 - 116</i>				



Date of Report: November 30, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-157
 Project: 1903-00129-RI

**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117W1					
Naphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
2-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
1-Methylnaphthalene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthylene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Acenaphthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluorene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Pentachlorophenol	ND	5.0	EPA 8270E	11-17-20	11-17-20	
Phenanthrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Anthracene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Fluoranthene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Pyrene	ND	0.10	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Chrysene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[b]fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[a]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Indeno[1,2,3-cd]pyrene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270E/SIM	11-17-20	11-17-20	
Benzoic Acid	ND	27	EPA 8270E	11-17-20	11-17-20	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>33</i>	<i>10 - 80</i>				
<i>Phenol-d6</i>	<i>22</i>	<i>10 - 87</i>				
<i>Nitrobenzene-d5</i>	<i>62</i>	<i>33 - 105</i>				
<i>2-Fluorobiphenyl</i>	<i>60</i>	<i>41 - 105</i>				
<i>2,4,6-Tribromophenol</i>	<i>69</i>	<i>25 - 124</i>				
<i>Terphenyl-d14</i>	<i>69</i>	<i>47 - 116</i>				



Date of Report: November 30, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-157
 Project: 1903-00129-RI

**SEMIVOLATILE ORGANICS EPA 8270E/SIM
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limit			
SPIKE BLANKS										
Laboratory ID:	SB1117W1									
	SB	SBD	SB	SBD	SB	SBD				
Phenol	10.0	9.18	40.0	40.0	25	23	21 - 53	9	25	
2-Chlorophenol	26.1	24.0	40.0	40.0	65	60	38 - 92	8	29	
1,4-Dichlorobenzene	11.7	10.4	20.0	20.0	59	52	30 - 88	12	29	
n-Nitroso-di-n-propylamine	13.2	12.7	20.0	20.0	66	64	40 - 103	4	22	
1,2,4-Trichlorobenzene	12.8	11.5	20.0	20.0	64	58	37 - 95	11	25	
4-Chloro-3-methylphenol	30.7	29.0	40.0	40.0	77	73	57 - 101	6	17	
Acenaphthene	14.1	12.7	20.0	20.0	71	64	51 - 97	10	18	
4-Nitrophenol	14.5	13.1	40.0	40.0	36	33	23 - 64	10	34	
2,4-Dinitrotoluene	15.0	13.9	20.0	20.0	75	70	52 - 103	8	17	
Pentachlorophenol	34.7	31.8	40.0	40.0	87	80	40 - 124	9	35	
Pyrene	16.2	15.2	20.0	20.0	81	76	52 - 107	6	19	
<i>Surrogate:</i>										
2-Fluorophenol					38	33	10 - 80			
Phenol-d6					25	23	10 - 87			
Nitrobenzene-d5					63	57	33 - 105			
2-Fluorobiphenyl					65	62	41 - 105			
2,4,6-Tribromophenol					77	73	25 - 124			
Terphenyl-d14					73	69	47 - 116			



Date of Report: November 30, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-157
 Project: 1903-00129-RI

TOTAL METALS
EPA 200.8/6010D/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW11-111420					
Laboratory ID:	11-157-01					
Arsenic	ND	3.3	EPA 200.8	11-18-20	11-19-20	
Barium	32	28	EPA 200.8	11-18-20	11-19-20	
Cadmium	ND	4.4	EPA 200.8	11-18-20	11-19-20	
Chromium	ND	11	EPA 200.8	11-18-20	11-19-20	
Copper	ND	11	EPA 200.8	11-18-20	11-19-20	
Iron	3900	56	EPA 6010D	11-18-20	11-20-20	
Lead	ND	1.1	EPA 200.8	11-18-20	11-19-20	
Manganese	110	11	EPA 6010D	11-18-20	11-20-20	
Mercury	ND	0.50	EPA 7470A	11-20-20	11-20-20	
Selenium	ND	5.6	EPA 200.8	11-18-20	11-19-20	
Silver	ND	11	EPA 200.8	11-18-20	11-19-20	

Client ID:	MW8-111420					
Laboratory ID:	11-157-02					
Arsenic	ND	3.3	EPA 200.8	11-18-20	11-19-20	
Barium	37	28	EPA 200.8	11-18-20	11-19-20	
Cadmium	ND	4.4	EPA 200.8	11-18-20	11-19-20	
Chromium	ND	11	EPA 200.8	11-18-20	11-19-20	
Iron	8600	56	EPA 6010D	11-18-20	11-20-20	
Lead	ND	1.1	EPA 200.8	11-18-20	11-19-20	
Manganese	2500	11	EPA 6010D	11-18-20	11-20-20	
Mercury	ND	0.50	EPA 7470A	11-20-20	11-20-20	
Selenium	ND	5.6	EPA 200.8	11-18-20	11-19-20	
Silver	ND	11	EPA 200.8	11-18-20	11-19-20	



Date of Report: November 30, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-157
 Project: 1903-00129-RI

TOTAL METALS
EPA 200.8/6010D/7470A
QUALITY CONTROL

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1118WM1					
Arsenic	ND	3.3	EPA 200.8	11-18-20	11-18-20	
Barium	ND	28	EPA 200.8	11-18-20	11-18-20	
Cadmium	ND	4.4	EPA 200.8	11-18-20	11-18-20	
Chromium	ND	11	EPA 200.8	11-18-20	11-18-20	
Copper	ND	11	EPA 200.8	11-18-20	11-18-20	
Lead	ND	1.1	EPA 200.8	11-18-20	11-19-20	
Selenium	ND	5.6	EPA 200.8	11-18-20	11-18-20	
Silver	ND	11	EPA 200.8	11-18-20	11-18-20	
Laboratory ID:	MB1118WM1					
Iron	ND	56	EPA 6010D	11-18-20	11-20-20	
Manganese	ND	11	EPA 6010D	11-18-20	11-20-20	
Laboratory ID:	MB1120W1					
Mercury	ND	0.50	EPA 7470A	11-20-20	11-20-20	



Date of Report: November 30, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-157
 Project: 1903-00129-RI

**TOTAL METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags		
DUPLICATE										
Laboratory ID:	11-072-04									
	ORIG	DUP								
Arsenic	ND	ND	NA	NA	NA	NA	20			
Barium	35.3	36.0	NA	NA	NA	2	20			
Cadmium	ND	ND	NA	NA	NA	NA	20			
Chromium	ND	ND	NA	NA	NA	NA	20			
Copper	ND	ND	NA	NA	NA	NA	20			
Lead	ND	ND	NA	NA	NA	NA	20			
Selenium	ND	ND	NA	NA	NA	NA	20			
Silver	ND	ND	NA	NA	NA	NA	20			
Laboratory ID:	11-072-04									
Iron	ND	ND	NA	NA	NA	NA	20			
Manganese	ND	ND	NA	NA	NA	NA	20			
Laboratory ID:	11-133-01									
Mercury	ND	ND	NA	NA	NA	NA	20			
MATRIX SPIKES										
Laboratory ID:	11-072-04									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	214	211	222	222	ND	96	95	75-125	2	20
Barium	224	224	222	222	35.3	85	85	75-125	0	20
Cadmium	214	212	222	222	ND	97	96	75-125	1	20
Chromium	183	181	222	222	ND	82	81	75-125	1	20
Copper	196	194	222	222	ND	88	87	75-125	1	20
Lead	198	193	222	222	ND	89	87	75-125	3	20
Selenium	219	223	222	222	ND	99	101	75-125	2	20
Silver	213	208	222	222	ND	96	94	75-125	2	20
Laboratory ID:	11-072-04									
Iron	20700	20700	22200	22200	ND	93	93	75-125	0	20
Manganese	207	206	222	222	ND	93	93	75-125	1	20
Laboratory ID:	11-133-01									
Mercury	11.9	11.9	12.5	12.5	ND	95	95	75-125	1	20



Date of Report: November 30, 2020
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 Laboratory Reference: 2011-157
 Project: 1903-00129-RI

DISSOLVED METALS
EPA 200.8/6010D/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW11-111420					
Laboratory ID:	11-157-01					
Arsenic	ND	3.0	EPA 200.8	11-16-20	11-18-20	
Barium	ND	25	EPA 200.8	11-16-20	11-18-20	
Cadmium	ND	4.0	EPA 200.8	11-16-20	11-18-20	
Chromium	ND	10	EPA 200.8	11-16-20	11-18-20	
Copper	ND	10	EPA 200.8	11-16-20	11-18-20	
Iron	95	56	EPA 6010D	11-16-20	11-18-20	
Lead	ND	1.0	EPA 200.8	11-16-20	11-18-20	
Manganese	ND	11	EPA 6010D	11-16-20	11-18-20	
Mercury	ND	0.50	EPA 7470A	11-16-20	11-20-20	
Selenium	ND	5.0	EPA 200.8	11-16-20	11-18-20	
Silver	ND	10	EPA 200.8	11-16-20	11-18-20	

Client ID:	MW8-111420					
Laboratory ID:	11-157-02					
Arsenic	ND	3.0	EPA 200.8	11-16-20	11-18-20	
Barium	ND	25	EPA 200.8	11-16-20	11-18-20	
Cadmium	ND	4.0	EPA 200.8	11-16-20	11-18-20	
Chromium	ND	10	EPA 200.8	11-16-20	11-18-20	
Iron	560	56	EPA 6010D	11-16-20	11-18-20	
Lead	ND	1.0	EPA 200.8	11-16-20	11-18-20	
Manganese	2500	11	EPA 6010D	11-16-20	11-18-20	
Mercury	ND	0.50	EPA 7470A	11-16-20	11-20-20	
Selenium	ND	5.0	EPA 200.8	11-16-20	11-18-20	
Silver	ND	10	EPA 200.8	11-16-20	11-18-20	



Date of Report: November 30, 2020
 Samples Submitted: November 14, 2020
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**DISSOLVED METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1116F1					
Arsenic	ND	3.0	EPA 200.8	11-16-20	11-18-20	
Barium	ND	25	EPA 200.8	11-16-20	11-18-20	
Cadmium	ND	4.0	EPA 200.8	11-16-20	11-18-20	
Chromium	ND	10	EPA 200.8	11-16-20	11-18-20	
Copper	ND	10	EPA 200.8	11-16-20	11-18-20	
Lead	ND	1.0	EPA 200.8	11-16-20	11-18-20	
Selenium	ND	5.0	EPA 200.8	11-16-20	11-18-20	
Silver	ND	10	EPA 200.8	11-16-20	11-18-20	
METHOD BLANK						
Laboratory ID:	MB1116F1					
Iron	ND	56	EPA 6010D	11-16-20	11-18-20	
Manganese	ND	11	EPA 6010D	11-16-20	11-18-20	
METHOD BLANK						
Laboratory ID:	MB1116F1					
Mercury	ND	0.50	EPA 7470A	11-16-20	11-20-20	



Date of Report: November 30, 2020
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**DISSOLVED METALS
 EPA 200.8/6010D/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-119-37							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	NA	20
Barium	ND	ND	NA	NA	NA	NA	NA	20
Cadmium	ND	ND	NA	NA	NA	NA	NA	20
Chromium	ND	ND	NA	NA	NA	NA	NA	20
Copper	ND	ND	NA	NA	NA	NA	NA	20
Lead	ND	ND	NA	NA	NA	NA	NA	20
Selenium	ND	ND	NA	NA	NA	NA	NA	20
Silver	ND	ND	NA	NA	NA	NA	NA	20

Laboratory ID:	11-134-01							
Iron	ND	ND	NA	NA	NA	NA	NA	20
Manganese	565	577	NA	NA	NA	NA	2	20

Laboratory ID:	11-134-02							
Mercury	ND	ND	NA	NA	NA	NA	NA	20

MATRIX SPIKES

Laboratory ID:	11-119-37									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	74.4	76.4	80.0	80.0	ND	93	96	75-125	3	20
Barium	91.2	90.6	80.0	80.0	20.2	89	88	75-125	1	20
Cadmium	76.4	76.4	80.0	80.0	ND	96	96	75-125	0	20
Chromium	68.2	68.4	80.0	80.0	ND	85	86	75-125	0	20
Copper	71.8	74.0	80.0	80.0	ND	90	93	75-125	3	20
Lead	75.2	67.4	80.0	80.0	ND	94	84	75-125	11	20
Selenium	77.2	78.2	80.0	80.0	ND	97	98	75-125	1	20
Silver	76.0	77.4	80.0	80.0	ND	95	97	75-125	2	20

Laboratory ID:	11-134-01									
Iron	22500	22400	22200	22200	ND	102	101	75-125	0	20
Manganese	1150	1140	556	556	565	106	104	75-125	1	20

Laboratory ID:	11-134-02									
Mercury	12.0	11.8	12.5	12.5	ND	96	95	75-125	1	20



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: November 30, 2020
 Samples Submitted: November 14, 2020
 Laboratory Reference: 2011-157
 Project: 1903-00129-RI

AMMONIA (as Nitrogen)
SM 4500-NH₃ D

Matrix: Water
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW11-111420					
Laboratory ID:	11-157-01					
Ammonia	ND	0.050	SM 4500-NH3 D	11-17-20	11-17-20	

Client ID:	MW8-111420					
Laboratory ID:	11-157-02					
Ammonia	0.56	0.050	SM 4500-NH3 D	11-17-20	11-17-20	



Date of Report: November 30, 2020
 Samples Submitted: November 14, 2020
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AMMONIA (as Nitrogen)
SM 4500-NH₃ D
QUALITY CONTROL

Matrix: Water
 Units: mg/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1117W1					
Ammonia	ND	0.050	SM 4500-NH3 D	11-17-20	11-17-20	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	11-176-01							
	ORIG	DUP						
Ammonia	0.502	0.523	NA	NA	NA	4	11	

MATRIX SPIKE								
Laboratory ID:	11-176-01							
	MS	MS		MS				
Ammonia	5.64	5.00	0.502	103	76-118	NA	NA	

SPIKE BLANK								
Laboratory ID:	SB1117W1							
	SB	SB		SB				
Ammonia	5.01	5.00	NA	100	88-110	NA	NA	



Date of Report: November 30, 2020
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 Laboratory Reference: 2011-157
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pH
SM 4500-H B

Matrix: Water
 Units: pH (@ 25°C)

Analyte	Result	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW11-111420				
Laboratory ID:	11-157-01				
pH	6.1	SM 4500-H B	11-16-20	11-16-20	

Client ID:	MW8-111420				
Laboratory ID:	11-157-02				
pH	6.0	SM 4500-H B	11-16-20	11-16-20	





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664

Nov 30 2020
On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister

Dear David Baumeister:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
MW11-111420	Water	20-A018480	Redox
MW8-111420	Water	20-A018481	Redox

Your samples were received on Monday, November 16, 2020. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

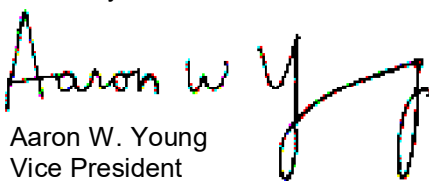
The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to contact me.

Sincerely,



Aaron W. Young
Vice President

Project #: 1903-00129-RI
PO Number: 11-157

BACT = Bacteriological
CONV = Conventionals

MET = Metals
ORG = Organics

NUT=Nutrients
DEM=Demand

MIN=Minerals

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com



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ANALYSIS REPORT

On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister
Project #: 1903-00129-RI
PO Number: 11-157
All results reported on an as received basis.

Date Received: 11/16/20
Date Reported: 11/30/20

AMTEST Identification Number 20-A018480
Client Identification MW11-111420
Sampling Date 11/14/20, 08:30


Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Redox Potential	365.	unit		200	ASTM D1498-76	DM	11/19/20

AMTEST Identification Number 20-A018481
Client Identification MW8-111420
Sampling Date 11/14/20, 10:30

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Redox Potential	392.	unit		200	ASTM D1498-76	DM	11/19/20


Aaron W. Young
Vice President

Am Test Inc.
13600 NE 126th PL
Suite C
Kirkland, WA, 98034
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www.amtestlab.com



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QC Summary for sample numbers: 20-A018480 to 20-A018481

DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	DUP VALUE	RPD
20-A018478	Redox Potential	unit	407.	420.	3.1

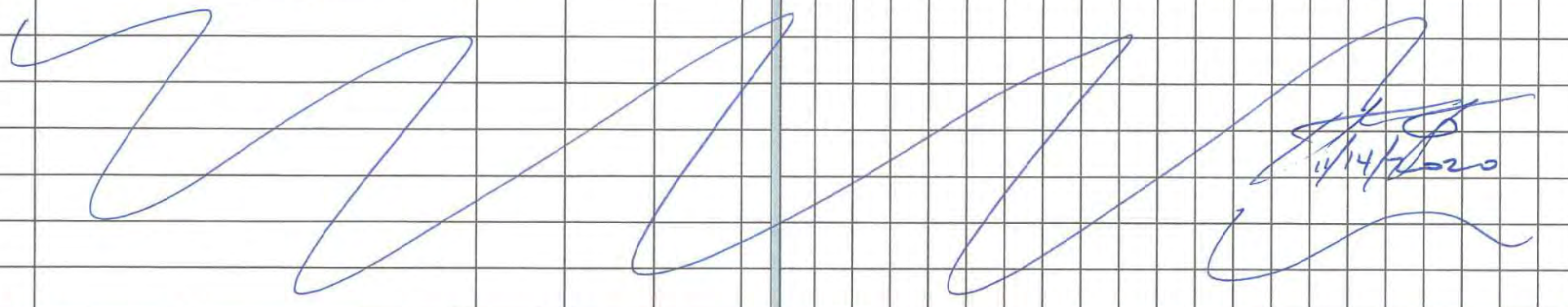

STANDARD REFERENCE MATERIALS

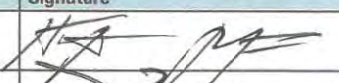

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Redox Potential	unit	440.	437.	99.3 %

Chain of Custody

 Company: **EMPRO ENVIRONMENTAL**
 Project Number: **1903-0029-R1**
 Project Name: **GREEN COVE PARK**
 Project Manager: **KIM KIM**
 Sampled by: **HORNO ROSARLO**
Turnaround Request (in working days)
 (Check One)
 Same Day 1 Day
 2 Days 3 Days
 Standard (7 Days)
 _____ (other)

Laboratory Number: 11-157

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	Analytes																				
						NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8164A Cu (Total and Dissolved)	Total RCRA Metals Total HMTCA Metals PENTACHLOROPHENOL ICUP Metals BENZOLIC ACID HEMT (oil and grease) 1004A AMMONIA	pH	Ek (OPP)	Mn	Fe	% Moisture		
1	MW11 - 111420	11/14/2020	830	WATER	19	X	X						X				X	X	X	X	X	X	X	X	X	
2	MW8 - 111420	11/14/2020	1030	↓	17	X	X						X				X		X	X	X	X	X	X	X	
← LAST ENTRY →																										
						 11/14/2020																				

Signature	Company	Date	Time	Comments/Special Instructions
	EMPRO ENVIRONMENTAL	11/14/2020	1430	• FOR RCRA METALS, PLEASE PERFORM TOTAL AND DISSOLVED ANALYSES, FILTER AS NECESSARY • HOLD REMAINDER OF SAMPLES PENDING FURTHER INSTRUCTION
	OGE	11/14/2020	1500	
Reviewed/Date	Reviewed/Date	Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/> Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>		