Cleanup Report
Former Dirks Fine Dry Cleaning
Inglewood Plaza
Sammamish, Washington

Prepared for:
Regency Centers

February 9, 2021
REGEN-220

APEX

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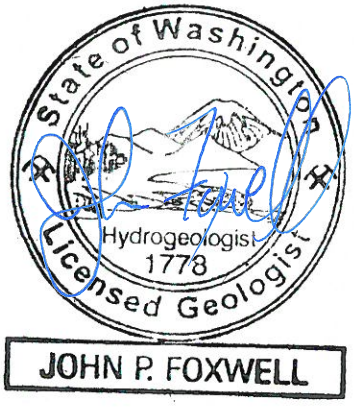
Project Manager



Exp. 10/21/2021

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1.0 Introduction

This report summarizes cleanup activities completed at the former Dirks Fine Dry Cleaning facility located at Tenant Space 701, Inglewood Plaza, in Issaquah, Washington (referred to as the "Site"; Figure 1 and 2). The site address is 701 228th Avenue NE, Sammamish, Washington. This report was prepared following the requirements of Washington Model Toxics Control Act (MTCA) cleanup rules under WAC 173-340. Site investigation and remediation at the Site are being conducted with oversight of the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program. The cleanup site identification number is 1044 and the VCP Project Number is NW 2746.

2.0 Site Description

The Site is located at Inglewood Plaza, which is a single-story shopping center constructed on two parcels (Parcel 3582300010 and Parcel 3582300020), comprising 2.02 acres (the Property). The center was initially constructed during the 1980s and includes one building that historically has been leased for various uses including retail, office, restaurant, medical, and dry cleaning. Inglewood Plaza is entirely developed with buildings, and Portland cement concrete (PCC) or asphalt concrete (AC) pavement. Small landscape strips are present along road frontages. The Property vicinity is developed for commercial and residential uses. The current layout of Inglewood Plaza is shown on Figure 2.

The dry cleaning facility (Dirks Fine Dry Cleaning) operated in unit 701 and performed dry cleaning services from 1985 to 1990. The business operated as a drop-off and pick-up location for off-site dry cleaning services until 2018. The current layout of unit 701 is shown on Figure 3.

The Site consists of a portion of King County Parcel 3582300010. Parcel 3582300010 is considered the Source Property. The Site is in the NE 1/4 of NE ¼ of Section 33, Township 2 South, Range 6 East.

3.0 Recent Field Investigations

Initial site investigation was conducted by Whitman Environmental Services (WES) in 1999 to assess whether the dry-cleaning solvent tetrachloroethene (PCE) and related volatile organic compounds (VOCs) have impacted media on the Site. Halogenated volatile organic compounds (HVOCs) were detected in soil, and WES constructed a soil vapor extraction (SVE) system at the site. The system operated from May 2004 to at least June 2009. Historical documentation for the site consists of:

- WES, 1999. Phase II Site Investigation Report. May 26, 1999.
- WES, 2007. Remediation Progress Report. June 29, 2007. Initial soil vapor sampling, ambient air sampling, monitoring well installation (MW-1 through MW-4), and groundwater monitoring.

Beginning in 2014, Apex completed additional site investigation to evaluate concentrations of HVOCs in soil after operation of the SVE, and concentrations of HVOCs in all media. The results of these activities are summarized in Apex (2015) and documented in the following reports:

- Apex, 2014a. Progress Report. June 9, 2014.
- Apex, 2014b. Work Plan – Dirks Fine Dry Cleaning. August 12, 2014.
- Apex, 2015. Site Investigation Report. October 12, 2015.

This report presents the results of 2018 field investigation activities completed to address comments in Ecology's most recent opinion letter dated February 8, 2016. Initially, the 2018 field investigation included interior soil borings (SB-1 through SB-5), soil vapor sampling within the tenant space, ambient air monitoring, and monitoring well replacement. Based on the results of the 2018 field investigation, and the accessibility afforded by an empty tenant space, the property owner elected to perform a removal action at the site. The sections below describe the results of the recent investigations at the site, for each media (soil, groundwater, soil vapor and ambient air).

Site investigation, remedial confirmation sampling, and monitoring well locations completed during the site investigation and cleanup actions are shown on Figure 3. Sample results from 2014 forward, corresponding to post SVE-soil data, are summarized on Figures 5 through 8 and Tables 1 through 5. On Table 1, sample concentrations marked with a strikeout indicate locations and intervals of soil data that were removed during the excavation activities described in Section 4.0. Data collected by WES prior to operation of the SVE are provided in Appendix A. Laboratory data and a Quality Assurance (QA) review for activities completed between September 2018 and January 2019 are included in Appendix B.

3.1 Soil Investigations

The 2014 SI included hand auger borings B-1 through B-3 that were completed to evaluate residual concentrations of HVOCs remaining after SVE operation. These locations are shown on Figure 3. Several HVOCs were detected in these borings, including PCE at concentrations ranging from of 0.046 to 0.180 mg/kg. Among these samples, the highest detected concentrations of HVOCs were detected at B-2 (5') (PCE was detected at 0.180 mg/kg and TCE was detected at 0.056 mg/kg).

Because the soil investigation within the interior of the former cleaner space was vertically limited six feet bgs, Ecology's February 8, 2016 Opinion letter commented that additional delineation of the lateral and vertical extent of the source area was required. The cleaner vacated the tenant space in 2018, which afforded the opportunity to complete a deeper sampling and analysis program within the former cleaner space.

Four soil borings (SB-1 to SB-4) were completed using a limited-access hollow stem auger rig to depths of 15 feet bgs inside the former cleaner, including locations within and immediately adjacent to the former dry cleaning equipment. Soil samples were collected from three depth intervals in SB-1 through SB-4. Additionally, one soil sample was collected with a hand auger from SB-5. Subsurface utilities and the building structure limited drilling access to the back (west side) of the former cleaner space. Boring logs are included in Appendix C.

Soil samples were submitted for laboratory analysis of HVOCs. PCE, trichloroethene (TCE), and/or cis-1,2-DCE were detected in at least one soil sample collected from boring SB-1 through SB-5 (Table 1). Concentrations of PCE were limited to approximately 7 beet bgs. Detected concentrations of PCE in soil samples SB-1 (5 ft bgs), SB-2 (3-4 ft bgs), SB-3 (5-6 ft bgs), SB-4 (4 ft bgs) and SB-5 (2-3 ft bgs) exceeded the MTCA Method A soil cleanup level.

The soil investigation identified concentrations of HVOCs, primarily PCE, over an area corresponding to the vicinity of the former dry cleaning equipment. PCE was generally detected between the surface and 7 feet below ground surface (bgs).

3.2 Groundwater Investigations

Groundwater investigations included sampling from the existing groundwater monitoring wells and replacement of 2 shallow monitoring wells that could not be found (Figure 2). MW-1A, 2 through MW-7 are screened from approximately 10 to 20 feet. MW-1B is screened from 27 to 32 feet bgs. Depth to groundwater is approximately 12 feet bgs across the Site with some minor variation. The local shallow groundwater flow direction is toward the southwest. Groundwater elevations are summarized in Table 2 and groundwater monitoring data is summarized in Table 3.

In July 2018, two monitoring wells (MW-2R and MW-4R) were constructed at the locations shown on Figure 6. These wells replaced MW-2 and MW-4, that were lost. MW-2R and MW-4R are shallow wells screened between 10 and 20 feet bgs. During well installation, the soil borings were field screened for volatile organic compounds (VOCs) with a photoionization detector (PID). PID field screening did not indicate VOCs were present. Well construction logs from July 2018 are included in Appendix C.

In September 2018, groundwater samples were collected from MW-1A, MW-1B, MW-2R, MW-4R, MW-5 and MW-6, and analyzed for HVOCs. PCE, TCE, and cis-1,2-DCE were detected in the groundwater sample collected from MW-1A. PCE was the only compound detected in the groundwater sample collected from MW-1B, MW-2R, and MW-7. Detected HVOC concentrations were less than the respective CULs and SLs, except for the PCE concentrations in MW-7, which minimally exceeded the respective SL. MW-7 is an upgradient from the site.

During groundwater monitoring completed by Apex since 2013, HVOCs including PCE, cis-1,2-DCE and Vinyl Chloride were not detected above MTCA Method A groundwater cleanup levels in any site well, with one exception. During the September 2018 monitoring event, the detected concentration of PCE in MW-7, 5.16 µg/L, minimally exceed the MTCA Method A groundwater cleanup level of 5 µg/L.

3.3 Soil Vapor Investigations

Soil vapor assessment and monitoring completed in July 2018 consisted of installing and sampling sub-slab vapor sampling locations (SV-1 through SV-5). Prior soil vapor sampling locations were temporary or had been destroyed. Each soil vapor sample was analyzed for HVOCs using EPA method TO-15. PCE and TCE were detected in the samples from SV-1 through SV-5. The areas of highest soil vapor concentrations are present near the former restroom and dry cleaning equipment area.

The detected PCE concentrations ranged from 441 to 4,500 ug/m3. Detected TCE concentrations ranged from 12.9 to 23.9 ug/m3. Each of the detected concentrations of PCE exceed the MTCA Method B Soil Gas Screening Level (SL). Detected TCE concentrations exceed the MTCA Method B Soil Gas SL in SV-2 through SV-5. Soil vapor data and corresponding SLs are summarized in Table 2. Soil vapor data are shown on Figure 7.

3.4 Ambient Air Investigations

Ambient air monitoring has been completed at locations in the northeast corner and west portion of the former dry-cleaner in July 2018 (Figure 8). Each ambient air sample was analyzed for HVOCs by EPA method TO-15 SIM. PCE was detected in both samples. The detected concentrations of PCE in AA-6 (10.5 ug/m^3) slightly exceeds the MTCA Method B SL of 9.6 ug/m^3.

4.0 2018 Interim Action

The 2018 soil investigation project detected PCE in soil at areas near the former restroom and former dry cleaning equipment at concentrations above the MTCA Method A cleanup levels. Areas further back in the tenant space could not be accessed with the drill rig. Soil vapor sampling completed in this area detected PCE at elevated concentrations, indicating the higher concentrations materials extended west past the bathroom in the space. Using this information, the owner elected to complete a removal action to excavate and dispose contaminated soil to the extent practicable within the footprint of the former cleaner.

The soil excavation was completed between November 14 and 29, 2018. Apex performed daily field observations and documentation during the 2018 interim action. Excavation and construction activities were performed by Clear Creek Contractors, Inc. of Everett, Washington (Clear Creek).

4.1 Preparatory Activities

Activities were conducted prior to starting work to prepare the site and workers for construction activities. These activities are described below.

4.1.1 Utility Locates

The Washington One-Call Utility Notification Center was notified of the proposed remediation activities prior to beginning the excavation. A private utility locator was used to locate and mark underground utilities and piping at the excavation area.

4.1.2 Health and Safety

A health and safety plan (HASP) and Excavation Safety Plan were prepared prior to commencing the construction activities. On November 14, 2018, a pre-construction health and safety meeting took place with personnel at the site. Tailgate health and safety meetings were conducted every morning prior to the start of each day's activities.

The HASP outlined an air monitoring program for the excavation activities. Vapors in the excavation site were monitored for volatile organic compounds (VOCs) in the breathing space using a photoionization detector (PID) with a 10.6 eV lamp and compound specific detector tubes.

4.1.3 Waste Profiling

Soil excavated at the Site was profiled for disposal using a Contained-In Determination (CID). Because concentrations of PCE in soil are less than 14 mg/kg (corresponding to the TCLP criteria of 0.7 mg/L or 14 mg/kg based on the 20x TCLP guideline), non-hazardous disposal using a CID was possible. Approval letters were provided by Ecology to Regency dated November 6 and 14, 2018 to allow for disposal of up to 100 tons of excavated soil. A supplemental approval to allow for disposal of 60 additional tons of excavated soil under the CID was provided by Ecology in email correspondence dated November 21, 2018. The CID allowed disposal of the excavated soils as non-hazardous waste at the Cowlitz County landfill.

4.2 Soil Excavation and Disposal

Contaminated soil excavation was completed between November 14 and 21, 2018. Apex performed daily field observations and documentation during site activities. The excavation area and confirmation soil sample locations are shown on Figure 5.

Field screening was completed during excavation to assess remedial progress. Within the excavation, the most contaminated soils were encountered between approximately 4 feet and 6 feet bgs, in the west portion

of the excavation. Field screening around the drain line from the bathroom and the drain line that parallels the west sidewall did identify areas where PCE releases from the drain would be suspected.

Excavation began at the west side of the tenant space, working east. Excavation was completed from a bench on the east side of the excavation area. Once final excavation depths were attained elsewhere in the excavation, the bench was removed. Contaminated soils were excavated and placed in one cubic yard super sacks. The super sacks were transported to a secured temporary storage area in the east parking lot and covered while stored on site. A total of 138 tons of soil were excavated and disposed at the Cowlitz County Landfill.

The final interior dimensions of the excavation were 27 feet long, approximately 10 feet wide at the west side, and 16 feet wide at the east side. Excavation depths ranged from 7.5 feet bgs at the west side and 7.0 feet bgs at the east side. Remedial confirmation samples were collected from the sidewalls and bottom of the excavation and analyzed for HVOCs using EPA 8260B. Confirmation sampling and soil boring results are shown on Figure 5 and summarized in Table 1. On Table 1, samples that were removed by excavation are noted with a strike-through. Confirmation sample results are not shown on Figure 5 when that sample was removed by excavation.

Excavation Bottom. Samples BNW-6-7', B2-7', B3-6' were initially collected on November 15, 2018. Sample B2-7' was the only location where PCE concentrations were less than MTCA Method A soil cleanup levels. Following additional excavation to bring the excavation to finished depth (7.5 feet deep to the west, 7.0 feet deep to the east), samples BNW2-7.5', B4-7.5', and B5-7.5', B6-7' were collected. Samples B2-7, BNW2-7.5', B4-7.5', and B5-7.5', B6-7' characterize the final grade of the excavation. PCE concentrations in the excavation bottom samples ranged from 0.00786 mg/kg to 0.191 mg/kg.

Excavation Sidewalls. Twelve sidewall confirmation samples were initially collected on November 15, 2018. Ten of these samples exceeded the soil cleanup level and additional excavation was completed. Following additional excavation to the limits of feasible excavation, seventeen confirmation samples were collected from the four excavation sidewalls. In summary:

- Detected concentrations of PCE in the north sidewall ranged from 0.00362 to 0.597 mg/kg;
- Detected concentrations in the east sidewall ranged from 0.0639 to 0.250 mg/kg;
- Detected concentrations in the south sidewall ranged from 0.0298 to 0.979 mg/kg; and
- Detected concentrations in the southwest corner and west sidewall ranged from 0.0168 to 4.28 mg/kg.

PCE concentrations were elevated in the west and southwest corner sidewalls (SW-W2-4', SW-SW-4' and SW-S6-4'). In the remaining parts of the excavation, PCE concentrations decreased with distance from the area of the former dry cleaning equipment.

4.3 Excavation Backfill

The excavation was backfilled and the concrete was replaced between November 21, 2018 and November 26, 2018. During backfill, a 10 mill vapor barrier was installed along with piping for a passive venting system. The backfill sequence included:

- Backfilling with Pea gravel to 36 inches below the bottom of slab. The pea gravel was placed in 3-foot lifts and gently compacted;
- Installing a passive venting system and backfilling with pea gravel to 24-inches below the building slab;
- Placing a 10 mil vapor barrier across the excavation area, overlapping 12 inches;
- Installing geotextile fabric;
- Placing 24-inches of compacted gravel to the bottom of the concrete slab; and
- Pouring concrete to match.

4.4 Post Excavation Soil Vapor and Ambient Air Sampling

Soil vapor and ambient air monitoring were completed following excavation. Soil vapor sampling locations SV-2, SV-3, and SV-4 were destroyed during excavation and were re-installed. An additional sampler, SV-7, was added near the southwest corner of the excavation, and two exterior soil vapor samplers were installed beneath the pavement surface to the west of the excavation area. Ambient air samples were collected from the same locations as the last pre-excavation event. Soil vapor sampling and ambient air sampling locations and results are shown on Figure 7 and 8, respectively. Soil vapor samples were analyzed for HVOCs using EPA method TO-15. Ambient air samples were analyzed for HVOCs using EPA method TO-15 SIM.

PCE was detected in each soil vapor sample and TCE was detected in five of seven samples. PCE concentrations were significantly decreased compared to the pre-excavation sampling events. The detected PCE concentrations in SV-1 through SV-5 ranged from 151 to 1,130 µg/m3, compared to a range of 441 to 4,500 ug/m3 in the pre-excavation samples. PCE concentrations in 2 out of 5 indoor samples exceeded the Method B soil vapor SL. Detected TCE concentrations ranged from 2.78 to 129 µg/m^3, compared to a range of 12.9 to 23.9 ug/m^3. In the pre-excavation samples. TCE concentrations in 3 out of 5 indoor samples exceeded the Method B SL.

Concentrations of PCE and TCE in SV-7, closest to the southwest excavation corner, and exterior samples SB-6 and SV-8 do not exceed the Method B SL. PCE and TCE concentrations were significantly lower in the three samples collected to the west of the excavation. These data suggest that the area of elevated PCE and TCE soil concentrations does not extend significantly past the west side of the excavation.

Post excavation ambient air monitoring was completed in January 2019, after excavation, at locations in the northeast corner and the west side of the former dry-cleaner in July 2018 (Figure 8). Concentrations of PCE and TCE were detected in both samples, at decreased concentrations compared to the July 2018 pre-excavation monitoring. None of the detected concentrations of HVOCs exceeded the MTCA Method B SL of 9.6 ug/m3.

5.0 Cleanup Framework

The site conceptual site model (CSM) was presented in prior documents and is summarized below for reference. The CSM uses land use information and the results of the site investigation activities completed at the Site to identify applicable cleanup levels and identify remedial action areas. Additionally, the nature and extent of contamination is summarized in this section and used for the disproportionate cost evaluation that supports the final proposed cleanup action.

5.1 Conceptual Site Model

5.1.1 Site Geology

The Site is in the eastern portion of the Puget Sound Lowland physiographic province on the Sammamish Plateau. The Puget Lowland is a broad, low-lying trough located between the Cascade Range to the east and the Olympic Mountains to the northwest and the Willapa Hills to the southwest. The landscape largely results from repeated cycles of glacial scour and deposition. Soils encountered in the explorations were dense silty sand and sandy gravel that are typical of glacial outwash sediments.

5.1.2 Site Hydrogeology

The regional water bearing units generally follow the regional geology discussed above. The regional aquifers are briefly described below from shallowest to deepest (USGS, 1998).

Surficial Glacial Deposits. The primary water-bearing unit is located within the uppermost (surficial) deposits of glacial origin, which consist predominantly of the glacial till and alluvial sand deposited while the glaciers were retreating during the last glaciation. These deposits are discontinuous within the Puget Sound Basin, but are generally considered an aquifer unit

Holocene Glacial Deposits. The Holocene glacial deposits are separated by broad alluvial valleys; therefore, they are considered a geological unit separate from the surficial glacial deposits. The lithology of the Holocene deposits varies from fine to coarse grained. Areas consisting mostly of coarse grained deposits can function as aquifers, and areas consisting mostly of fine grained deposits can function as semi-confining units.

Vashon Glacial Till. The Vashon Glacial Till underlying the surficial and Holocene deposits is generally classified as a non-aquifer (semi-confining) unit.

Groundwater monitoring wells at the Site are screened in the Surficial Glacial Deposits unit. Historical groundwater levels at the Site are listed in Table 3. Groundwater levels typically range from 6 to 16 feet bgs. The inferred groundwater flow direction at the Site is typically to the west at a gradient of approximately 0.004 ft/ft; however, historically, groundwater has sometimes flowed to the south or southwest. Using typical soil properties for silty-sand, the estimated horizontal groundwater velocity is about 5 to 10 feet per year.

5.1.3 Land and Water Use

The following summary of land and water use in the vicinity of the Site was identified based on information provided by the City of Sammamish, and a reconnaissance of the Site vicinity. From the analysis of current and future land uses, the following conclusions were drawn.

- The Site is zoned Community Business (CB) for commercial use.
- Land within at least approximately 1,000 feet of the Site is zoned for commercial (CB) or residential use (R-6 [Single Family Detached Low Density] or R-18 [Multiple Family Medium Density]).
- The Site reconnaissance confirmed that current land uses on and in vicinity of the Site are consistent with this zoning designation.
- The Site is not within the 100-year or 500-year flood plains.
- The Site is not located within an environmentally sensitive area or wetland management area.
- Drinking water at the Site is supplied by the Sammamish Plateau Water and Sewer District and sourced from numerous public water supply wells. The Site is located within a Class II wellhead protection area; however, the closest public drinking water supply well is located approximately one-half mile east of the Site, and there are no public drinking water supply wells located in the presumed downgradient direction (west) from the Site. A map showing nearby production wells and the wellhead protection area is included in Appendix A.
- Drinking water wells were not identified within the quarter-quarter section that includes the Site (NE 1/4 of NE ¼ of Section 33, Township 2 South, Range 6 East). A 200-foot deep irrigation well is present 650 feet southwest (downgradient) of the Site. This location is also shown on the map in Appendix A. Documentation of the well log search and the irrigation well log is included in Appendix A.
- There is no surface water present onsite or within 500 feet of the Site.
- The nearest water body is George Davis Creek, which is located approximately 1,000 feet southwest of the Site.
- Utility services (sanitary, stormwater, electrical, and natural gas) onsite and in the locality of the Site are supplied by private and public entities.

5.1.4 Exposure Model

A conceptual site model (CSM) for identifying potential receptors and corresponding exposure pathways is described in this section. The results of the 2018 and 2019 field investigations indicate that soil and soil vapor contamination are limited to the immediate area of the building structure. Therefore, potential exposures are limited to users of the Inglewood Plaza property only.

Potential Receptors. The Site is exclusively used for commercial uses, with no daycare centers, child educational facilities, or similar uses that could be considered residential in nature. As a result, occupational workers are the primary receptor. The Site property undergoes periodic construction activity, so construction workers are also a potential receptor. Residential uses are adjacent to the south side of the Site beyond McDonald's and are located at an elevation that is approximately 10 feet higher than the rest of the Site. Therefore, residential exposure is not considered a complete pathway.

Exposure Pathways for Soil. The following is a summary of each of the applicable exposure pathways for soil under baseline conditions:

- *Vapor Intrusion into Buildings*: This pathway is considered complete for occupational workers under current and future land uses.
- *Soil Ingestion, Dermal Contact, and Inhalation*: This pathway is considered complete for occupational and construction workers under current and future use scenarios.

Information collected to date indicates that the extent of VOCs in groundwater is limited to the Site, and there are no wells for potable, production, or irrigation uses of groundwater at the Site. While not an exposure pathway, leaching to groundwater was considered in the remedial planning process because the highest beneficial water use must be considered.

Exposure Pathways for Soil Vapor. The following is a summary of each of the applicable exposure pathways for soil vapor under baseline conditions:

- *Vapor Intrusion into Buildings*: This pathway is considered complete for occupational workers under current and future land uses.
- *Volatilization to Outdoor Air*: This pathway is considered complete for occupational workers and construction workers under current and future use scenarios.

5.2 Remedial Action Areas

This section summarizes the remedial action area and intervals for each media.

Soil. PCE and TCE were the only compounds that were detected in soil at concentrations above MTCA Method A cleanup levels. After source soil excavation for the areas inside the former cleaner tenant space, the data indicate that the highest remaining PCE concentrations, and TCE to a lesser extent, are located approximately 4 feet bgs in the southwest wall of the excavation area. Concentrations of PCE above MTCA Method A soil cleanup levels extend to the north, south and east side of the excavation area (Figure 5). The PCE detections in the samples are believed to be the result of vapor phase transport in the dense soils at the site. The vertical extent of PCE in soil above MTCA Method A soil cleanup levels is approximately 7.5 to

9 feet bgs. The remedial action area, corresponding to the areas where remaining concentrations of PCE and TCE in soil exceed MTCA Method A cleanup levels, are shown on Figure 5 and 11.

Groundwater. Groundwater contamination above MTCA Method A cleanup levels is detected only on the Site. Prior to the soil excavation project, no concentrations of HVOCs had been detected above MTCA Method A cleanup levels in Site Monitoring wells for four or greater quarters. A single minimal exceedance of the PCE groundwater cleanup level occurred at MW-7 in September 2018. MW-7 is an upgradient well and this PCE detection is not believed to be site derived. Following source excavation, groundwater quality is expected to continue to improve. A remedial action area is not established for groundwater.

Soil Vapor. PCE and TCE were the primary compounds detected at concentrations above MTCA Method B soil vapor cleanup levels. Before excavation, the highest concentrations were present in the vicinity of the former dry-cleaning machine, and exceedances occurred across the tenant space.

Washington State Department of Ecology (Ecology) published the Toxics Cleanup Program Implementation Memorandum #22 – Vapor Intrusion Investigations and Short-term Trichloroethene Toxicity on October 1, 2019. This document includes default short-term screening levels for TCE in all media that are targeted for preventing TCE exposure for women of childbearing age. The default short term soil vapor TCE screening level is 250 µg/m^3. The highest detected concentration of TCE in soil vapor at the Site was 129 µg/m^3. Short term TCE risks are not expected at the Site.

Following excavation, significant concentrations reductions were observed and exceedances were limited to the immediate area of the excavation. The soil vapor remedial action area corresponds to the same area as the soil remedial action area.

Ambient Air. PCE and TCE were detected in ambient air samples collected since 2014. The detected PCE concentration in AA-6 during the July 2018 event was the only exceedance of the MTCA Method B cleanup level. After soil excavation, the concentration of PCE decreased below the MTCA Method B cleanup levels at the former dry cleaner. Concentrations of TCE and cis-1,2-DCE at the former dry cleaner were detected, but below the MTCA Method B ambient air cleanup level. The remedial actions areas for soil and soil vapor will address ambient air. Media-specific remedial action to address ambient air is not anticipated.

5.3 Proposed Cleanup Action

The proposed cleanup action consists of the following activities:

- Establish an institutional control to prevent exposure to residual soil concentrations at the Site.
- Monitoring to evaluate the concentrations of COCs in soil, groundwater, and ambient air to evaluate the effectiveness of the cleanup action.

- As a contingency, the existing passive venting system can be converted to an active system.

5.3.1 Disproportionate Cost Evaluation

Soil vapor extraction operated at the site from May 2004 to at least June 2009. While SVE operation did benefit the site, residual contamination remained after operation. The source excavation removed soil that could practicably be removed, considering the limitations posed by excavating near demising walls and utilities present at the west side of the tenant space.

Additional contaminated soil excavation is not practicable because of the disproportionate cost to close businesses, remove walls and equipment, and complete additional excavation. Considering the initial SVE system operated for five years, SVE operation is unlikely provide additional benefit.

Through preventing contact with contaminated soils, the proposed cleanup action is protective of soil exposures. Available data do not indicate residual concentrations of HVOCs in soil are resulting in a vapor intrusion risk. While concentrations of PCE exceed soil vapor SLs following excavation, detected concentrations of HVOCs in indoor air indicate protective conditions.

5.4 Cleanup Levels and Points of Compliance

5.4.1 Cleanup Levels

Cleanup levels are proposed for each media (soil, groundwater, soil vapor, and ambient air), based on the minimum requirements for cleanup actions identified in WAC 173-340-360(2)(a). These include protecting human health and the environment; complying with applicable federal and state laws; and providing for compliance monitoring. Attainment of these cleanup levels will address pathways that pose the potential for unacceptable risk, prevent or minimize the migration of chemicals of potential concern that would result in the unacceptable risk or impairment of beneficial uses of water, and treat/remove contaminants to the extent feasible.

The basis for the proposed cleanup levels is summarized below:

- Releases from the former cleaner have affected soil. Recent excavation removed source materials; however residual soil contamination does remain in the sidewalls of the former excavation area above cleanup levels.
- Groundwater is not used at the Site and contamination in groundwater is limited to the immediate vicinity of the former cleaner. Former water wells were identified approximately 1 mile from the Site and the City of Sammamish maintains a wellfield north of the Site. Cleanup standards must be based on the highest beneficial use and maximum exposure (WAC 173-340-720). Method A groundwater cleanup levels are proposed. Method A groundwater cleanup levels are equal to the

Federal Applicable and Relevant and Appropriate Regulations (ARARs), EPA's Maximum Contaminant Levels; MCLs).

- Soil vapor and ambient air have been affected by the releases from the former cleaner. Ecology's Standard Method B cleanup levels are proposed for soil vapor and ambient air.

Analytes	Soil Method A mg/kg	Groundwater ARARs µg/L	Groundwater Method A µg/L	Soil Vapor Method B µg/m^3	Ambient Air Method B µg/m^3
PCE	0.05	5.0	5.0	321	9.62
TCE	0.03	5.0	5.0	12.3	0.37

5.4.2 Points of Compliance

Points of compliance are established to monitor compliance with cleanup levels as required by WAC 173-340-350 (F). An institutional control will be used to ensure compliance with soil cleanup goals. Compliance monitoring data will be applied to the specific points of compliance identified below:

- Compliance with groundwater cleanup levels based on data from MW-1A and MW-1B; and
- Compliance with ambient air cleanup levels will be measured at locations within the tenant space.

6.0 Conclusions and Recommendations

Soil excavation was completed from the interior of the former cleaner space in 2018. Low concentrations of HVOCs remain at the margins of the excavation and near some utilities at near the west end of the former cleaner. Because additional excavation is limited by building demising walls and utilities, residual soil contamination cannot be fully removed by excavation. Therefore, an institutional control is proposed to document and manage contamination that must remain in place. Ambient air monitoring will be used to document compliance with the proposed cleanup levels in Section 6.4.1.

7.0 References

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Table 1 – Soil Results
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Sample Location (Depth)	Sample Date	HVOC concentrations (mg/kg)					
		PCE	TCE	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
	MTCA CUL	0.05[a]	0.03[a]	4000[b]	160[b]	1600[b]	0.67[c]
B-1 (1-2)	9/23/2014	**0.046**	<0.0012	--	<0.0012	--	<0.0012
B-1 (6)	9/23/2014	**0.092**	**0.0068**	--	**0.0088**	--	<0.00095
B-2 (3-4)	9/23/2014	**0.170**	**0.0016**	--	<0.0011	--	<0.0011
B-2 (6)	9/23/2014	**0.064**	**0.0036**	--	**0.013**	--	<0.00083
B-3 (5)	9/23/2014	**0.180**	**0.056**	--	**0.015**	--	<0.00086
B-3 (7-8)	9/23/2014	<0.0013	<0.0013	--	**0.0082**	--	<0.0013
MW-7 (21.5)	10/7/2014	<0.0013	<0.0013	--	<0.0013	--	<0.0013
SB-1 (0-1')	7/12/2018	**0.0281**	<0.00107	<0.00267	<0.00267	<0.00534	<0.00267
SB-1 (5')	7/12/2018	**0.524**	**0.00987**	<0.00279	<0.00279	<0.00558	<0.00279
SB-1 (14-15')	7/12/2018	<0.00278	<0.00111	<0.00278	<0.00278	<0.00556	<0.00278
SB-2 (3-4')	7/11/2018	**0.144**	**0.000785 J**	<0.00272	<0.00272	<0.00543	<0.00272
SB-2 (9')	7/11/2018	**0.0225**	**0.00155**	<0.00276	<0.00276	<0.00551	<0.00276
SB-2 (13')	7/11/2018	**0.00137 J**	<0.00109	<0.00273	**0.00739**	<0.00547	<0.00273
SB-3 (5-6')	7/12/2018	**0.293**	**0.0132**	<0.00281	<0.00281	<0.00561	<0.00281
SB-3 (7')	7/12/2018	**0.109**	**0.00997**	<0.00303	**0.0133**	<0.00606	<0.00303
SB-3 (14-15')	7/12/2018	<0.00283	<0.00113	<0.00283	**0.00412**	<0.00566	<0.00283
SB-4 (4')	7/12/2018	**0.278**	**0.0262**	<0.00269	<0.00269	<0.00537	<0.00269
SB-4 (7')	7/12/2018	**0.00997**	<0.00106	<0.00265	**0.0547**	<0.00529	<0.00265
SB-4 (15')	7/12/2018	<0.00332	<0.00133	<0.00332	**0.00922**	<0.00663	<0.00332
SB-5 (2-3')	7/12/2018	**0.463**	<0.00107	<0.00268	<0.00268	<0.00535	<0.00268
SW-S5-4'	11/15/2018	**0.111**	**0.00736**	<0.00274	**0.00125 J**	<0.00548	<0.00274
SW-N3-4'	11/15/2018	**0.183**	**0.00508**	<0.00275	<0.00275	<0.00550	<0.00275
SW-E2-6'	11/15/2018	**0.0362**	**0.00617**	<0.00276	**0.0259**	<0.00553	<0.00276
B3-6'	11/15/2018	**0.182**	**0.0175**	<0.00280	**0.0902**	**0.0100**	<0.00280
SW-S3-6'	11/15/2018	**0.268**	**0.00678**	<0.00300	**0.00331**	<0.00600	<0.00300
SW-E1-4'	11/15/2018	**0.0489**	**0.00152**	<0.00274	<0.00274	<0.00547	<0.00274
SW-S4-4'	11/15/2018	**0.217**	**0.00324**	<0.00275	**0.000825 J**	<0.00551	<0.00275
B2-7'	11/15/2018	**0.0275**	**0.00189**	<0.00279	**0.00468**	<0.00559	<0.00279
SW-N1-4'	11/15/2018	**0.362**	**0.00293**	<0.00279	<0.00279	<0.00558	<0.00279
BNW-6-7'	11/15/2018	**0.141**	**0.00255**	<0.00273	**0.00121 J**	<0.00547	<0.00273
SW-S2-6'	11/15/2018	**0.315**	**0.00270**	<0.00280	<0.00280	<0.00561	<0.00280
SW-SE-4'	11/15/2018	**0.0568**	**0.00806**	<0.00457	**0.00488**	<0.00914	<0.00457
SW-N2-6'	11/15/2018	**0.197**	**0.0298**	<0.00284	**0.0107**	<0.00567	<0.00284
SW-S1-4'	11/15/2018	**1.09**	**0.00171**	<0.00275	<0.00275	<0.00549	<0.00275
SW-W-4'	11/15/2018	**0.334**	**0.0190**	<0.00278	<0.00278	<0.00555	<0.00278
SW-SW1-4'	11/20/2018	**4.28**	**0.00913**	<0.00272	<0.00272	<0.00544	<0.00272
SW-SW1-6'	11/20/2018	**0.0186**	**0.00408**	<0.00278	**0.00102 J**	<0.00557	<0.00278
SW-W2-4'	11/20/2018	**1.18**	**0.0547**	<0.00390	<0.00390	<0.00780	<0.00390
SW-S6-4'	11/20/2018	**0.230**	**0.00172**	<0.00272	<0.00272	<0.00544	<0.00272
SW-S6-6'	11/20/2018	**0.200**	**0.00228**	<0.00287	**0.00174 J**	<0.00573	<0.00287
BNW2-7.5'	11/20/2018	**0.00786**	**0.000612 J**	<0.00267	**0.00160 J**	<0.00535	<0.00267
SW-NW1-4'	11/20/2018	**0.213**	**0.00187**	<0.00312	<0.00312	<0.00625	<0.00312

Please see notes at end of table.

Table 1 – Soil Results
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Sample Location (Depth)	Sample Date	HVOC concentrations (mg/kg)					
		PCE	TCE	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
	MTCA CUL	0.05[a]	0.03[a]	4000[b]	160[b]	1600[b]	0.67[c]
SW-N4-4'	11/20/2018	**0.279**	**0.00243**	<0.00302	<0.00302	<0.00603	**0.00224 J**
SW-N5-6'	11/20/2018	**0.527**	**0.00208**	<0.00271	**0.00108 J**	<0.00541	<0.00271
SW-S7-4'	11/20/2018	**0.150**	**0.00479**	<0.00276	**0.00293**	<0.00553	<0.00276
SW-N6-4'	11/20/2018	**0.0362**	**0.000791 J**	<0.00278	**0.00148 J**	<0.00557	<0.00278
SW-S8-4'	11/20/2018	**0.152**	**0.00102 J**	<0.00269	<0.00269	<0.00538	<0.00269
B4-7.5'	11/20/2018	**0.144**	**0.00500**	<0.00260	**0.00574**	<0.00520	<0.00260
SW-N7-4'	11/21/2018	**0.597**	**0.0235**	<0.00385	**0.0150**	<0.00770	<0.00385
SW-S9-4'	11/21/2018	**0.979**	**0.0183**	<0.00537	**0.0156**	**0.00383 J**	<0.00537
B5-7.5'	11/21/2018	**0.0509**	**0.00173**	<0.00274	**0.00351**	<0.00548	**0.00116 J**
SW-SE3-4'	11/21/2018	**0.0639**	**0.00354**	<0.00274	**0.00708**	<0.00549	<0.00274
SW-E4-4'	11/21/2018	**0.153**	**0.0119**	<0.00272	**0.00388**	<0.00545	<0.00272
SW-NE1-4'	11/21/2018	**0.250**	**0.0193**	<0.00311	**0.00416**	<0.00622	<0.00311
B6-7'	11/21/2018	**0.191**	**0.0110**	<0.00283	**0.0309**	**0.00266 J**	<0.00283
SW-SE2-4'	11/21/2018	**0.0298**	**0.0017**	<0.00284	**0.00264 J**	<0.00568	<0.00284

Notes:

1. HVOC = Halogenated volatile organic compound.
2. PCE = Tetrachloroethene.
3. TCE = Trichloroethene.
4. DCE = Dichloroethene.
5. MTCA CUL = Model Toxics Control Act Cleanup Level.
6. mg/kg = Milligrams per kilogram.
7. a = MTCA Method A Unrestricted Land Use Table Value (August 2020 update).
8. b = MTCA Method B Non-Carcinogen CUL Standard Formula Value for Unrestricted Land Use (August 2020 update).
9. c = MTCA Method B Carcinogen CUL Standard Formula Value for Unrestricted Land Use (August 2020 update).
10. < = Not detected at a concentration above the listed method detection limit or minimum reporting limit.
11. -- = Not reported.
12. Bold = Analyte was detected at a concentration above the method detection limit.
13. Shaded = Concentration exceeds the CUL.
14. ~~Strikethrough~~ indicates sample removed by excavation.
14. J = Result is estimated.
15. Historical soil data prior to September 2014 is located in Appendix A on Table A-1.

Table 2 – Groundwater Elevations
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Well ID	Date	Reference Elevation (feet)[1]	Depth To Groundwater (feet)	Groundwater Elevation (feet)
MW-1A	7/16/2013	355.2	12.69	342.51
	9/30/2014	355.2	15.10	340.10
	11/12/2014	355.2	11.33	343.87
	4/3/2015	355.2	8.51	346.69
	9/11/2018	279.8	17.69	262.11
	1/2/2019	279.8	12.45	267.35
MW-1B	7/16/2013	355.2	13.19	342.01
	9/30/2014	355.2	14.90	340.30
	11/12/2014	355.2	11.80	343.40
	4/3/2015	355.2	8.74	346.46
	9/11/2018	279.07	17.71	261.36
	1/2/2019	279.07	12.03	267.04
MW-2	7/16/2013	354.90	NM	--
	9/30/2014	354.90	NM	--
	11/12/2014	354.90	NM	--
MW-2R	9/11/2018	278.87	16.99	261.88
	1/2/2019	278.87	12.85	266.02
MW-3	7/16/2013	354.14	11.28	342.86
	9/30/2014	354.14	NM	--
	11/12/2014	354.14	NM	--
MW-4	7/16/2013	354.01	NM	--
	9/30/2014	354.01	NM	--
	11/12/2014	354.01	NM	--
MW-4R	9/11/2018	277.58	15.93	261.65
	1/2/2019	277.58	11.86	265.72
MW-5	7/16/2013	354.81	13.13	341.68
	9/30/2014	354.81	14.40	340.41
	11/12/2014	354.81	11.07	343.74
	4/3/2015	354.81	8.59	346.22
	9/11/2018	278.95	17.35	261.6
MW-6	7/16/2013	354.33	11.68	342.65
	9/30/2014	354.33	12.10	342.23
	11/12/2014	354.33	11.20	343.13
	4/3/2015	354.33	7.83	346.50
	9/11/2018	278.52	15.39	263.13
	1/2/2019	278.52	10.85	267.67
MW-7	10/8/2014	354.9 [2]	14.97	339.95
	11/12/2014	354.9[2]	10.35	344.55
	4/3/2015	354.9[2]	7.60	347.30
	9/11/2018	278.33	16.53	261.80
	1/2/2019	278.33	11.40	266.93

Notes:

1. Reference elevation (i.e., top of casing) relative to the reported elevation of a catch basin grate (354 feet) reported by the Sammamish Plateau Sewer and Water District for MW-2, MW-3, MW-4 Remaining wells calculated based on WSPCS North Zone NAD 83/2011, NAVD 88
2. Elevation (i.e., top of casing) estimated relative to monitoring well MW-2
3. NM = Depth to groundwater was not measured.
4. -- = Groundwater elevation was not calculated.
5. Groundwater elevation data prior to July 2013 is located in Appendix D on Table D-3.

Table 3 – Groundwater Results
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Sample Location	Sample Date	HVOC concentration (µg/L)					
		PCE	TCE	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
MTCA Method A CUL		5	5	400[a]	16[a]	160[a]	0.2
MTCA Method B Vapor Intrusion SL		*24*	*1.4*	--	--	--	*0.35*
MW-1A	7/17/2013	<1.0	<1.0	<1.0	**1.1**	<1.0	<1.0
	9/30/2014	**1.5**	**0.31**	<0.10	**2.1**	<0.10	<0.020
	11/12/2014	**1.8**	**0.28**	**--**	**2.4**	**--**	<0.020
	11/12/2014 DUP	**1.8**	**0.30**	**--**	**2.3**	**--**	<0.020
	4/3/2015	<3.0	<3.0	<2.0	**1.8**	<1.0	<1.0
	9/11/2018	**1.52**	**0.274 J**	<0.500	**1.01**	<0.500	<0.500
	9/11/2018 DUP	**1.95**	**0.246 J**	<0.500	**0.93**	<0.500	<0.500
	1/2/2019	**2.10**	**0.227 J**	<0.500	**1.61**	<0.500	<0.500
	1/02/2019 DUP	**2.03**	**0.206 J**	<0.500	**1.71**	<0.500	<0.500
MW-1B	7/17/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/30/2014	**0.92**	<0.10	<0.10	**0.18**	<0.10	<0.020
	11/12/2014	**1.1**	<0.10	--	<0.10	--	<0.020
	4/3/2015	<3.0	<3.0	<2.0	<1.0	<1.0	<1.0
	9/11/2018	**0.999**	<0.500	<0.500	<0.500	<0.500	<0.500
	1/2/2019	**0.785**	<0.500	<0.500	<0.500	<0.500	<0.500
MW-2	7/17/2013	NS	NS	NS	NS	NS	NS
	9/30/2014	NS	NS	NS	NS	NS	NS
	11/12/2014	NS	NS	NS	NS	NS	NS
MW-2R	9/11/2018	**0.688**	<0.500	<0.500	<0.500	<0.500	<0.500
	1/2/2019	**0.835**	<0.500	<0.500	<0.500	<0.500	<0.500
MW-3	7/17/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/17/2013 DUP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/30/2014	NS	NS	NS	NS	NS	NS
	11/12/2014	NS	NS	NS	NS	NS	NS
MW-4	7/17/2013	NS	NS	NS	NS	NS	NS
	9/30/2014	NS	NS	NS	NS	NS	NS
	11/12/2014	NS	NS	NS	NS	NS	NS
MW-4R	9/11/2018	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
	1/2/2019	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
MW-5	7/17/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/30/2014	**0.21**	<0.10	<0.10	**0.17**	<0.10	<0.020
	11/12/2014	**0.14**	<0.10	--	**0.20**	**--**	<0.020
	4/3/2015	<3.0	<3.0	<2.0	<1.0	<1.0	<1.0
	9/11/2018	**0.345 J**	<0.500	<0.500	<0.500	<0.500	<0.500
MW-6	7/17/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/30/2014	**0.98**	<0.10	<0.10	<0.10	<0.10	<0.020
	11/12/2014	**0.31**	<0.10	--	<0.10	--	<0.020
	4/3/2015	<3.0	<3.0	<2.0	<1.0	<1.0	<1.0
	9/11/2018	**0.675 J**	<1.00	<1.00	<1.00	<1.00	<1.00
	1/2/2019	**0.315 J**	<0.500	<0.500	<0.500	<0.500	<0.500
MW-7	11/13/2014	**0.93**	<0.10	--	<0.10	--	<0.020
	4/3/2015	<3.0	<3.0	<2.0	<1.0	<1.0	<1.0
	4/3/2015 DUP	<3.0	<3.0	<2.0	<1.0	<1.0	<1.0
	9/11/2018	**5.16**	<0.500	<0.500	<0.500	<0.500	<0.500
	1/2/2019	**1.01**	<0.500	<0.500	<0.500	<0.500	<0.500

Notes:

1. HVOC = Halogenated volatile organic compound.
2. PCE = Tetrachloroethene.
3. TCE = Trichloroethene.
4. DCE = Dichloroethene.
5. MTCA Method A CUL = Model Toxics Control Act Method A Cleanup Level (August 2020 update).
6. MTCA Method B Vapor Intrusion SL = Method Toxics Control Act Method B Screening Level (August 2020 update)
7. a = MTCA Method B CUL fo Unrestricted Land Use (August 2020 update).
8. µg/L = Micrograms per liter.
9. < = Not detected at a concentration above the listed method detection limit or minimum reporting limit.
10. -- = Not reported.
11. NS = Sample was not collected.
12. Bold = Analyte was detected at a concentration above the method detection limit.
13. Shaded concentration exceeds the groundwater CUL.
14. Italicized concentration exceeds the vapor intrusion SL.
15. DUP = Duplicate sample.
16. J = Result is estimated.
17. Historical groundwater data prior to July 2013 is located in Appendix D on Table D-4.

Table 4 – Soil Vapor Results
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Sample Location (Depth)	Sample Date	HVOC concentrations (µg/m^3)					
		PCE	TCE	1,1-DCE	cis-1,2 DCE	trans-1,2-DCE	Vinyl Chloride
MTCA Method B Soil Gas SLs		320[a]/960[b]	11[a]/33[b]	3000[a]/9100[b]	--	--	9.5[a]/28[b]
VS-3 (3")	11/15/2013	**14**	<5.5	--	<4.0	--	<2.6
VS-4 (3")	11/15/2013	**4,300**	<14	--	<10	--	<6.5
VS-5 (3")	3/28/2014	**7,100**	<24	--	<17	--	<11
VS-6 (3")	3/28/2014	**1,000**	**12**	--	<2.3	--	<1.5
VS-7 (3")	9/23/2014	**4.5**	<1.2	--	<0.93	--	<0.60
VS-8 (3")	9/23/2014	**1,100**	<4.3	--	<3.1	--	<2.0
SV-1	7/26/2018	**441**	**5.00**	<0.793	**1.88**	<0.793	<0.511
	1/11/2019	**151**	**2.96**	--	<0.793	<0.793	<0.511
SV-2	7/26/2018	**656**	**23.7**	<0.793	**11.0**	**1.03**	<0.511
	1/4/2019	**460**	**28.2**	--	**47.9**	**10.7**	<0.511
SV-3	7/26/2018	**1,840**	**12.9**	<0.793	**5.74**	**0.951**	<0.511
	1/4/2019	**250**	**16.6**	--	**21.3**	**3.61**	<0.511
SV-4	7/26/2018	**4,500**	**14.7**	<0.793	**9.70**	<0.793	<0.511
	1/4/2019	**1,130**	**129**	--	**300**	**29.5**	<0.511
SV-5	7/26/2018	**3,730**	**23.9**	<0.793	**9.92**	<0.793	<0.511
	1/4/2019	**239**	**2.78**	--	**2.56**	<0.793	<0.511
SV-6	1/4/2019	<1.36	<1.07	--	<0.793	<0.793	<0.511
SV-7	1/4/2019	**249**	**10.8**	--	**14.1**	**0.887**	<0.511
SV-8	1/4/2019	**4.06**	<1.07	--	<0.793	<0.793	<0.511

Notes:

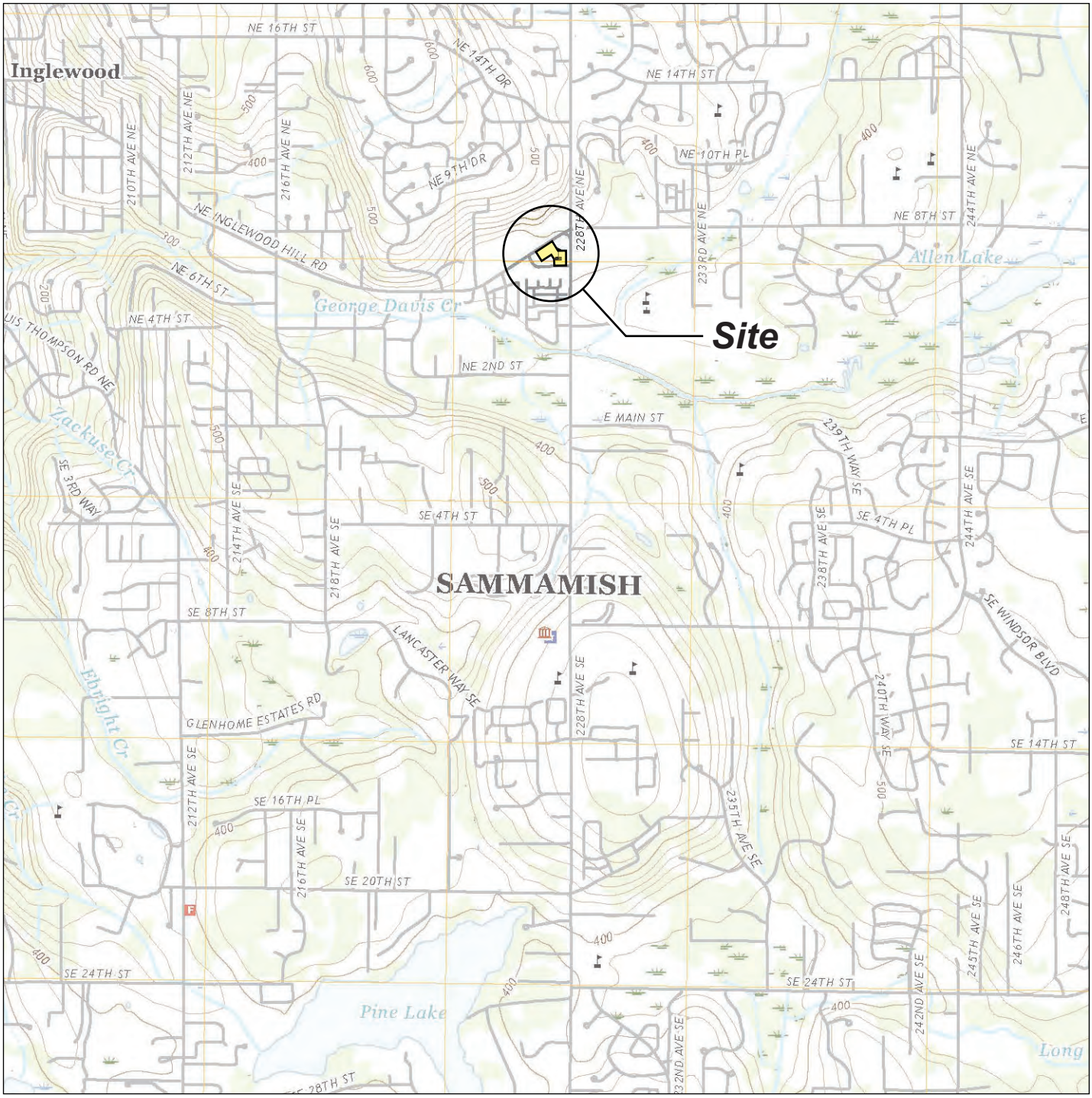
1. HVOC = Halogenated volatile organic compound.
2. PCE = Tetrachloroethene.
3. TCE = Trichloroethene.
4. DCE = Dichloroethene.
5. µg/m^3 = Micrograms per cubic meter.
6. Soil gas SLs are from the Model Toxics Control Act (MTCA) Method B for cancer and non cancer (August 2020 update).
7. a = Sub-slab soil gas SL.
8. b = Deep soil gas SL.
9. < = Not detected at a concentration above the listed method detection limit or minimum reporting limit.
10. -- = Not reported.
11. Bold = Analyte was detected at a concentrations above the method detection limit.
12. Shaded = Concentration exceeds the SL.
15. Historical soil vapor data prior to November 2013 is located in Appendix D on Table D-2.

Table 5 – Ambient Air Results
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Sample Location	Sample Depth	Sample Date	HVOC concentrations (µg/m^3)					
			PCE	TCE	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
MTCA Method B Cleanup Level			9.6	0.33	91	--	--	0.28
AA-1	Indoor ambient air	3/28/2014	**2.5**	<0.36	--	<0.27	--	<0.086
AA-2	Indoor ambient air	3/28/2014	**3.4**	<0.36	--	<0.27	--	<0.086
OA-1	Outdoor ambient air	3/28/2014	**1.9**	<0.20	--	<0.14	--	<0.047
AA-3	Indoor ambient air	9/23/2014	**0.69**	<0.17	--	<0.13	--	<0.041
AA-4	Indoor ambient air	9/23/2014	**1.4**	<0.17	--	<0.12	--	<0.040
OA-2	Outdoor ambient air	9/23/2014	**1.2**	<0.17	--	<0.13	--	<0.041
AA-5	Indoor ambient air	7/26/2018	**8.6**	<0.107	<0.0793	<0.0793	<0.0793	<0.0511
AA-6	Indoor ambient air	7/26/2018	**10.5**	<0.107	<0.0793	<0.0793	<0.0793	<0.0511
AA-7	Indoor ambient air	01/04/2019	**6.35**	**0.166**	--	**0.270**	<0.0793	<0.0511
AA-8	Indoor ambient air	01/04/2019	**6.19**	**0.168**	--	**0.292**	<0.0793	<0.0511

Notes:

1. HVOC = Halogenated volatile organic compound.
2. PCE = Tetrachloroethene.
3. TCE = Trichloroethene.
4. DCE = Dichloroethene.
5. µg/m^3 = Micrograms per cubic meter.
6. MTCA Method B CUL = Model Toxics Control Act Method B Cleanup Level for Unrestricted Land Use (August 2020 update).
7. < = Not detected at a concentration above the shown method detection limit or minimum reporting limit.
8. Bold = analyte was detected at a concentration above the method detection limit.
9. -- = Not reported.
10. Shaded concentration exceeds the Cleanup Level.



Note: Base map prepared from USGS 7.5-minute quadrangle of Issaquah, WA, dated 2020 as provided by USGS.gov.

0 2,000 4,000

Approximate Scale in Feet

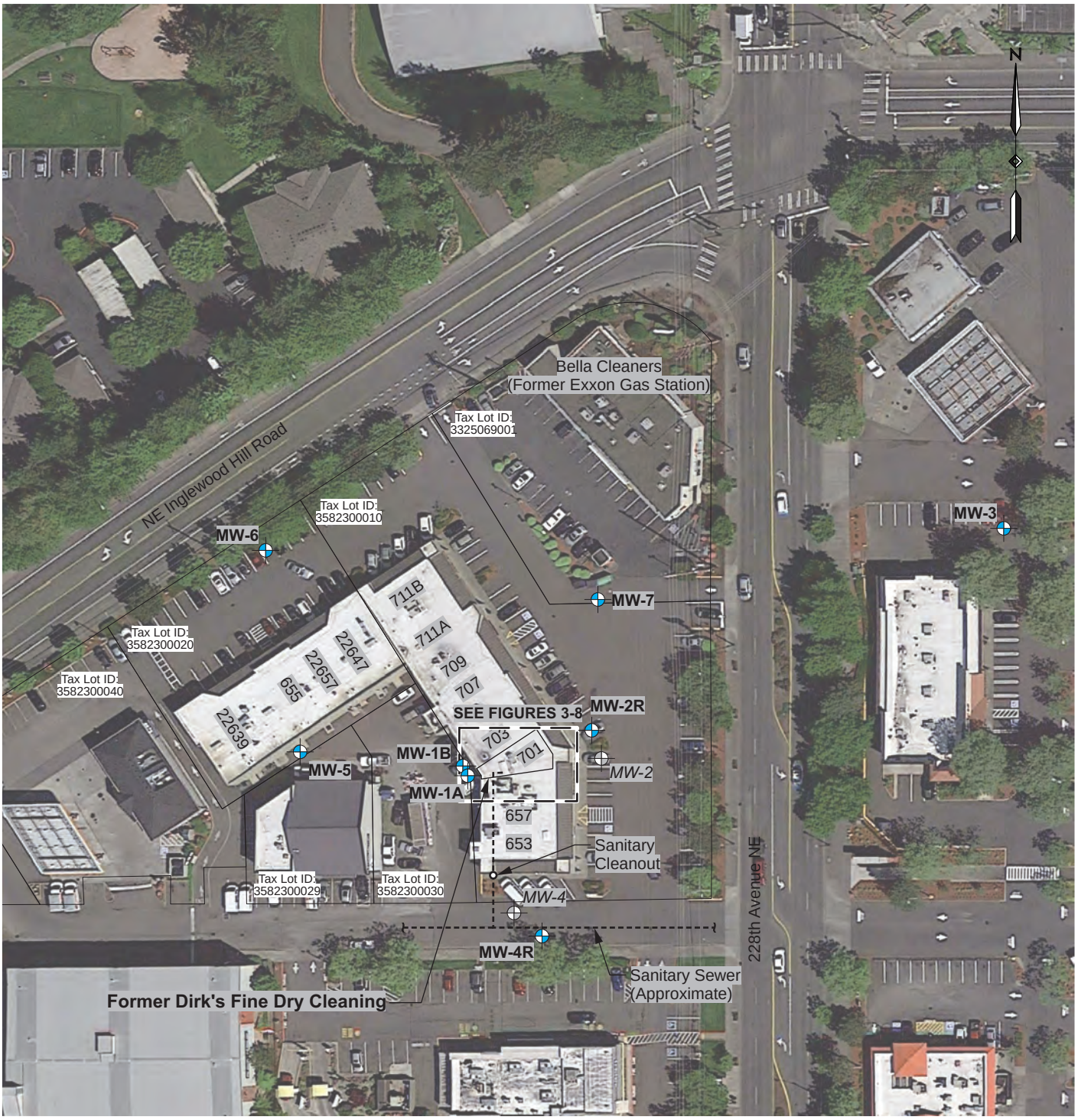
Site Location Map

Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number:	Drawn:	Approved:	Figure
REGEN-220	JP	JF	1

February 2021



0 100 200

Approximate Scale in Feet

Legend:

MW-1A Monitoring Well Location (Inglewood Plaza)

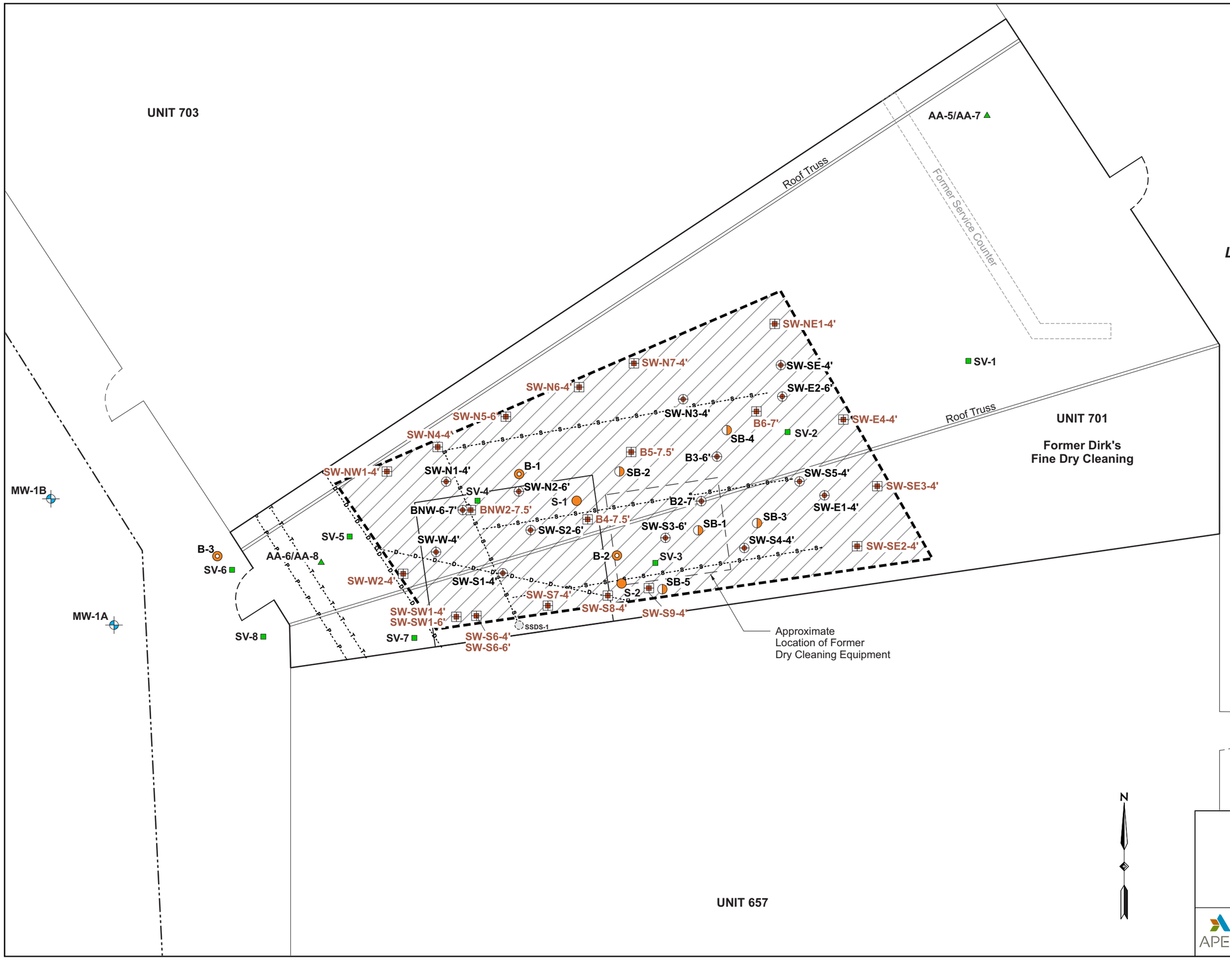
MW-2 Monitoring Well (Not Located)

Notes: 1) Base map prepared from Google Earth Pro Imagery. Aerial dated May 13, 2018.
2) All site features and historical locations are approximate.

Site Layout

Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

APEX Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number: REGEN-220	Drawn: JP	Approved: JF	Figure **2**
	February 2021			



Legend:

- **SW-S1-4'** First Round Confirmation Sampling
- **SW-NE1-4'** Final Round Confirmation Sampling
- **MW-1A** Monitoring Well Location
- **S-1** Pre-SVE Soil Sample Location (1995)
- **B-3** Soil Sample Location (2014)
- **SB-3** Soil Boring Location (2018)
- **SV-1** Sub-Slab Soil Vapor Sample Location
- **AA-5/AA-7** Ambient Air Sample Location
- Excavation Area Boundary
- **SSDS-1** Passive Vent Piping (2' 6" Depth) and Discharge Pipe
- **D** Drainage Line (3' 4" Depth)
- **T** Communication Line (1' 6" Depth)
- **P** Power Line (1' Depth)

Note:
1) All site features and historical locations are approximate.

0 5 10
Approximate Scale in Feet

Remedial Investigation Sample Locations

Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number:	Drawn:	Approved:	Figure
REGEN-220	JP	JF	3

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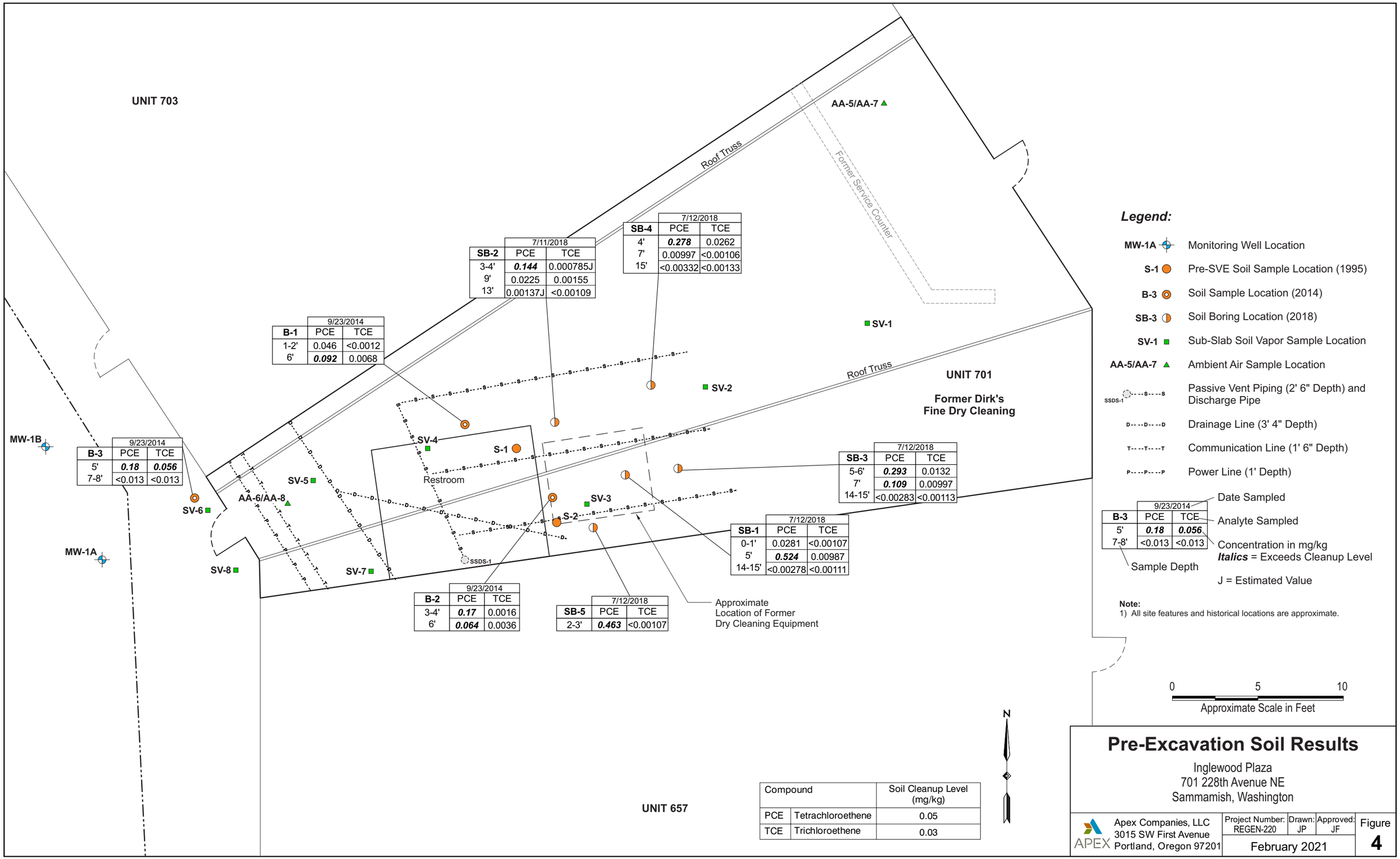


	9/23/2014	
B-1	PCE	TCE
1-2'	0.046	<0.0012
6'	***0.092***	0.0068

	7/11/2018	
SB-2	PCE	TCE
3-4'	***0.144***	0.000785J
9'	0.0225	0.00155
13'	0.00137J	<0.00109

	7/12/2018	
SB-4	PCE	TCE
4'	***0.278***	0.0262
7'	0.00997	<0.00106
15'	<0.00332	<0.00133

	9/23/2014	
B-3	PCE	TCE
5'	***0.18***	***0.056***
7-8'	<0.013	<0.013

	7/12/2018	
SB-3	PCE	TCE
5-6'	***0.293***	0.0132
7'	***0.109***	0.00997
14-15'	<0.00283	<0.00113

	7/12/2018	
SB-1	PCE	TCE
0-1'	0.0281	<0.00107
5'	***0.524***	0.00987
14-15'	<0.00278	<0.00111

	9/23/2014	
B-2	PCE	TCE
3-4'	***0.17***	0.0016
6'	***0.064***	0.0036

	7/12/2018	
SB-5	PCE	TCE
2-3'	***0.463***	<0.00107

Legend:

- **MW-1A** Monitoring Well Location
- **S-1** Pre-SVE Soil Sample Location (1995)
- **B-3** Soil Sample Location (2014)
- **SB-3** Soil Boring Location (2018)
- **SV-1** Sub-Slab Soil Vapor Sample Location
- **AA-5/AA-7** Ambient Air Sample Location
- SSDS-1 — S — S — S — Passive Vent Piping (2' 6" Depth) and Discharge Pipe
- D — D — D — Drainage Line (3' 4" Depth)
- T — T — T — Communication Line (1' 6" Depth)
- P — P — P — Power Line (1' Depth)

	9/23/2014	
B-3	PCE	TCE
5'	***0.18***	***0.056***
7-8'	<0.013	<0.013

- Date Sampled
- Analyte Sampled
- Concentration in mg/kg
- ***Italics*** = Exceeds Cleanup Level
- Sample Depth
- J = Estimated Value

Note:
1) All site features and historical locations are approximate.

0 5 10
Approximate Scale in Feet

Compound		Soil Cleanup Level (mg/kg)
PCE	Tetrachloroethene	0.05
TCE	Trichloroethene	0.03

Pre-Excavation Soil Results

Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number:	Drawn:	Approved:	Figure
REGEN-220	JP	JF	**4**
February 2021			

UNIT 703

UNIT 701

Former Dirk's Fine Dry Cleaning

UNIT 657

AA-5/AA-7

MTCA Boundary

Former Service Counter

Roof Truss

SB-4	7/12/2018 PCE	TCE
4'	~~0.279~~	0.0262
7'	0.00997	<0.00106
15'	<0.00332	<0.00133

SW-N7-4'	11/21/2018
PCE	**0.597**
TCE	0.0235

SB-2	7/11/2018 PCE	TCE
3-4'	~~0.144~~	0.000785J
9'	0.0225	0.00155
13'	0.00137J	<0.00109

SW-N6-4'	11/20/2018
PCE	0.0362
TCE	0.000791J

B5-7.5'	11/21/2018
PCE	**0.0509**
TCE	0.00173

SW-NE1-4'	11/21/2018
PCE	**0.250**
TCE	0.0193

B6-7'	11/21/2018
PCE	**0.191**
TCE	0.0110

SW-N5-6'	11/20/2018
PCE	**0.527**
TCE	0.00208

SW-E4-4'	11/21/2018
PCE	**0.153**
TCE	0.0119

SV-1

SW-N4-4'	11/20/2018
PCE	**0.279**
TCE	0.00243

B-2	11/15/2018 PCE	TCE
7'	0.0275	0.00189

SW-NW1-4'	11/20/2018
PCE	**0.213**
TCE	0.00187

SW-SE3-4'	11/21/2018
PCE	**0.0639**
TCE	0.00354

B-3	9/23/2014 PCE	TCE
5'	**0.18**	**0.056**
7-8'	<0.013	<0.013

SB-3	7/12/2018 PCE	TCE
5-6'	~~0.293~~	0.0132
7'	**0.109**	0.00997
14-15'	<0.00283	<0.00113

BNW2-7.5'	11/20/2018
PCE	0.00786
TCE	0.000612J

SW-SE2-4'	11/21/2018
PCE	0.0298
TCE	0.0017

SB-1	7/12/2018 PCE	TCE
0-1'	~~0.0281~~	<0.00107
5'	~~0.524~~	0.00987
14-15'	<0.00278	<0.00111

SW-W2-4'	11/20/2018
PCE	**1.18**
TCE	**0.0547**

SW-S7-4'	11/20/2018
PCE	**0.150**
TCE	0.00479

SW-SW1-4'	11/20/2018
PCE	**4.28**
TCE	0.00913

SW-S6-4'	11/20/2018
PCE	**0.230**
TCE	0.00172

SW-S9-4'	11/21/2018
PCE	**0.979**
TCE	0.0183

SW-SW1-6'	11/20/2018
PCE	0.0186
TCE	0.00408

SW-S6-6'	11/20/2018
PCE	**0.200**
TCE	0.00228

SW-S8-4'	11/20/2018
PCE	**0.152**
TCE	0.00102J

B4-7.5'	11/20/2018
PCE	**0.144**
TCE	0.00500

SW-N1-4' SW-N2-6' SW-N3-4' SW-SE-4' SW-E2-6' SW-S1-4' SW-S2-6' SW-S3-6' SW-S4-4' SW-S5-4' SW-E1-4' SW-W-4' BNW-6-7'

B-1 B-2 B3-6' SV-2 SV-3 SV-4 S-1 S-2 SB-5 SSDS-1

MW-1B MW-1A SV-6 SV-8 SV-7 AA-6/AA-8

Legend:

- MW-1A — Monitoring Well Location
- S-1 — Pre-SVE Soil Sample Location (1995)
- B-3 — Soil Sample Location (2014)
- SB-3 — Soil Boring Location (2018)
- SV-1 — Sub-Slab Soil Vapor Sample Location
- AA-5/AA-7 — Ambient Air Sample Location
- SW-S1-4' — First Round Confirmation Sampling
- SW-NE1-4' — Final Round Confirmation Sampling

SW-S8-4'
11/20/2018
PCE **0.152**
TCE 0.00102J

Sample Name (Includes Depth)
Date Sampled
Concentration in mg/kg
Italics = Exceeds MTCA CUL
J = Estimated Value
Analyte Sampled

Excavation Area Boundary

Indicates Sample Removed By Excavation

Notes:
1) All site features and historical locations are approximate.
2) Only soil sample results collected after remediation are shown.

0 5 10
Approximate Scale in Feet

N

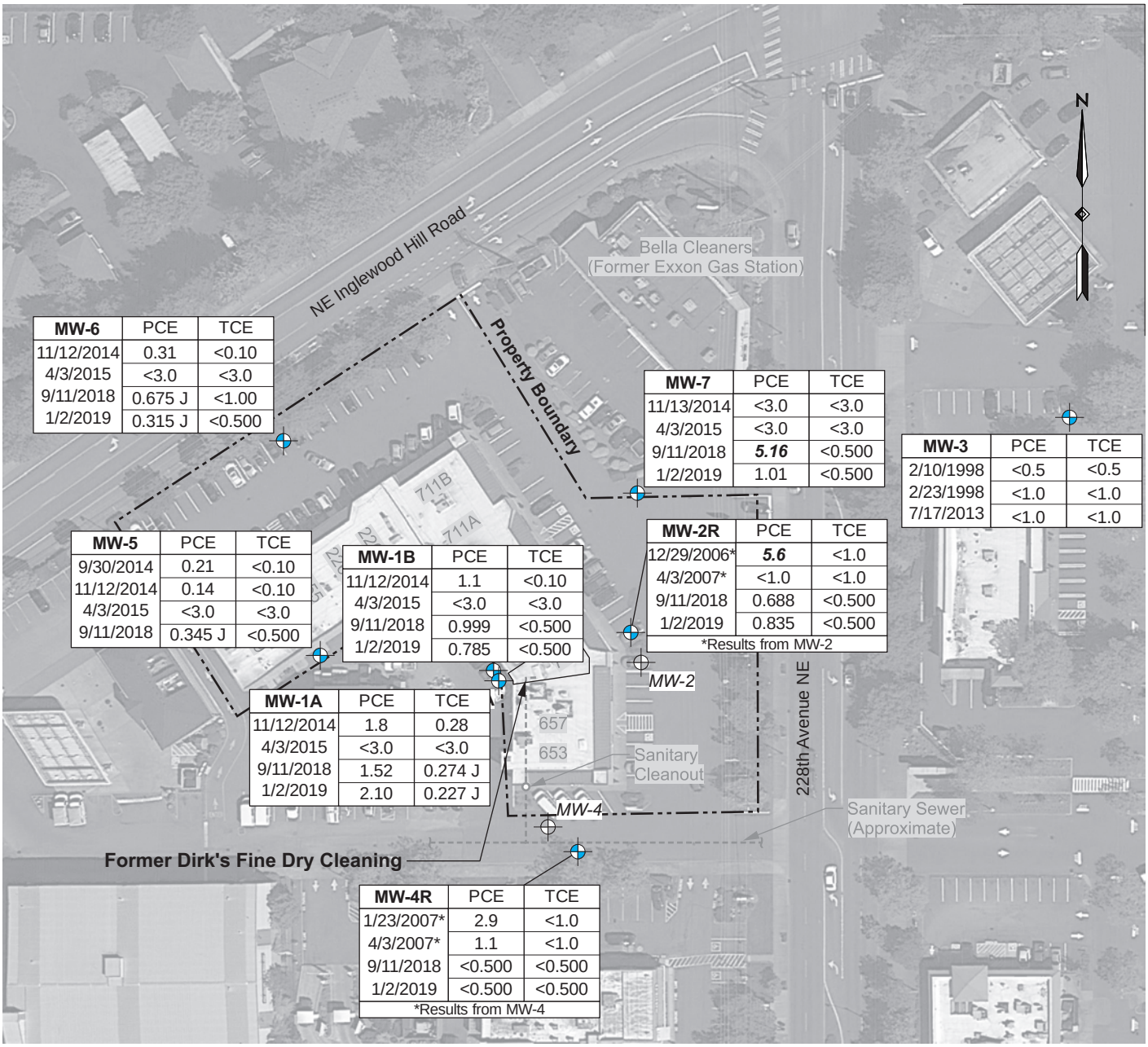
Compound		Soil Cleanup Level (mg/kg)
PCE	Tetrachloroethene	0.05
TCE	Trichloroethene	0.03

Final Soil Results - Excavation Area

Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number:	Drawn:	Approved:	Figure
REGEN-220	JP	JF	5
February 2021			



MW-6	PCE	TCE
11/12/2014	0.31	<0.10
4/3/2015	<3.0	<3.0
9/11/2018	0.675 J	<1.00
1/2/2019	0.315 J	<0.500

MW-7	PCE	TCE
11/13/2014	<3.0	<3.0
4/3/2015	<3.0	<3.0
9/11/2018	***5.16***	<0.500
1/2/2019	1.01	<0.500

MW-3	PCE	TCE
2/10/1998	<0.5	<0.5
2/23/1998	<1.0	<1.0
7/17/2013	<1.0	<1.0

MW-5	PCE	TCE
9/30/2014	0.21	<0.10
11/12/2014	0.14	<0.10
4/3/2015	<3.0	<3.0
9/11/2018	0.345 J	<0.500

MW-1B	PCE	TCE
11/12/2014	1.1	<0.10
4/3/2015	<3.0	<3.0
9/11/2018	0.999	<0.500
1/2/2019	0.785	<0.500

MW-2R	PCE	TCE
12/29/2006*	***5.6***	<1.0
4/3/2007*	<1.0	<1.0
9/11/2018	0.688	<0.500
1/2/2019	0.835	<0.500

*Results from MW-2

MW-1A	PCE	TCE
11/12/2014	1.8	0.28
4/3/2015	<3.0	<3.0
9/11/2018	1.52	0.274 J
1/2/2019	2.10	0.227 J

MW-4R	PCE	TCE
1/23/2007*	2.9	<1.0
4/3/2007*	1.1	<1.0
9/11/2018	<0.500	<0.500
1/2/2019	<0.500	<0.500

*Results from MW-4

Legend:

MW-1A Monitoring Well Location

MW-2 Monitoring Well (Not Located)

Sample Name

Date Sampled

MW-1A	PCE	TCE
11/12/2014	1.8	0.28
4/3/2015	<3.0	<3.0
9/11/2018	1.52	0.274 J
1/2/2019	2.10	0.227 J

Analyte Sampled

Concentration in mg/L
Italics = Exceeds MTCA Method A CUL

J = Estimated Value

Compound		Groundwater Cleanup Level (mg/L)
PCE	Tetrachloroethene	5.0
TCE	Trichloroethene	5.0

0 100 200

Approximate Scale in Feet

Notes:
1) All site features and historical locations are approximate.
2) Base map prepared from Google Earth Pro Imagery. Aerial dated May 13, 2018.

Groundwater Results

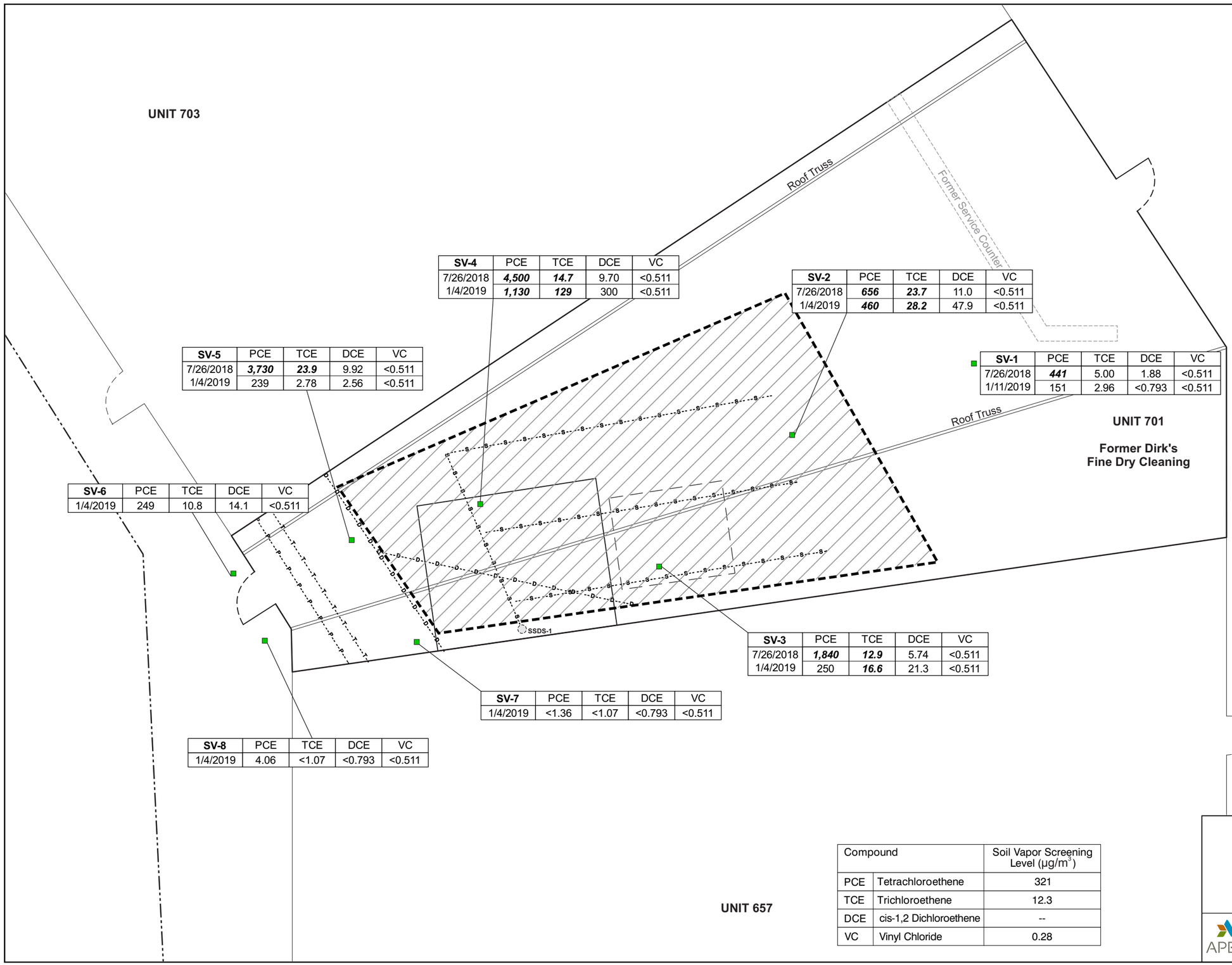
Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number:	Drawn:	Approved:
REGEN-220	JP	JF

February 2021

Figure **6**



SV-4	PCE	TCE	DCE	VC
7/26/2018	***4,500***	***14.7***	9.70	<0.511
1/4/2019	***1,130***	***129***	300	<0.511

SV-2	PCE	TCE	DCE	VC
7/26/2018	***656***	***23.7***	11.0	<0.511
1/4/2019	***460***	***28.2***	47.9	<0.511

SV-5	PCE	TCE	DCE	VC
7/26/2018	***3,730***	***23.9***	9.92	<0.511
1/4/2019	239	2.78	2.56	<0.511

SV-1	PCE	TCE	DCE	VC
7/26/2018	***441***	5.00	1.88	<0.511
1/11/2019	151	2.96	<0.793	<0.511

SV-6	PCE	TCE	DCE	VC
1/4/2019	249	10.8	14.1	<0.511

SV-3	PCE	TCE	DCE	VC
7/26/2018	***1,840***	***12.9***	5.74	<0.511
1/4/2019	250	***16.6***	21.3	<0.511

SV-7	PCE	TCE	DCE	VC
1/4/2019	<1.36	<1.07	<0.793	<0.511

SV-8	PCE	TCE	DCE	VC
1/4/2019	4.06	<1.07	<0.793	<0.511

Legend:

SV-1 ■ Sub-Slab Soil Vapor Sample Location

Sample Name
Date Sampled
Analyte Sampled
Concentration in µg/m^3

SV-1	PCE
7/26/2018	***441***
1/11/2019	151

Italics = Exceeds Screening Level

Excavation Area Boundary

Note:
1) All site features and historical locations are approximate.

0 5 10
Approximate Scale in Feet

Compound		Soil Vapor Screening Level (µg/m^3)
PCE	Tetrachloroethene	321
TCE	Trichloroethene	12.3
DCE	cis-1,2 Dichloroethene	--
VC	Vinyl Chloride	0.28

Soil Vapor Results

Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number:	Drawn:	Approved:	Figure
REGEN-220	JP	JF	7

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UNIT 703

AA-5/AA-7	PCE	TCE
7/26/2018	8.6	<0.107
1/4/2019	6.35	0.166

Roof Truss

Former Service Counter

Roof Truss

UNIT 701

Former Dirk's Fine Dry Cleaning

AA-6/AA-8	PCE	TCE
7/26/2018	10.5	<0.107
1/4/2019	6.19	0.168

SSDS-1

UNIT 657

Legend:

AA-5/AA-7 ▲ Ambient Air Sample Location

Sample Name
Date Sampled
Analyte Sampled
Concentration in µg/m^3

AA-5/AA-7	PCE
7/26/2018	8.6
1/4/2019	6.35

Italics = Exceeds MTCA CUL

Excavation Area Boundary

Note:
1) All site features and historical locations are approximate.

0 5 10
Approximate Scale in Feet

Compound		MTCA Method B Cleanup Level (µg/m^3)
PCE	Tetrachloroethene	9.6
TCE	Trichloroethene	0.37

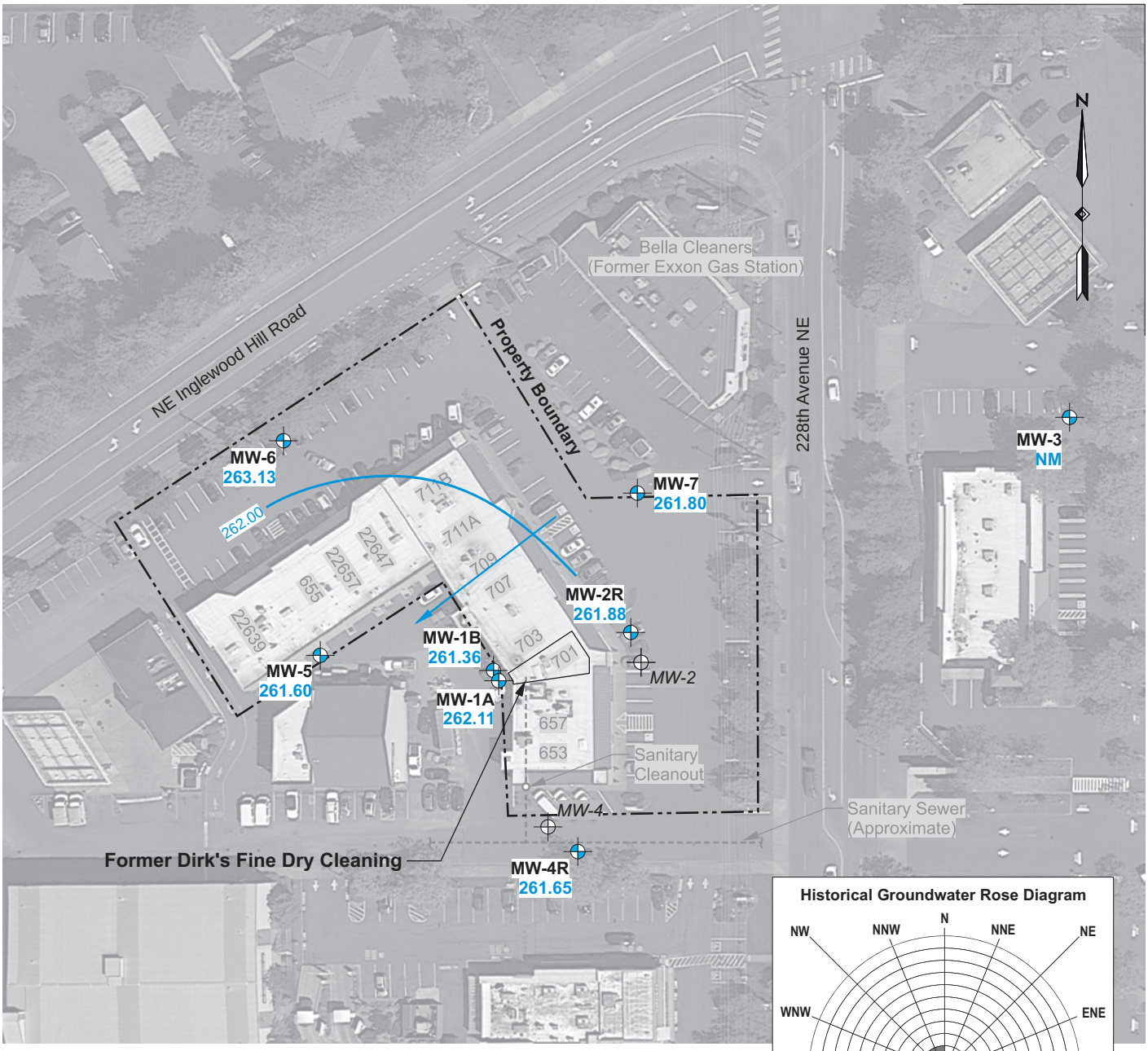
Ambient Air Results

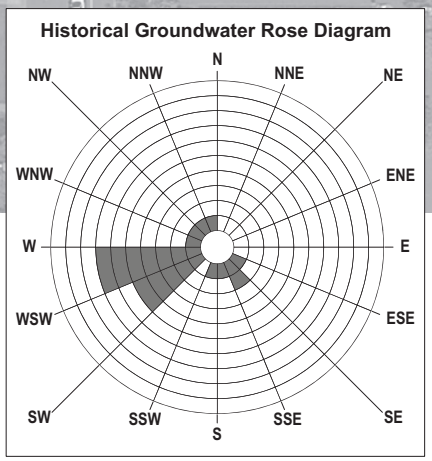
Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number:	Drawn:	Approved:	Figure
REGEN-220	JP	JF	8

February 2021





0 100 200

Approximate Scale in Feet

Legend:

MW-1A 262.11 — Monitoring Well Location (Inglewood Plaza) Groundwater Elevation in Feet

NM — Not Monitored

262.00 — Groundwater Elevation Contour in Feet

Apparent Groundwater Flow Direction

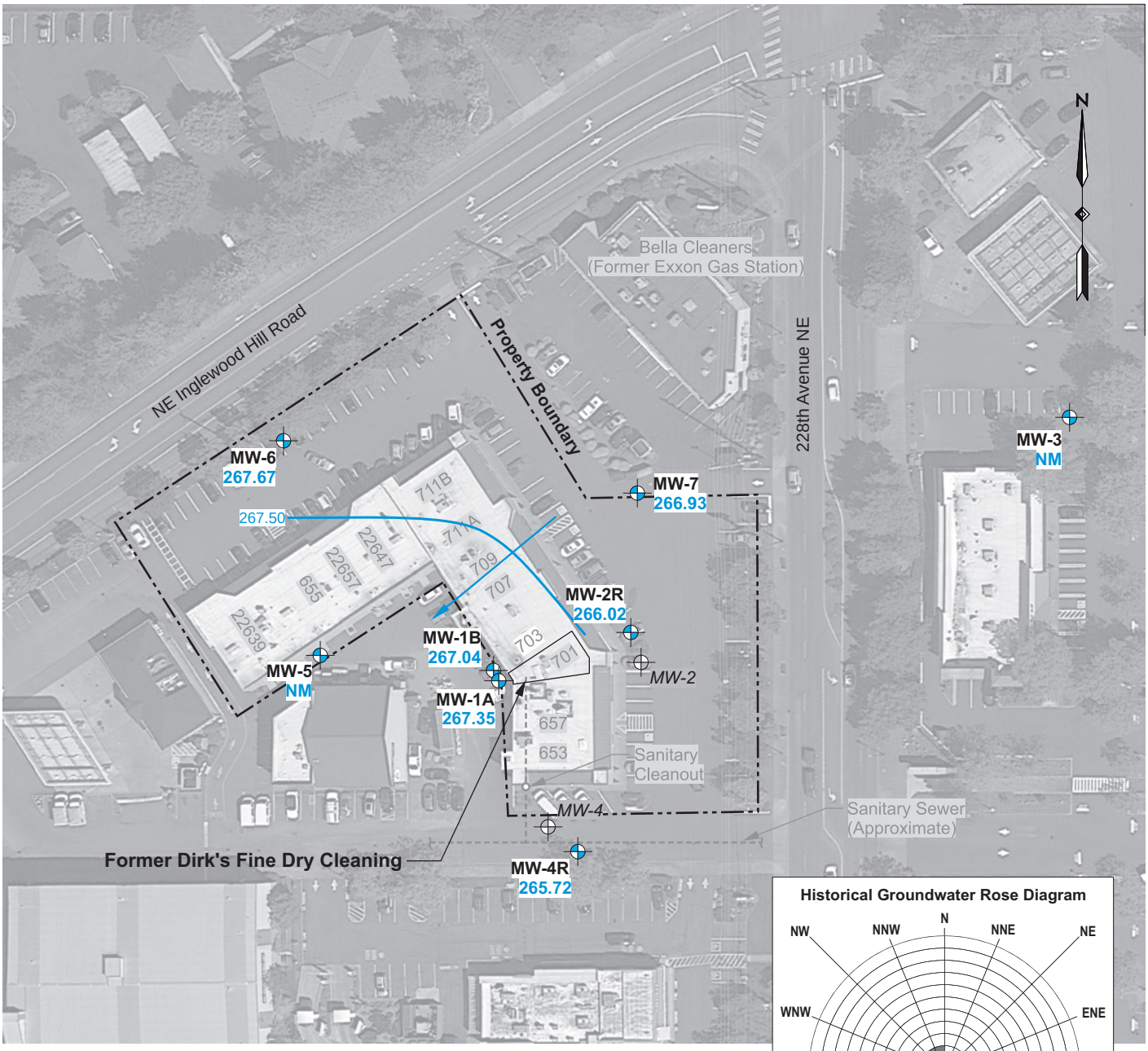
MW-2 — Monitoring Well (Not Located)

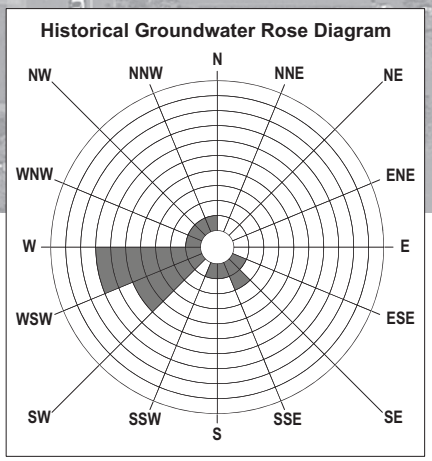
Notes:
1) All site features and historical locations are approximate.
2) Base map prepared from Google Earth Pro Imagery. Aerial dated May 13, 2018.

Groundwater Elevations - September 11, 2018

Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number: REGEN-220	Drawn: JP	Approved: JF	Figure 9
	February 2021			





0 100 200

Approximate Scale in Feet

Legend:

- **MW-1A** 267.35 — Monitoring Well Location (Inglewood Plaza) Groundwater Elevation in Feet
- NM — Not Monitored
- 267.50 — Groundwater Elevation Contour in Feet
- Apparent Groundwater Flow Direction
- *MW-2* — Monitoring Well (Not Located)

Notes:
1) All site features and historical locations are approximate.
2) Base map prepared from Google Earth Pro Imagery. Aerial dated May 13, 2018.

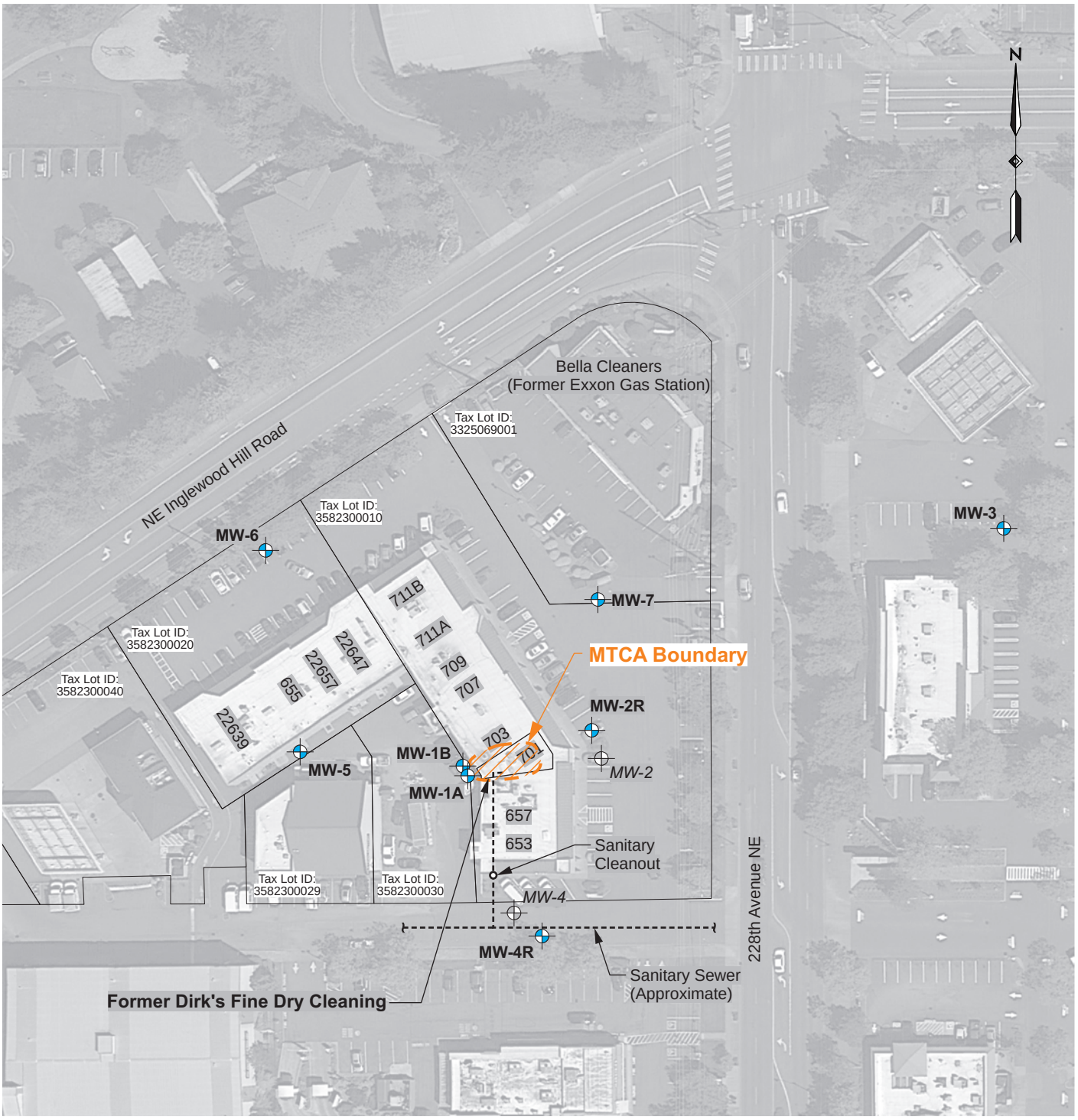
Groundwater Elevations - January 2, 2019

Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

APEX
Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number:	Drawn:	Approved:	Figure
REGEN-220	JP	JF	10

February 2021



0 100 200

Approximate Scale in Feet

Legend:

MW-1A Monitoring Well Location (Inglewood Plaza)

MW-2 Monitoring Well (Not Located)

Notes: 1) Base map prepared from Google Earth Pro Imagery. Aerial dated May 13, 2018.
2) All site features and historical locations are approximate.

MTCA Boundary

Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number:	Drawn:	Approved:	Figure
REGEN-220	JP	JF	11

February 2021

Appendix A

Historical Analytical Results (1995 to 2007)

Table A-1 – Soil Analytical Results (1995 to 2005)
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Sample Location (Depth)	Sample Date	HVOC concentrations (mg/kg)			
		PCE	TCE	cis-1,2-DCE	Vinyl Chloride
	MTCA CUL	0.05[a]	0.03[a]	160[b]	0.67[c]
S-1-1 (1')	10/30/1995	**2.31**	<0.05	<0.05	<0.05
S-1-1 Dup (1')	10/30/1995	**2.53**	<0.05	<0.05	<0.05
S-2-3 (3')	10/30/1995	**2.4**	**0.60**	<0.05	<0.05
MW-1A (5.0'-6.5')	2/9/1998	**3.0**	**0.47**	**0.17**	<0.058
MW-1B (10'-11.5')	2/20/1998	<0.054	<0.054	<0.054	<0.054
MW-1B (20'-21.5')	2/20/1998	<0.064	<0.064	<0.064	<0.064
MW-2 (10'-11.5')	2/9/1998	<0.054	<0.054	<0.054	<0.054
MW-3 (15'-16.5')	2/9/1998	<0.065	<0.065	<0.065	<0.065
MW-4 (10'-11.5')	2/20/1998	<0.057	<0.057	<0.057	<0.057
MW-5 (10'-11.5')	2/20/1998	<0.055	<0.055	<0.055	<0.055
MW-6	2/20/1998	NS	NS	NS	NS
VES-1[d] (2.5')	6/21/1999	**120**	NR	NR	NR
D-2 (2')	3/24/2005	**0.29**	<0.03	<0.05	<0.05

Notes:

1. HVOC = Halogenated volatile organic compound.
2. PCE = Tetrachloroethene.
3. TCE = Trichloroethene.
4. DCE = Dichloroethene.
5. MTCA CUL = Model Toxics Control Act Cleanup Level.
6. mg/kg = Milligrams per kilogram.
7. a = MTCA Method A Unrestricted Land Use Table Value (August 2020 update).
8. b = MTCA Method B Non-Carcinogen CUL Standard Formula Value for Unrestricted Land Use (August 2020 update).
9. c = MTCA Method B Carcinogen CUL Standard Formula Value for Unrestricted Land Use (August 2020 update).
10. < = Not detected at a concentration above the listed method detection limit or minimum reporting limit.
11. NS = Not sampled .
12. NR = Not reported.
13. Bold = Analyte was detected at a concentration above the method detection limit.
14. Shaded = Concentration exceeds the CUL.

Table A-2 – Soil Vapor Sampling Analytical Results (1995)
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Sample Location (Depth)	Sample Date	HVOC concentrations (µg/m^3)			
		PCE	TCE	cis-1,2 DCE	Vinyl Chloride
MTCA Method B Soil Gas SLs		320[a]/960[b]	11[a]/33[b]	--	9.5[a]/28[b]
SP-2 (15-17') [c]	8/11/1995	**203.5**	**5.37**	<39.65	NA
SP-3 (13-15') [c]	8/11/1995	**237.4**	<5.37	<39.65	NA
SP-4 (13-15') [c]	8/11/1995	**291.7**	**5.37**	<39.65	NA
SP-4 Dup (13-15') [c]	8/11/1995	**251.0**	<5.37	<39.65	NA
SP-5 (13-15') [c]	8/11/1995	**162.8**	<5.37	<39.65	NA
SP-7 (12.5-14.5') [c]	8/11/1995	**142.5**	<5.37	<39.65	NA

Notes:

1. HVOC = Halogenated volatile organic compound.
2. PCE = Tetrachloroethene.
3. TCE = Trichloroethene.
4. DCE = Dichloroethene.
5. µg/m^3 = Micrograms per cubic meter.
6. Soil gas SLs are from the Model Toxics Control Act (MTCA) Method B for cancer and non cancer (August 2020 update).
7. -- = Not reported.
8. a = Sub-slab soil gas SL.
9. b = Deep soil gas SL.
10. c = Concentration converted from parts per billion volume to ug/m^3 assuming 25° and 1 atmosphere and the applicable constituents molecular weight.
11. < = Not detected at a concentration above the listed method detection limit or method reporting limit.
12. NA = sample was not analyzed for vinyl chloride.
13. Bold = Analyte was detected at a concentrations above the method detection limit.
14. Shaded = Concentration exceeds the SL.

Table A-3 – Groundwater Elevations (1998 to 2007)
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Well ID	Date	Reference Elevation (feet)[1]	Depth To Groundwater (feet)	Groundwater Elevation (feet)
MW-1A	2/10/1998	354.83	9.04	345.79
	2/14/1998	354.83	9.06	345.77
	2/20/1998	354.83	9.33	345.5
	2/23/1998	354.83	9.31	345.52
	6/9/1999	354.83	10.19	344.64
	7/8/1999	354.83	10.37	344.46
	10/11/1999	354.83	14.61	340.22
	11/10/1999	354.83	13.97	340.86
	11/2/2001	354.83	14.77	340.06
	5/18/2004	355.2	12.92	342.28
	8/26/2004	355.2	14.37	340.83
	11/10/2004	355.2	15.09	340.11
	3/24/2005	355.2	14.15	341.05
	6/16/2005	355.2	12.67	342.53
	10/6/2005	355.2	16.67	338.53
	11/10/2005	355.2	14.51	340.69
	5/16/2006	355.2	11.04	344.16
	9/25/2006	355.2	15.78	339.42
	1/23/2007	355.2	7.23	347.97
	4/3/2007	355.2	8.18	347.02
MW-1B	2/23/1998	355.20	10.05	345.15
	6/9/1999	355.20	10.77	344.43
	7/8/1999	355.20	10.93	344.27
	10/11/1999	355.20	14.73	340.47
	11/10/1999	355.20	13.93	341.27
	11/2/2001	355.20	14.57	340.63
	5/18/2004	355.20	13.36	341.84
	8/26/2004	355.20	14.92	340.28
	11/10/2004	355.20	15.33	339.87
	3/24/2005	355.2	14.45	340.75
	6/16/2005	355.2	12.67	342.53
	10/6/2005	355.2	16.54	338.66
	5/16/2006	355.2	11.43	343.77
	9/25/2006	355.2	16.67	338.53
	1/23/2007	355.2	7.60	347.60
	4/3/2007	355.2	8.53	346.67

Please refer to notes at end of table.

Table A-3 – Groundwater Elevations (1998 to 2007)
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Well ID	Date	Reference Elevation (feet)[1]	Depth To Groundwater (feet)	Groundwater Elevation (feet)
MW-2	2/10/1998	354.90	9.04	345.86
	2/14/1998	354.90	9.08	345.82
	2/20/1998	354.90	9.30	345.60
	2/23/1998	354.90	9.25	345.65
	6/9/1999	354.90	10.16	344.74
	7/8/1999	354.90	10.32	344.58
	10/11/1999	354.90	15.00	339.90
	11/10/1999	354.90	15.32	339.58
	11/2/2001	354.90	16.01	338.89
	5/18/2004	354.90	12.35	342.55
	11/10/2004	354.90	15.74	339.16
	6/16/2005	354.90	12.21	342.69
	10/6/2005	354.90	16.48	338.42
	5/16/2006	354.90	10.65	344.25
	9/25/2006	354.90	15.60	339.30
	1/23/2007	354.90	6.83	348.07
	4/3/2007	354.90	7.87	347.03
MW-3	2/10/1998	354.14	8.15	345.99
	2/14/1998	354.14	8.22	345.92
	2/20/1998	354.14	8.52	345.62
	2/23/1998	354.14	8.44	345.70
	6/9/1999	354.14	9.30	344.84
	7/8/1999	354.14	9.46	344.68
	10/11/1999	354.14	14.39	339.75
	11/10/1999	354.14	14.49	339.65
	11/2/2001	354.14	14.53	339.61
	5/18/2004	354.14	11.42	342.72
	11/10/2004	354.14	14.55	339.59
	6/16/2005	354.14	11.35	342.79
	10/6/2005	354.14	14.47	339.67
	5/16/2006	354.14	NM	--
	9/25/2006	354.14	14.75	339.39
	1/23/2007	354.14	5.98	348.16
	4/3/2007	354.14	6.98	347.16

Please refer to notes at end of table.

Table A-3 – Groundwater Elevations (1998 to 2007)
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Well ID	Date	Reference Elevation (feet)[1]	Depth To Groundwater (feet)	Groundwater Elevation (feet)
MW-4	2/20/1998	354.01	7.88	346.13
	2/23/1998	354.01	8.26	345.75
	6/9/1999	354.01	9.45	344.56
	7/8/1999	354.01	9.60	344.41
	10/11/1999	354.01	13.86	340.15
	11/10/1999	354.01	13.37	340.64
	11/2/2001	354.01	14.14	339.87
	5/18/2004	354.01	11.84	342.17
	11/10/2004	354.01	14.55	339.46
	6/16/2005	354.01	11.52	342.49
	10/6/2005	354.01	15.72	338.29
	5/16/2006	354.01	10.00	344.01
	9/25/2006	354.01	15.58	338.43
	1/23/2007	354.01	6.20	347.81
	4/3/2007	354.01	7.21	346.80
MW-5	2/20/1998	354.81	9.83	344.98
	2/23/1998	354.81	9.48	345.33
	6/9/1999	354.81	10.54	344.27
	7/8/1999	354.81	10.67	344.14
	10/11/1999	354.81	14.08	340.73
	11/10/1999	354.81	12.85	341.96
	11/2/2001	354.81	13.63	341.18
	5/18/2004	354.81	13.31	341.50
	11/10/2004	354.81	14.50	340.31
	6/16/2005	354.81	12.65	342.16
	10/6/2005	354.81	15.90	338.91
	5/16/2006	354.81	11.20	343.61
	9/25/2006	354.81	16.15	338.66
	1/23/2007	354.81	7.23	347.58
	4/3/2007	354.81	8.33	346.48

Please refer to notes at end of table.

Table A-3 – Groundwater Elevations (1998 to 2007)
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Well ID	Date	Reference Elevation (feet)[1]	Depth To Groundwater (feet)	Groundwater Elevation (feet)
MW-6	2/23/1998	354.33	8.92	345.41
	6/9/1999	354.33	9.85	344.48
	7/8/1999	354.33	10.02	344.31
	10/11/1999	354.33	12.22	342.11
	11/10/1999	354.33	11.80	342.53
	11/2/2001	354.33	11.77	342.56
	5/18/2004	354.33	12.14	342.19
	11/10/2004	354.33	13.10	341.23
	6/16/2005	354.33	11.67	342.66
	10/6/2005	354.33	14.86	339.47
	5/16/2006	354.33	10.45	343.88
	9/25/2006	354.33	14.17	340.16
	1/23/2007	354.33	6.63	347.70
	4/3/2007	354.33	7.60	346.73

Notes:

1. Reference elevation (i.e., top of casing) relative to the reported elevation of a catch basin grate (354 feet) reported by the Sammamish Plateau Sewer and Water District for MW-2, MW-3, MW-4 Remaining wells calculated based on WSPCS North Zone NAD 83/2011, NAVD 88
2. NM = Depth to groundwater was not measured.
3. -- = Groundwater elevation was not calculated.

Table A-4 – Groundwater Sampling Analytical Results (1995 to 2007)
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Sample Location	Sample Date	HVOC concentration (µg/L)			
		PCE	TCE	cis-1,2-DCE	Vinyl Chloride
	MTCA Method A CUL	5	5	16[a]	0.2
	MTCA Method B Vapor Intrusion SL	*24*	*1.4*	--	*0.35*
SP-1	8/11/1995	**3.3**	**0.5**	**2**	NA
SP-1 Dup	8/11/1995	**2.7**	**0.4**	**2**	NA
SP-6	8/11/1995	**0.7**	<0.1	<1	NA
MW-1A	2/10/1998	**5.0**	**1.1**	**75**	<1
	2/23/1998	**8.4**	**0.9**	**45**	***20***
	6/9/1999	***78***	**1.1**	**21**	***5.2***
	7/8/1999	***88***	***1.6***	**28**	***35***
	11/2/2001	***25.3***	***3.59***	**23.9**	***13.1***
	6/27/2003	**4.13**	**0.818**	**15.3**	***0.4***
	5/18/2004	**2**	<1.0	**8**	***2.4***
	8/26/2004	**5**	<1.0	**10**	***3***
	11/10/2004	**7**	<1.0	**9**	***1***
	3/24/2005	**4**	<1.0	**20**	<0.2
	6/16/2005	**3.1**	<1.0	**6.2**	<0.2
	10/6/2005	**6.3**	<1.0	**6.0**	<0.2
	11/10/2005	**6.6**	<1.0	**9.4**	<0.2
	5/16/2006	**4.8**	<1.0	**1.3**	<0.2
	9/25/2006	**6.2**	<1.0	**5.6**	<0.2
	12/29/2006	***15***	<1.0	**3.7**	<0.2
	4/3/2007	**4.4**	<1.0	<1.0	<0.2
MW-1B	2/23/1998	**4.1**	<1.0	**13**	***1.5***
	6/9/1999	**2.1**	**0.24**	**3.7**	<0.2
	7/8/1999	**2.3**	**0.26**	**3.8**	0.2
	11/2/2001	**2.61**	<0.4	**0.55**	<0.2
	5/18/2004	**2**	<1.0	<1.0	<0.2
	8/26/2004	**3**	<1.0	<1.0	<0.2
	11/10/2004	**3**	<1.0	<1.0	<0.2
	3/24/2005	**2**	<1.0	<1.0	<0.2
	6/16/2005	**2**	<1.0	<1.0	<0.2
	10/6/2005	**2.7**	<1.0	<1.0	<0.2
	5/16/2006	**1.6**	<1.0	<1.0	<0.2
	9/25/2006	**1.7**	<1.0	<1.0	<0.2
	12/29/2006	**3.3**	<1.0	<1.0	<0.2
	4/3/2007	**2.1**	<1.0	<1.0	<0.2

Please refer to notes at end of table.

Table A-4 – Groundwater Sampling Analytical Results (1995 to 2007)
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Sample Location	Sample Date	HVOC concentration (µg/L)			
		PCE	TCE	cis-1,2-DCE	Vinyl Chloride
	MTCA Method A CUL	5	5	16[a]	0.2
	MTCA Method B Vapor Intrusion SL	*24*	*1.4*	--	*0.35*
MW-2	2/10/1998	**1.1**	<0.5	<0.5	<1.0
	2/23/1998	<1.0	<1.0	<1.0	<1.0
	6/9/1999	**0.55**	<0.4	**0.04**	<0.2
	7/8/1999	**0.64**	<0.4	<0.4	<0.2
	11/2/2001	NS	NS	NS	NS
	5/18/2004	<1.0	<1.0	<1.0	<0.2
	8/26/2004	**3**	<1.0	<1.0	<0.2
	11/10/2004	**2**	<1.0	<1.0	<0.2
	3/24/2005	NS	NS	NS	NS
	6/16/2005	<1.0	<1.0	<1.0	<0.2
	10/6/2005	NS	NS	NS	NS
	5/16/2006	<1.0	<1.0	<1.0	<0.2
	9/25/2006	NS	NS	NS	NS
	12/29/2006	**5.6**	<1.0	<1.0	<0.2
	4/3/2007	<1.0	<1.0	<1.0	<0.2
MW-3	2/10/1998	<0.5	<0.5	<0.5	<1.0
	2/23/1998	<1.0	<1.0	<1.0	<1.0
	6/9/1999	NS	NS	NS	NS
	7/8/1999	NS	NS	NS	NS
	11/2/2001	NS	NS	NS	NS
	5/18/2004	NS	NS	NS	NS
	8/26/2004	NS	NS	NS	NS
	11/10/2004	NS	NS	NS	NS
	3/24/2005	NS	NS	NS	NS
	6/16/2005	NS	NS	NS	NS
	10/6/2005	NS	NS	NS	NS
	5/16/2006	NS	NS	NS	NS
	9/25/2006	NS	NS	NS	NS
	12/29/2006	NS	NS	NS	NS
	4/3/2007	NS	NS	NS	NS

Please refer to notes at end of table.

Table A-4 – Groundwater Sampling Analytical Results (1995 to 2007)
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Sample Location	Sample Date	HVOC concentration (µg/L)			
		PCE	TCE	cis-1,2-DCE	Vinyl Chloride
MTCA Method A CUL		5	5	16[a]	0.2
MTCA Method B Vapor Intrusion SL		*24*	*1.4*	--	*0.35*
MW-4	2/23/1998	<1.0	<1.0	<1.0	<1.0
	6/9/1999	**0.42**	**0.084**	**0.094**	<0.2
	7/8/1999	**0.48**	**0.1**	**0.16**	<0.2
	11/2/2001	**1.34**	<0.4	<0.4	<0.2
	5/18/2004	<1.0	<1.0	<1.0	<0.2
	8/26/2004	NS	NS	NS	NS
	11/10/2004	**2**	<1.0	<1.0	<0.2
	3/24/2005	NS	NS	NS	NS
	6/16/2005	<1.0	<1.0	<1.0	<0.2
	10/6/2005	**1.3**	<1.0	<1.0	<0.2
	5/16/2006	<1.0	<1.0	<1.0	<0.2
	9/25/2006	<1.0	<1.0	<1.0	<0.2
	1/23/2007	**2.9**	<1.0	<1.0	<0.2
	4/3/2007	**1.1**	<1.0	<1.0	<0.2
MW-5	2/23/1998	**2.6**	<1.0	**4.3**	<1.0
	6/9/1999	**0.91**	**0.15**	**2.2**	**0.14**
	7/8/1999	**0.52**	**0.1**	**1.8**	<0.2
	11/2/2001	<0.4	<0.4	<0.4	<0.2
	5/18/2004	<1.0	<1.0	<1.0	<0.2
	8/26/2004	NS	NS	NS	NS
	11/10/2004	**1**	<1.0	<1.0	<0.2
	3/24/2005	NS	NS	NS	NS
	6/16/2005	<1.0	<1.0	<1.0	<0.2
	10/6/2005	<1.0	<1.0	<1.0	<0.2
	5/16/2006	**1.4**	<1.0	<1.0	<0.2
	9/25/2006	<1.0	<1.0	<1.0	<0.2
	1/23/2007	**2.7**	<1.0	<1.0	<0.2
	4/3/2007	**1.3**	<1.0	<1.0	<0.2

Please refer to notes at end of table.

Table A-4 – Groundwater Sampling Analytical Results (1995 to 2007)
Former Dirks Fine Dry Cleaning
Sammamish, Washington

Sample Location	Sample Date	HVOC concentration (µg/L)			
		PCE	TCE	cis-1,2-DCE	Vinyl Chloride
MTCA Method A CUL		5	5	16[a]	0.2
MTCA Method B Vapor Intrusion SL		*24*	*1.4*	--	*0.35*
MW-6	2/23/1998	**1.2**	<1.0	<1.0	<1.0
	6/9/1999	**1.2**	<0.4	<0.4	<0.2
	7/8/1999	**1.3**	<0.4	<0.4	<0.2
	11/2/2001	**1.02**	<0.4	<0.4	<0.2
	5/18/2004	<1.0	<1.0	<1.0	<0.2
	8/26/2004	NS	NS	NS	NS
	11/10/2004	<1.0	<1.0	<1.0	<0.2
	3/24/2005	NS	NS	NS	NS
	6/16/2005	<1.0	<1.0	<1.0	<0.2
	10/6/2005	<1.0	<1.0	<1.0	<0.2
	5/16/2006	**2.9**	<1.0	<1.0	<0.2
	9/25/2006	**10**	<1.0	<1.0	<0.2
	12/29/2006	***52***	<1.0	<1.0	<0.2
	4/3/2007	<1.0	<1.0	<1.0	<0.2

Notes:

1. HVOC = Halogenated volatile organic compound.
2. PCE = Tetrachloroethene.
3. TCE = Trichloroethene.
4. DCE = Dichloroethene.
5. MTCA Method A CUL = Model Toxics Control Act Method A Cleanup Level (August 2020 update).
6. MTCA Method B Vapor Intrusion SL = Method Toxics Control Act Method B Screening Level (August 2020 update)
7. a = MTCA Method B CUL fo Unrestricted Land Use (August 2020 update).
8. -- = Not reported.
9. µg/L = Micrograms per liter.
10. < = Not detected at a concentration above the listed method detection limit or minimum reporting limit.
11. NA = Sample was not analyzed for vinyl chloride.
12. NS = Sample was not collected.
13. Bold = Analyte was detected at a concentration above the method detection limit.
14. Shaded concentration exceeds the groundwater CUL.
15. Italicized concentration exceeds the vapor intrusion SL.

Table A-5 – Water Well Search: NE 1/4 of NE ¼ of Section 33, Township 2 South, Range 6 East
Former Dirks Fine Dry Cleaning
Sammamish, Washington

well_log_ic	well_tag_n	nit_id_nr	well_depth	well_diam	well_owne	township_	range_nr	range_dir_	section_nr	qtr_sectior	qtr_qtr_se	well_comp_d	county_nm	well_type_	well_log_rec	tax_parcel	ST_PLANE_	ST_PLANE_YCOORD_NR
100909		A011493		222ND & H	25	6	E	33	NE	NE	5/15/1997	King	A	5/27/1997		1261023	835706
864905	ACD101	AE21955	20	2	ALIZA INC	25	6	E	33	NE	NE	5/29/2013	King	A	6/21/2013	3.33E+09	1261023	835706
864907	ACD102	AE21955	20	2	ALIZA INC	25	6	E	33	NE	NE	5/29/2013	King	A	6/21/2013	3.33E+09	1261023	835706
1875816		AE49912	15	8.25	Dirks Clear	25	6	E	33	NE	NE	7/11/2018	King	A	12/3/2018	358230-00	1261023	835706
1875822		SE66751	15	8.25	Dirks Clear	25	6	E	33	NE	NE	7/11/2018	King	R	12/3/2018	358230-00	1261023	835706
1875830		AE49912	15	8.25	Dirks Clear	25	6	E	33	NE	NE	7/11/2018	King	A	12/3/2018	358230-00	1261023	835706
1875833		AE49912	15	8.25	Dirks Clear	25	6	E	33	NE	NE	7/11/2018	King	A	12/3/2018	358230-00	1261023	835706
1875847		SE66751	15	8.25	Dirks Clear	25	6	E	33	NE	NE	7/11/2018	King	R	12/3/2018	358230-00	1261023	835706
1875850		AE49912	15	8.25	Dirks Clear	25	6	E	33	NE	NE	7/11/2018	King	A	12/3/2018	358230-00	1261023	835706
1875858		SE66751	15	8.25	Dirks Clear	25	6	E	33	NE	NE	7/11/2018	King	R	12/3/2018	358230-00	1261023	835706
1875863		SE66751	15	8.25	Dirks Clear	25	6	E	33	NE	NE	7/11/2018	King	R	12/3/2018	358230-00	1261023	835706
288624					EXXON SEF	25	6	E	33	NE	NE		King	R			1261023	835706
288625					EXXON SEF	25	6	E	33	NE	NE		King	R			1261023	835706
288626					EXXON SEF	25	6	E	33	NE	NE		King	R			1261023	835706
288627					EXXON SEF	25	6	E	33	NE	NE		King	R			1261023	835706
397781		R041130	20		INGLEWOC	25	6	E	33	NE	NE	8/16/1999	King	R	9/13/1999		1261023	835706
397782		R041130	20		INGLEWOC	25	6	E	33	NE	NE	8/16/1999	King	R	9/13/1999		1261023	835706
104188		R018197		9	INGLEWOC	25	6	E	33	NE	NE		King	R			1261023	835706
111400	AEB340	R028648	17.5		INGLEWOC	25	6	E	33	NE	NE	2/20/1998	King	R	3/23/1998		1261023	835706
111401	AEB341	R028648			INGLEWOC	25	6	E	33	NE	NE	2/20/1998	King	R			1261023	835706
111402	AEB342	R028648			INGLEWOC	25	6	E	33	NE	NE	2/20/1998	King	R			1261023	835706
111403	AEB343	R028648			INGLEWOC	25	6	E	33	NE	NE	2/20/1998	King	R			1261023	835706
1003506	BCC174	RE10485	20	6	INGLEWOC	25	6	E	33	NE	NE	10/7/2014	King	R	1/5/2015	3.58E+09	1261023	835706
1825235	BKF602	RE16192	20	8.25	Regency Ce	25	6	E	33	NE	NE	7/10/2018	King	R	10/26/2018	358230-00	1261023	835706
1825247	BKF601	RE16192	20	8.25	Regency Ce	25	6	E	33	NE	NE	7/10/2018	King	R	10/26/2018	358230-00	1261023	835706
97491		A001167	170	6	SACOTTE C	25	6	E	33	NE	NE	9/13/1997	King	A	9/23/1997		1261023	835706
97492		A001166	40	6	SACOTTE C	25	6	E	33	NE	NE	9/10/1997	King	A	9/22/1997		1261023	835706
397979		AE01155	180	6	SAMMAMI	25	6	E	33	NE	NE	1/14/2005	King	A	1/18/2005		1261023	835706
386197	AEM271	W118395	200	6	SAXONY LL	25	6	E	33	NE	NE	9/1/2001	King	W	9/10/2004		1261023	835706
97646		A002306	25	3	SECURITY F	25	6	E	33	NE	NE	6/12/1998	King	A	7/6/1998		1261023	835706
908753	BIJ376	RE09440	20	2	Toll Brothe	25	6	E	33	NE	NE	1/9/2014	King	R	1/27/2014		1261023	835706

Notes:
1. Shaded cells identify the irrigation well located southwest of the Site.

File Original with Department of Ecology
Second Copy - Owner's Copy
Third Copy - Driller's Copy

154695

WATER WELL REPORT

STATE OF WASHINGTON

Notice of Intent W118395

UNIQUE WELL I.D. # AEM 271

Water Right Permit No. _____

(1) OWNER: Name Saxony LLC Address 1302 Puyallup St. Sumner 98390

(2) LOCATION OF WELL: County KING NE 1/4 NE 1/4 Sec 33 T 25 N.R. 6E WM

(2a) STREET ADDRESS OF WELL: (or nearest address) 2 Blks South of Englewood hill rd, ON 225TH SAMMAMISH

TAX PARCEL NO.: 25-6E-33A

(3) PROPOSED USE: ☐ Domestic ☐ Industrial ☐ Municipal ☒ Irrigation ☐ Test Well ☐ Other ☐ DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) _____
☒ New Well Method: ☐ Dug ☐ Bored ☐ Deepened ☐ Cable ☐ Driven ☐ Reconditioned ☒ Rotary ☐ Jetted ☐ Decommission

(5) DIMENSIONS: Diameter of well 6" inches
Drilled 200' feet. Depth of completed well 200' ft.

(6) CONSTRUCTION DETAILS
Casing Installed:
☒ Welded 6" Diam. from +1 ft. to 200' ft.
☐ Liner Installed _____" Diam. from _____ ft. to _____ ft.
☐ Threaded _____" Diam. from _____ ft. to _____ ft.

Perforations: ☐ Yes ☒ No
Type of perforator used _____
SIZE of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.

Screens: ☐ Yes ☒ No ☐ K-Pac Location _____
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot Size _____ from _____ ft. to _____ ft.
Diam. _____ Slot Size _____ from _____ ft. to _____ ft.

Gravel/Filter packed: ☐ Yes ☒ No ☐ Size of gravel/sand _____
Material placed from _____ ft. to _____ ft.

Surface seal: ☒ Yes ☐ No To what depth? 20 ft.
Material used in seal Bentonite
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name Goulds
Type: Sub H.P. 5 hp.

(8) WATER LEVELS: Land-surface elevation above mean sea level 340± ft.
Static level 150' ft. below top of well Date _____
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☒ No If yes, by whom? _____
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____
Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest 30+ gal./min. with tools 195 ft. drawdown after 2 hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water _____ Was a chemical analysis made? ☐ Yes ☒ No

(10) WELL LOG or DECOMMISSIONING PROCEDURE DESCRIPTION
Formation: Describe by color, character, size of material and structure, and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information. Indicate all water encountered.

MATERIAL	FROM	TO
Large Crushed Rock.	0	2
Brown Clay Sand soft.	2	10
Brown Clay Gravel Streaks	10	13
Brown Clay sand gravel Boulders	13	14
Brown Clay Sand gravel moist	14	38
Reddish Brown Clay Gravel	38	66
Brown Sand gravel Clay moist	66	119
Cream color sand clay w/gravel Streaks	119	139
Brown Clay gravel Sand moist	139	190
Reddish Brown Clay Large gravel Sand Water	190	201

RECEIVED
SEP 10 2004
DEPT OF ECOLOGY

Work Started Aug 20, 2001 Completed Sept 1, 2001

WELL CONSTRUCTION CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Type or Print Name T.L. CANNON License No. 0071
(Licensed Driller/Engineer)

Trainee Name _____ License No. _____

Drilling Company B+O Drilling

(Signed) T.L. Cannon License No. 0071
(Licensed Driller/Engineer)

Address 9026-38th Ave. SW Seattle 98126

Contractor's Registration No. BJDRICE088DP Date Sept 26 2001

(USE ADDITIONAL SHEETS IF NECESSARY)

Ecology is an Equal Opportunity and Affirmative Action employer. For special accommodation needs, contact the Water Resources Program at (360) 407-6600. The TDD number is (360) 407-6006.

ECY 050-1-20 (11/98)

City of Sammamish
WASHINGTON

2005 CAO UPDATE

DRAFT

Critical Aquifer Recharge Areas

Available GIS information shown may not include all critical areas and locations have not been verified. Data from other cities is not included.

Irrigation Well
(Well Log 386197)

Site

Legend

- City Limits
- Urban Growth Boundary
- Water Bodies
- Wetlands
- Streams
- Water Supply Wells, Group A
- Water Supply Wells, Group B
- Other Water Supply Wells

Wellhead Protection Zones

- Class 1 - 1 year TOT
- Class 1 - 5 year TOT
- Class 2 - 10 year TOT
- Class 3

N W E S

0 2,500 5,000 Feet

DATA SOURCES: Class 1 & 2 protection zones are based on well head protection mapping provided by Sammamish Plateau Water & Sewer District (2005) and the Northeast Sammamish Water & Sewer District (2005). Class 3 protection zone based on King County mapping of recharge areas(2002).

This map is a geographic representation based on information available. It does not represent survey data. No warranty is made concerning the accuracy, currency, or completeness of data depicted on this map.

MAP DATE: OCTOBER 2005

Berryman & Henigar
720 Third Avenue, Suite 1200
Seattle, Washington 98104-1820
Tel: (206) 505-3400
Fax: (206) 505-3406
www.us.bureauveritas.com

P:\Mapping\Maps_Generated\Sammamish\projects\critical_areas\maps\Aquifer Recharge Zones 11x17 Oct2005.mxd

Appendix B

Laboratory Data Reports and Quality Assurance Review

Appendix B — Laboratory Analytical Reports and Quality Assurance Review

1.0 Introduction

This appendix documents the results of a quality assurance/quality control (QA/QC) review of the analytical data for samples collected as part of the soil, groundwater, ambient air, and soil vapor intrusion assessment at the former Dirks Dry Cleaner at Inglewood Plaza (the Facility). The data reviewed herein are representative of soil, groundwater, ambient air, and soil vapor samples collected from the Facility. Copies of the laboratory reports are included in this appendix.

Report	Report Date	Sampling Event	Laboratory
L1009281	July 16, 2018	2018 Soil Sampling	Pace Analytical – Mt. Juliet, TN
L1009810	July 20, 2018	2018 Soil Sampling	Pace Analytical – Mt. Juliet, TN
L1012900	August 2, 2018	Soil Vapor and Ambient Air Monitoring	Pace Analytical – Mt. Juliet, TN
L1025638	September 17, 2018	2018 Groundwater Monitoring	Pace Analytical – Mt. Juliet, TN
L1044876	November 19, 2018	2018 Soil Sampling	Pace Analytical – Mt. Juliet, TN
L1046939	November 29, 2018	2018 Soil Sampling	Pace Analytical – Mt. Juliet, TN
L1046277	November 29, 2018	2018 Soil Sampling	Pace Analytical – Mt. Juliet, TN

The QA review did not include a review of calibration or raw data.

2.0 Data Validation

The QA review outlines the applicable quality control criteria utilized during the data review process, as well as any deviations from those criteria. Examination and validation of the laboratory summary reports include:

- Analytical preparation and quantitation methods
- Analytical method holding times
- Sample handling
- Chain of custody handling
- Detection and reporting limits
- Method blank detections
- Laboratory control samples, matrix spikes, and surrogates to assess laboratory accuracy
- Laboratory control sample duplicates and matrix spike duplicates to assess laboratory precision
- Field duplicates to assess sampling and laboratory precision

2.1 Data Qualifiers

Any data that is found to have possible bias or error were qualified and flagged. The flags used in the data table are below.

J	Result is an estimated value.

3.0 Analytical Methods

Chemical analyses of soil samples consisted of the following:

- Halogenated volatile organic compounds (HVOCs: tetrachloroethene [PCE], trichloroethene [TCE], cis-1,2-dichloroethene [cis-1,2-DCE], and vinyl chloride) by U.S. Environmental Protection Agency (EPA) Method 5035/8260.

Chemical analyses of groundwater samples consisted of the following:

- Volatile organic compounds (VOCs) by EPA Method 8260B.

Chemical analyses of soil vapor and ambient air samples consisted of the following:

- VOCs by EPA Method TO-15.

4.0 Quality Assurance Objectives and Review

The general QA objectives for this project were to develop and implement procedures for obtaining, evaluating, and confirming the usability of data of a specified quality for trends at the Facility. To collect such information, analytical data must have an appropriate degree of accuracy and reproducibility, samples collected must be representative of actual field conditions, and samples must be collected and analyzed using unbroken chain-of-custody procedures.

Reporting limits and analytical results were compared to action levels for each parameter in the matrix of concern. Precision, accuracy, representativeness, completeness, and comparability parameters used to indicate data quality are defined as follows.

4.1 Holding Times and Sample Receipt

Holding times are the length of time a sample can be stored after collection and prior to analysis or extraction without significantly affecting the analytical results. Holding times vary by analyte, sample matrix, and

analytical methodology. The samples included in this QA/QC review were analyzed within the method recommended holding time.

Groundwater and soil samples were shipped to the laboratory on ice. Soil sample collected from location SB-2 were received by the laboratory above 6ºC but below 10ºC. Sampling containers arrived intact and unbroken to the laboratory. Groundwater samples to be analyzed for VOCs were received without headspace in VOA sampling containers.

Chain of custody documents were appropriately relinquished by the Apex Companies sampler and received by the intentional environmental laboratory. They were filled out with the correct sample ID, sampling date, sampling time, and analyses requested. There were no discrepancies found between container labels and the chain of custodies received.

4.2 Reporting Limits

Reporting limits are the lowest concentration an instrument is capable of accurately detecting an analyte. They are determined by the laboratory and are based on instrumentation capabilities, the matrix of field samples, sample preparation procedures and suggested reporting limits by the EPA. In some cases, the reporting limits may be raised due to high concentrations of analytes or matrix interferences. Reporting limits were consistent with industry standards and were generally below MTCA screening levels. Results reported between the detection and reporting limit are 'J' flagged as estimated values.

4.3 Method Blanks

A method – or laboratory – blank is a quality control sample prepared by the laboratory from an analyte-free matrix and analyzed in an analytical batch along with environmental and other QC samples. It is used to assess laboratory contamination or background interferences. Analytical batch method blank samples were not detected for target analytes.

4.5 Accuracy

Accuracy compares the accepted reference concentration of an analyte to the concentration determined analytically. Accuracy is measured as a percent recovery. This recovery must be within a certain range – or control limit – for the data in an analytical batch to be considered acceptable. The analytical laboratory provides quality control samples and surrogates to help determine the accuracy and acceptability of the data reported. These quality control samples and surrogates are discussed below.

4.5.1 Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were analyzed by the laboratory to assess the accuracy of the analytical methods. One set of LCS and LCSDs were analyzed per analytical batch. The LCS and LCSDs are prepared from an analyte-free matrix that is spiked with known levels of compounds of concern. The concentrations are measured and compared to the known spiked levels; expressed as a percent recovery. Analyte recoveries were within control limits for LCS and LCSDs.

4.5.2 Matrix Samples

A matrix spike QC sample is used to assess the performance of the analytical method by determining potential matrix interferences. Matrix spike (MS) and matrix spike duplicate (MSD) analyses are performed on one environmental sample per analytical batch. A matrix spike sample uses an environmental sample that is spiked with known concentrations of analytes of interest. The matrix spike is then prepared and analyzed with the same analytical procedures as environmental samples in the analytical batch. The resulting concentration of the matrix spike is then compared to the known – or true – values added to the non-spiked environmental sample concentration. This comparison is expressed as a percent recovery.

The recovery of vinyl chloride was below the lower control limit for the MS and MSD of analytical batch WG1197990. The source sample was not collected from the Facility and sample results are accepted based on the LCS vinyl chloride recovery.

4.5.3 Surrogates

Surrogates are organic compounds that are similar in chemical composition to the analytes of interest but are not likely to be found in the environment. They are spiked at a known concentration into environmental and batch QC samples prior to sample preparation and analysis. Surrogate recoveries for environmental samples are used to evaluate matrix interference, sample preparation efficiency, and analysis performance on a sample-specific basis. Surrogate recoveries were within control limits.

4.6 Precision

Precision is measured by how close values of duplicate analyses are to each other. These duplicate analyses are prepared from separate aliquots of the same sample and are analyzed at the same (or similar) time. Precision in the field ensures that samples taken are representative of field concentrations; this is demonstrated by field duplicates. Analytical precision is the ability of the laboratory to reproduce results that are similar to each other; this is measured through the duplicate analysis of environmental and batch QC

samples. Precision is estimated by the relative percent difference (RPD) between the original analysis and the duplicate analysis.

4.6.1 Laboratory Control Sample Duplicates

The analytical batch LCS concentration of an analyte is compared to the LCSD concentration of the same analyte. The RPD is calculated from these two concentrations; which must be below a certain percentage to be considered acceptable.

The RPD value for 1,1-dichloroethene exceeded the control limit for the LCS/LCSD in analytical batch WG1138087. The associated sample results were not detected for 1,1-dichloroethene; therefore, data is considered acceptable for use.

4.6.2 Matrix Spike Duplicate

Similar to the LCS/LCSD, the analytical batch MS/MSD analyte concentrations are also compared to each other and expressed as an RPD.

The RPD values between the MS and MSD of batch WG1197990 exceeded the control limit for 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, tetrachloroethene, and trichloroethene. The source sample was not collected from the Facility.

4.6.3 Field Duplicate

A field duplicate is a second field sample collected from a selected sample location. Field duplicate samples serve as a check on laboratory precision and sampling quality, as well as potential variability of the sample matrix. The field duplicate is analyzed and compared to the original sample to assess precision. This comparison can be expressed by the RPD between the original and duplicate samples. Only detections greater than the reporting limit are controlled and used for quality control purposes.

A groundwater field duplicate was collected from monitoring well MW-1A. The RPD values for target analytes were within the 30 percent control limit.

5.0 Conclusion

In conclusion, the QA objectives have been met and the data are of sufficient quality for use in this project.

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 16, 2018

APEX Companies - Portland, OR

Sample Delivery Group:	L1009281
Samples Received:	07/13/2018
Project Number:	REGEN-220
Description:	Inglewood Plaza

Report To: Jie Xu
600 Steward Street
Suite 400
Seattle, WA 98101

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

SB-2(3-4) L1009281-01 Solid

Collected by: A. Cerruti
Collected date/time: 07/11/18 11:40
Received date/time: 07/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1137867	1	07/14/18 10:13	07/14/18 10:21	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1138087	1	07/11/18 11:40	07/14/18 19:36	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1138272	1	07/11/18 11:40	07/15/18 15:15	ACG

SB-2(9) L1009281-02 Solid

Collected by: A. Cerruti
Collected date/time: 07/11/18 12:10
Received date/time: 07/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1137867	1	07/14/18 10:13	07/14/18 10:21	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1138087	1.04	07/11/18 12:10	07/14/18 19:55	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1138272	1.03	07/11/18 12:10	07/15/18 15:34	ACG

SB-2(13) L1009281-03 Solid

Collected by: A. Cerruti
Collected date/time: 07/11/18 12:44
Received date/time: 07/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1137867	1	07/14/18 10:13	07/14/18 10:21	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1138087	1	07/11/18 12:44	07/14/18 20:14	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1138272	1	07/11/18 12:44	07/15/18 15:52	ACG

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

Sample Handling and Receiving

The following sample(s) were received at greater than 6 degrees C.

Lab Sample ID	Project Sample ID	Method
L1009281-01	SB-2(3-4)	8260C
L1009281-02	SB-2(9)	8260C
L1009281-03	SB-2(13)	8260C

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.0		1	07/14/2018 10:21	WG1137867

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U	J3	0.000543	0.00272	1	07/14/2018 19:36	WG1138087
cis-1,2-Dichloroethene	U		0.000750	0.00272	1	07/14/2018 19:36	WG1138087
trans-1,2-Dichloroethene	U		0.00155	0.00543	1	07/14/2018 19:36	WG1138087
Tetrachloroethene	0.144		0.000761	0.00272	1	07/15/2018 15:15	WG1138272
Trichloroethene	0.000785	J	0.000435	0.00109	1	07/14/2018 19:36	WG1138087
Vinyl chloride	U		0.000742	0.00272	1	07/14/2018 19:36	WG1138087
(S) Toluene-d8	*100*			*80.0-120*		*07/14/2018 19:36*	WG1138087
(S) Toluene-d8	*106*			*80.0-120*		*07/15/2018 15:15*	WG1138272
(S) Dibromofluoromethane	*101*			*74.0-131*		*07/14/2018 19:36*	WG1138087
(S) Dibromofluoromethane	*96.4*			*74.0-131*		*07/15/2018 15:15*	WG1138272
(S) 4-Bromofluorobenzene	*104*			*64.0-132*		*07/14/2018 19:36*	WG1138087
(S) 4-Bromofluorobenzene	*109*			*64.0-132*		*07/15/2018 15:15*	WG1138272

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.3		1	07/14/2018 10:21	WG1137867

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U	J3	0.000551	0.00276	1.04	07/14/2018 19:55	WG1138087
cis-1,2-Dichloroethene	U		0.000761	0.00276	1.04	07/14/2018 19:55	WG1138087
trans-1,2-Dichloroethene	U		0.00158	0.00551	1.04	07/14/2018 19:55	WG1138087
Tetrachloroethene	0.0225		0.000764	0.00273	1.03	07/15/2018 15:34	WG1138272
Trichloroethene	0.00155		0.000441	0.00110	1.04	07/14/2018 19:55	WG1138087
Vinyl chloride	U		0.000753	0.00276	1.04	07/14/2018 19:55	WG1138087
(S) Toluene-d8	*108*			*80.0-120*		*07/14/2018 19:55*	WG1138087
(S) Toluene-d8	*106*			*80.0-120*		*07/15/2018 15:34*	WG1138272
(S) Dibromofluoromethane	*90.1*			*74.0-131*		*07/14/2018 19:55*	WG1138087
(S) Dibromofluoromethane	*98.2*			*74.0-131*		*07/15/2018 15:34*	WG1138272
(S) 4-Bromofluorobenzene	*108*			*64.0-132*		*07/14/2018 19:55*	WG1138087
(S) 4-Bromofluorobenzene	*111*			*64.0-132*		*07/15/2018 15:34*	WG1138272

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.5		1	07/14/2018 10:21	WG1137867

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U	J3	0.000547	0.00273	1	07/14/2018 20:14	WG1138087
cis-1,2-Dichloroethene	0.00739		0.000754	0.00273	1	07/14/2018 20:14	WG1138087
trans-1,2-Dichloroethene	U		0.00156	0.00547	1	07/14/2018 20:14	WG1138087
Tetrachloroethene	0.00137	J	0.000765	0.00273	1	07/15/2018 15:52	WG1138272
Trichloroethene	U		0.000437	0.00109	1	07/14/2018 20:14	WG1138087
Vinyl chloride	U		0.000747	0.00273	1	07/14/2018 20:14	WG1138087
(S) Toluene-d8	*107*			*80.0-120*		*07/14/2018 20:14*	WG1138087
(S) Toluene-d8	*106*			*80.0-120*		*07/15/2018 15:52*	WG1138272
(S) Dibromofluoromethane	*94.7*			*74.0-131*		*07/14/2018 20:14*	WG1138087
(S) Dibromofluoromethane	*98.0*			*74.0-131*		*07/15/2018 15:52*	WG1138272
(S) 4-Bromofluorobenzene	*104*			*64.0-132*		*07/14/2018 20:14*	WG1138087
(S) 4-Bromofluorobenzene	*110*			*64.0-132*		*07/15/2018 15:52*	WG1138272

Method Blank (MB)

(MB) R3325768-1 07/14/18 10:21

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1009291-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1009291-01 07/14/18 10:21 • (DUP) R3325768-3 07/14/18 10:21

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	80.6	80.6	1	0.0102		5

Laboratory Control Sample (LCS)

(LCS) R3325768-2 07/14/18 10:21

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3325611-3 07/14/18 19:06

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
Trichloroethene	U		0.000400	0.00100
Vinyl chloride	U		0.000683	0.00250
(S) Toluene-d8	*105*			*80.0-120*
(S) Dibromofluoromethane	*91.6*			*74.0-131*
(S) 4-Bromofluorobenzene	*108*			*64.0-132*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3325611-1 07/14/18 16:38 • (LCSD) R3325611-2 07/14/18 17:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1-Dichloroethene	0.125	0.109	0.134	87.3	107	60.6-133		J3	20.7	20
cis-1,2-Dichloroethene	0.125	0.119	0.127	94.9	102	76.1-121			7.02	20
trans-1,2-Dichloroethene	0.125	0.120	0.135	96.1	108	70.7-124			11.7	20
Trichloroethene	0.125	0.117	0.120	93.4	96.2	77.2-122			3.00	20
Vinyl chloride	0.125	0.0961	0.111	76.9	89.0	58.4-134			14.6	20
(S) Toluene-d8				*101*	*102*	*80.0-120*				
(S) Dibromofluoromethane				*103*	*114*	*74.0-131*				
(S) 4-Bromofluorobenzene				*102*	*103*	*64.0-132*				

L1009273-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1009273-01 07/15/18 00:21 • (MS) R3325611-4 07/15/18 01:56 • (MSD) R3325611-5 07/15/18 02:15

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,1-Dichloroethene	0.125	ND	0.930	0.983	93.0	98.3	8	36.1-142			5.52	25.6
cis-1,2-Dichloroethene	0.125	ND	0.819	0.876	81.9	87.6	8	50.6-133			6.71	23
trans-1,2-Dichloroethene	0.125	ND	1.00	1.04	100	104	8	43.8-135			3.47	24.8
Trichloroethene	0.125	ND	0.881	0.898	88.1	89.8	8	48.0-132			1.86	24.8
Vinyl chloride	0.125	ND	0.768	0.824	76.8	82.4	8	32.0-146			7.02	26.3
(S) Toluene-d8					*111*	*104*		*80.0-120*				
(S) Dibromofluoromethane					*96.2*	*102*		*74.0-131*				
(S) 4-Bromofluorobenzene					*104*	*104*		*64.0-132*				

Sample Narrative:

OS: Non-target compounds too high to run at a lower dilution.

Method Blank (MB)

(MB) R3325722-2 07/15/18 12:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Tetrachloroethene	U		0.000700	0.00250
(S) Toluene-d8	*107*			*80.0-120*
(S) Dibromofluoromethane	*92.4*			*74.0-131*
(S) 4-Bromofluorobenzene	*109*			*64.0-132*

Laboratory Control Sample (LCS)

(LCS) R3325722-1 07/15/18 11:35

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Tetrachloroethene	0.125	0.114	91.2	71.1-133	
(S) Toluene-d8			*106*	*80.0-120*	
(S) Dibromofluoromethane			*97.1*	*74.0-131*	
(S) 4-Bromofluorobenzene			*109*	*64.0-132*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.

ACCREDITATIONS & LOCATIONS

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

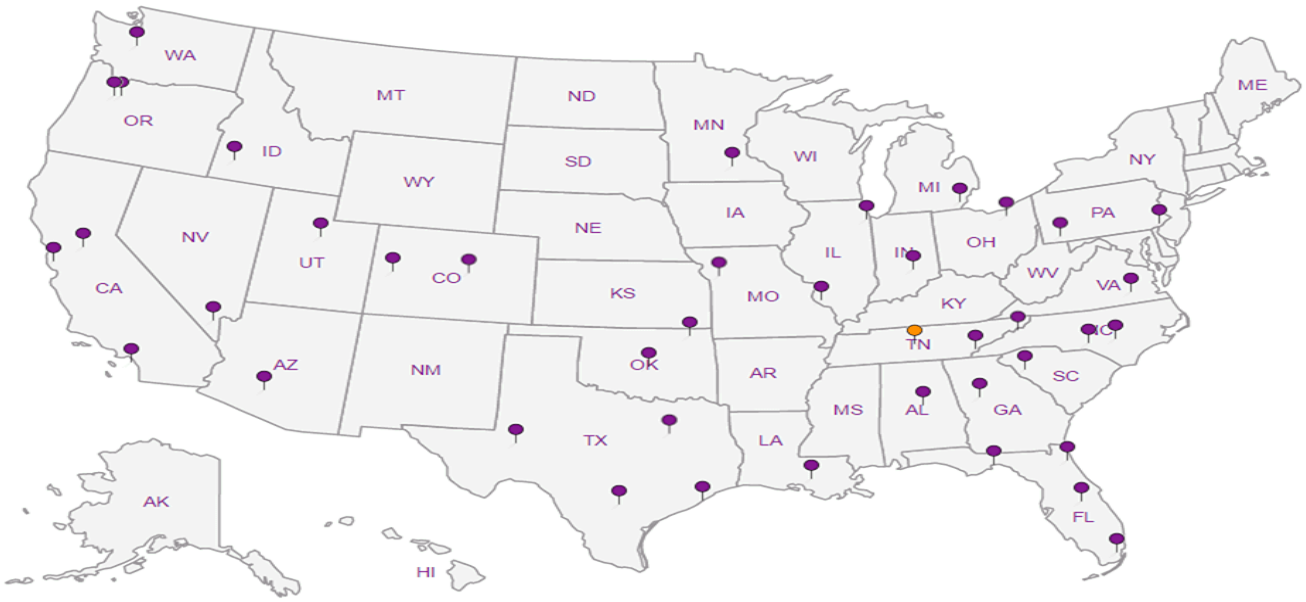
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



APEX Companies - Portland, OR

600 Steward Street
Suite 400
Seattle, WA 98101

Billing Information:
Accounts Payable
3015 SW First Ave.
Portland, OR 97201-4707

Report to: Jie Xu / FOXWELL / CERRUTI

Email To: jie.xu@apexcos.com; jfoxwell@apexcos.com

Project Description: INGLEWOOD PLAZA

City/State Collected:

Phone: 503-924-4704
Fax: 503-943-6357

Client Project #: REGEN-220

Lab Project #: ASHCREPOR-REGEN220

Collected by (print): A. CERRUTI

Site/Facility ID #:

P.O. #:

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #:

Date Results Needed:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Ctnrs	VOCs V8260C * 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres
MW-8 (10-11)	GRAB	SS	10-11	7/10/18	1030	2	✓	✓
MW-8 (15.5)	GRAB	SS	15.5	7/10/18	1055	2	✓	✓
MW-9 (10-11)	GRAB	SS	10-11	7/10/18	1418	2	✓	✓
MW-9 (15-16)	GRAB	SS	15-16	7/10/18	1431	2	✓	✓
MW-6 (20-21)	GRAB	SS	20-21	7/10/18	1440	2	✓	✓
SB-2 (3-4)	GRAB	SS	3-4	7/11/18	1140	2	✓	✓
SB-2 (9)	GRAB	SS	9	7/11/18	1210	2	✓	✓
SB-2 (13)	GRAB	SS	13	7/11/18	1244	2	✓	✓
~~SB-4~~	~~GRAB~~	SS				2		
~~SB-4~~	~~GRAB~~	SS				2		

Analysis / Container / Preservative

TURN AROUND TIMES

STANDARD

RUSH

HOLD

24 HR TAT -01

24 HR TAT 02

24 HR TAT 03

24HR TAT EXCEPT MW-8

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
a subsidiary of Pace

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1069281
E071

Acctnum: ASHCREPOR
Template: T138059
Prelogin: P662003
TSR: 110 - Brian Ford
PB:
Shipped Via:

Remarks | Sample # (lab only)

-01
02
03

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: *VOCs=Tetrachloroethylene (PCE), trichloroethene (TCE), cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE, and vinyl chloride.

Samples returned via: ___ UPS ✓ FedEx ___ Courier

Tracking # 7466 1466 2340

Temp ___ Flow ___ Other ___

Relinquished by: (Signature)	Date: 7/11/18	Time: 1300	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / (No) HCL / MeOH TBR

Temp: 9.5 °C Bottles Received: 16

Date: 7/13/18 Time: 8:45

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

If preservation required by Login: Date/Time

7-063

Condition: (NCF) / OK

APEX Companies - Portland, OR

600 Steward Street
Suite 400
Seattle, WA 98101

Billing Information:
Accounts Payable
3015 SW First Ave.
Portland, OR 97201-4707

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LAB SCIENCES

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: Jie Xu / FOXWELL / CERRUTI

Email To: jie.xu@apexcos.com; jfoxwell@apexcos.com

Project Description: INGLEWOOD PLAZA.

City/State Collected:

Phone: 503-924-4704
Fax: 503-943-6357

Client Project #: REGEN-220

Lab Project #: ASHCREPOR-REGEN220

L# L1009281

E071

Collected by (print): A. CERRUTI

Site/Facility ID #:

P.O. #:

Acctnum: ASHCREPOR
Template: T138059
Prelogin: P662003
TSR: 110 - Brian Ford
PB:

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
~~Next Day~~ ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ✓

Shipped Via:

Analyses: VOCs V8260C* 40mlAmb/MeOH5ml/Syr; dry weight 2ozClr-NoPres

TURN AROUND TIMES

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	VOCs V8260C* 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	Remarks	Sample # (lab only)
MW-8 (10-11)	GRAB	SS	10-11	7/10/18	1030	2	✓	✓	~~STANDARD TAT~~ HOLD	
MW-8 (15.5)	GRAB	SS	15.5	7/10/18	1055	2	✓	✓	HOLD	
MW-9 (10-11)	GRAB	SS	10-11	7/10/18	1418	2	✓	✓	HOLD	
MW-9 (15-16)	GRAB	SS	15-16	7/10/18	1431	2	✓	✓	HOLD	
MW-9 (20-21)	GRAB	SS	20-21	7/10/18	1440	2	✓	✓	HOLD	
SB-2 (3-4)	GRAB	SS	3-4	7/11/18	1140	2	✓	✓	24 HR TAT	-01
SB-2 (9)	GRAB	SS	9	7/11/18	1210	2	✓	✓	24 HR TAT	02
SB-2 (13)	GRAB	SS	13	7/11/18	1244	2	✓	✓	24 HR TAT	03
~~SB-4(...)~~	~~GRAB~~	~~SS~~		~~7/11/18~~		~~2~~				
~~SB-4(...)~~	~~GRAB~~	~~SS~~		~~7/11/18~~		~~2~~				

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: *VOCs=Tetrachloroethylene (PCE), trichloroethene (TCE), cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE, and vinyl chloride.

~~24 HR TAT EXCEPT MW-9 MW-8~~

pH ___ Temp ___
Flow ___ Other ___

Samples returned via: ___ UPS ✓ FedEx ___ Courier ___

Tracking # 7466 1466 2340

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP _Y _N
COC Signed/Accurate: ✓Y _N
Bottles arrive intact: ✓Y _N
Correct bottles used: ✓Y _N
Sufficient volume sent: ✓Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: _Y _N

Relinquished by: (Signature)	Date: 7/11/18	Time: 1300	Received by: (Signature)	Trip Blank Received: Yes / (No) HCL / MeoH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 9.5 °C Bottles Received: 16
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 8G	Date: 7/13/18 Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: (NCF) / OK

Jeremy W. Watkins

ESC Lab Sciences
Non-Conformance Form

Login #: L1009281	Client: ASHCREPOR	Date: 7/13/18	Evaluated by: Jeremy

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time		Login Clarification Needed		**If Broken Container:**
x	Improper temperature		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	Improper preservation		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Courie
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: Received at 9.5 Deg C. All Ice Melted.

Client informed by:		Call		Email X		Voice Mail		Date:07/13/18	Time:1415
TSR Initials:bjf	Client Contact: 07/13/18								

Login Instructions:

Proceed. Add comment "Add T1 qualifier, received at >6 Deg C."
Revised COC provided by e-mail.

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 20, 2018

APEX Companies - Portland, OR

Sample Delivery Group:	L1009810
Samples Received:	07/13/2018
Project Number:	REGEN-220
Description:	Inglewood Plaza

Report To: Jie Xu
600 Steward Street
Suite 400
Seattle, WA 98101

Entire Report Reviewed By:

Jason Romer
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

SB-1(0-1) L1009810-01 Solid

Collected by: A. Cerruti | Collected date/time: 07/12/18 09:15 | Received date/time: 07/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1139807	1	07/19/18 09:49	07/19/18 09:57	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1139651	1	07/12/18 09:15	07/18/18 16:27	DWR

SB-1(5) L1009810-02 Solid

Collected by: A. Cerruti | Collected date/time: 07/12/18 09:35 | Received date/time: 07/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1139807	1	07/19/18 09:49	07/19/18 09:57	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1139651	1	07/12/18 09:35	07/18/18 16:46	DWR

SB-1(14-15) L1009810-03 Solid

Collected by: A. Cerruti | Collected date/time: 07/12/18 10:20 | Received date/time: 07/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1139807	1	07/19/18 09:49	07/19/18 09:57	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1139651	1	07/12/18 10:20	07/18/18 17:05	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1140170	1	07/12/18 10:20	07/20/18 01:05	LRL

SB-3(5-6) L1009810-04 Solid

Collected by: A. Cerruti | Collected date/time: 07/12/18 11:34 | Received date/time: 07/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1139807	1	07/19/18 09:49	07/19/18 09:57	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1139651	1	07/12/18 11:34	07/18/18 17:24	DWR

SB-3(7) L1009810-05 Solid

Collected by: A. Cerruti | Collected date/time: 07/12/18 11:55 | Received date/time: 07/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1139807	1	07/19/18 09:49	07/19/18 09:57	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1139651	1	07/12/18 11:55	07/18/18 17:43	DWR

SB-3(14-15) L1009810-06 Solid

Collected by: A. Cerruti | Collected date/time: 07/12/18 12:20 | Received date/time: 07/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1139807	1	07/19/18 09:49	07/19/18 09:57	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1139651	1	07/12/18 12:20	07/18/18 18:02	DWR

SB-4(4) L1009810-07 Solid

Collected by: A. Cerruti | Collected date/time: 07/12/18 14:20 | Received date/time: 07/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1139807	1	07/19/18 09:49	07/19/18 09:57	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1139651	1	07/12/18 14:20	07/18/18 18:21	DWR

SB-4(7) L1009810-08 Solid

Collected by	Collected date/time	Received date/time
A. Cerruti	07/12/18 14:40	07/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1139807	1	07/19/18 09:49	07/19/18 09:57	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1139651	1	07/12/18 14:40	07/18/18 18:40	DWR

SB-4(15) L1009810-09 Solid

Collected by	Collected date/time	Received date/time
A. Cerruti	07/12/18 15:06	07/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1139807	1	07/19/18 09:49	07/19/18 09:57	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1139651	1.18	07/12/18 15:06	07/18/18 18:59	DWR

SB-5(2-3) L1009810-10 Solid

Collected by	Collected date/time	Received date/time
A. Cerruti	07/12/18 15:54	07/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1139808	1	07/19/18 09:39	07/19/18 09:46	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1139651	1	07/12/18 15:54	07/18/18 19:18	DWR

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.7		1	07/19/2018 09:57	WG1139807

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000534	0.00267	1	07/18/2018 16:27	WG1139651
cis-1,2-Dichloroethene	U		0.000737	0.00267	1	07/18/2018 16:27	WG1139651
trans-1,2-Dichloroethene	U		0.00153	0.00534	1	07/18/2018 16:27	WG1139651
Tetrachloroethene	0.0281		0.000747	0.00267	1	07/18/2018 16:27	WG1139651
Trichloroethene	U		0.000427	0.00107	1	07/18/2018 16:27	WG1139651
Vinyl chloride	U		0.000729	0.00267	1	07/18/2018 16:27	WG1139651
(S) Toluene-d8	*105*			*80.0-120*		*07/18/2018 16:27*	WG1139651
(S) Dibromofluoromethane	*89.1*			*74.0-131*		*07/18/2018 16:27*	WG1139651
(S) 4-Bromofluorobenzene	*103*			*64.0-132*		*07/18/2018 16:27*	WG1139651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.6		1	07/19/2018 09:57	WG1139807

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000558	0.00279	1	07/18/2018 16:46	WG1139651
cis-1,2-Dichloroethene	U		0.000770	0.00279	1	07/18/2018 16:46	WG1139651
trans-1,2-Dichloroethene	U		0.00160	0.00558	1	07/18/2018 16:46	WG1139651
Tetrachloroethene	0.524		0.000781	0.00279	1	07/18/2018 16:46	WG1139651
Trichloroethene	0.00987		0.000447	0.00112	1	07/18/2018 16:46	WG1139651
Vinyl chloride	U		0.000762	0.00279	1	07/18/2018 16:46	WG1139651
(S) Toluene-d8	*106*			*80.0-120*		*07/18/2018 16:46*	WG1139651
(S) Dibromofluoromethane	*97.3*			*74.0-131*		*07/18/2018 16:46*	WG1139651
(S) 4-Bromofluorobenzene	*105*			*64.0-132*		*07/18/2018 16:46*	WG1139651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.0		1	07/19/2018 09:57	WG1139807

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000556	0.00278	1	07/18/2018 17:05	WG1139651
cis-1,2-Dichloroethene	U		0.000767	0.00278	1	07/18/2018 17:05	WG1139651
trans-1,2-Dichloroethene	U		0.00159	0.00556	1	07/18/2018 17:05	WG1139651
Tetrachloroethene	U		0.000778	0.00278	1	07/20/2018 01:05	WG1140170
Trichloroethene	U		0.000445	0.00111	1	07/18/2018 17:05	WG1139651
Vinyl chloride	U		0.000759	0.00278	1	07/18/2018 17:05	WG1139651
(S) Toluene-d8	*99.6*			*80.0-120*		*07/18/2018 17:05*	WG1139651
(S) Toluene-d8	*102*			*80.0-120*		*07/20/2018 01:05*	WG1140170
(S) Dibromofluoromethane	*95.4*			*74.0-131*		*07/18/2018 17:05*	WG1139651
(S) Dibromofluoromethane	*92.5*			*74.0-131*		*07/20/2018 01:05*	WG1140170
(S) 4-Bromofluorobenzene	*107*			*64.0-132*		*07/18/2018 17:05*	WG1139651
(S) 4-Bromofluorobenzene	*104*			*64.0-132*		*07/20/2018 01:05*	WG1140170

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	07/19/2018 09:57	WG1139807

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000561	0.00281	1	07/18/2018 17:24	WG1139651
cis-1,2-Dichloroethene	U		0.000774	0.00281	1	07/18/2018 17:24	WG1139651
trans-1,2-Dichloroethene	U		0.00161	0.00561	1	07/18/2018 17:24	WG1139651
Tetrachloroethene	0.293		0.000786	0.00281	1	07/18/2018 17:24	WG1139651
Trichloroethene	0.0132		0.000449	0.00112	1	07/18/2018 17:24	WG1139651
Vinyl chloride	U		0.000767	0.00281	1	07/18/2018 17:24	WG1139651
(S) Toluene-d8	*99.6*			*80.0-120*		*07/18/2018 17:24*	WG1139651
(S) Dibromofluoromethane	*100*			*74.0-131*		*07/18/2018 17:24*	WG1139651
(S) 4-Bromofluorobenzene	*102*			*64.0-132*		*07/18/2018 17:24*	WG1139651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.5		1	07/19/2018 09:57	WG1139807

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000606	0.00303	1	07/18/2018 17:43	WG1139651
cis-1,2-Dichloroethene	0.0133		0.000836	0.00303	1	07/18/2018 17:43	WG1139651
trans-1,2-Dichloroethene	U		0.00173	0.00606	1	07/18/2018 17:43	WG1139651
Tetrachloroethene	0.109		0.000848	0.00303	1	07/18/2018 17:43	WG1139651
Trichloroethene	0.00997		0.000485	0.00121	1	07/18/2018 17:43	WG1139651
Vinyl chloride	U		0.000828	0.00303	1	07/18/2018 17:43	WG1139651
(S) Toluene-d8	*97.1*			*80.0-120*		*07/18/2018 17:43*	WG1139651
(S) Dibromofluoromethane	*96.0*			*74.0-131*		*07/18/2018 17:43*	WG1139651
(S) 4-Bromofluorobenzene	*101*			*64.0-132*		*07/18/2018 17:43*	WG1139651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.4		1	07/19/2018 09:57	WG1139807

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000566	0.00283	1	07/18/2018 18:02	WG1139651
cis-1,2-Dichloroethene	0.00412		0.000781	0.00283	1	07/18/2018 18:02	WG1139651
trans-1,2-Dichloroethene	U		0.00162	0.00566	1	07/18/2018 18:02	WG1139651
Tetrachloroethene	U		0.000792	0.00283	1	07/18/2018 18:02	WG1139651
Trichloroethene	U		0.000453	0.00113	1	07/18/2018 18:02	WG1139651
Vinyl chloride	U		0.000773	0.00283	1	07/18/2018 18:02	WG1139651
(S) Toluene-d8	*101*			*80.0-120*		*07/18/2018 18:02*	WG1139651
(S) Dibromofluoromethane	*101*			*74.0-131*		*07/18/2018 18:02*	WG1139651
(S) 4-Bromofluorobenzene	*105*			*64.0-132*		*07/18/2018 18:02*	WG1139651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.0		1	07/19/2018 09:57	WG1139807

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000537	0.00269	1	07/18/2018 18:21	WG1139651
cis-1,2-Dichloroethene	U		0.000742	0.00269	1	07/18/2018 18:21	WG1139651
trans-1,2-Dichloroethene	U		0.00154	0.00537	1	07/18/2018 18:21	WG1139651
Tetrachloroethene	0.278		0.000752	0.00269	1	07/18/2018 18:21	WG1139651
Trichloroethene	0.0262		0.000430	0.00107	1	07/18/2018 18:21	WG1139651
Vinyl chloride	U		0.000734	0.00269	1	07/18/2018 18:21	WG1139651
(S) Toluene-d8	*103*			*80.0-120*		*07/18/2018 18:21*	WG1139651
(S) Dibromofluoromethane	*96.9*			*74.0-131*		*07/18/2018 18:21*	WG1139651
(S) 4-Bromofluorobenzene	*101*			*64.0-132*		*07/18/2018 18:21*	WG1139651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.4		1	07/19/2018 09:57	WG1139807

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000529	0.00265	1	07/18/2018 18:40	WG1139651
cis-1,2-Dichloroethene	0.0547		0.000731	0.00265	1	07/18/2018 18:40	WG1139651
trans-1,2-Dichloroethene	U		0.00151	0.00529	1	07/18/2018 18:40	WG1139651
Tetrachloroethene	0.00997		0.000741	0.00265	1	07/18/2018 18:40	WG1139651
Trichloroethene	U		0.000424	0.00106	1	07/18/2018 18:40	WG1139651
Vinyl chloride	U		0.000723	0.00265	1	07/18/2018 18:40	WG1139651
(S) Toluene-d8	*108*			*80.0-120*		*07/18/2018 18:40*	WG1139651
(S) Dibromofluoromethane	*98.8*			*74.0-131*		*07/18/2018 18:40*	WG1139651
(S) 4-Bromofluorobenzene	*107*			*64.0-132*		*07/18/2018 18:40*	WG1139651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.0		1	07/19/2018 09:57	WG1139807

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000663	0.00332	1.18	07/18/2018 18:59	WG1139651
cis-1,2-Dichloroethene	0.00922		0.000915	0.00332	1.18	07/18/2018 18:59	WG1139651
trans-1,2-Dichloroethene	U		0.00190	0.00663	1.18	07/18/2018 18:59	WG1139651
Tetrachloroethene	U		0.000928	0.00332	1.18	07/18/2018 18:59	WG1139651
Trichloroethene	U		0.000531	0.00133	1.18	07/18/2018 18:59	WG1139651
Vinyl chloride	U		0.000906	0.00332	1.18	07/18/2018 18:59	WG1139651
(S) Toluene-d8	*99.8*			*80.0-120*		*07/18/2018 18:59*	WG1139651
(S) Dibromofluoromethane	*102*			*74.0-131*		*07/18/2018 18:59*	WG1139651
(S) 4-Bromofluorobenzene	*102*			*64.0-132*		*07/18/2018 18:59*	WG1139651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.4		1	07/19/2018 09:46	WG1139808

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000535	0.00268	1	07/18/2018 19:18	WG1139651
cis-1,2-Dichloroethene	U		0.000739	0.00268	1	07/18/2018 19:18	WG1139651
trans-1,2-Dichloroethene	U		0.00153	0.00535	1	07/18/2018 19:18	WG1139651
Tetrachloroethene	0.463		0.000749	0.00268	1	07/18/2018 19:18	WG1139651
Trichloroethene	U		0.000428	0.00107	1	07/18/2018 19:18	WG1139651
Vinyl chloride	U		0.000731	0.00268	1	07/18/2018 19:18	WG1139651
(S) Toluene-d8	*107*			*80.0-120*		*07/18/2018 19:18*	WG1139651
(S) Dibromofluoromethane	*94.8*			*74.0-131*		*07/18/2018 19:18*	WG1139651
(S) 4-Bromofluorobenzene	*104*			*64.0-132*		*07/18/2018 19:18*	WG1139651

Method Blank (MB)

(MB) R3327095-1 07/19/18 09:57

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00200			

L1009810-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1009810-06 07/19/18 09:57 • (DUP) R3327095-3 07/19/18 09:57

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	88.4	89.4	1	1.16		5

Laboratory Control Sample (LCS)

(LCS) R3327095-2 07/19/18 09:57

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3327094-1 07/19/18 09:46

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1008625-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1008625-04 07/19/18 09:46 • (DUP) R3327094-3 07/19/18 09:46

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	88.9	89.0	1	0.101		5

Laboratory Control Sample (LCS)

(LCS) R3327094-2 07/19/18 09:46

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3326762-2 07/18/18 11:23

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
Tetrachloroethene	U		0.000700	0.00250
Trichloroethene	U		0.000400	0.00100
Vinyl chloride	U		0.000683	0.00250
(S) Toluene-d8	*105*			*80.0-120*
(S) Dibromofluoromethane	*92.5*			*74.0-131*
(S) 4-Bromofluorobenzene	*101*			*64.0-132*

Laboratory Control Sample (LCS)

(LCS) R3326762-1 07/18/18 10:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,1-Dichloroethene	0.125	0.130	104	60.6-133	
cis-1,2-Dichloroethene	0.125	0.135	108	76.1-121	
trans-1,2-Dichloroethene	0.125	0.140	112	70.7-124	
Tetrachloroethene	0.125	0.139	111	71.1-133	
Trichloroethene	0.125	0.135	108	77.2-122	
Vinyl chloride	0.125	0.132	106	58.4-134	
(S) Toluene-d8			*103*	*80.0-120*	
(S) Dibromofluoromethane			*101*	*74.0-131*	
(S) 4-Bromofluorobenzene			*99.8*	*64.0-132*	

L1009810-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1009810-10 07/18/18 19:18 • (MS) R3326762-3 07/18/18 20:52 • (MSD) R3326762-4 07/18/18 21:27

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,1-Dichloroethene	0.134	U	0.0814	0.0755	60.8	56.4	1	36.1-142			7.50	25.6
cis-1,2-Dichloroethene	0.134	U	0.0929	0.0922	69.4	68.9	1	50.6-133			0.692	23
trans-1,2-Dichloroethene	0.134	U	0.0826	0.0771	61.7	57.6	1	43.8-135			6.89	24.8
Tetrachloroethene	0.134	0.463	0.565	0.528	76.3	48.8	1	37.7-140			6.74	29.2
Trichloroethene	0.134	U	0.0914	0.0907	68.3	67.7	1	48.0-132			0.827	24.8
Vinyl chloride	0.134	U	0.0659	0.0585	49.2	43.7	1	32.0-146			11.8	26.3
(S) Toluene-d8					*103*	*102*		*80.0-120*				
(S) Dibromofluoromethane					*98.0*	*101*		*74.0-131*				

L1009810-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1009810-10 07/18/18 19:18 • (MS) R3326762-3 07/18/18 20:52 • (MSD) R3326762-4 07/18/18 21:27

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
(S) 4-Bromofluorobenzene					*99.7*	*97.0*		*64.0-132*				

Method Blank (MB)

(MB) R3327164-3 07/19/18 22:54

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Tetrachloroethene	U		0.000700	0.00250
(S) Toluene-d8	*104*			*80.0-120*
(S) Dibromofluoromethane	*95.0*			*74.0-131*
(S) 4-Bromofluorobenzene	*108*			*64.0-132*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3327164-1 07/19/18 20:33 • (LCSD) R3327164-2 07/19/18 20:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Tetrachloroethene	0.125	0.111	0.102	88.5	81.4	71.1-133			8.39	20
(S) Toluene-d8				*102*	*100*	*80.0-120*				
(S) Dibromofluoromethane				*111*	*102*	*74.0-131*				
(S) 4-Bromofluorobenzene				*103*	*102*	*64.0-132*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

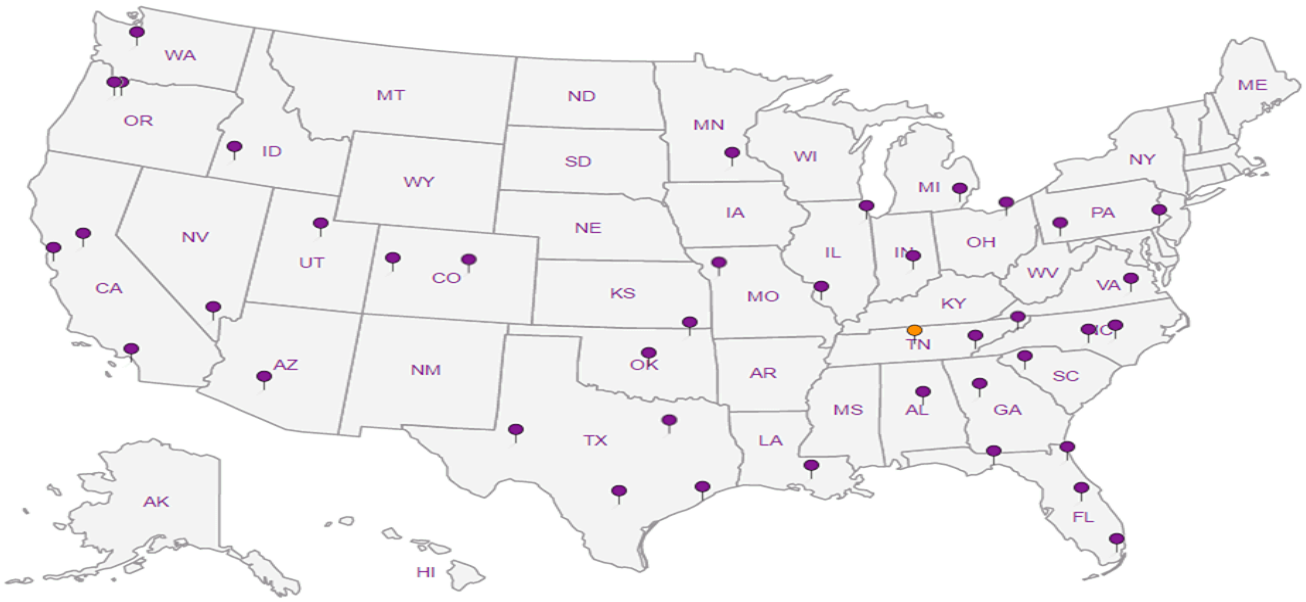
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



APEX Companies - Portland, OR

600 Steward Street
Suite 400
Seattle WA 98101

Billing Information:
Accounts Payable
3015 SW First Ave.
Portland, OR 97201-4707

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 3

ESC LAB SCIENCES

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: Jie Xu / FOXWELL / CERRUTI

Email To: jie.xu@apexcos.com; jfoxwell@apexcos.com

Project Description: INGLEWOOD PLAZA

City/State Collected: SAMMAMISH, WA

L# L1009810

E167

Phone: 503-924-4704
Fax: 503-943-6357

Client Project #: REGEN-220

Lab Project #: ASHCREPOR-REGEN220

Acctnum: ASHCREPOR
Template: T138059
Prelogin: P662003
TSR: 110 - Brian Ford
PB:
Shipped Via:

Collected by (print): A. CERRUTI

Site/Facility ID #

P.O. #

Collected by (signature): [signature]

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
✓ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ✓

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	VOCs V8260C* 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	Remarks	Sample # (lab only)
~~SB-4~~	~~GRAB~~	~~SS~~		~~7/11/18~~		2	✓	✓		
SB-1 (0-1)	GRAB	SS	0-1	7/12/18	0915	2	✓	✓		-01
SB-1 (2)	GRAB	SS	2		0920	2	✓	✓	HOLD	
SB-1 (3)	GRAB	SS	3		0927	2	✓	✓	HOLD	-02
SB-1 (5)	GRAB	SS	5		0935	2	✓	✓	HOLD	
SB-1 (7)	GRAB	SS	7		0941	2	✓	✓	HOLD	
SB-1 (9)	GRAB	SS	9		0951	2	✓	✓	HOLD	-03
SB-1 (14-15)	GRAB	SS	14-15		1020	2	✓	✓	HOLD	
SB-3 (2.5)	GRAB	SS	2.5		1120	1	✓	✓	HOLD	
SB-3 (3-4)	GRAB	SS	3-4	↓	1125	2	✓	✓	HOLD	

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: *VOCs=Tetrachloroethylene (PCE), trichloroethene (TCE), cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE, and vinyl chloride.

~~24 Hr TAT~~ HOLD ALL

pH ______ Temp ______
Flow ______ Other ______

Sample Receipt Checklist
COC Seal Present/Intact: NP _Y _N
COC Signed/Accurate: _Y _N
Bottles arrive intact: _Y _N
Correct bottles used: _Y _N
Sufficient volume sent: _Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: _Y _N

Samples returned via: ___ UPS ✓ FedEx ___ Courier ______

Tracking # 4196 3258 7897

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
[signature]	7/12/18			

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.0 °C	Bottles Received: 46	If preservation required by Login: Date/Time

Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:	Condition:
			[signature]	7/13/18	0845	NCF / OK

7-057

APEX Companies - Portland, OR

600 Steward Street
Suite 400
Seattle WA 98101

Billing Information:
Accounts Payable
3015 SW First Ave.
Portland, OR 97201-4707

Pres Chk

Report to: Jie Xu / FOXWELL / CERRUTI

Email To: jie.xu@apexcos.com; jfoxwell@apexcos.com

Project Description: INGLEWOOD PLAZA

City/State Collected: SAMMAMISH, WA

Phone: 503-924-4704

Client Project # REGEN-220

Lab Project # ASHCREPOR-REGEN220

Fax: 503-943-6357

Collected by (print): A CERRUTI

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice: N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	VOCs V8260C * 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	Remarks	Sample # (lab only)
SB-3(5-6)	GRAB	SS	5-6	7/12/18	1134	2	✓	✓		-04
SB-3(7)		SS	7		1155	2	✓	✓		-05
SB-3(9)		SS	9		1201	2	✓	✓		
SB-3(10)		SS	10		1209	2	✓	✓		
SB-3(14-15)		SS	14-15		1220	2	✓	✓	HOLD	-06
SB-4(0-1)		SS	0-1		1407		✓	✓		
SB-4(2)			2		1411		✓	✓		
SB-4(4)			4		1420		✓	✓		-07
SB-4(5)			5		1435		✓	✓		
SB-4(7)			7		1440		✓	✓		-08

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: *VOCs=Tetrachloroethylene (PCE), trichloroethene (TCE), cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE, and vinyl chloride.

HOLD ALL

pH ____ Temp ____
Flow ____ Other ____

Samples returned via: UPS ✓ FedEx ___ Courier ___

Tracking # 4196 3258 7847

Trip Blank Received: (Yes) / No
HCL / (MeOH)
TBR

Temp: 5.0 °C Bottles Received: 46

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Relinquished by: (Signature)	Date: 7/12/18	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Kamer

Date: 7/13/18 Time: 0845

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Chain of Custody Page 2 of 3

ESC

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

LR L1009810

Table #

Acctnum: ASHCREPOR
Template: T138059
Prelogin: P662003
TSR: 110 - Brian Ford
PB:

Shipped Via:

APEX

3015 SW First Avenue
Portland, Oregon 97201-4707
(503) 924-4704 Phone
(503) 943-8357 Fax

PROJECT NUMBER
FIELD REPORT NUMBER
PAGE OF
DATE

APEX COC pg 3 of 3

PROJECT
LOCATION
CLIENT
PURPOSE OF OBSERVATIONS
APEX REPRESENTATIVE
CONTRACTOR
CONTRACTOR REP.

ARRIVAL TIME
DEPARTURE TIME
WEATHER
APEX PROJECT MANAGER
PERMIT NO.
H&S REVIEW

L1009810

SAMPLE	Comp/GRAB	MATRIX	DEPTH	DATE	TIME	VOCs 8260C →	dry wt.	
SB-4(9)	GRAB	SS	9	7/12/18	1445	2	✓	✓
SB-4(15)			15		1506			-09
SB-5(0-1)			0-1		1545			
SB-5(2-3)			2-3		1554			-10

OUT OF COC'S.

HOLD

BY 7/12/18
APEX REPRESENTATIVE

REVIEWED BY
APEX PROJECT MANAGER 7/13/18 0845

rec 4c cont +1TBMeOH

Andy Vann

From: Brian Ford
Sent: Monday, July 16, 2018 6:15 PM
To: Login
Subject: RE: *ASHCREPOR* log off hold

Update: added two more samples.

Log off hold label 7-057 as R5 due 07/23. V8260C, TS, and TERRACORE.

SB-1(0-1)
SB-1(5)
SB-1(14-15)
SB-3(5-6)
SB-3(7)
SB-3(14-15)
SB-4(4)
SB-4(7)
SB-4(15)
SB-5(2-3)

Thanks,

Brian Ford
Project Manager
Pace Analytical National Center for Testing & Innovation
12065 Lebanon Road | Mt. Juliet, TN 37122
615.773.9772
bford@pacenational.com | pacenational.com

ESC Lab Sciences is now Pace Analytical National Center for Testing & Innovation! Please make note of my new email address and website.

From: Brian Ford
Sent: Monday, July 16, 2018 9:37 AM
To: Login; Brian Ford
Subject: *ASHCREPOR* log off hold

Log off hold label 7-057 as R5 due 07/23. V8260C, TS, and TERRACORE.

SB-1(0-1)
SB-1(5)
SB-1(14-15)
SB-3(7)
SB-3(14-15)
SB-4(7)

SB-4(15)
SB-5(2-3)

Thanks,

Brian Ford
Project Manager
Pace Analytical National Center for Testing & Innovation
12065 Lebanon Road | Mt. Juliet, TN 37122
615.773.9772
bford@pacenational.com | pacenational.com

ESC Lab Sciences is now Pace Analytical National Center for Testing & Innovation! Please make note of my new email address and website.

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

August 02, 2018

APEX Companies - Portland, OR

Sample Delivery Group:	L1012900
Samples Received:	07/27/2018
Project Number:	REGEN-220
Description:	Dirk's Inglewood Plaza

Report To: Jie Xu
600 Steward Street
Suite 400
Seattle, WA 98101

Entire Report Reviewed By:

Jason Romer
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

SV-1 L1012900-01 Air

Collected by: A. Cerruti | Collected date/time: 07/26/18 15:38 | Received date/time: 07/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1145409	1	07/31/18 22:38	07/31/18 22:38	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1145976	10	08/01/18 20:53	08/01/18 20:53	AMC

SV-2 L1012900-02 Air

Collected by: A. Cerruti | Collected date/time: 07/26/18 15:52 | Received date/time: 07/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1145409	1	07/31/18 23:25	07/31/18 23:25	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1145976	10	08/01/18 21:35	08/01/18 21:35	AMC

SV-3 L1012900-03 Air

Collected by: A. Cerruti | Collected date/time: 07/26/18 15:49 | Received date/time: 07/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1145409	1	08/01/18 00:12	08/01/18 00:12	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1145976	20	08/01/18 22:16	08/01/18 22:16	AMC

SV-4 L1012900-04 Air

Collected by: A. Cerruti | Collected date/time: 07/26/18 15:55 | Received date/time: 07/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1145409	1	08/01/18 00:58	08/01/18 00:58	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1145976	20	08/01/18 22:58	08/01/18 22:58	AMC

SV-5 L1012900-05 Air

Collected by: A. Cerruti | Collected date/time: 07/26/18 16:02 | Received date/time: 07/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1145409	1	08/01/18 01:44	08/01/18 01:44	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1145947	20	08/01/18 17:09	08/01/18 17:09	MBF

AA-5 L1012900-06 Air

Collected by: A. Cerruti | Collected date/time: 07/26/18 09:00 | Received date/time: 07/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1144890	1	07/30/18 17:49	07/30/18 17:49	MBF

AA-6 L1012900-07 Air

Collected by: A. Cerruti | Collected date/time: 07/26/18 09:02 | Received date/time: 07/27/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1144890	1	07/30/18 18:35	07/30/18 18:35	MBF

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Project Manager

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	4.84	11.5		1	WG1145409
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1145409
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1145409
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1145409
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1145409
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1145409
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1145409
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1145409
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1145409
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1145409
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1145409
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1145409
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1145409
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1145409
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1145409
Cyclohexane	110-82-7	84.20	0.200	0.689	0.336	1.16		1	WG1145409
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1145409
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1145409
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1145409
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1145409
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1145409
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1145409
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1145409
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1145409
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	0.473	1.88		1	WG1145409
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1145409
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1145409
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1145409
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1145409
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.345	1.24		1	WG1145409
Ethanol	64-17-5	46.10	0.630	1.19	25.1	47.4		1	WG1145409
Ethylbenzene	100-41-4	106	0.200	0.867	0.523	2.27		1	WG1145409
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1145409
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.254	1.43		1	WG1145409
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.334	1.65		1	WG1145409
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1145409
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1145409
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1145409
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1145409
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1145409
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1145409
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1145409
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1145409
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1145409
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1145409
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1145409
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1145409
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1145409
2-Propanol	67-63-0	60.10	1.25	3.07	6.38	15.7		1	WG1145409
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1145409
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1145409
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1145409
Tetrachloroethylene	127-18-4	166	2.00	13.6	65.0	441		10	WG1145976
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.543	1.60		1	WG1145409
Toluene	108-88-3	92.10	0.200	0.753	0.430	1.62		1	WG1145409
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1145409

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	0.305	1.66		1	WG1145409
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1145409
Trichloroethylene	79-01-6	131	0.200	1.07	0.933	5.00		1	WG1145409
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.286	1.40		1	WG1145409
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1145409
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1145409
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1145409
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1145409
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1145409
m&p-Xylene	1330-20-7	106	0.400	1.73	2.14	9.30		1	WG1145409
o-Xylene	95-47-6	106	0.200	0.867	0.746	3.24		1	WG1145409
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*95.9*				WG1145409
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*92.2*				WG1145976

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	7.45	17.7		1	WG1145409
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1145409
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1145409
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1145409
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1145409
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1145409
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1145409
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1145409
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1145409
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1145409
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1145409
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1145409
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1145409
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1145409
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1145409
Cyclohexane	110-82-7	84.20	0.200	0.689	0.255	0.879		1	WG1145409
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1145409
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1145409
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1145409
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1145409
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1145409
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1145409
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1145409
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1145409
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	2.78	11.0		1	WG1145409
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.259	1.03		1	WG1145409
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1145409
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1145409
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1145409
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1145409
Ethanol	64-17-5	46.10	0.630	1.19	21.3	40.2		1	WG1145409
Ethylbenzene	100-41-4	106	0.200	0.867	0.489	2.12		1	WG1145409
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1145409
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.252	1.42		1	WG1145409
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.367	1.81		1	WG1145409
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1145409
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1145409
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1145409
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1145409
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1145409
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1145409
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1145409
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1145409
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1145409
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1145409
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1145409
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1145409
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1145409
2-Propanol	67-63-0	60.10	1.25	3.07	5.82	14.3		1	WG1145409
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1145409
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1145409
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1145409
Tetrachloroethylene	127-18-4	166	2.00	13.6	96.7	656		10	WG1145976
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.694	2.05		1	WG1145409
Toluene	108-88-3	92.10	0.200	0.753	0.408	1.54		1	WG1145409
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1145409

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1145409
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1145409
Trichloroethylene	79-01-6	131	0.200	1.07	4.41	23.7		1	WG1145409
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.268	1.31		1	WG1145409
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1145409
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1145409
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1145409
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1145409
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1145409
m&p-Xylene	1330-20-7	106	0.400	1.73	1.96	8.49		1	WG1145409
o-Xylene	95-47-6	106	0.200	0.867	0.687	2.98		1	WG1145409
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*95.5*				WG1145409
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*94.5*				WG1145976

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	4.19	9.96		1	WG1145409
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1145409
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1145409
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1145409
Bromodichloromethane	75-27-4	164	0.200	1.34	0.673	4.52		1	WG1145409
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1145409
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1145409
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1145409
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1145409
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1145409
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1145409
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1145409
Chloroform	67-66-3	119	0.200	0.973	5.10	24.8		1	WG1145409
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1145409
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1145409
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1145409
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1145409
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1145409
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1145409
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1145409
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1145409
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1145409
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1145409
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1145409
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	1.45	5.74		1	WG1145409
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.240	0.951		1	WG1145409
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1145409
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1145409
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1145409
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1145409
Ethanol	64-17-5	46.10	0.630	1.19	15.1	28.5		1	WG1145409
Ethylbenzene	100-41-4	106	0.200	0.867	0.498	2.16		1	WG1145409
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1145409
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.258	1.45		1	WG1145409
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.335	1.66		1	WG1145409
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1145409
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1145409
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1145409
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1145409
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1145409
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1145409
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1145409
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1145409
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1145409
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1145409
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1145409
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1145409
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1145409
2-Propanol	67-63-0	60.10	1.25	3.07	6.44	15.8		1	WG1145409
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1145409
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1145409
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1145409
Tetrachloroethylene	127-18-4	166	4.00	27.2	272	1840		20	WG1145976
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.810	2.39		1	WG1145409
Toluene	108-88-3	92.10	0.200	0.753	0.410	1.55		1	WG1145409
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1145409

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1145409
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1145409
Trichloroethylene	79-01-6	131	0.200	1.07	2.40	12.9		1	WG1145409
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.317	1.56		1	WG1145409
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1145409
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1145409
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1145409
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1145409
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1145409
m&p-Xylene	1330-20-7	106	0.400	1.73	1.93	8.36		1	WG1145409
o-Xylene	95-47-6	106	0.200	0.867	0.686	2.98		1	WG1145409
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.0*				WG1145409
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*95.6*				WG1145976

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	20.7	49.3		1	WG1145409
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1145409
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1145409
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1145409
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1145409
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1145409
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1145409
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1145409
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1145409
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1145409
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1145409
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1145409
Chloroform	67-66-3	119	0.200	0.973	0.311	1.52		1	WG1145409
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1145409
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1145409
Cyclohexane	110-82-7	84.20	0.200	0.689	0.208	0.716		1	WG1145409
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1145409
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1145409
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1145409
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1145409
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1145409
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1145409
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1145409
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1145409
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	2.45	9.70		1	WG1145409
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1145409
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1145409
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1145409
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1145409
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1145409
Ethanol	64-17-5	46.10	12.6	23.8	113	212		20	WG1145976
Ethylbenzene	100-41-4	106	0.200	0.867	0.220	0.955		1	WG1145409
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1145409
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.274	1.54		1	WG1145409
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.326	1.61		1	WG1145409
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1145409
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1145409
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1145409
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1145409
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1145409
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1145409
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.270	0.938		1	WG1145409
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1145409
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1145409
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1145409
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1145409
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1145409
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1145409
2-Propanol	67-63-0	60.10	1.25	3.07	11.5	28.2		1	WG1145409
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1145409
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1145409
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1145409
Tetrachloroethylene	127-18-4	166	4.00	27.2	662	4500		20	WG1145976
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.528	1.56		1	WG1145409
Toluene	108-88-3	92.10	0.200	0.753	0.548	2.07		1	WG1145409
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1145409

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1145409
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1145409
Trichloroethylene	79-01-6	131	0.200	1.07	2.74	14.7		1	WG1145409
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.226	1.11		1	WG1145409
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1145409
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1145409
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1145409
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1145409
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1145409
m&p-Xylene	1330-20-7	106	0.400	1.73	0.821	3.56		1	WG1145409
o-Xylene	95-47-6	106	0.200	0.867	0.289	1.25		1	WG1145409
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.4*				WG1145409
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*95.8*				WG1145976

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	6.18	14.7		1	WG1145409
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1145409
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1145409
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1145409
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1145409
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1145409
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1145409
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1145409
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1145409
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1145409
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1145409
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1145409
Chloroform	67-66-3	119	0.200	0.973	0.286	1.39		1	WG1145409
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1145409
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1145409
Cyclohexane	110-82-7	84.20	0.200	0.689	0.310	1.07		1	WG1145409
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1145409
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1145409
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1145409
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1145409
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1145409
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1145409
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1145409
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1145409
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	2.50	9.92		1	WG1145409
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1145409
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1145409
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1145409
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1145409
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1145409
Ethanol	64-17-5	46.10	0.630	1.19	16.8	31.7		1	WG1145409
Ethylbenzene	100-41-4	106	0.200	0.867	0.443	1.92		1	WG1145409
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1145409
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.379	2.13		1	WG1145409
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.329	1.63		1	WG1145409
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1145409
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1145409
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1145409
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1145409
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1145409
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1145409
Methylene Chloride	75-09-2	84.90	0.200	0.694	1.63	5.66		1	WG1145409
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1145409
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1145409
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1145409
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1145409
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1145409
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1145409
2-Propanol	67-63-0	60.10	1.25	3.07	10.6	26.1		1	WG1145409
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1145409
Styrene	100-42-5	104	0.200	0.851	0.366	1.55		1	WG1145409
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1145409
Tetrachloroethylene	127-18-4	166	4.00	27.2	549	3730		20	WG1145947
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.630	1.86		1	WG1145409
Toluene	108-88-3	92.10	0.200	0.753	0.568	2.14		1	WG1145409
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1145409

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1145409
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1145409
Trichloroethylene	79-01-6	131	0.200	1.07	4.46	23.9		1	WG1145409
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.294	1.44		1	WG1145409
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1145409
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1145409
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1145409
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1145409
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1145409
m&p-Xylene	1330-20-7	106	0.400	1.73	1.71	7.43		1	WG1145409
o-Xylene	95-47-6	106	0.200	0.867	0.631	2.73		1	WG1145409
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.9*				WG1145409
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*82.6*				WG1145947

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	0.0200	0.0639	0.148	0.473		1	WG1144890
Carbon tetrachloride	56-23-5	154	0.0200	0.126	0.0735	0.463		1	WG1144890
Chloroethane	75-00-3	64.50	0.0400	0.106	ND	ND		1	WG1144890
Chloroform	67-66-3	119	0.0200	0.0973	ND	ND		1	WG1144890
Chloromethane	74-87-3	50.50	0.0300	0.0620	0.437	0.903		1	WG1144890
1,2-Dibromoethane	106-93-4	188	0.0200	0.154	ND	ND		1	WG1144890
1,4-Dichlorobenzene	106-46-7	147	0.0200	0.120	ND	ND		1	WG1144890
1,1-Dichloroethane	75-34-3	98	0.0200	0.0802	ND	ND		1	WG1144890
1,2-Dichloroethane	107-06-2	99	0.0200	0.0810	0.0220	0.0892		1	WG1144890
1,1-Dichloroethene	75-35-4	96.90	0.0200	0.0793	ND	ND		1	WG1144890
cis-1,2-Dichloroethene	156-59-2	96.90	0.0200	0.0793	ND	ND		1	WG1144890
trans-1,2-Dichloroethene	156-60-5	96.90	0.0200	0.0793	ND	ND		1	WG1144890
1,2-Dichloropropane	78-87-5	113	0.0300	0.139	ND	ND		1	WG1144890
cis-1,3-Dichloropropene	10061-01-5	111	0.0200	0.0908	ND	ND		1	WG1144890
trans-1,3-Dichloropropene	10061-02-6	111	0.0300	0.136	ND	ND		1	WG1144890
Ethylbenzene	100-41-4	106	0.0300	0.130	0.249	1.08		1	WG1144890
1,1,2,2-Tetrachloroethane	79-34-5	168	0.0200	0.137	ND	ND		1	WG1144890
Tetrachloroethylene	127-18-4	166	0.0200	0.136	1.27	8.60		1	WG1144890
1,1,1-Trichloroethane	71-55-6	133	0.0200	0.109	ND	ND		1	WG1144890
1,1,2-Trichloroethane	79-00-5	133	0.0300	0.163	ND	ND		1	WG1144890
Trichloroethylene	79-01-6	131	0.0200	0.107	ND	ND		1	WG1144890
Vinyl chloride	75-01-4	62.50	0.0200	0.0511	ND	ND		1	WG1144890
Vinyl acetate	108-05-4	86.10	0.0200	0.0704	ND	ND		1	WG1144890
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*114*				WG1144890

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	0.0200	0.0639	0.147	0.469		1	WG1144890
Carbon tetrachloride	56-23-5	154	0.0200	0.126	0.0739	0.465		1	WG1144890
Chloroethane	75-00-3	64.50	0.0400	0.106	ND	ND		1	WG1144890
Chloroform	67-66-3	119	0.0200	0.0973	ND	ND		1	WG1144890
Chloromethane	74-87-3	50.50	0.0300	0.0620	0.445	0.919		1	WG1144890
1,2-Dibromoethane	106-93-4	188	0.0200	0.154	ND	ND		1	WG1144890
1,4-Dichlorobenzene	106-46-7	147	0.0200	0.120	ND	ND		1	WG1144890
1,1-Dichloroethane	75-34-3	98	0.0200	0.0802	ND	ND		1	WG1144890
1,2-Dichloroethane	107-06-2	99	0.0200	0.0810	0.0206	0.0835		1	WG1144890
1,1-Dichloroethene	75-35-4	96.90	0.0200	0.0793	ND	ND		1	WG1144890
cis-1,2-Dichloroethene	156-59-2	96.90	0.0200	0.0793	ND	ND		1	WG1144890
trans-1,2-Dichloroethene	156-60-5	96.90	0.0200	0.0793	ND	ND		1	WG1144890
1,2-Dichloropropane	78-87-5	113	0.0300	0.139	ND	ND		1	WG1144890
cis-1,3-Dichloropropene	10061-01-5	111	0.0200	0.0908	ND	ND		1	WG1144890
trans-1,3-Dichloropropene	10061-02-6	111	0.0300	0.136	ND	ND		1	WG1144890
Ethylbenzene	100-41-4	106	0.0300	0.130	0.199	0.862		1	WG1144890
1,1,2,2-Tetrachloroethane	79-34-5	168	0.0200	0.137	ND	ND		1	WG1144890
Tetrachloroethylene	127-18-4	166	0.0200	0.136	1.55	10.5		1	WG1144890
1,1,1-Trichloroethane	71-55-6	133	0.0200	0.109	ND	ND		1	WG1144890
1,1,2-Trichloroethane	79-00-5	133	0.0300	0.163	ND	ND		1	WG1144890
Trichloroethylene	79-01-6	131	0.0200	0.107	ND	ND		1	WG1144890
Vinyl chloride	75-01-4	62.50	0.0200	0.0511	ND	ND		1	WG1144890
Vinyl acetate	108-05-4	86.10	0.0200	0.0704	ND	ND		1	WG1144890
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*117*				WG1144890

Method Blank (MB)

(MB) R3329683-3 07/30/18 10:20

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.00541	0.0200
Carbon tetrachloride	U		0.00575	0.0200
Chloroethane	U		0.0159	0.0400
Chloroform	U		0.00464	0.0200
Chloromethane	U		0.00972	0.0300
1,2-Dibromoethane	U		0.0185	0.0200
1,4-Dichlorobenzene	U		0.00691	0.0200
1,1-Dichloroethane	U		0.00505	0.0200
1,2-Dichloroethane	U		0.000471	0.0200
1,1-Dichloroethene	U		0.00521	0.0200
cis-1,2-Dichloroethene	U		0.00770	0.0200
trans-1,2-Dichloroethene	U		0.00499	0.0200
1,2-Dichloropropane	U		0.00840	0.0300
cis-1,3-Dichloropropene	U		0.00556	0.0200
trans-1,3-Dichloropropene	U		0.00853	0.0300
Ethylbenzene	U		0.00904	0.0300
1,1,2,2-Tetrachloroethane	U		0.00481	0.0200
Tetrachloroethylene	U		0.00457	0.0200
1,1,1-Trichloroethane	U		0.00552	0.0200
1,1,2-Trichloroethane	U		0.0287	0.0300
Trichloroethylene	U		0.00736	0.0200
Vinyl chloride	U		0.00765	0.0200
Vinyl acetate	U		0.00430	0.0200
(S) 1,4-Bromofluorobenzene	*94.8*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3329683-1 07/30/18 08:57 • (LCSD) R3329683-2 07/30/18 09:39

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.500	0.480	0.483	96.1	96.6	70.0-130			0.489	25
Carbon tetrachloride	0.500	0.518	0.535	104	107	70.0-130			3.32	25
Chloroethane	0.500	0.501	0.522	100	104	70.0-130			4.17	25
Chloroform	0.500	0.477	0.491	95.4	98.3	70.0-130			2.99	25
Chloromethane	0.500	0.410	0.430	82.1	86.0	70.0-130			4.64	25
1,2-Dibromoethane	0.500	0.485	0.486	96.9	97.3	70.0-130			0.380	25
1,4-Dichlorobenzene	0.500	0.598	0.604	120	121	70.0-130			0.985	25
1,1-Dichloroethane	0.500	0.446	0.461	89.3	92.2	70.0-130			3.19	25
1,2-Dichloroethane	0.500	0.491	0.471	98.2	94.2	70.0-130			4.19	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3329683-1 07/30/18 08:57 • (LCSD) R3329683-2 07/30/18 09:39

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1-Dichloroethene	0.500	0.454	0.473	90.9	94.6	70.0-130			4.08	25
cis-1,2-Dichloroethene	0.500	0.480	0.498	96.1	99.7	70.0-130			3.69	25
trans-1,2-Dichloroethene	0.500	0.444	0.460	88.8	92.0	70.0-130			3.54	25
1,2-Dichloropropane	0.500	0.430	0.431	86.0	86.3	70.0-130			0.294	25
cis-1,3-Dichloropropene	0.500	0.451	0.451	90.2	90.2	70.0-130			0.0128	25
trans-1,3-Dichloropropene	0.500	0.458	0.456	91.7	91.1	70.0-130			0.606	25
Ethylbenzene	0.500	0.485	0.491	97.1	98.2	70.0-130			1.12	25
1,1,2,2-Tetrachloroethane	0.500	0.471	0.476	94.2	95.2	70.0-130			1.14	25
Tetrachloroethylene	0.500	0.524	0.524	105	105	70.0-130			0.108	25
1,1,1-Trichloroethane	0.500	0.494	0.512	98.7	102	70.0-130			3.67	25
1,1,2-Trichloroethane	0.500	0.475	0.477	95.0	95.4	70.0-130			0.362	25
Trichloroethylene	0.500	0.486	0.484	97.2	96.8	70.0-130			0.395	25
Vinyl chloride	0.500	0.463	0.485	92.7	97.1	70.0-130			4.66	25
Vinyl acetate	0.500	0.434	0.428	86.8	85.6	70.0-130			1.45	25
(S) 1,4-Bromofluorobenzene				*96.1*	*95.1*	*60.0-140*				

Method Blank (MB)

(MB) R3330037-3 07/31/18 11:42

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.0569	1.25
Allyl Chloride	U		0.0546	0.200
Benzene	U		0.0460	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0436	0.200
Bromoform	U		0.0786	0.600
Bromomethane	U		0.0609	0.200
1,3-Butadiene	U		0.0563	2.00
Carbon disulfide	U		0.0544	0.200
Carbon tetrachloride	U		0.0585	0.200
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.200
Chloroform	U		0.0574	0.200
Chloromethane	U		0.0544	0.200
2-Chlorotoluene	U		0.0605	0.200
Cyclohexane	U		0.0534	0.200
Dibromochloromethane	U		0.0494	0.200
1,2-Dibromoethane	U		0.0185	0.200
1,2-Dichlorobenzene	U		0.0603	0.200
1,3-Dichlorobenzene	U		0.0597	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0616	0.200
1,1-Dichloroethane	U		0.0514	0.200
1,1-Dichloroethene	U		0.0490	0.200
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.200
trans-1,3-Dichloropropene	U		0.0435	0.200
1,4-Dioxane	U		0.0554	0.200
Ethylbenzene	U		0.0506	0.200
4-Ethyltoluene	U		0.0666	0.200
Trichlorofluoromethane	U		0.0673	0.200
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200
Heptane	U		0.0626	0.200
Hexachloro-1,3-butadiene	U		0.0656	0.630
n-Hexane	U		0.0457	0.200
Isopropylbenzene	U		0.0563	0.200

Method Blank (MB)

(MB) R3330037-3 07/31/18 11:42

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Methylene Chloride	U		0.0465	0.200
Methyl Butyl Ketone	U		0.0682	1.25
2-Butanone (MEK)	U		0.0493	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
Methyl Methacrylate	U		0.0773	0.200
MTBE	U		0.0505	0.200
Naphthalene	U		0.154	0.630
2-Propanol	U		0.0882	1.25
Propene	U		0.0932	0.400
Styrene	U		0.0465	0.200
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
Tetrahydrofuran	U		0.0508	0.200
Toluene	U		0.0499	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0665	0.200
1,1,2-Trichloroethane	U		0.0287	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
2,2,4-Trimethylpentane	U		0.0456	0.200
Vinyl chloride	U		0.0457	0.200
Vinyl Bromide	U		0.0727	0.200
Vinyl acetate	U		0.0639	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
Ethanol	U		0.0832	0.630
(S) 1,4-Bromofluorobenzene	*90.3*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3330037-1 07/31/18 10:12 • (LCSD) R3330037-2 07/31/18 10:57

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	3.73	3.97	99.4	106	52.0-158			6.35	25
Propene	3.75	4.09	4.15	109	111	54.0-155			1.28	25
Dichlorodifluoromethane	3.75	3.90	4.11	104	110	69.0-143			5.33	25
1,2-Dichlorotetrafluoroethane	3.75	3.84	4.20	102	112	70.0-130			9.11	25
Chloromethane	3.75	3.95	3.87	105	103	70.0-130			2.10	25
Vinyl chloride	3.75	3.94	3.73	105	99.6	70.0-130			5.24	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3330037-1 07/31/18 10:12 • (LCSD) R3330037-2 07/31/18 10:57

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,3-Butadiene	3.75	3.86	3.71	103	99.0	70.0-130			3.86	25
Bromomethane	3.75	3.90	3.88	104	103	70.0-130			0.558	25
Chloroethane	3.75	3.93	3.88	105	103	70.0-130			1.23	25
Trichlorofluoromethane	3.75	3.93	3.89	105	104	70.0-130			0.864	25
1,1,2-Trichlorotrifluoroethane	3.75	3.89	3.93	104	105	70.0-130			1.13	25
1,1-Dichloroethene	3.75	4.00	3.92	107	105	70.0-130			1.90	25
1,1-Dichloroethane	3.75	4.01	3.95	107	105	70.0-130			1.52	25
Acetone	3.75	4.21	4.12	112	110	70.0-130			2.25	25
2-Propanol	3.75	4.17	4.11	111	110	66.0-150			1.33	25
Carbon disulfide	3.75	3.83	3.83	102	102	70.0-130			0.0132	25
Methylene Chloride	3.75	3.92	3.90	105	104	70.0-130			0.656	25
MTBE	3.75	3.93	3.96	105	106	70.0-130			0.837	25
trans-1,2-Dichloroethene	3.75	4.03	3.98	107	106	70.0-130			1.14	25
n-Hexane	3.75	3.93	3.94	105	105	70.0-130			0.351	25
Vinyl acetate	3.75	4.31	4.21	115	112	70.0-130			2.24	25
Methyl Ethyl Ketone	3.75	4.27	4.28	114	114	70.0-130			0.240	25
cis-1,2-Dichloroethene	3.75	4.02	4.00	107	107	70.0-130			0.677	25
Chloroform	3.75	3.95	3.96	105	106	70.0-130			0.208	25
Cyclohexane	3.75	3.95	4.01	105	107	70.0-130			1.71	25
1,1,1-Trichloroethane	3.75	3.96	4.01	106	107	70.0-130			1.45	25
Carbon tetrachloride	3.75	3.93	3.94	105	105	70.0-130			0.0738	25
Benzene	3.75	3.94	3.92	105	105	70.0-130			0.458	25
1,2-Dichloroethane	3.75	4.11	4.09	110	109	70.0-130			0.556	25
Heptane	3.75	4.11	4.07	110	109	70.0-130			1.04	25
Trichloroethylene	3.75	3.83	3.88	102	104	70.0-130			1.24	25
1,2-Dichloropropane	3.75	3.96	3.94	106	105	70.0-130			0.551	25
1,4-Dioxane	3.75	3.88	3.90	103	104	70.0-152			0.617	25
Bromodichloromethane	3.75	4.00	4.02	107	107	70.0-130			0.419	25
cis-1,3-Dichloropropene	3.75	4.05	4.04	108	108	70.0-130			0.249	25
4-Methyl-2-pentanone (MIBK)	3.75	4.17	4.04	111	108	70.0-142			3.19	25
Toluene	3.75	3.99	4.03	106	107	70.0-130			0.949	25
trans-1,3-Dichloropropene	3.75	4.14	4.16	110	111	70.0-130			0.510	25
1,1,2-Trichloroethane	3.75	4.00	3.97	107	106	70.0-130			0.705	25
Methyl Butyl Ketone	3.75	4.43	4.29	118	114	70.0-150			3.30	25
Dibromochloromethane	3.75	4.10	4.08	109	109	70.0-130			0.468	25
1,2-Dibromoethane	3.75	4.12	4.08	110	109	70.0-130			0.807	25
Chlorobenzene	3.75	3.86	3.93	103	105	70.0-130			1.82	25
Ethylbenzene	3.75	4.06	4.07	108	109	70.0-130			0.175	25
m&p-Xylene	7.50	8.17	8.11	109	108	70.0-130			0.716	25
o-Xylene	3.75	4.08	4.09	109	109	70.0-130			0.233	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3330037-1 07/31/18 10:12 • (LCSD) R3330037-2 07/31/18 10:57

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Styrene	3.75	4.22	4.26	112	114	70.0-130			1.06	25
Bromoform	3.75	4.17	4.16	111	111	70.0-130			0.394	25
1,1,2,2-Tetrachloroethane	3.75	4.09	4.00	109	107	70.0-130			2.32	25
4-Ethyltoluene	3.75	4.11	4.15	110	111	70.0-130			1.02	25
1,3,5-Trimethylbenzene	3.75	4.16	4.20	111	112	70.0-130			0.892	25
1,2,4-Trimethylbenzene	3.75	4.29	4.26	114	114	70.0-130			0.719	25
1,3-Dichlorobenzene	3.75	4.36	4.40	116	117	70.0-130			0.736	25
1,4-Dichlorobenzene	3.75	4.62	4.74	123	126	70.0-130			2.56	25
Benzyl Chloride	3.75	4.66	4.70	124	125	70.0-144			0.726	25
1,2-Dichlorobenzene	3.75	4.04	4.19	108	112	70.0-130			3.61	25
1,2,4-Trichlorobenzene	3.75	4.31	4.46	115	119	70.0-155			3.48	25
Hexachloro-1,3-butadiene	3.75	3.92	4.12	104	110	70.0-145			5.08	25
Naphthalene	3.75	4.55	4.76	121	127	70.0-155			4.47	25
Allyl Chloride	3.75	4.08	4.01	109	107	70.0-130			1.64	25
2-Chlorotoluene	3.75	4.04	4.08	108	109	70.0-130			0.961	25
Methyl Methacrylate	3.75	4.20	4.20	112	112	70.0-130			0.0155	25
Tetrahydrofuran	3.75	4.03	4.01	108	107	70.0-140			0.555	25
2,2,4-Trimethylpentane	3.75	3.97	3.97	106	106	70.0-130			0.132	25
Vinyl Bromide	3.75	3.91	3.91	104	104	70.0-130			0.0247	25
Isopropylbenzene	3.75	4.08	4.00	109	107	70.0-130			2.00	25
(S) 1,4-Bromofluorobenzene				*102*	*100*	*60.0-140*				

Method Blank (MB)

(MB) R3330287-2 08/01/18 09:26

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Tetrachloroethylene	U		0.0497	0.200
(S) 1,4-Bromofluorobenzene	*81.5*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3330287-1 08/01/18 08:35 • (LCSD) R3330287-3 08/01/18 10:16

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Tetrachloroethylene	3.75	4.34	4.36	116	116	70.0-130			0.320	25
(S) 1,4-Bromofluorobenzene				*91.7*	*92.2*	*60.0-140*				

Method Blank (MB)

(MB) R3330288-3 08/01/18 09:26

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Tetrachloroethylene	U		0.0497	0.200
Ethanol	U		0.0832	0.630
(S) 1,4-Bromofluorobenzene	*91.4*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3330288-1 08/01/18 07:58 • (LCSD) R3330288-2 08/01/18 08:42

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.06	3.98	108	106	52.0-158			2.03	25
Tetrachloroethylene	3.75	4.22	4.25	112	113	70.0-130			0.831	25
(S) 1,4-Bromofluorobenzene				*98.5*	*98.9*	*60.0-140*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

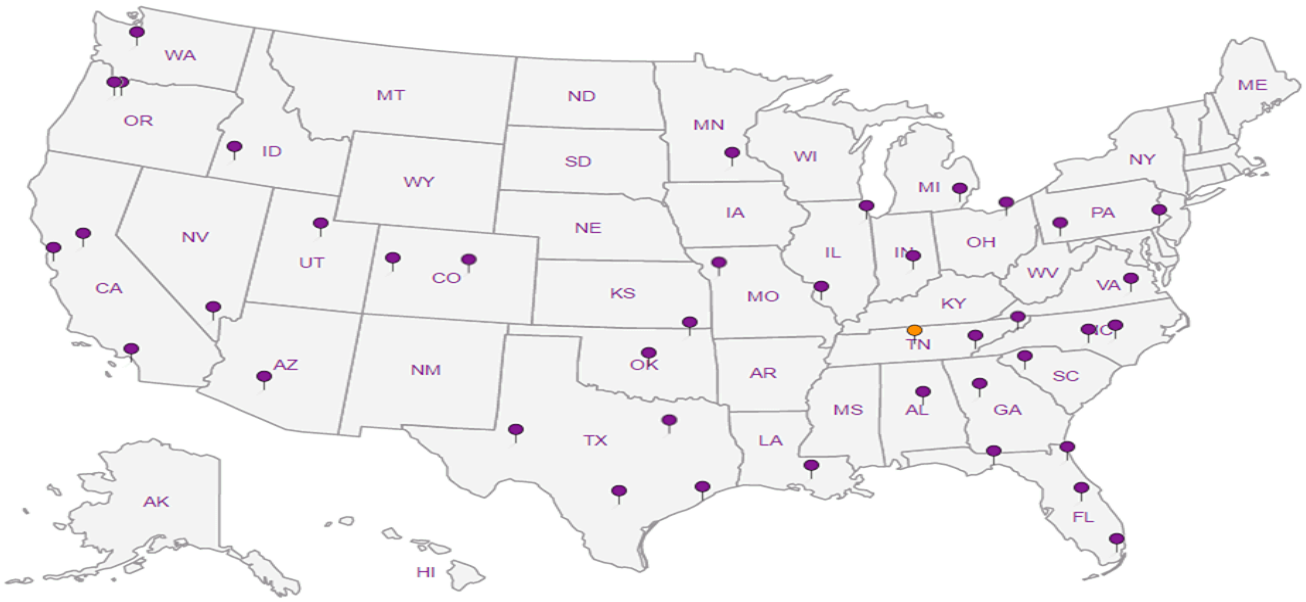
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



APEX Companies - Portland, OR

3015 SW First Avenue
Portland, OR 97201-4707

Billing Information:
Accounts Payable
3015 SW First Ave.
Portland, OR 97201-4707

Pres Chk

Report to: John Foxwell / CERRUTI / XU / EVANS
Email To: jfoxwell@apexcos.com; anthony.cerruti@apexcos.com

Project Description: ~~Overlake Plaza~~ DIRK'S INGLEWOOD PLAZA
City/State Collected: SAMMAMISH, WA

Phone: 503-924-4704
Fax: 503-943-6357

Client Project # ~~REGEN-222~~ REGEN-220
Lab Project # ASHCREPOR-REGEN222

Collected by (print): A. CERRUTI
Site/Facility ID #
P.O. #

Collected by (signature):
Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1012900
Table # M078
Acctnum: ASHCREPOR
Template: T138575
Prelogin: P663443
TSR: 110 - Brian Ford
PB: BF 7/18/18
Shipped Via: FedEX Saver

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Helium Summa	TO-15 Summa	TO-15 SIM SUMMA.	Remarks	Sample # (lab only)
SV-1		Air		7/26/18	1538	1		✓			-01
SV-2		Air			1552	1		✓			-02
SV-3		Air			1549	1		✓			-03
SV-4		Air			1555	1		✓			-04
SV-5		Air			1602	1		✓			-05
AA-5		AIR			0900	1			✓		-06
AA-6		AIR			0902	1			✓		-07

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
__ UPS __ FedEx __ Courier __ ___

Tracking # 451016518279 8121

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: Amb °C Bottles Received: 7

Date: 7/27/18 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

September 17, 2018

APEX Companies - Portland, OR

Sample Delivery Group:	L1025638
Samples Received:	09/13/2018
Project Number:	REGEN-220
Description:	Dirks Cleaners

Report To: Jie Xu
600 Steward Street
Suite 400
Seattle, WA 98101

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

MW-1A L1025638-01 GW

Collected by: Jake Munsey | Collected date/time: 09/11/18 11:10 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1166389	1	09/14/18 19:48	09/14/18 19:48	BMB

MW-1B L1025638-02 GW

Collected by: Jake Munsey | Collected date/time: 09/11/18 10:54 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1166389	1	09/14/18 20:08	09/14/18 20:08	BMB

MW-2R L1025638-03 GW

Collected by: Jake Munsey | Collected date/time: 09/11/18 14:00 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1166389	1	09/14/18 20:28	09/14/18 20:28	BMB

MW-4R L1025638-04 GW

Collected by: Jake Munsey | Collected date/time: 09/11/18 13:37 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1166389	1	09/14/18 20:48	09/14/18 20:48	BMB

MW-5 L1025638-05 GW

Collected by: Jake Munsey | Collected date/time: 09/11/18 11:46 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1166389	1	09/14/18 21:07	09/14/18 21:07	BMB

MW-6 L1025638-06 GW

Collected by: Jake Munsey | Collected date/time: 09/11/18 12:18 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1166389	2	09/14/18 21:28	09/14/18 21:28	BMB

MW-7 L1025638-07 GW

Collected by: Jake Munsey | Collected date/time: 09/11/18 13:08 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1166389	1	09/14/18 21:48	09/14/18 21:48	BMB

MW-1A DUP L1025638-08 GW

Collected by: Jake Munsey | Collected date/time: 09/11/18 11:10 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1166389	1	09/14/18 22:08	09/14/18 22:08	BMB

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1-Dichloroethene	U		0.188	0.500	1	09/14/2018 19:48	WG1166389
cis-1,2-Dichloroethene	1.01		0.0933	0.500	1	09/14/2018 19:48	WG1166389
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/14/2018 19:48	WG1166389
Tetrachloroethene	1.52		0.199	0.500	1	09/14/2018 19:48	WG1166389
Trichloroethene	0.274	J	0.153	0.500	1	09/14/2018 19:48	WG1166389
Vinyl chloride	U		0.118	0.500	1	09/14/2018 19:48	WG1166389
(S) Toluene-d8	*104*			*80.0-120*		*09/14/2018 19:48*	WG1166389
(S) Dibromofluoromethane	*103*			*75.0-120*		*09/14/2018 19:48*	WG1166389
(S) 4-Bromofluorobenzene	*86.5*			*77.0-126*		*09/14/2018 19:48*	WG1166389

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1-Dichloroethene	U		0.188	0.500	1	09/14/2018 20:08	WG1166389
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/14/2018 20:08	WG1166389
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/14/2018 20:08	WG1166389
Tetrachloroethene	0.999		0.199	0.500	1	09/14/2018 20:08	WG1166389
Trichloroethene	U		0.153	0.500	1	09/14/2018 20:08	WG1166389
Vinyl chloride	U		0.118	0.500	1	09/14/2018 20:08	WG1166389
(S) Toluene-d8	*101*			*80.0-120*		*09/14/2018 20:08*	WG1166389
(S) Dibromofluoromethane	*103*			*75.0-120*		*09/14/2018 20:08*	WG1166389
(S) 4-Bromofluorobenzene	*86.5*			*77.0-126*		*09/14/2018 20:08*	WG1166389

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1-Dichloroethene	U		0.188	0.500	1	09/14/2018 20:28	WG1166389
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/14/2018 20:28	WG1166389
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/14/2018 20:28	WG1166389
Tetrachloroethene	0.688		0.199	0.500	1	09/14/2018 20:28	WG1166389
Trichloroethene	U		0.153	0.500	1	09/14/2018 20:28	WG1166389
Vinyl chloride	U		0.118	0.500	1	09/14/2018 20:28	WG1166389
(S) Toluene-d8	*105*			*80.0-120*		*09/14/2018 20:28*	WG1166389
(S) Dibromofluoromethane	*100*			*75.0-120*		*09/14/2018 20:28*	WG1166389
(S) 4-Bromofluorobenzene	*83.8*			*77.0-126*		*09/14/2018 20:28*	WG1166389

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1-Dichloroethene	U		0.188	0.500	1	09/14/2018 20:48	WG1166389
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/14/2018 20:48	WG1166389
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/14/2018 20:48	WG1166389
Tetrachloroethene	U		0.199	0.500	1	09/14/2018 20:48	WG1166389
Trichloroethene	U		0.153	0.500	1	09/14/2018 20:48	WG1166389
Vinyl chloride	U		0.118	0.500	1	09/14/2018 20:48	WG1166389
(S) Toluene-d8	*103*			*80.0-120*		*09/14/2018 20:48*	WG1166389
(S) Dibromofluoromethane	*105*			*75.0-120*		*09/14/2018 20:48*	WG1166389
(S) 4-Bromofluorobenzene	*88.6*			*77.0-126*		*09/14/2018 20:48*	WG1166389

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1-Dichloroethene	U		0.188	0.500	1	09/14/2018 21:07	WG1166389
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/14/2018 21:07	WG1166389
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/14/2018 21:07	WG1166389
Tetrachloroethene	0.345	J	0.199	0.500	1	09/14/2018 21:07	WG1166389
Trichloroethene	U		0.153	0.500	1	09/14/2018 21:07	WG1166389
Vinyl chloride	U		0.118	0.500	1	09/14/2018 21:07	WG1166389
(S) Toluene-d8	*108*			*80.0-120*		*09/14/2018 21:07*	WG1166389
(S) Dibromofluoromethane	*104*			*75.0-120*		*09/14/2018 21:07*	WG1166389
(S) 4-Bromofluorobenzene	*88.1*			*77.0-126*		*09/14/2018 21:07*	WG1166389

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1-Dichloroethene	U		0.376	1.00	2	09/14/2018 21:28	WG1166389
cis-1,2-Dichloroethene	U		0.187	1.00	2	09/14/2018 21:28	WG1166389
trans-1,2-Dichloroethene	U		0.304	1.00	2	09/14/2018 21:28	WG1166389
Tetrachloroethene	0.675	J	0.398	1.00	2	09/14/2018 21:28	WG1166389
Trichloroethene	U		0.306	1.00	2	09/14/2018 21:28	WG1166389
Vinyl chloride	U		0.236	1.00	2	09/14/2018 21:28	WG1166389
(S) Toluene-d8	*104*			*80.0-120*		*09/14/2018 21:28*	WG1166389
(S) Dibromofluoromethane	*100*			*75.0-120*		*09/14/2018 21:28*	WG1166389
(S) 4-Bromofluorobenzene	*88.5*			*77.0-126*		*09/14/2018 21:28*	WG1166389

Sample Narrative:

L1025638-06 WG1166389: Elevated RL due to sediment in sample vial.

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1-Dichloroethene	U		0.188	0.500	1	09/14/2018 21:48	WG1166389
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/14/2018 21:48	WG1166389
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/14/2018 21:48	WG1166389
Tetrachloroethene	5.16		0.199	0.500	1	09/14/2018 21:48	WG1166389
Trichloroethene	U		0.153	0.500	1	09/14/2018 21:48	WG1166389
Vinyl chloride	U		0.118	0.500	1	09/14/2018 21:48	WG1166389
(S) Toluene-d8	*99.9*			*80.0-120*		*09/14/2018 21:48*	WG1166389
(S) Dibromofluoromethane	*106*			*75.0-120*		*09/14/2018 21:48*	WG1166389
(S) 4-Bromofluorobenzene	*86.9*			*77.0-126*		*09/14/2018 21:48*	WG1166389

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1-Dichloroethene	U		0.188	0.500	1	09/14/2018 22:08	WG1166389
cis-1,2-Dichloroethene	0.930		0.0933	0.500	1	09/14/2018 22:08	WG1166389
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/14/2018 22:08	WG1166389
Tetrachloroethene	1.95		0.199	0.500	1	09/14/2018 22:08	WG1166389
Trichloroethene	0.246	J	0.153	0.500	1	09/14/2018 22:08	WG1166389
Vinyl chloride	U		0.118	0.500	1	09/14/2018 22:08	WG1166389
(S) Toluene-d8	*106*			*80.0-120*		*09/14/2018 22:08*	WG1166389
(S) Dibromofluoromethane	*105*			*75.0-120*		*09/14/2018 22:08*	WG1166389
(S) 4-Bromofluorobenzene	*85.9*			*77.0-126*		*09/14/2018 22:08*	WG1166389

Method Blank (MB)

(MB) R3342279-2 09/14/18 13:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
Tetrachloroethene	U		0.199	0.500
Trichloroethene	U		0.153	0.500
Vinyl chloride	U		0.118	0.500
(S) Toluene-d8	*100*			*80.0-120*
(S) Dibromofluoromethane	*102*			*75.0-120*
(S) 4-Bromofluorobenzene	*90.6*			*77.0-126*

Laboratory Control Sample (LCS)

(LCS) R3342279-1 09/14/18 12:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,1-Dichloroethene	25.0	20.8	83.3	71.0-124	
cis-1,2-Dichloroethene	25.0	21.9	87.6	73.0-120	
trans-1,2-Dichloroethene	25.0	23.1	92.4	73.0-120	
Tetrachloroethene	25.0	25.9	104	72.0-132	
Trichloroethene	25.0	23.8	95.3	78.0-124	
Vinyl chloride	25.0	22.6	90.5	67.0-131	
(S) Toluene-d8			*103*	*80.0-120*	
(S) Dibromofluoromethane			*101*	*75.0-120*	
(S) 4-Bromofluorobenzene			*93.0*	*77.0-126*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

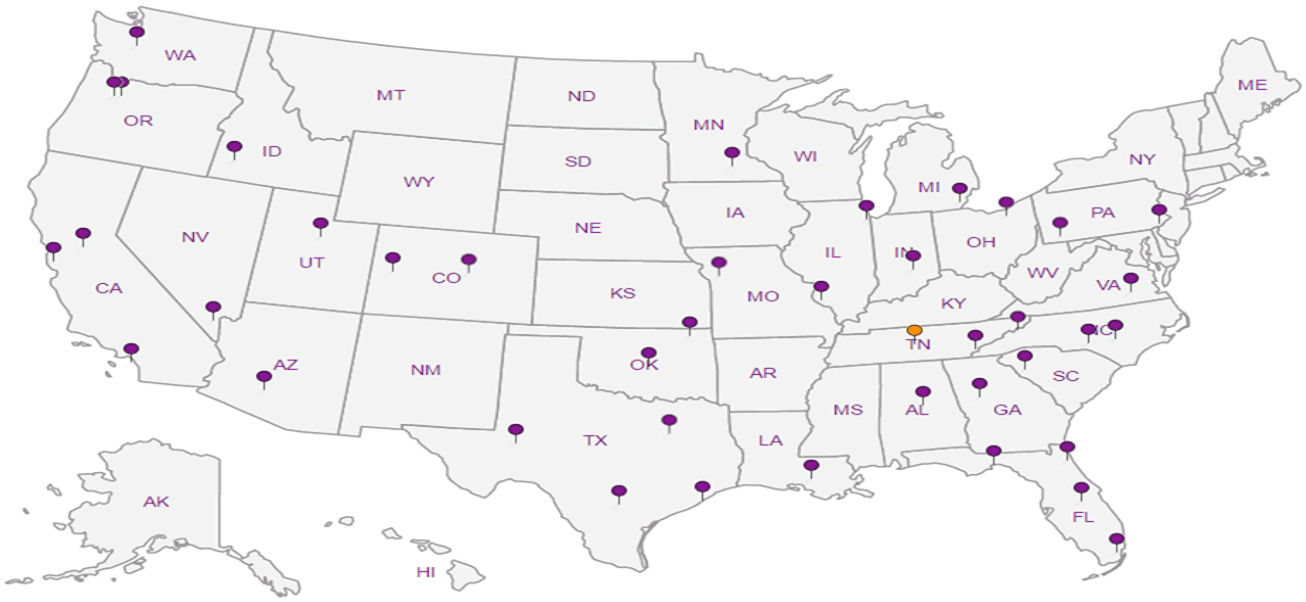
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



APEX Companies - Portland, OR

Two Union Square
Suite 4200
Seattle, WA 98101

Billing Information:
Accounts Payable- Cindi Joy Staller
3015 SW First Avenue
Portland, OR 97201-4707

Pres Chk

Report to: Jie Xu

Email To: jie.xu@apexcos.com; jfoxwell@apexcos.com;

Project Description: Dirks Cleaners

City/State Collected: Sammamish WA

Phone: 503-924-4704
Fax: 503-943-6357

Client Project # REGEN-220

Lab Project # ASHCREPOR-PECO

Collected by (print): Jake Munsey

Site/Facility ID #

P.O. #

Collected by (signature): Jake Munsey

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
MW-1A	GRAB	GW	-	9/11/18	1110	3
MW-1B	GRAB	GW	-	9/11/18	1054	
MW-2R	GRAB	GW	-	9/11/18	1400	
MW-4R	GRAB	GW	-	9/11/18	1337	
MW-5	GRAB	GW	-	9/11/18	1146	
MW-6	GRAB	GW	-	9/11/18	1218	
MW-7	GRAB	GW	-	9/11/18	1308	
MW-1A DUP.	GRAB	GW	-	9/11/18	1110	

Analysis / Container / Preservative

- CN cyanide 250mlHDPEAmb-NaOH
- TPH oil&grease 1L-Clr-Add HCl
- Total Metals** 250mlHDPE-HNO3
- V8260 VOCs* 40mlAmb-HCl
- PCE, TCE, (cis-1,2-DCE)
- (trans-1,2 DCE) (1,1-DCE)
- Vinyl chloride
- * All by EPA 8260B

Chain of Custody Page ___ of ___

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1625638

E104

Acctnum: ASHCREPOR
Template: T136114
Prelogin: P664292
TSR: 110 - Brian Ford
PB:
Shipped Via:

Remarks	Sample # (lab only)
	-01
	02
	03
	04
	05
	06
	07
	08

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *VOC 8260 compound list=PCE,TCE,11-DCE,cis-12-DCE,trans-12-DCE,VC.
**total metals=Ag,As,Cd,Cr,Cu,Hg,Ni,Pb,Zn
RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4361 6936 1523

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Jake Munsey	9/11/18	1620	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			8CI

Trip Blank Received: Yes / (No)
HCL / MeoH
TBR

Temp: 6.9 °C Bottles Received: 24

Date: 9/13/18 Time: 8145

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

January 04, 2019

APEX Companies - Portland, OR

Sample Delivery Group:	L1044876
Samples Received:	11/16/2018
Project Number:	REGEN-220
Description:	Inglewood Dry Cleaners
Site:	INGLEWOOD DRY CLEANERS
Report To:	Jie Xu 600 Stewart Street Suite 400 Seattle, WA 98101

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

SW-S5-4' L1044876-01 Solid

			Collected by	Collected date/time	Received date/time
			Jessica G.	11/15/18 14:40	11/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1197857	1	11/16/18 12:46	11/16/18 12:55	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1197990	1	11/15/18 14:40	11/16/18 19:31	DWR

SW-N3-4' L1044876-02 Solid

			Collected by	Collected date/time	Received date/time
			Jessica G.	11/15/18 11:37	11/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1197857	1	11/16/18 12:46	11/16/18 12:55	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1197990	1	11/15/18 11:37	11/16/18 19:50	DWR

SW-E2-6' L1044876-03 Solid

			Collected by	Collected date/time	Received date/time
			Jessica G.	11/15/18 14:50	11/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1197857	1	11/16/18 12:46	11/16/18 12:55	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1197990	1	11/15/18 14:50	11/16/18 20:10	DWR

B3-6' L1044876-04 Solid

			Collected by	Collected date/time	Received date/time
			Jessica G.	11/15/18 10:46	11/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1197857	1	11/16/18 12:46	11/16/18 12:55	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1197990	1	11/15/18 10:46	11/16/18 20:29	DWR

SW-S3-6' L1044876-05 Solid

			Collected by	Collected date/time	Received date/time
			Jessica G.	11/15/18 10:15	11/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1197857	1	11/16/18 12:46	11/16/18 12:55	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1197990	1.08	11/15/18 10:15	11/16/18 20:48	DWR

SW-E1-4' L1044876-06 Solid

			Collected by	Collected date/time	Received date/time
			Jessica G.	11/15/18 14:45	11/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1197857	1	11/16/18 12:46	11/16/18 12:55	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1197990	1	11/15/18 14:45	11/16/18 21:08	DWR

SW-S4-4' L1044876-07 Solid

			Collected by	Collected date/time	Received date/time
			Jessica G.	11/15/18 11:40	11/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1197857	1	11/16/18 12:46	11/16/18 12:55	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1197990	1	11/15/18 11:40	11/16/18 21:28	DWR

B2-7' L1044876-08 Solid

Collected by: Jessica G.
Collected date/time: 11/15/18 10:10
Received date/time: 11/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1197857	1	11/16/18 12:46	11/16/18 12:55	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1197990	1.03	11/15/18 10:10	11/16/18 21:48	DWR

SW-N1-4' L1044876-09 Solid

Collected by: Jessica G.
Collected date/time: 11/15/18 09:40
Received date/time: 11/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1197857	1	11/16/18 12:46	11/16/18 12:55	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1197990	1.02	11/15/18 09:40	11/16/18 22:08	DWR

BNW-6-7' L1044876-10 Solid

Collected by: Jessica G.
Collected date/time: 11/15/18 09:10
Received date/time: 11/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1197857	1	11/16/18 12:46	11/16/18 12:55	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1197990	1	11/15/18 09:10	11/16/18 22:28	DWR

SW-S2-6' L1044876-11 Solid

Collected by: Jessica G.
Collected date/time: 11/15/18 09:50
Received date/time: 11/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1197860	1	11/16/18 12:35	11/16/18 12:43	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1197990	1	11/15/18 09:50	11/16/18 22:47	DWR

SW-SE-4' L1044876-12 Solid

Collected by: Jessica G.
Collected date/time: 11/15/18 14:55
Received date/time: 11/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1197860	1	11/16/18 12:35	11/16/18 12:43	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1197990	1.67	11/15/18 14:55	11/16/18 23:07	DWR

SW-N2-6' L1044876-13 Solid

Collected by: Jessica G.
Collected date/time: 11/15/18 09:45
Received date/time: 11/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1197860	1	11/16/18 12:35	11/16/18 12:43	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1197990	1	11/15/18 09:45	11/16/18 23:27	DWR

SW-S1-4' L1044876-14 Solid

Collected by: Jessica G.
Collected date/time: 11/15/18 09:25
Received date/time: 11/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1197860	1	11/16/18 12:35	11/16/18 12:43	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1197990	1	11/15/18 09:25	11/16/18 23:46	DWR

SW-W-4' L1044876-15 Solid

Collected by	Collected date/time	Received date/time
Jessica G.	11/15/18 09:32	11/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1197860	1	11/16/18 12:35	11/16/18 12:43	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1197990	1	11/15/18 09:32	11/17/18 00:06	DWR

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.2		1	11/16/2018 12:55	WG1197857

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000548	0.00274	1	11/16/2018 19:31	WG1197990
cis-1,2-Dichloroethene	0.00125	J	0.000757	0.00274	1	11/16/2018 19:31	WG1197990
trans-1,2-Dichloroethene	U		0.00157	0.00548	1	11/16/2018 19:31	WG1197990
Tetrachloroethene	0.111		0.000768	0.00274	1	11/16/2018 19:31	WG1197990
Trichloroethene	0.00736		0.000439	0.00110	1	11/16/2018 19:31	WG1197990
Vinyl chloride	U		0.000749	0.00274	1	11/16/2018 19:31	WG1197990
(S) Toluene-d8	*115*			*75.0-131*		*11/16/2018 19:31*	WG1197990
(S) Dibromofluoromethane	*83.3*			*65.0-129*		*11/16/2018 19:31*	WG1197990
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*11/16/2018 19:31*	WG1197990

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.0		1	11/16/2018 12:55	WG1197857

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000550	0.00275	1	11/16/2018 19:50	WG1197990
cis-1,2-Dichloroethene	U		0.000758	0.00275	1	11/16/2018 19:50	WG1197990
trans-1,2-Dichloroethene	U		0.00157	0.00550	1	11/16/2018 19:50	WG1197990
Tetrachloroethene	0.183		0.000769	0.00275	1	11/16/2018 19:50	WG1197990
Trichloroethene	0.00508		0.000440	0.00110	1	11/16/2018 19:50	WG1197990
Vinyl chloride	U		0.000751	0.00275	1	11/16/2018 19:50	WG1197990
(S) Toluene-d8	*116*			*75.0-131*		*11/16/2018 19:50*	WG1197990
(S) Dibromofluoromethane	*84.4*			*65.0-129*		*11/16/2018 19:50*	WG1197990
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*11/16/2018 19:50*	WG1197990

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	11/16/2018 12:55	WG1197857

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000553	0.00276	1	11/16/2018 20:10	WG1197990
cis-1,2-Dichloroethene	0.0259		0.000763	0.00276	1	11/16/2018 20:10	WG1197990
trans-1,2-Dichloroethene	U		0.00158	0.00553	1	11/16/2018 20:10	WG1197990
Tetrachloroethene	0.0362		0.000774	0.00276	1	11/16/2018 20:10	WG1197990
Trichloroethene	0.00617		0.000442	0.00111	1	11/16/2018 20:10	WG1197990
Vinyl chloride	U		0.000755	0.00276	1	11/16/2018 20:10	WG1197990
(S) Toluene-d8	*118*			*75.0-131*		*11/16/2018 20:10*	WG1197990
(S) Dibromofluoromethane	*84.6*			*65.0-129*		*11/16/2018 20:10*	WG1197990
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*11/16/2018 20:10*	WG1197990

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	11/16/2018 12:55	WG1197857

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000561	0.00280	1	11/16/2018 20:29	WG1197990
cis-1,2-Dichloroethene	0.0902		0.000774	0.00280	1	11/16/2018 20:29	WG1197990
trans-1,2-Dichloroethene	0.0100		0.00160	0.00561	1	11/16/2018 20:29	WG1197990
Tetrachloroethene	0.182		0.000785	0.00280	1	11/16/2018 20:29	WG1197990
Trichloroethene	0.0175		0.000449	0.00112	1	11/16/2018 20:29	WG1197990
Vinyl chloride	U		0.000766	0.00280	1	11/16/2018 20:29	WG1197990
(S) Toluene-d8	*115*			*75.0-131*		*11/16/2018 20:29*	WG1197990
(S) Dibromofluoromethane	*84.1*			*65.0-129*		*11/16/2018 20:29*	WG1197990
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*11/16/2018 20:29*	WG1197990

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.0		1	11/16/2018 12:55	WG1197857

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000600	0.00300	1.08	11/16/2018 20:48	WG1197990
cis-1,2-Dichloroethene	0.00331		0.000828	0.00300	1.08	11/16/2018 20:48	WG1197990
trans-1,2-Dichloroethene	U		0.00171	0.00600	1.08	11/16/2018 20:48	WG1197990
Tetrachloroethene	0.268		0.000840	0.00300	1.08	11/16/2018 20:48	WG1197990
Trichloroethene	0.00678		0.000480	0.00120	1.08	11/16/2018 20:48	WG1197990
Vinyl chloride	U		0.000820	0.00300	1.08	11/16/2018 20:48	WG1197990
(S) Toluene-d8	*117*			*75.0-131*		*11/16/2018 20:48*	WG1197990
(S) Dibromofluoromethane	*82.7*			*65.0-129*		*11/16/2018 20:48*	WG1197990
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*11/16/2018 20:48*	WG1197990

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.3		1	11/16/2018 12:55	WG1197857

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000547	0.00274	1	11/16/2018 21:08	WG1197990
cis-1,2-Dichloroethene	U		0.000755	0.00274	1	11/16/2018 21:08	WG1197990
trans-1,2-Dichloroethene	U		0.00157	0.00547	1	11/16/2018 21:08	WG1197990
Tetrachloroethene	0.0489		0.000766	0.00274	1	11/16/2018 21:08	WG1197990
Trichloroethene	0.00152		0.000438	0.00109	1	11/16/2018 21:08	WG1197990
Vinyl chloride	U		0.000748	0.00274	1	11/16/2018 21:08	WG1197990
(S) Toluene-d8	*118*			*75.0-131*		*11/16/2018 21:08*	WG1197990
(S) Dibromofluoromethane	*85.3*			*65.0-129*		*11/16/2018 21:08*	WG1197990
(S) 4-Bromofluorobenzene	*98.5*			*67.0-138*		*11/16/2018 21:08*	WG1197990

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.8		1	11/16/2018 12:55	WG1197857

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000551	0.00275	1	11/16/2018 21:28	WG1197990
cis-1,2-Dichloroethene	0.000825	J	0.000760	0.00275	1	11/16/2018 21:28	WG1197990
trans-1,2-Dichloroethene	U		0.00157	0.00551	1	11/16/2018 21:28	WG1197990
Tetrachloroethene	0.217		0.000771	0.00275	1	11/16/2018 21:28	WG1197990
Trichloroethene	0.00324		0.000441	0.00110	1	11/16/2018 21:28	WG1197990
Vinyl chloride	U		0.000752	0.00275	1	11/16/2018 21:28	WG1197990
(S) Toluene-d8	*118*			*75.0-131*		*11/16/2018 21:28*	WG1197990
(S) Dibromofluoromethane	*84.3*			*65.0-129*		*11/16/2018 21:28*	WG1197990
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*11/16/2018 21:28*	WG1197990

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.1		1	11/16/2018 12:55	WG1197857

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000559	0.00279	1.03	11/16/2018 21:48	WG1197990
cis-1,2-Dichloroethene	0.00468		0.000772	0.00279	1.03	11/16/2018 21:48	WG1197990
trans-1,2-Dichloroethene	U		0.00160	0.00559	1.03	11/16/2018 21:48	WG1197990
Tetrachloroethene	0.0275		0.000782	0.00279	1.03	11/16/2018 21:48	WG1197990
Trichloroethene	0.00189		0.000447	0.00112	1.03	11/16/2018 21:48	WG1197990
Vinyl chloride	U		0.000763	0.00279	1.03	11/16/2018 21:48	WG1197990
(S) Toluene-d8	*116*			*75.0-131*		*11/16/2018 21:48*	WG1197990
(S) Dibromofluoromethane	*83.9*			*65.0-129*		*11/16/2018 21:48*	WG1197990
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*11/16/2018 21:48*	WG1197990

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.4		1	11/16/2018 12:55	WG1197857

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000558	0.00279	1.02	11/16/2018 22:08	WG1197990
cis-1,2-Dichloroethene	U		0.000770	0.00279	1.02	11/16/2018 22:08	WG1197990
trans-1,2-Dichloroethene	U		0.00160	0.00558	1.02	11/16/2018 22:08	WG1197990
Tetrachloroethene	0.362		0.000781	0.00279	1.02	11/16/2018 22:08	WG1197990
Trichloroethene	0.00293		0.000446	0.00112	1.02	11/16/2018 22:08	WG1197990
Vinyl chloride	U		0.000763	0.00279	1.02	11/16/2018 22:08	WG1197990
(S) Toluene-d8	*117*			*75.0-131*		*11/16/2018 22:08*	WG1197990
(S) Dibromofluoromethane	*85.9*			*65.0-129*		*11/16/2018 22:08*	WG1197990
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*11/16/2018 22:08*	WG1197990

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.5		1	11/16/2018 12:55	WG1197857

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000547	0.00273	1	11/16/2018 22:28	WG1197990
cis-1,2-Dichloroethene	0.00121	J	0.000754	0.00273	1	11/16/2018 22:28	WG1197990
trans-1,2-Dichloroethene	U		0.00156	0.00547	1	11/16/2018 22:28	WG1197990
Tetrachloroethene	0.141		0.000765	0.00273	1	11/16/2018 22:28	WG1197990
Trichloroethene	0.00255		0.000437	0.00109	1	11/16/2018 22:28	WG1197990
Vinyl chloride	U		0.000747	0.00273	1	11/16/2018 22:28	WG1197990
(S) Toluene-d8	*115*			*75.0-131*		*11/16/2018 22:28*	WG1197990
(S) Dibromofluoromethane	*87.6*			*65.0-129*		*11/16/2018 22:28*	WG1197990
(S) 4-Bromofluorobenzene	*110*			*67.0-138*		*11/16/2018 22:28*	WG1197990

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.2		1	11/16/2018 12:43	WG1197860

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000561	0.00280	1	11/16/2018 22:47	WG1197990
cis-1,2-Dichloroethene	U		0.000774	0.00280	1	11/16/2018 22:47	WG1197990
trans-1,2-Dichloroethene	U		0.00160	0.00561	1	11/16/2018 22:47	WG1197990
Tetrachloroethene	0.315		0.000785	0.00280	1	11/16/2018 22:47	WG1197990
Trichloroethene	0.00270		0.000449	0.00112	1	11/16/2018 22:47	WG1197990
Vinyl chloride	U		0.000766	0.00280	1	11/16/2018 22:47	WG1197990
(S) Toluene-d8	*117*			*75.0-131*		*11/16/2018 22:47*	WG1197990
(S) Dibromofluoromethane	*84.8*			*65.0-129*		*11/16/2018 22:47*	WG1197990
(S) 4-Bromofluorobenzene	*98.5*			*67.0-138*		*11/16/2018 22:47*	WG1197990

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.4		1	11/16/2018 12:43	WG1197860

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000914	0.00457	1.67	11/16/2018 23:07	WG1197990
cis-1,2-Dichloroethene	0.00488		0.00126	0.00457	1.67	11/16/2018 23:07	WG1197990
trans-1,2-Dichloroethene	U		0.00262	0.00914	1.67	11/16/2018 23:07	WG1197990
Tetrachloroethene	0.0568		0.00128	0.00457	1.67	11/16/2018 23:07	WG1197990
Trichloroethene	0.00806		0.000731	0.00183	1.67	11/16/2018 23:07	WG1197990
Vinyl chloride	U		0.00125	0.00457	1.67	11/16/2018 23:07	WG1197990
(S) Toluene-d8	*116*			*75.0-131*		*11/16/2018 23:07*	WG1197990
(S) Dibromofluoromethane	*83.7*			*65.0-129*		*11/16/2018 23:07*	WG1197990
(S) 4-Bromofluorobenzene	*98.6*			*67.0-138*		*11/16/2018 23:07*	WG1197990

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.2		1	11/16/2018 12:43	WG1197860

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000567	0.00284	1	11/16/2018 23:27	WG1197990
cis-1,2-Dichloroethene	0.0107		0.000783	0.00284	1	11/16/2018 23:27	WG1197990
trans-1,2-Dichloroethene	U		0.00162	0.00567	1	11/16/2018 23:27	WG1197990
Tetrachloroethene	0.197		0.000794	0.00284	1	11/16/2018 23:27	WG1197990
Trichloroethene	0.0298		0.000454	0.00113	1	11/16/2018 23:27	WG1197990
Vinyl chloride	U		0.000775	0.00284	1	11/16/2018 23:27	WG1197990
(S) Toluene-d8	*116*			*75.0-131*		*11/16/2018 23:27*	WG1197990
(S) Dibromofluoromethane	*84.2*			*65.0-129*		*11/16/2018 23:27*	WG1197990
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*11/16/2018 23:27*	WG1197990

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.1		1	11/16/2018 12:43	WG1197860

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000549	0.00275	1	11/16/2018 23:46	WG1197990
cis-1,2-Dichloroethene	U		0.000758	0.00275	1	11/16/2018 23:46	WG1197990
trans-1,2-Dichloroethene	U		0.00157	0.00549	1	11/16/2018 23:46	WG1197990
Tetrachloroethene	1.09		0.000769	0.00275	1	11/16/2018 23:46	WG1197990
Trichloroethene	0.00171		0.000439	0.00110	1	11/16/2018 23:46	WG1197990
Vinyl chloride	U		0.000750	0.00275	1	11/16/2018 23:46	WG1197990
(S) Toluene-d8	*116*			*75.0-131*		*11/16/2018 23:46*	WG1197990
(S) Dibromofluoromethane	*83.6*			*65.0-129*		*11/16/2018 23:46*	WG1197990
(S) 4-Bromofluorobenzene	*98.9*			*67.0-138*		*11/16/2018 23:46*	WG1197990

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.0		1	11/16/2018 12:43	WG1197860

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000555	0.00278	1	11/17/2018 00:06	WG1197990
cis-1,2-Dichloroethene	U		0.000766	0.00278	1	11/17/2018 00:06	WG1197990
trans-1,2-Dichloroethene	U		0.00159	0.00555	1	11/17/2018 00:06	WG1197990
Tetrachloroethene	0.334		0.000777	0.00278	1	11/17/2018 00:06	WG1197990
Trichloroethene	0.0190		0.000444	0.00111	1	11/17/2018 00:06	WG1197990
Vinyl chloride	U		0.000759	0.00278	1	11/17/2018 00:06	WG1197990
(S) Toluene-d8	*117*			*75.0-131*		*11/17/2018 00:06*	WG1197990
(S) Dibromofluoromethane	*85.7*			*65.0-129*		*11/17/2018 00:06*	WG1197990
(S) 4-Bromofluorobenzene	*98.8*			*67.0-138*		*11/17/2018 00:06*	WG1197990

Method Blank (MB)

(MB) R3361076-1 11/16/18 12:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.00200			

L1044876-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1044876-01 11/16/18 12:55 • (DUP) R3361076-3 11/16/18 12:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	91.2	90.5	1	0.765		10

Laboratory Control Sample (LCS)

(LCS) R3361076-2 11/16/18 12:55

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3361075-1 11/16/18 12:43

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

L1044851-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1044851-01 11/16/18 12:43 • (DUP) R3361075-3 11/16/18 12:43

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	87.2	87.3	1	0.0815		10

Laboratory Control Sample (LCS)

(LCS) R3361075-2 11/16/18 12:43

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3360984-2 11/16/18 18:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
Tetrachloroethene	U		0.000700	0.00250
Trichloroethene	U		0.000400	0.00100
Vinyl chloride	U		0.000683	0.00250
(S) Toluene-d8	*115*			*75.0-131*
(S) Dibromofluoromethane	*84.3*			*65.0-129*
(S) 4-Bromofluorobenzene	*105*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3360984-1 11/16/18 16:42

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,1-Dichloroethene	0.125	0.130	104	65.0-131	
cis-1,2-Dichloroethene	0.125	0.133	107	73.0-125	
trans-1,2-Dichloroethene	0.125	0.131	105	71.0-125	
Tetrachloroethene	0.125	0.112	89.3	70.0-136	
Trichloroethene	0.125	0.131	104	76.0-126	
Vinyl chloride	0.125	0.118	94.5	63.0-134	
(S) Toluene-d8			*105*	*75.0-131*	
(S) Dibromofluoromethane			*96.3*	*65.0-129*	
(S) 4-Bromofluorobenzene			*104*	*67.0-138*	

L1044894-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1044894-04 11/17/18 01:25 • (MS) R3360984-3 11/16/18 18:33 • (MSD) R3360984-4 11/16/18 18:52

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,1-Dichloroethene	0.140	U	0.0697	0.105	49.7	75.2	1	10.0-155		J3	40.7	37
cis-1,2-Dichloroethene	0.140	U	0.0710	0.106	50.6	75.5	1	10.0-149		J3	39.5	37
trans-1,2-Dichloroethene	0.140	U	0.0670	0.101	47.8	71.8	1	10.0-150		J3	40.2	37
Tetrachloroethene	0.140	U	0.0629	0.0957	44.9	68.3	1	10.0-156		J3	41.3	39
Trichloroethene	0.140	U	0.0697	0.107	49.7	76.1	1	10.0-156		J3	41.9	38
Vinyl chloride	0.140	U	0.00339	0.00432	2.42	3.08	1	10.0-160	J6	J6	24.2	37
(S) Toluene-d8					*111*	*110*		*75.0-131*				
(S) Dibromofluoromethane					*88.1*	*85.4*		*65.0-129*				

L1044894-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1044894-04 11/17/18 01:25 • (MS) R3360984-3 11/16/18 18:33 • (MSD) R3360984-4 11/16/18 18:52

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
(S) 4-Bromofluorobenzene					*104*	*107*		*67.0-138*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

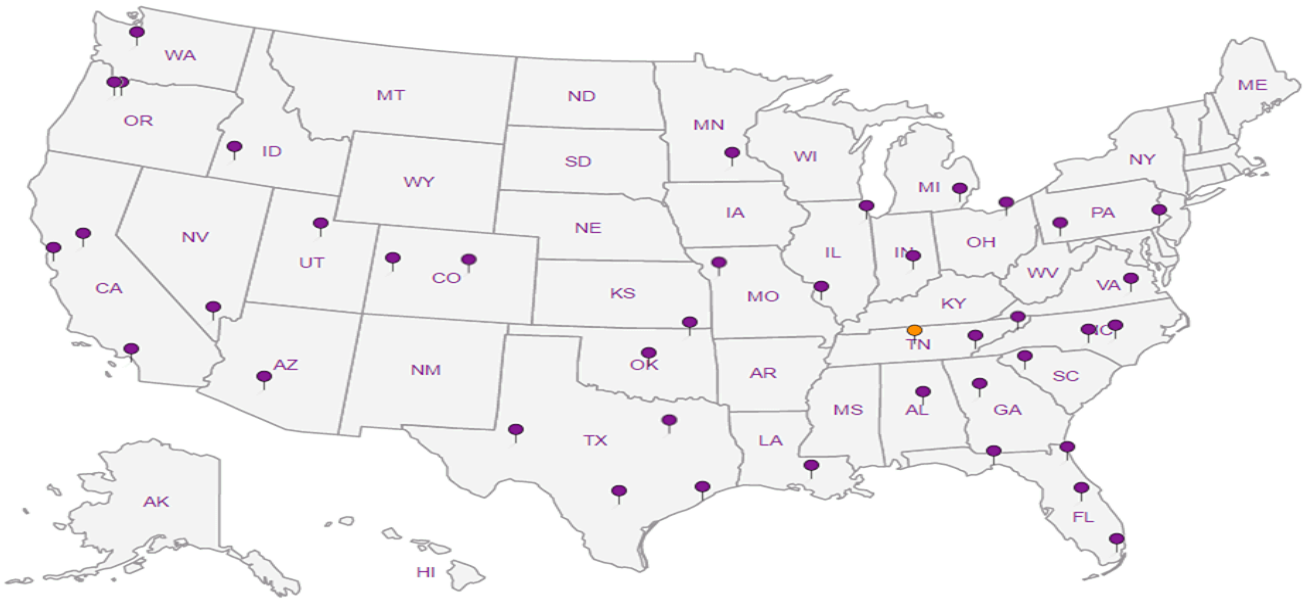
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



APEX Companies - Portland, OR

600 Stewart Street
Suite 400
Seattle, WA 98101

Billing Information:
Accounts Payable
3015 SW First Ave.
Portland, OR 97201-4707

Pres Chk

Email To: jie.xu@apexcos.com

Report to: Jie Xu

Project Description: Inglewood Drycleaners

City/State Collected: Sammamish, WA

Phone: 503-924-4704
Fax: 503-943-6357

Client Project #

Lab Project # ASHCREPOR-XU

Collected by (print): Jessica Guillotte

Site/Facility ID # Inglewood Drycleaners

P.O. # Regen-220, task 09

Collected by (signature):

Quote #

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
X Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	Remarks	Sample # (lab only)
SW-S5-4'	G	SS	4'	~~11/15/18~~	1440	2	X	X		-01
SW-N3-4'	G	SS	4'	11/15/18	1137	2	X	X		-02
SW-E2-6'	G	SS	6'	11/15/18	1450	2	X	X		-03
B3-6'	G	SS	6'	11/15/18	1046	2	X	X		-04
SW-S3-6'	G	SS	6'	11/15/18	1015	2	X	X		-05
SW-E1-4'	G	SS	6'	11/15/18	1445	2	X	X		-06
SW-S4-4'	G	SS	6'	11/15/18	1140	2	X	X		-07
B2-7'	G	SS	7'	11/15/18	1010	2	X	X		-08
SW-N1-4'	G	SS	4'	11/15/18	0940	2	X	X		-09
B-NW-6-7'	G	SS	6-7'	11/15/18	0910	2	X	X		-10

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L044876

C013

Acctnum: ASHCREPOR
Template: T142808
Prelogin: P680501
TSR: 110 - Brian Ford
PB:
Shipped Via: Fedex

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
	11/15/18	1600		1	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 30	
				0.7+0.1=0.8 °C	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11/16/18 Time: 8:45	Hold: / Condition: NCF / OK

APEX Companies - Portland, OR

500 Stewart Street
Suite 400
Seattle WA 98101

Billing Information:
Accounts Payable
3015 SW First Ave.
Portland, OR 97201-4707

Pres Chk

Report to: Jie Xu

Email To: jie.xu@apexcos.com

Project Description: Inglewood Dry cleaners

City/State Collected: Sammamish WA

Phone: 503-924-4704
Fax: 503-943-6357

Client Project #

Lab Project # ASHCREPOR-XU

Collected by (print): Jessica Gullatt

Site/Facility ID # P.O. # Regen-220, Task 09

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
X Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	Remarks	Sample # (lab only)
SW-S2-6'	G	SS	6'	11/15/18	0950	2	X	X		-11
SW-SE-4'	G	SS	4'	11/15/18	1455	2	X	X		-12
SW-N2-6'	G	SS	6'	11/15/18	0945	2	X	X		-13
SW-S1-4'	G	SS	4'	11/15/18	0925	2	X	X		-14
SW-W-4'	G	SS	4'	11/15/18	0932	2	X	X		-15

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1044876

Table #

Acctnum: ASHCREPOR
Template: T142808
Prelogin: P680501
TSR: 110 - Brian Ford
PB:

Shipped Via: FedEx

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: RAD SCREEN <0.5 mR/hr

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
__ UPS __ FedEx __ Courier __ ___

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/15/18	1600	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
1 HCL / MeoH
TBR

Temp: °C Bottles Received: 30
0.7+0.1=0.8 13

Date: 11/16/18 Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

From: Jie Xu [mailto:Jie.Xu@apexcos.com]
Sent: Friday, January 4, 2019 3:37 PM
To: Brian Ford
Subject: sample IDs in lab report

Hi Brian,

We checked our field notes, and have some samples IDs in the lab reports need to be changes as following:

- B-NW-6-7' to BNW-6-7'
- SW-S1-6' to SW-SW1-6'
- SW-SW6-4' to SW-S6-4'
- SW-SW6-4' to SW-S6-6'
- SW-E3-4' to SW-SE3-4'

Please see attached related lab reports for these sample IDs, let me know is you have any questions.

Thank you,

Jie Xu
Environmental Project Manager
600 Stewart Street, Suite 400
Seattle, WA 98101
O) 503-924-4704 x 1914 M) 206-491-8612
Add me to your contact list!

ENR Top 30 All-Environmental Firm

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

January 04, 2019

APEX Companies - Portland, OR

Sample Delivery Group:	L1046277
Samples Received:	11/21/2018
Project Number:	REGEN-220
Description:	Inglewood Drycleaners

Report To: Jie Xu
600 Stewart Street
Suite 400
Seattle, WA 98101

Entire Report Reviewed By:

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

SW-SW1-4' L1046277-01 Solid

Collected by: Jessica G.
Collected date/time: 11/20/18 11:45
Received date/time: 11/21/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201452	1	11/26/18 13:01	11/26/18 13:11	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1	11/20/18 11:45	11/26/18 23:03	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1202047	10	11/20/18 11:45	11/28/18 11:39	JHH

SW-SW1-6' L1046277-02 Solid

Collected by: Jessica G.
Collected date/time: 11/20/18 11:50
Received date/time: 11/21/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201452	1	11/26/18 13:01	11/26/18 13:11	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1	11/20/18 11:50	11/26/18 23:23	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1202047	1	11/20/18 11:50	11/28/18 11:19	JHH

SW-W2-4' L1046277-03 Solid

Collected by: Jessica G.
Collected date/time: 11/20/18 11:55
Received date/time: 11/21/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201452	1	11/26/18 13:01	11/26/18 13:11	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1.39	11/20/18 11:55	11/26/18 23:43	BMB

SW-S6-4' L1046277-04 Solid

Collected by: Jessica G.
Collected date/time: 11/20/18 12:00
Received date/time: 11/21/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201452	1	11/26/18 13:01	11/26/18 13:11	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1	11/20/18 12:00	11/27/18 00:03	BMB

SW-S6-6' L1046277-05 Solid

Collected by: Jessica G.
Collected date/time: 11/20/18 12:10
Received date/time: 11/21/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201452	1	11/26/18 13:01	11/26/18 13:11	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1	11/20/18 12:10	11/27/18 00:23	BMB

BNW2-7.5' L1046277-06 Solid

Collected by: Jessica G.
Collected date/time: 11/20/18 12:15
Received date/time: 11/21/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201452	1	11/26/18 13:01	11/26/18 13:11	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1	11/20/18 12:15	11/27/18 00:42	BMB

SW-NW1-4' L1046277-07 Solid

Collected by: Jessica G.
Collected date/time: 11/20/18 12:20
Received date/time: 11/21/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201452	1	11/26/18 13:01	11/26/18 13:11	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1.09	11/20/18 12:20	11/27/18 01:02	BMB

SW-N4-4' L1046277-08 Solid

Collected by: Jessica G.
Collected date/time: 11/20/18 12:25
Received date/time: 11/21/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201470	1	11/26/18 15:36	11/26/18 15:48	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1.1	11/20/18 12:25	11/27/18 01:22	BMB

SW-N5-6' L1046277-09 Solid

Collected by: Jessica G.
Collected date/time: 11/20/18 12:40
Received date/time: 11/21/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201470	1	11/26/18 15:36	11/26/18 15:48	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1	11/20/18 12:40	11/27/18 01:42	BMB

SW-S7-4' L1046277-10 Solid

Collected by: Jessica G.
Collected date/time: 11/20/18 12:45
Received date/time: 11/21/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201470	1	11/26/18 15:36	11/26/18 15:48	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1	11/20/18 12:45	11/27/18 02:02	BMB

SW-N6-4' L1046277-11 Solid

Collected by: Jessica G.
Collected date/time: 11/20/18 13:25
Received date/time: 11/21/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201470	1	11/26/18 15:36	11/26/18 15:48	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1	11/20/18 13:25	11/27/18 02:22	BMB

SW-S8-4' L1046277-12 Solid

Collected by: Jessica G.
Collected date/time: 11/20/18 13:30
Received date/time: 11/21/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201470	1	11/26/18 15:36	11/26/18 15:48	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1	11/20/18 13:30	11/27/18 02:41	BMB

B4-7.5' L1046277-13 Solid

Collected by: Jessica G.
Collected date/time: 11/20/18 13:35
Received date/time: 11/21/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201470	1	11/26/18 15:36	11/26/18 15:48	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1	11/20/18 13:35	11/27/18 03:01	BMB

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.9		1	11/26/2018 13:11	WG1201452

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000544	0.00272	1	11/26/2018 23:03	WG1201040
cis-1,2-Dichloroethene	U		0.000751	0.00272	1	11/26/2018 23:03	WG1201040
trans-1,2-Dichloroethene	U		0.00156	0.00544	1	11/26/2018 23:03	WG1201040
Tetrachloroethene	4.28		0.00762	0.0272	10	11/28/2018 11:39	WG1202047
Trichloroethene	0.00913		0.000435	0.00109	1	11/26/2018 23:03	WG1201040
Vinyl chloride	U		0.000743	0.00272	1	11/26/2018 23:03	WG1201040
(S) Toluene-d8	*114*			*75.0-131*		*11/26/2018 23:03*	WG1201040
(S) Toluene-d8	*110*			*75.0-131*		*11/28/2018 11:39*	WG1202047
(S) Dibromofluoromethane	*94.0*			*65.0-129*		*11/26/2018 23:03*	WG1201040
(S) Dibromofluoromethane	*106*			*65.0-129*		*11/28/2018 11:39*	WG1202047
(S) 4-Bromofluorobenzene	*90.1*			*67.0-138*		*11/26/2018 23:03*	WG1201040
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*11/28/2018 11:39*	WG1202047

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.8		1	11/26/2018 13:11	WG1201452

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000557	0.00278	1	11/26/2018 23:23	WG1201040
cis-1,2-Dichloroethene	0.00102	J	0.000768	0.00278	1	11/26/2018 23:23	WG1201040
trans-1,2-Dichloroethene	U		0.00159	0.00557	1	11/26/2018 23:23	WG1201040
Tetrachloroethene	0.0186		0.000779	0.00278	1	11/28/2018 11:19	WG1202047
Trichloroethene	0.00408		0.000445	0.00111	1	11/26/2018 23:23	WG1201040
Vinyl chloride	U		0.000760	0.00278	1	11/26/2018 23:23	WG1201040
(S) Toluene-d8	*118*			*75.0-131*		*11/26/2018 23:23*	WG1201040
(S) Toluene-d8	*113*			*75.0-131*		*11/28/2018 11:19*	WG1202047
(S) Dibromofluoromethane	*89.9*			*65.0-129*		*11/26/2018 23:23*	WG1201040
(S) Dibromofluoromethane	*95.9*			*65.0-129*		*11/28/2018 11:19*	WG1202047
(S) 4-Bromofluorobenzene	*95.2*			*67.0-138*		*11/26/2018 23:23*	WG1201040
(S) 4-Bromofluorobenzene	*99.2*			*67.0-138*		*11/28/2018 11:19*	WG1202047

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	11/26/2018 13:11	WG1201452

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000780	0.00390	1.39	11/26/2018 23:43	WG1201040
cis-1,2-Dichloroethene	U		0.00108	0.00390	1.39	11/26/2018 23:43	WG1201040
trans-1,2-Dichloroethene	U		0.00223	0.00780	1.39	11/26/2018 23:43	WG1201040
Tetrachloroethene	1.18		0.00109	0.00390	1.39	11/26/2018 23:43	WG1201040
Trichloroethene	0.0547		0.000624	0.00156	1.39	11/26/2018 23:43	WG1201040
Vinyl chloride	U		0.00107	0.00390	1.39	11/26/2018 23:43	WG1201040
(S) Toluene-d8	*118*			*75.0-131*		*11/26/2018 23:43*	WG1201040
(S) Dibromofluoromethane	*89.6*			*65.0-129*		*11/26/2018 23:43*	WG1201040
(S) 4-Bromofluorobenzene	*99.1*			*67.0-138*		*11/26/2018 23:43*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.9		1	11/26/2018 13:11	WG1201452

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000544	0.00272	1	11/27/2018 00:03	WG1201040
cis-1,2-Dichloroethene	U		0.000751	0.00272	1	11/27/2018 00:03	WG1201040
trans-1,2-Dichloroethene	U		0.00156	0.00544	1	11/27/2018 00:03	WG1201040
Tetrachloroethene	0.230		0.000762	0.00272	1	11/27/2018 00:03	WG1201040
Trichloroethene	0.00172		0.000435	0.00109	1	11/27/2018 00:03	WG1201040
Vinyl chloride	U		0.000743	0.00272	1	11/27/2018 00:03	WG1201040
(S) Toluene-d8	*116*			*75.0-131*		*11/27/2018 00:03*	WG1201040
(S) Dibromofluoromethane	*93.0*			*65.0-129*		*11/27/2018 00:03*	WG1201040
(S) 4-Bromofluorobenzene	*97.2*			*67.0-138*		*11/27/2018 00:03*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.2		1	11/26/2018 13:11	WG1201452

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000573	0.00287	1	11/27/2018 00:23	WG1201040
cis-1,2-Dichloroethene	0.00174	J	0.000791	0.00287	1	11/27/2018 00:23	WG1201040
trans-1,2-Dichloroethene	U		0.00164	0.00573	1	11/27/2018 00:23	WG1201040
Tetrachloroethene	0.200		0.000802	0.00287	1	11/27/2018 00:23	WG1201040
Trichloroethene	0.00228		0.000458	0.00115	1	11/27/2018 00:23	WG1201040
Vinyl chloride	U		0.000783	0.00287	1	11/27/2018 00:23	WG1201040
(S) Toluene-d8	*118*			*75.0-131*		*11/27/2018 00:23*	WG1201040
(S) Dibromofluoromethane	*91.3*			*65.0-129*		*11/27/2018 00:23*	WG1201040
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*11/27/2018 00:23*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.5		1	11/26/2018 13:11	WG1201452

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000535	0.00267	1	11/27/2018 00:42	WG1201040
cis-1,2-Dichloroethene	0.00160	J	0.000738	0.00267	1	11/27/2018 00:42	WG1201040
trans-1,2-Dichloroethene	U		0.00153	0.00535	1	11/27/2018 00:42	WG1201040
Tetrachloroethene	0.00786		0.000749	0.00267	1	11/27/2018 00:42	WG1201040
Trichloroethene	0.000612	J	0.000428	0.00107	1	11/27/2018 00:42	WG1201040
Vinyl chloride	U		0.000731	0.00267	1	11/27/2018 00:42	WG1201040
(S) Toluene-d8	*117*			*75.0-131*		*11/27/2018 00:42*	WG1201040
(S) Dibromofluoromethane	*89.2*			*65.0-129*		*11/27/2018 00:42*	WG1201040
(S) 4-Bromofluorobenzene	*98.3*			*67.0-138*		*11/27/2018 00:42*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.3		1	11/26/2018 13:11	WG1201452

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000625	0.00312	1.09	11/27/2018 01:02	WG1201040
cis-1,2-Dichloroethene	U		0.000862	0.00312	1.09	11/27/2018 01:02	WG1201040
trans-1,2-Dichloroethene	U		0.00179	0.00625	1.09	11/27/2018 01:02	WG1201040
Tetrachloroethene	0.213		0.000874	0.00312	1.09	11/27/2018 01:02	WG1201040
Trichloroethene	0.00187		0.000500	0.00125	1.09	11/27/2018 01:02	WG1201040
Vinyl chloride	U		0.000853	0.00312	1.09	11/27/2018 01:02	WG1201040
(S) Toluene-d8	*115*			*75.0-131*		*11/27/2018 01:02*	WG1201040
(S) Dibromofluoromethane	*91.7*			*65.0-129*		*11/27/2018 01:02*	WG1201040
(S) 4-Bromofluorobenzene	*92.3*			*67.0-138*		*11/27/2018 01:02*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.2		1	11/26/2018 15:48	WG1201470

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000603	0.00302	1.1	11/27/2018 01:22	WG1201040
cis-1,2-Dichloroethene	U		0.000832	0.00302	1.1	11/27/2018 01:22	WG1201040
trans-1,2-Dichloroethene	U		0.00172	0.00603	1.1	11/27/2018 01:22	WG1201040
Tetrachloroethene	0.279		0.000844	0.00302	1.1	11/27/2018 01:22	WG1201040
Trichloroethene	0.00243		0.000482	0.00121	1.1	11/27/2018 01:22	WG1201040
Vinyl chloride	0.00224	J	0.000823	0.00302	1.1	11/27/2018 01:22	WG1201040
(S) Toluene-d8	*116*			*75.0-131*		*11/27/2018 01:22*	WG1201040
(S) Dibromofluoromethane	*91.9*			*65.0-129*		*11/27/2018 01:22*	WG1201040
(S) 4-Bromofluorobenzene	*90.3*			*67.0-138*		*11/27/2018 01:22*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.3		1	11/26/2018 15:48	WG1201470

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000541	0.00271	1	11/27/2018 01:42	WG1201040
cis-1,2-Dichloroethene	0.00108	J	0.000747	0.00271	1	11/27/2018 01:42	WG1201040
trans-1,2-Dichloroethene	U		0.00155	0.00541	1	11/27/2018 01:42	WG1201040
Tetrachloroethene	0.527		0.000758	0.00271	1	11/27/2018 01:42	WG1201040
Trichloroethene	0.00208		0.000433	0.00108	1	11/27/2018 01:42	WG1201040
Vinyl chloride	U		0.000740	0.00271	1	11/27/2018 01:42	WG1201040
(S) Toluene-d8	*116*			*75.0-131*		*11/27/2018 01:42*	WG1201040
(S) Dibromofluoromethane	*92.2*			*65.0-129*		*11/27/2018 01:42*	WG1201040
(S) 4-Bromofluorobenzene	*97.6*			*67.0-138*		*11/27/2018 01:42*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.5		1	11/26/2018 15:48	WG1201470

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000553	0.00276	1	11/27/2018 02:02	WG1201040
cis-1,2-Dichloroethene	0.00293		0.000763	0.00276	1	11/27/2018 02:02	WG1201040
trans-1,2-Dichloroethene	U		0.00158	0.00553	1	11/27/2018 02:02	WG1201040
Tetrachloroethene	0.150		0.000774	0.00276	1	11/27/2018 02:02	WG1201040
Trichloroethene	0.00479		0.000442	0.00111	1	11/27/2018 02:02	WG1201040
Vinyl chloride	U		0.000755	0.00276	1	11/27/2018 02:02	WG1201040
(S) Toluene-d8	*114*			*75.0-131*		*11/27/2018 02:02*	WG1201040
(S) Dibromofluoromethane	*95.0*			*65.0-129*		*11/27/2018 02:02*	WG1201040
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*		*11/27/2018 02:02*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.8		1	11/26/2018 15:48	WG1201470

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000557	0.00278	1	11/27/2018 02:22	WG1201040
cis-1,2-Dichloroethene	0.00148	J	0.000768	0.00278	1	11/27/2018 02:22	WG1201040
trans-1,2-Dichloroethene	U		0.00159	0.00557	1	11/27/2018 02:22	WG1201040
Tetrachloroethene	0.0362		0.000780	0.00278	1	11/27/2018 02:22	WG1201040
Trichloroethene	0.000791	J	0.000445	0.00111	1	11/27/2018 02:22	WG1201040
Vinyl chloride	U		0.000761	0.00278	1	11/27/2018 02:22	WG1201040
(S) Toluene-d8	*115*			*75.0-131*		*11/27/2018 02:22*	WG1201040
(S) Dibromofluoromethane	*93.5*			*65.0-129*		*11/27/2018 02:22*	WG1201040
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*11/27/2018 02:22*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.0		1	11/26/2018 15:48	WG1201470

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000538	0.00269	1	11/27/2018 02:41	WG1201040
cis-1,2-Dichloroethene	U		0.000742	0.00269	1	11/27/2018 02:41	WG1201040
trans-1,2-Dichloroethene	U		0.00154	0.00538	1	11/27/2018 02:41	WG1201040
Tetrachloroethene	0.152		0.000753	0.00269	1	11/27/2018 02:41	WG1201040
Trichloroethene	0.00102	J	0.000430	0.00108	1	11/27/2018 02:41	WG1201040
Vinyl chloride	U		0.000735	0.00269	1	11/27/2018 02:41	WG1201040
(S) Toluene-d8	*116*			*75.0-131*		*11/27/2018 02:41*	WG1201040
(S) Dibromofluoromethane	*93.2*			*65.0-129*		*11/27/2018 02:41*	WG1201040
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*11/27/2018 02:41*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.2		1	11/26/2018 15:48	WG1201470

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000520	0.00260	1	11/27/2018 03:01	WG1201040
cis-1,2-Dichloroethene	0.00574		0.000717	0.00260	1	11/27/2018 03:01	WG1201040
trans-1,2-Dichloroethene	U		0.00149	0.00520	1	11/27/2018 03:01	WG1201040
Tetrachloroethene	0.144		0.000727	0.00260	1	11/27/2018 03:01	WG1201040
Trichloroethene	0.00500		0.000416	0.00104	1	11/27/2018 03:01	WG1201040
Vinyl chloride	U		0.000710	0.00260	1	11/27/2018 03:01	WG1201040
(S) Toluene-d8	*116*			*75.0-131*		*11/27/2018 03:01*	WG1201040
(S) Dibromofluoromethane	*92.9*			*65.0-129*		*11/27/2018 03:01*	WG1201040
(S) 4-Bromofluorobenzene	*93.9*			*67.0-138*		*11/27/2018 03:01*	WG1201040

Method Blank (MB)

(MB) R3363168-1 11/26/18 13:11

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1046205-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1046205-01 11/26/18 13:11 • (DUP) R3363168-3 11/26/18 13:11

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	75.3	77.4	1	2.77		10

Laboratory Control Sample (LCS)

(LCS) R3363168-2 11/26/18 13:11

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3363194-1 11/26/18 15:48

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1046375-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1046375-01 11/26/18 15:48 • (DUP) R3363194-3 11/26/18 15:48

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	86.3	84.0	1	2.77		10

Laboratory Control Sample (LCS)

(LCS) R3363194-2 11/26/18 15:48

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3363415-2 11/26/18 22:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
Tetrachloroethene	U		0.000700	0.00250
Trichloroethene	U		0.000400	0.00100
Vinyl chloride	U		0.000683	0.00250
(S) Toluene-d8	*113*			*75.0-131*
(S) Dibromofluoromethane	*93.9*			*65.0-129*
(S) 4-Bromofluorobenzene	*94.6*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3363415-1 11/26/18 21:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,1-Dichloroethene	0.125	0.118	94.7	65.0-131	
cis-1,2-Dichloroethene	0.125	0.128	102	73.0-125	
trans-1,2-Dichloroethene	0.125	0.125	100	71.0-125	
Tetrachloroethene	0.125	0.103	82.4	70.0-136	
Trichloroethene	0.125	0.130	104	76.0-126	
Vinyl chloride	0.125	0.131	105	63.0-134	
(S) Toluene-d8			*104*	*75.0-131*	
(S) Dibromofluoromethane			*98.3*	*65.0-129*	
(S) 4-Bromofluorobenzene			*99.4*	*67.0-138*	

Method Blank (MB)

(MB) R3363671-3 11/28/18 10:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Tetrachloroethene	U		0.000700	0.00250
(S) Toluene-d8	*113*			*75.0-131*
(S) Dibromofluoromethane	*94.3*			*65.0-129*
(S) 4-Bromofluorobenzene	*109*			*67.0-138*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3363671-1 11/28/18 09:30 • (LCSD) R3363671-2 11/28/18 09:51

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Tetrachloroethene	0.125	0.103	0.111	82.6	88.9	70.0-136			7.39	20
(S) Toluene-d8				*106*	*107*	*75.0-131*				
(S) Dibromofluoromethane				*107*	*102*	*65.0-129*				
(S) 4-Bromofluorobenzene				*104*	*105*	*67.0-138*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

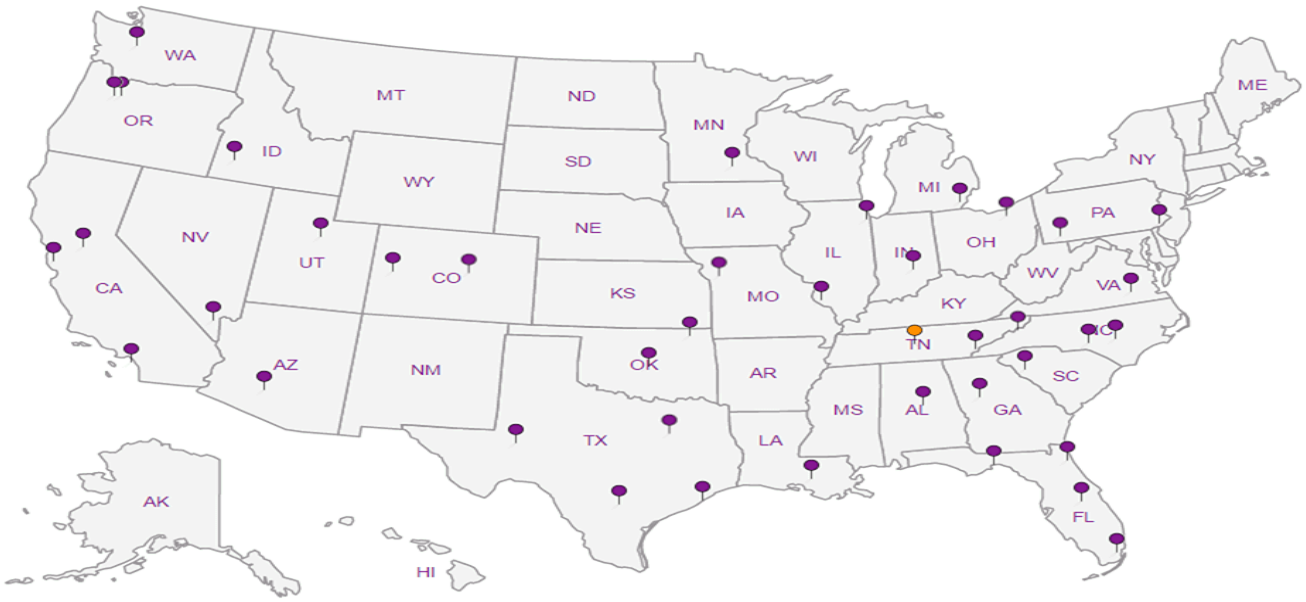
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



APEX Companies - Portland, OR

Two Union Square
Suite 4200
Seattle, WA 98101

Billing Information:
Accounts Payable
3015 SW First Ave.
Portland, OR 97201-4707

Pres Chk

Report to: Jie Xu

Email To: jie.xu@apexcos.com

Project Description: Inglewood drycleaners

City/State Collected: Sammamish WA

Phone: 503-924-4704
Fax: 503-943-6357

Client Project #

Lab Project # ASHCREPOR-STORMWATWA

Collected by (print): Jessica Gullotte

Site/Facility ID #

P.O. # Regen220.Task09

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
X Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	**TURB, pH** 250mlHDPE-NoPres	NWTPHDX LVINOSGT 40mlAmb-HCl-BT	TSS 1L-HDPE NoPres	Total Cu Zn 200.8 250mlHDPE-HNO3	VOCs 8260C 40ml/Amb/MeOH Sml/SVL	Dryweight 2oz Clr - NoPres					Remarks	Sample # (lab only)
SW-SW1-4'	G	~~GW~~ SS	4'	11/20/18	1145	2					X	X						-01
SW-S1-6'	G	SS	6'	11/20/18	1150	2					X	X						02
SW-W2-4'	G	SS	4'	11/20/18	1155	2					X	X						03
SW-SW6-4'	G	SS	4'	11/20/18	1200	2					X	X						04
SW-SW6-6'	G	SS	6'	11/20/18	1210	2					X	X						05
BNW2-7.5'	G	SS	7.5'	11/20/18	1215	2					X	X						06
SW-NW1-4'	G	SS	4	11/20/18	1220	2					X	X						07
SW-N4-4'	G	SS	4'	11/20/18	1225	2					X	X						08
SW-N5-6'	G	SS	6'	11/20/18	1240	2					X	X						09
SW-S7-4'	G	SS	4'	11/20/18	1245	2					X	X						10

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

ESC LAB SCIENCES
A subsidiary of Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1046277
D009

Acctnum: ASHCREPOR
Template: T134096
Prelogin: P645013
TSR: 110 - Brian Ford
PB:
Shipped Via: Fed Ex

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: **turbidity has a 48 hour holding time**

RAD SCREEN: <100 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS X FedEx ___ Courier ___ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
[signature]	11/20/18	1630	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Malik Tisdale

Trip Blank Received: Yes / No HCL / MeoH TBR

Temp: 2.4-0.1=2.3°C Bottles Received: 26 TB

Date: 11/21 Time: 0830 ~~8:00~~

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

APEX

CHAIN OF CUSTODY RECORD

Client Name: Apex
Address: 3015 SW First Ave
City/State/Zip: Portland, OR 97201

Telephone Number: 503.924.4704
Fax No.: 503.943.6357

Project Manager: Jie Xi
Project Name: Inglewood Drycleaners
Project Number: Regen-220, Task 05
Sampler Name: Jessica Guillotte

Analytical Lab:
Report To: Jie Xi
Page: 2 of 2

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red Label)	HCl (Blue Label)	NaOH (Orange Label)	H_2SO_4 Plastic (Yellow Label)	H_2SO_4 Glass (Yellow Label)	None (Black Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify)	Analyze For: VOCs 8260C 40ml/Amb	MeOH 5ml/Syr	Dry weight 2oz clr - No pres	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Send QC with report	
SW-NG-4'	11/20/18	1325	2	X			X							X					X		X	X	X	X				-11
SW-58-4'	11/20/18	1330	2	X			X							X					X		X	X	X	X				-12
B4-7.5'	11/20/18	1335	2	X			X							X					X		X	X	X	X				-13

Special Instructions: ~~24 TAT~~ Same day TAT

Method of Shipment: FedEx

Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Jessica Guillotte	11/20/18	1630	Mark Teasdale	11/21	8:00

Laboratory Comments:
Temperature Upon Receipt: 2.4-0.1=2.3 °C
VOCs Free of Headspace? Y N

RAD SCREEN: <0.5 mR/hr

Brian Ford

From: John Foxwell <JFoxwell@apexcos.com>
Sent: Wednesday, November 21, 2018 10:48 AM
To: Brian Ford
Cc: Jie Xu; Jessica Guillotte
Subject: Samples from Inglewood Plaza/Dirks Cleaners

Importance: High

Hi Brian,

There are some samples coming in from Apex today that are marked Same Day TAT.

Please log these in as Standard TAT – not Same Day.

THANKS!!

John Foxwell
Principal
3015 SW First Avenue
Portland, OR 97201
O) 503-924-4704 x1915 M) 503-312-0676
Add me to your contact list!

ENR Top 30 All-Environmental Firm

From: Jie Xu [mailto:Jie.Xu@apexcos.com]
Sent: Friday, January 4, 2019 3:37 PM
To: Brian Ford
Subject: sample IDs in lab report

Hi Brian,

We checked our field notes, and have some samples IDs in the lab reports need to be changes as following:

- B-NW-6-7' to BNW-6-7'
- SW-S1-6' to SW-SW1-6'
- SW-SW6-4' to SW-S6-4'
- SW-SW6-4' to SW-S6-6'
- SW-E3-4' to SW-SE3-4'

Please see attached related lab reports for these sample IDs, let me know is you have any questions.

Thank you,

Jie Xu
Environmental Project Manager
600 Stewart Street, Suite 400
Seattle, WA 98101
O) 503-924-4704 x 1914 M) 206-491-8612
Add me to your contact list!

ENR Top 30 All-Environmental Firm

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

January 04, 2019

APEX Companies - Portland, OR

Sample Delivery Group:	L1046939
Samples Received:	11/24/2018
Project Number:	REGEN-220,TASK 09
Description:	Inglewood Dry Cleaners

Report To: Jie Xu
600 Stewart Street
Suite 400
Seattle, WA 98101

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

SW-N7-4' L1046939-01 Solid

Collected by: Jessica G.
Collected date/time: 11/21/18 07:00
Received date/time: 11/24/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201798	1	11/28/18 10:35	11/28/18 10:52	KBC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1.41	11/24/18 20:50	11/27/18 03:21	BMB

SW-S9-4' L1046939-02 Solid

Collected by: Jessica G.
Collected date/time: 11/21/18 07:05
Received date/time: 11/24/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201798	1	11/28/18 10:35	11/28/18 10:52	KBC
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1.88	11/24/18 20:50	11/27/18 03:41	BMB

B5-7.5' L1046939-03 Solid

Collected by: Jessica G.
Collected date/time: 11/21/18 07:10
Received date/time: 11/24/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201799	1	11/27/18 13:45	11/27/18 13:56	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1.02	11/24/18 20:50	11/27/18 04:01	BMB

SW-SE3-4' L1046939-04 Solid

Collected by: Jessica G.
Collected date/time: 11/21/18 08:30
Received date/time: 11/24/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201799	1	11/27/18 13:45	11/27/18 13:56	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1	11/24/18 20:50	11/27/18 04:20	BMB

SW-E4-4' L1046939-05 Solid

Collected by: Jessica G.
Collected date/time: 11/21/18 09:55
Received date/time: 11/24/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201799	1	11/27/18 13:45	11/27/18 13:56	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1	11/24/18 20:50	11/27/18 04:40	BMB

SW-NE1-4' L1046939-06 Solid

Collected by: Jessica G.
Collected date/time: 11/21/18 10:00
Received date/time: 11/24/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201799	1	11/27/18 13:45	11/27/18 13:56	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1.13	11/24/18 20:50	11/27/18 05:00	BMB

B6-7' L1046939-07 Solid

Collected by: Jessica G.
Collected date/time: 11/21/18 10:05
Received date/time: 11/24/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201799	1	11/27/18 13:45	11/27/18 13:56	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201040	1.02	11/24/18 20:50	11/27/18 05:20	BMB

SW-SE2-4' L1046939-08 Solid

Collected by	Collected date/time	Received date/time
Jessica G.	11/21/18 08:25	11/24/18 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1201799	1	11/27/18 13:45	11/27/18 13:56	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1201826	1	11/24/18 20:50	11/27/18 15:41	JHH

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.6		1	11/28/2018 10:52	WG1201798

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000770	0.00385	1.41	11/27/2018 03:21	WG1201040
cis-1,2-Dichloroethene	0.0150		0.00106	0.00385	1.41	11/27/2018 03:21	WG1201040
trans-1,2-Dichloroethene	U		0.00221	0.00770	1.41	11/27/2018 03:21	WG1201040
Tetrachloroethene	0.597		0.00108	0.00385	1.41	11/27/2018 03:21	WG1201040
Trichloroethene	0.0235		0.000616	0.00154	1.41	11/27/2018 03:21	WG1201040
Vinyl chloride	U		0.00105	0.00385	1.41	11/27/2018 03:21	WG1201040
(S) Toluene-d8	*116*			*75.0-131*		*11/27/2018 03:21*	WG1201040
(S) Dibromofluoromethane	*92.7*			*65.0-129*		*11/27/2018 03:21*	WG1201040
(S) 4-Bromofluorobenzene	*86.3*			*67.0-138*		*11/27/2018 03:21*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.5		1	11/28/2018 10:52	WG1201798

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.00107	0.00537	1.88	11/27/2018 03:41	WG1201040
cis-1,2-Dichloroethene	0.0156		0.00149	0.00537	1.88	11/27/2018 03:41	WG1201040
trans-1,2-Dichloroethene	0.00383	J	0.00308	0.0107	1.88	11/27/2018 03:41	WG1201040
Tetrachloroethene	0.979		0.00151	0.00537	1.88	11/27/2018 03:41	WG1201040
Trichloroethene	0.0183		0.000860	0.00215	1.88	11/27/2018 03:41	WG1201040
Vinyl chloride	U		0.00146	0.00537	1.88	11/27/2018 03:41	WG1201040
(S) Toluene-d8	*116*			*75.0-131*		*11/27/2018 03:41*	WG1201040
(S) Dibromofluoromethane	*92.8*			*65.0-129*		*11/27/2018 03:41*	WG1201040
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*11/27/2018 03:41*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.1		1	11/27/2018 13:56	WG1201799

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000548	0.00274	1.02	11/27/2018 04:01	WG1201040
cis-1,2-Dichloroethene	0.00351		0.000756	0.00274	1.02	11/27/2018 04:01	WG1201040
trans-1,2-Dichloroethene	U		0.00157	0.00548	1.02	11/27/2018 04:01	WG1201040
Tetrachloroethene	0.0509		0.000767	0.00274	1.02	11/27/2018 04:01	WG1201040
Trichloroethene	0.00173		0.000438	0.00110	1.02	11/27/2018 04:01	WG1201040
Vinyl chloride	0.00116	J	0.000748	0.00274	1.02	11/27/2018 04:01	WG1201040
(S) Toluene-d8	*116*			*75.0-131*		*11/27/2018 04:01*	WG1201040
(S) Dibromofluoromethane	*94.0*			*65.0-129*		*11/27/2018 04:01*	WG1201040
(S) 4-Bromofluorobenzene	*92.7*			*67.0-138*		*11/27/2018 04:01*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.1		1	11/27/2018 13:56	WG1201799

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000549	0.00274	1	11/27/2018 04:20	WG1201040
cis-1,2-Dichloroethene	0.00708		0.000757	0.00274	1	11/27/2018 04:20	WG1201040
trans-1,2-Dichloroethene	U		0.00157	0.00549	1	11/27/2018 04:20	WG1201040
Tetrachloroethene	0.0639		0.000768	0.00274	1	11/27/2018 04:20	WG1201040
Trichloroethene	0.00354		0.000439	0.00110	1	11/27/2018 04:20	WG1201040
Vinyl chloride	U		0.000750	0.00274	1	11/27/2018 04:20	WG1201040
(S) Toluene-d8	*121*			*75.0-131*		*11/27/2018 04:20*	WG1201040
(S) Dibromofluoromethane	*87.5*			*65.0-129*		*11/27/2018 04:20*	WG1201040
(S) 4-Bromofluorobenzene	*111*			*67.0-138*		*11/27/2018 04:20*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.8		1	11/27/2018 13:56	WG1201799

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000545	0.00272	1	11/27/2018 04:40	WG1201040
cis-1,2-Dichloroethene	0.00388		0.000751	0.00272	1	11/27/2018 04:40	WG1201040
trans-1,2-Dichloroethene	U		0.00156	0.00545	1	11/27/2018 04:40	WG1201040
Tetrachloroethene	0.153		0.000762	0.00272	1	11/27/2018 04:40	WG1201040
Trichloroethene	0.0119		0.000436	0.00109	1	11/27/2018 04:40	WG1201040
Vinyl chloride	U		0.000744	0.00272	1	11/27/2018 04:40	WG1201040
(S) Toluene-d8	*121*			*75.0-131*		*11/27/2018 04:40*	WG1201040
(S) Dibromofluoromethane	*90.0*			*65.0-129*		*11/27/2018 04:40*	WG1201040
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*11/27/2018 04:40*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.8		1	11/27/2018 13:56	WG1201799

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000622	0.00311	1.13	11/27/2018 05:00	WG1201040
cis-1,2-Dichloroethene	0.00416		0.000859	0.00311	1.13	11/27/2018 05:00	WG1201040
trans-1,2-Dichloroethene	U		0.00178	0.00622	1.13	11/27/2018 05:00	WG1201040
Tetrachloroethene	0.250		0.000871	0.00311	1.13	11/27/2018 05:00	WG1201040
Trichloroethene	0.0193		0.000498	0.00124	1.13	11/27/2018 05:00	WG1201040
Vinyl chloride	U		0.000850	0.00311	1.13	11/27/2018 05:00	WG1201040
(S) Toluene-d8	*114*			*75.0-131*		*11/27/2018 05:00*	WG1201040
(S) Dibromofluoromethane	*96.1*			*65.0-129*		*11/27/2018 05:00*	WG1201040
(S) 4-Bromofluorobenzene	*99.6*			*67.0-138*		*11/27/2018 05:00*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.3		1	11/27/2018 13:56	WG1201799

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000565	0.00283	1.02	11/27/2018 05:20	WG1201040
cis-1,2-Dichloroethene	0.0309		0.000780	0.00283	1.02	11/27/2018 05:20	WG1201040
trans-1,2-Dichloroethene	0.00266	J	0.00162	0.00565	1.02	11/27/2018 05:20	WG1201040
Tetrachloroethene	0.191		0.000791	0.00283	1.02	11/27/2018 05:20	WG1201040
Trichloroethene	0.0110		0.000452	0.00113	1.02	11/27/2018 05:20	WG1201040
Vinyl chloride	U		0.000772	0.00283	1.02	11/27/2018 05:20	WG1201040
(S) Toluene-d8	*114*			*75.0-131*		*11/27/2018 05:20*	WG1201040
(S) Dibromofluoromethane	*94.2*			*65.0-129*		*11/27/2018 05:20*	WG1201040
(S) 4-Bromofluorobenzene	*95.1*			*67.0-138*		*11/27/2018 05:20*	WG1201040

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.0		1	11/27/2018 13:56	WG1201799

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
1,1-Dichloroethene	U		0.000568	0.00284	1	11/27/2018 15:41	WG1201826
cis-1,2-Dichloroethene	0.00264	J	0.000784	0.00284	1	11/27/2018 15:41	WG1201826
trans-1,2-Dichloroethene	U		0.00163	0.00568	1	11/27/2018 15:41	WG1201826
Tetrachloroethene	0.0298		0.000796	0.00284	1	11/27/2018 15:41	WG1201826
Trichloroethene	0.00170		0.000455	0.00114	1	11/27/2018 15:41	WG1201826
Vinyl chloride	U		0.000776	0.00284	1	11/27/2018 15:41	WG1201826
(S) Toluene-d8	*113*			*75.0-131*		*11/27/2018 15:41*	WG1201826
(S) Dibromofluoromethane	*99.2*			*65.0-129*		*11/27/2018 15:41*	WG1201826
(S) 4-Bromofluorobenzene	*87.9*			*67.0-138*		*11/27/2018 15:41*	WG1201826

Method Blank (MB)

(MB) R3363862-1 11/28/18 10:52

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1046936-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1046936-03 11/28/18 10:52 • (DUP) R3363862-3 11/28/18 10:52

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	82.8	84.9	1	2.51		10

Laboratory Control Sample (LCS)

(LCS) R3363862-2 11/28/18 10:52

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3363554-1 11/27/18 13:56

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1046956-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1046956-01 11/27/18 13:56 • (DUP) R3363554-3 11/27/18 13:56

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	93.5	93.4	1	0.177		10

Laboratory Control Sample (LCS)

(LCS) R3363554-2 11/27/18 13:56

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3363415-2 11/26/18 22:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
Tetrachloroethene	U		0.000700	0.00250
Trichloroethene	U		0.000400	0.00100
Vinyl chloride	U		0.000683	0.00250
(S) Toluene-d8	*113*			*75.0-131*
(S) Dibromofluoromethane	*93.9*			*65.0-129*
(S) 4-Bromofluorobenzene	*94.6*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3363415-1 11/26/18 21:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,1-Dichloroethene	0.125	0.118	94.7	65.0-131	
cis-1,2-Dichloroethene	0.125	0.128	102	73.0-125	
trans-1,2-Dichloroethene	0.125	0.125	100	71.0-125	
Tetrachloroethene	0.125	0.103	82.4	70.0-136	
Trichloroethene	0.125	0.130	104	76.0-126	
Vinyl chloride	0.125	0.131	105	63.0-134	
(S) Toluene-d8			*104*	*75.0-131*	
(S) Dibromofluoromethane			*98.3*	*65.0-129*	
(S) 4-Bromofluorobenzene			*99.4*	*67.0-138*	

Method Blank (MB)

(MB) R3363290-2 11/27/18 10:32

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
Tetrachloroethene	U		0.000700	0.00250
Trichloroethene	U		0.000400	0.00100
Vinyl chloride	U		0.000683	0.00250
(S) Toluene-d8	*116*			*75.0-131*
(S) Dibromofluoromethane	*93.5*			*65.0-129*
(S) 4-Bromofluorobenzene	*101*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3363290-1 11/27/18 09:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,1-Dichloroethene	0.125	0.138	110	65.0-131	
cis-1,2-Dichloroethene	0.125	0.139	112	73.0-125	
trans-1,2-Dichloroethene	0.125	0.138	111	71.0-125	
Tetrachloroethene	0.125	0.113	90.0	70.0-136	
Trichloroethene	0.125	0.133	106	76.0-126	
Vinyl chloride	0.125	0.132	105	63.0-134	
(S) Toluene-d8			*104*	*75.0-131*	
(S) Dibromofluoromethane			*104*	*65.0-129*	
(S) 4-Bromofluorobenzene			*103*	*67.0-138*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

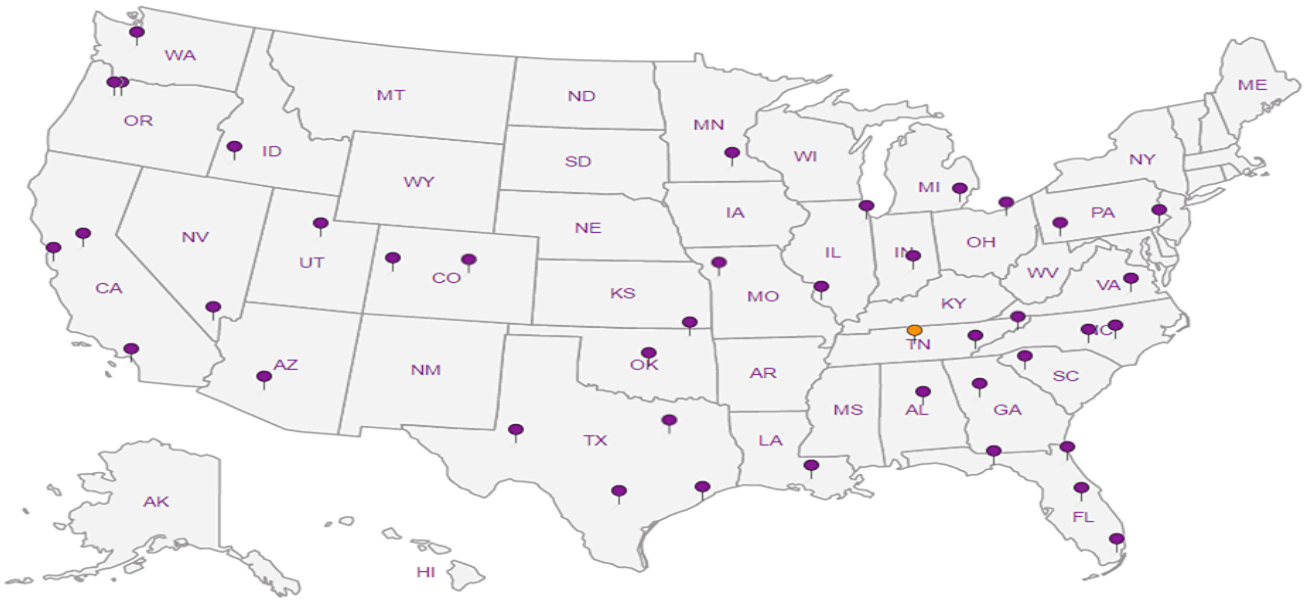
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



L1046939

CHAIN OF CUSTODY RECORD

APEX

F245

Client Name: Apex
Address: 3015 SW First Ave
City/State/Zip: Portland, OR 97201

Telephone Number: 503.924.4704
Fax No.: 503.943.635

Project Manager: Jie Xi
Project Name: Inglewood Drycleaners
Project Number: Regen-220, Task 09
Sampler Name: Jessica Guillotte

Analytical Lab:
Report To: Jie Xi
Page: 1 of 1

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red Label)	HCl (Blue Label)	NaOH (Orange Label)	H_2SO_4 Plastic (Yellow Label)	H_2SO_4 Glass (Yellow Label)	None (Black Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	Analyze For: VOCs 8260C 40ml/Amb	MeOH 5ml/5g	Dry weight 2oz clr-[illegible]	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Send QC with report	
SW-N7-4'	11/21/18	0700	2	X			X							X					X		X		X	~~X~~				-01
SW-S9-4'	11/21/18	0705	2	X			X							X					X		X		X					-02
BS-7.5'	11/21/18	0710	2	X			X							X					X		X		X					-03
~~SE2 SW-SE1-4'~~	~~11/21/18~~	~~0825~~	~~2~~	~~X~~			~~X~~							~~X~~					~~X~~		~~X~~		~~X~~					
~~E3-4~~ SW-E3-4	11/21/18	0830	2	X			X							X					X		X		X					-04
SW-E4-4'	11/21/18	0955	2	X			X							X					X		X		X					-05
SW-NE1-4'	11/21/18	1000	2	X			X							X					X		X		X					-06
B6-7'	11/21/18	1005	2	X			X							X					X		X		X					-07
SW-SE2-4'	11/2/18	0825	2	X			X							X					X		X		X					-08

Special Instructions: ~~Same day TAT~~ Standard TAT

Method of Shipment:

Laboratory Comments:
Temperature Upon Receipt:
VOCs Free of Headspace? Y N

Relinquished by: Name/Company	Date	Time	Received by: Name/Company	Date	Time
Jessica Guillotte	11/21/18				
			[signature]	11/20/17	830

A361 6932 4209

2.5±0

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client:	SDG#	L1046939
Cooler Received/Opened On: 11/24/18	Temperature:	2-5
Received By: Patrick Nshizirungu		
Signature:		

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?			
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?		✓	
Preservation Correct / Checked?			

From: Jie Xu [mailto:Jie.Xu@apexcos.com]
Sent: Friday, January 4, 2019 3:37 PM
To: Brian Ford
Subject: sample IDs in lab report

Hi Brian,

We checked our field notes, and have some samples IDs in the lab reports need to be changes as following:

- B-NW-6-7' to BNW-6-7'
- SW-S1-6' to SW-SW1-6'
- SW-SW6-4' to SW-S6-4'
- SW-SW6-4' to SW-S6-6'
- SW-E3-4' to SW-SE3-4'

Please see attached related lab reports for these sample IDs, let me know is you have any questions.

Thank you,

Jie Xu
Environmental Project Manager
600 Stewart Street, Suite 400
Seattle, WA 98101
O) 503-924-4704 x 1914 M) 206-491-8612
Add me to your contact list!

ENR Top 30 All-Environmental Firm

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

January 08, 2019

APEX Companies - Portland, OR

Sample Delivery Group:	L1057850
Samples Received:	01/03/2019
Project Number:	REGEN-220
Description:	
Site:	INGLEWOOD PLAZA
Report To:	Jie Xu 600 Stewart Street Suite 400 Seattle, WA 98101

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

MW-2R L1057850-01 GW

			Collected by	Collected date/time	Received date/time
			JG	01/02/19 09:20	01/03/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1219077	1	01/04/19 14:04	01/04/19 14:04	TJJ

MW-6 L1057850-02 GW

			Collected by	Collected date/time	Received date/time
			JG	01/02/19 10:12	01/03/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1219077	1	01/04/19 14:24	01/04/19 14:24	TJJ

MW-7 L1057850-03 GW

			Collected by	Collected date/time	Received date/time
			JG	01/02/19 10:58	01/03/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1219077	1	01/04/19 14:44	01/04/19 14:44	TJJ

MW-1B L1057850-04 GW

			Collected by	Collected date/time	Received date/time
			JG	01/02/19 11:50	01/03/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1219077	1	01/04/19 15:04	01/04/19 15:04	TJJ

MW-1A L1057850-05 GW

			Collected by	Collected date/time	Received date/time
			JG	01/02/19 12:25	01/03/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1219077	1	01/04/19 15:23	01/04/19 15:23	TJJ

MW-4R L1057850-06 GW

			Collected by	Collected date/time	Received date/time
			JG	01/02/19 13:20	01/03/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1219077	1	01/04/19 15:43	01/04/19 15:43	TJJ

FIELD DUP 01 L1057850-07 GW

			Collected by	Collected date/time	Received date/time
			JG	01/02/19 12:30	01/03/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1219077	1	01/04/19 16:03	01/04/19 16:03	TJJ

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1-Dichloroethene	U		0.188	0.500	1	01/04/2019 14:04	WG1219077
cis-1,2-Dichloroethene	U		0.0933	0.500	1	01/04/2019 14:04	WG1219077
trans-1,2-Dichloroethene	U		0.152	0.500	1	01/04/2019 14:04	WG1219077
Tetrachloroethene	0.835		0.199	0.500	1	01/04/2019 14:04	WG1219077
Trichloroethene	U		0.153	0.500	1	01/04/2019 14:04	WG1219077
Vinyl chloride	U		0.118	0.500	1	01/04/2019 14:04	WG1219077
(S) Toluene-d8	*106*			*80.0-120*		*01/04/2019 14:04*	WG1219077
(S) Dibromofluoromethane	*86.9*			*75.0-120*		*01/04/2019 14:04*	WG1219077
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*01/04/2019 14:04*	WG1219077

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1-Dichloroethene	U		0.188	0.500	1	01/04/2019 14:24	WG1219077
cis-1,2-Dichloroethene	U		0.0933	0.500	1	01/04/2019 14:24	WG1219077
trans-1,2-Dichloroethene	U		0.152	0.500	1	01/04/2019 14:24	WG1219077
Tetrachloroethene	0.315	J	0.199	0.500	1	01/04/2019 14:24	WG1219077
Trichloroethene	U		0.153	0.500	1	01/04/2019 14:24	WG1219077
Vinyl chloride	U		0.118	0.500	1	01/04/2019 14:24	WG1219077
(S) Toluene-d8	*106*			*80.0-120*		*01/04/2019 14:24*	WG1219077
(S) Dibromofluoromethane	*88.4*			*75.0-120*		*01/04/2019 14:24*	WG1219077
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*01/04/2019 14:24*	WG1219077

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1-Dichloroethene	U		0.188	0.500	1	01/04/2019 14:44	WG1219077
cis-1,2-Dichloroethene	U		0.0933	0.500	1	01/04/2019 14:44	WG1219077
trans-1,2-Dichloroethene	U		0.152	0.500	1	01/04/2019 14:44	WG1219077
Tetrachloroethene	1.01		0.199	0.500	1	01/04/2019 14:44	WG1219077
Trichloroethene	U		0.153	0.500	1	01/04/2019 14:44	WG1219077
Vinyl chloride	U		0.118	0.500	1	01/04/2019 14:44	WG1219077
(S) Toluene-d8	*107*			*80.0-120*		*01/04/2019 14:44*	WG1219077
(S) Dibromofluoromethane	*88.2*			*75.0-120*		*01/04/2019 14:44*	WG1219077
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*01/04/2019 14:44*	WG1219077

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1-Dichloroethene	U		0.188	0.500	1	01/04/2019 15:04	WG1219077
cis-1,2-Dichloroethene	U		0.0933	0.500	1	01/04/2019 15:04	WG1219077
trans-1,2-Dichloroethene	U		0.152	0.500	1	01/04/2019 15:04	WG1219077
Tetrachloroethene	0.785		0.199	0.500	1	01/04/2019 15:04	WG1219077
Trichloroethene	U		0.153	0.500	1	01/04/2019 15:04	WG1219077
Vinyl chloride	U		0.118	0.500	1	01/04/2019 15:04	WG1219077
(S) Toluene-d8	*107*			*80.0-120*		*01/04/2019 15:04*	WG1219077
(S) Dibromofluoromethane	*87.7*			*75.0-120*		*01/04/2019 15:04*	WG1219077
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*01/04/2019 15:04*	WG1219077

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1-Dichloroethene	U		0.188	0.500	1	01/04/2019 15:23	WG1219077
cis-1,2-Dichloroethene	1.61		0.0933	0.500	1	01/04/2019 15:23	WG1219077
trans-1,2-Dichloroethene	U		0.152	0.500	1	01/04/2019 15:23	WG1219077
Tetrachloroethene	2.10		0.199	0.500	1	01/04/2019 15:23	WG1219077
Trichloroethene	0.227	J	0.153	0.500	1	01/04/2019 15:23	WG1219077
Vinyl chloride	U		0.118	0.500	1	01/04/2019 15:23	WG1219077
(S) Toluene-d8	*105*			*80.0-120*		*01/04/2019 15:23*	WG1219077
(S) Dibromofluoromethane	*89.9*			*75.0-120*		*01/04/2019 15:23*	WG1219077
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*01/04/2019 15:23*	WG1219077

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1-Dichloroethene	U		0.188	0.500	1	01/04/2019 15:43	WG1219077
cis-1,2-Dichloroethene	U		0.0933	0.500	1	01/04/2019 15:43	WG1219077
trans-1,2-Dichloroethene	U		0.152	0.500	1	01/04/2019 15:43	WG1219077
Tetrachloroethene	U		0.199	0.500	1	01/04/2019 15:43	WG1219077
Trichloroethene	U		0.153	0.500	1	01/04/2019 15:43	WG1219077
Vinyl chloride	U		0.118	0.500	1	01/04/2019 15:43	WG1219077
(S) Toluene-d8	*107*			*80.0-120*		*01/04/2019 15:43*	WG1219077
(S) Dibromofluoromethane	*89.8*			*75.0-120*		*01/04/2019 15:43*	WG1219077
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*01/04/2019 15:43*	WG1219077

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1-Dichloroethene	U		0.188	0.500	1	01/04/2019 16:03	WG1219077
cis-1,2-Dichloroethene	1.71		0.0933	0.500	1	01/04/2019 16:03	WG1219077
trans-1,2-Dichloroethene	U		0.152	0.500	1	01/04/2019 16:03	WG1219077
Tetrachloroethene	2.03		0.199	0.500	1	01/04/2019 16:03	WG1219077
Trichloroethene	0.206	J	0.153	0.500	1	01/04/2019 16:03	WG1219077
Vinyl chloride	U		0.118	0.500	1	01/04/2019 16:03	WG1219077
(S) Toluene-d8	*105*			*80.0-120*		*01/04/2019 16:03*	WG1219077
(S) Dibromofluoromethane	*89.9*			*75.0-120*		*01/04/2019 16:03*	WG1219077
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*01/04/2019 16:03*	WG1219077

Method Blank (MB)

(MB) R3373435-3 01/04/19 11:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
Tetrachloroethene	U		0.199	0.500
Trichloroethene	U		0.153	0.500
Vinyl chloride	U		0.118	0.500
(S) Toluene-d8	*105*			*80.0-120*
(S) Dibromofluoromethane	*86.6*			*75.0-120*
(S) 4-Bromofluorobenzene	*108*			*77.0-126*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3373435-1 01/04/19 08:35 • (LCSD) R3373435-4 01/04/19 11:35

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1-Dichloroethene	25.0	22.4	22.2	89.6	88.9	71.0-124			0.758	20
cis-1,2-Dichloroethene	25.0	22.8	22.4	91.2	89.5	73.0-120			1.88	20
trans-1,2-Dichloroethene	25.0	22.4	22.2	89.8	88.8	73.0-120			1.01	20
Tetrachloroethene	25.0	27.5	26.9	110	107	72.0-132			2.30	20
Trichloroethene	25.0	25.0	24.9	100	99.6	78.0-124			0.462	20
Vinyl chloride	25.0	24.5	24.8	98.2	99.0	67.0-131			0.844	20
(S) Toluene-d8				*103*	*101*	*80.0-120*				
(S) Dibromofluoromethane				*86.2*	*87.4*	*75.0-120*				
(S) 4-Bromofluorobenzene				*107*	*112*	*77.0-126*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

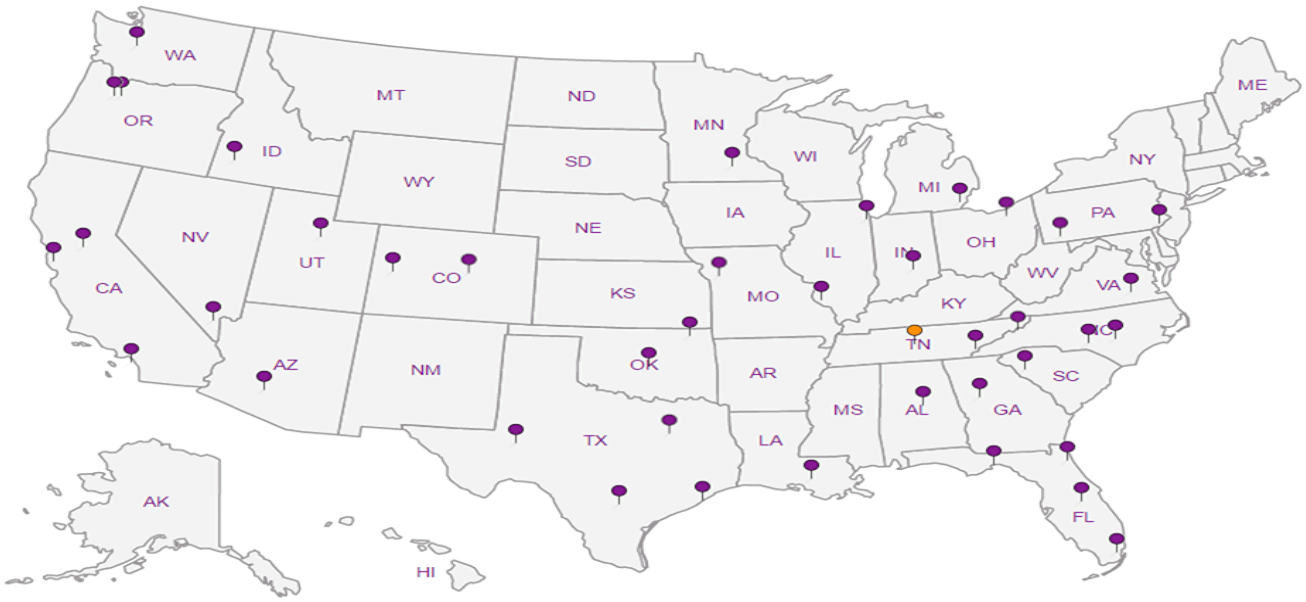
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



APEX Companies - Portland, OR 600 Stewart Street Suite 400 Seattle, WA 98101	Billing Information: **Accounts Payable** **3015 SW First Ave.** **Portland, OR 97201-4707**	Chain of Custody Page ___ of ___ Pace Analytical® National Center for Testing & Innovation 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859
Report to: **Jie Xu**	Email To: **jie.xu@apexcos.com; jfoxwell@apexcos.com; kelsi.evans@apexcos.com**	
Project Description:	City/State Collected: Sammamish, WA	L# 1057850 A141
Phone: **503-924-4704** Fax: **503-943-6357**	Client Project # **REGEN-220** / Lab Project # **ASHCREPOR-REGEN220**	Acctnum: **ASHCREPOR** Template: **T144414** Prelogin: **P687242** TSR: **110 - Brian Ford** PB:
Collected by (print): J. Guillotte	Site/Facility ID #: Inglewood Plaza / P.O. #: Regen-220	Shipped Via: FedEx
Collected by (signature): Immediately Packed on Ice N____ Y _X_	Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day Quote # Date Results Needed	

Analysis / Container / Preservative: VOCs (V8260LLC) 40mlAmb-HCl

Pres Chk

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs (V8260LLC) 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-2R	G	GW	12.85	1/2/19	0920	3	X		01
MW-6	G	GW	10.85	1/2/19	1012	3	X		02
MW-7	G	GW	11.40	1/2/19	1058	3	X		03
MW-1B	G	GW	12.03	1/2/19	1150	3	X		04
MW-1A	G	GW	12.45	1/2/19	1225	3	X		05
MW-4R	G	GW	11.86	1/2/19	1320	3	X		06
Fied Dup 01	G	GW	12.45	1/2/19	1230	3	X		07
		GW							
		GW							

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks: **Tetrachloroethylene (PCE), trichloroethene (TCE), cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE, and vinyl chloride only.** Standard TAT

RAD SCREEN: <0.5 mR/hr

pH ______ Temp ______
Flow ______ Other ______

Samples returned via: __ UPS __ FedEx __ Courier ______

Tracking # 4510 1660 3886

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: __Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)		
[signature]	1/2/19	1600		Trip Blank Received: Yes / No — HCl / MeOH TBR — 1	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C 1.3+0.3=1.6 / Bottles Received: 21 +TB	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 01/03/19 Time: 8:45	Hold: / Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

January 08, 2019

APEX Companies - Portland, OR

Sample Delivery Group:	L1058397
Samples Received:	01/05/2019
Project Number:	REGEN-220
Description:	Inglewood Plaza
Site:	INGLEWOOD PLAZA
Report To:	Jie Xu 600 Stewart Street Suite 400 Seattle, WA 98101

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

TABLE OF CONTENTS

AA-7 L1058397-01 Air

Collected by	Collected date/time	Received date/time
JG	01/04/19 07:57	01/05/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1220108	1	01/07/19 19:40	01/07/19 19:40	MBF

AA-8 L1058397-02 Air

Collected by	Collected date/time	Received date/time
JG	01/04/19 08:00	01/05/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1220108	1	01/07/19 20:27	01/07/19 20:27	MBF

SV-2 L1058397-03 Air

Collected by	Collected date/time	Received date/time
JG	01/04/19 09:25	01/05/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1219503	1	01/05/19 18:40	01/05/19 18:40	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1220131	10	01/07/19 17:56	01/07/19 17:56	AMC

SV-3 L1058397-04 Air

Collected by	Collected date/time	Received date/time
JG	01/04/19 09:30	01/05/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1219503	1	01/05/19 19:27	01/05/19 19:27	MBF

SV-4 L1058397-05 Air

Collected by	Collected date/time	Received date/time
JG	01/04/19 09:56	01/05/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1219503	1	01/05/19 20:14	01/05/19 20:14	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1220131	10	01/07/19 18:37	01/07/19 18:37	AMC

SV-5 L1058397-06 Air

Collected by	Collected date/time	Received date/time
JG	01/04/19 10:08	01/05/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1219507	1	01/05/19 18:15	01/05/19 18:15	AMC

SV-7 L1058397-07 Air

Collected by	Collected date/time	Received date/time
JG	01/04/19 10:11	01/05/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1219507	1	01/05/19 19:05	01/05/19 19:05	AMC

SV-6 L1058397-08 Air

Collected by	Collected date/time	Received date/time
JG	01/04/19 11:10	01/05/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1219507	1	01/05/19 19:56	01/05/19 19:56	AMC

SV-8 L1058397-09 Air

Collected by	Collected date/time	Received date/time
JG	01/04/19 11:11	01/05/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1219507	1	01/05/19 20:46	01/05/19 20:46	AMC

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
cis-1,2-Dichloroethene	156-59-2	96.90	0.0200	0.0793	0.0682	0.270		1	WG1220108
trans-1,2-Dichloroethene	156-60-5	96.90	0.0200	0.0793	ND	ND		1	WG1220108
Tetrachloroethylene	127-18-4	166	0.0200	0.136	0.935	6.35		1	WG1220108
Trichloroethylene	79-01-6	131	0.0200	0.107	0.0310	0.166		1	WG1220108
Vinyl chloride	75-01-4	62.50	0.0200	0.0511	ND	ND		1	WG1220108
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*106*				WG1220108

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
cis-1,2-Dichloroethene	156-59-2	96.90	0.0200	0.0793	0.0736	0.292		1	WG1220108
trans-1,2-Dichloroethene	156-60-5	96.90	0.0200	0.0793	ND	ND		1	WG1220108
Tetrachloroethylene	127-18-4	166	0.0200	0.136	0.911	6.19		1	WG1220108
Trichloroethylene	79-01-6	131	0.0200	0.107	0.0313	0.168		1	WG1220108
Vinyl chloride	75-01-4	62.50	0.0200	0.0511	ND	ND		1	WG1220108
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*104*				WG1220108

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	12.1	47.9		1	WG1219503
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	2.71	10.7		1	WG1219503
Tetrachloroethylene	127-18-4	166	2.00	13.6	67.7	460		10	WG1220131
Trichloroethylene	79-01-6	131	0.200	1.07	5.26	28.2		1	WG1219503
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1219503
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*93.3*				WG1219503
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*90.3*				WG1220131

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	5.38	21.3		1	WG1219503
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.910	3.61		1	WG1219503
Tetrachloroethylene	127-18-4	166	0.200	1.36	36.8	250		1	WG1219503
Trichloroethylene	79-01-6	131	0.200	1.07	3.10	16.6		1	WG1219503
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1219503
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*93.6*				WG1219503

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
cis-1,2-Dichloroethene	156-59-2	96.90	2.00	7.93	75.8	300		10	WG1220131
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	7.44	29.5		1	WG1219503
Tetrachloroethylene	127-18-4	166	2.00	13.6	167	1130		10	WG1220131
Trichloroethylene	79-01-6	131	0.200	1.07	24.1	129		1	WG1219503
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1219503
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*93.7*				WG1219503
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*91.7*				WG1220131

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	0.646	2.56		1	WG1219507
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1219507
Tetrachloroethylene	127-18-4	166	0.200	1.36	35.3	239		1	WG1219507
Trichloroethylene	79-01-6	131	0.200	1.07	0.519	2.78		1	WG1219507
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1219507
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*107*				WG1219507

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	3.56	14.1		1	WG1219507
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.224	0.887		1	WG1219507
Tetrachloroethylene	127-18-4	166	0.200	1.36	36.7	249		1	WG1219507
Trichloroethylene	79-01-6	131	0.200	1.07	2.01	10.8		1	WG1219507
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1219507
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*107*				WG1219507

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1219507
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1219507
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1219507
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1219507
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1219507
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*94.8*				WG1219507

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1219507
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1219507
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.598	4.06		1	WG1219507
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1219507
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1219507
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*101*				WG1219507

Method Blank (MB)

(MB) R3373819-3 01/05/19 10:16

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
Tetrachloroethylene	U		0.0497	0.200
Trichloroethylene	U		0.0545	0.200
Vinyl chloride	U		0.0457	0.200
(S) 1,4-Bromofluorobenzene	*94.4*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3373819-1 01/05/19 08:45 • (LCSD) R3373819-2 01/05/19 09:30

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	3.75	3.55	3.49	94.7	93.1	70.0-130			1.77	25
trans-1,2-Dichloroethene	3.75	3.79	3.82	101	102	70.0-130			0.678	25
cis-1,2-Dichloroethene	3.75	3.82	3.80	102	101	70.0-130			0.355	25
Trichloroethylene	3.75	3.74	3.69	99.7	98.3	70.0-130			1.38	25
Tetrachloroethylene	3.75	3.78	3.74	101	99.7	70.0-130			1.01	25
(S) 1,4-Bromofluorobenzene				*96.8*	*97.6*	*60.0-140*				

Method Blank (MB)

(MB) R3373653-3 01/05/19 10:24

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
Tetrachloroethylene	U		0.0497	0.200
Trichloroethylene	U		0.0545	0.200
Vinyl chloride	U		0.0457	0.200
(S) 1,4-Bromofluorobenzene	*96.2*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3373653-1 01/05/19 08:48 • (LCSD) R3373653-2 01/05/19 09:35

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	3.75	3.75	3.79	100	101	70.0-130			0.912	25
trans-1,2-Dichloroethene	3.75	3.80	3.78	101	101	70.0-130			0.699	25
cis-1,2-Dichloroethene	3.75	4.05	4.12	108	110	70.0-130			1.70	25
Trichloroethylene	3.75	3.87	3.80	103	101	70.0-130			1.78	25
Tetrachloroethylene	3.75	4.12	4.00	110	107	70.0-130			2.94	25
(S) 1,4-Bromofluorobenzene				*102*	*101*	*60.0-140*				

Method Blank (MB)

(MB) R3374021-3 01/07/19 13:44

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
cis-1,2-Dichloroethene	U		0.00770	0.0200
trans-1,2-Dichloroethene	U		0.00499	0.0200
Tetrachloroethylene	U		0.00457	0.0200
Trichloroethylene	U		0.00736	0.0200
Vinyl chloride	U		0.00765	0.0200
(S) 1,4-Bromofluorobenzene	*99.7*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3374021-1 01/07/19 12:20 • (LCSD) R3374021-2 01/07/19 13:02

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
cis-1,2-Dichloroethene	0.500	0.515	0.552	103	110	70.0-130			6.96	25
trans-1,2-Dichloroethene	0.500	0.532	0.573	106	115	70.0-130			7.40	25
Tetrachloroethylene	0.500	0.548	0.535	110	107	70.0-130			2.37	25
Trichloroethylene	0.500	0.539	0.541	108	108	70.0-130			0.233	25
Vinyl chloride	0.500	0.492	0.593	98.3	119	70.0-130			18.8	25
(S) 1,4-Bromofluorobenzene				*101*	*101*	*60.0-140*				

Method Blank (MB)

(MB) R3374043-3 01/07/19 10:59

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
cis-1,2-Dichloroethene	U		0.0389	0.200
Tetrachloroethylene	U		0.0497	0.200
(S) 1,4-Bromofluorobenzene	*90.2*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3374043-1 01/07/19 09:22 • (LCSD) R3374043-2 01/07/19 10:15

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
cis-1,2-Dichloroethene	3.75	4.62	4.80	123	128	70.0-130			3.84	25
Tetrachloroethylene	3.75	3.97	3.97	106	106	70.0-130			0.0541	25
(S) 1,4-Bromofluorobenzene				*104*	*103*	*60.0-140*				

Guide to Reading and Understanding Your Laboratory Report

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Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

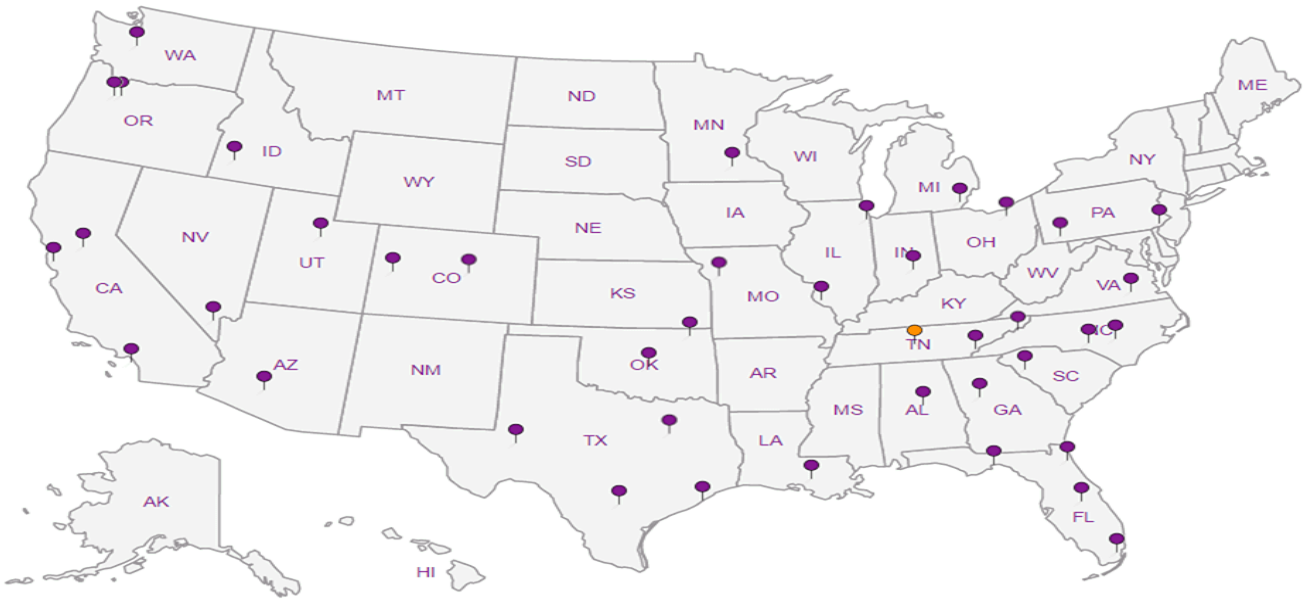
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Company Name/Address: Apex companies - Porland, OR

Billing Information: Accounts Payable, 3015 SW First Ave, Portland, OR 97201-4707

Analysis: TO-15 Summa; TO-15 SIM Summa

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: Jie Xu

Email To: jie.xu@apexcos.com, JFoxwell@apexcos.com, kelsi.evans@apexcos.com

Project Description: Inglewood Plaza

City/State Collected: Sammamish, WA

Phone: 503-924-4704
Fax:

Client Project #: Regen-220

Lab Project #: ASHCREPOR-Regen220

L# 1058397

M047

Collected by (print): J. Gullotte

Site/Facility ID #: Inglewood Plaza

P.O. #: Regen-220

Acctnum:
Template: T144410
Prelogin:
TSR:
PB:
Shipped Via:

Collected by (signature): [signature]

Rush? (Lab MUST Be Notified) 10 Day
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___ No X Yes
FAX? ___ No ___ Yes

Sample ID	Sample Description	Can #	Date	Time	Canister Pressure/Vacuum Initial	Canister Pressure/Vacuum Final	TO-15 Summa	TO-15 SIM Summa			Rem./Contaminant	Sample # (lab only)
AA-7	Ambient Air	5382	1/4/19	0757	-27	-6		X				-01
AA-8	" "	7934		0800	-30	-6		X				02
SV-2	Subslab	5668		0925	-26	-5	X					03
SV-3		5769		0930	-30	-5	X					04
SV-4		5609		0956	-29	-5	X					05
SV-5		8559		1008	-29	-4	X					06
SV-7		8895		1011	-29	-4	X					07
SV-6		6116		1110	-25	-4	X					08
SV-8	↓	6215		1111	-26	-5	X					09

PCE, TCE, cis-12-dce, trans-12-DCE, VC only

Remarks: 4510166 / 0531; 0520; 6298

Hold #

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ___	Condition: (lab use only)
[signature]	1/4/19	1600			[initials]
Relinquished by: (Signature)	**Date:**	**Time:**	**Received by: (Signature)**	Temp: Amb °C Bottles Received: 9	COC Seal Intact: ___ Y ___ N J NA
Relinquished by: (Signature)	**Date:**	**Time:**	**Received for lab by: (Signature)** [signature]	Date: 1/5/19 Time: 0895	pH Checked: NCF:

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: ASHCREPOR	SDG#	1058397
Cooler Received/Opened On: 1/5/19	Temperature:	Amb
Received By: Eric Struck		
Signature:		

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

January 15, 2019

Apex Companies, LLC - Portland, OR

Sample Delivery Group:	L1060608
Samples Received:	01/12/2019
Project Number:	REGEN-220
Description:	Inglewood Plaza
Site:	INGLEWOOD PLAZA
Report To:	Jie Xu 600 Stewart Street Suite 400 Seattle, WA 98101

Entire Report Reviewed By:

Brian Ford

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

SV-1 L1060608-01 Air

			Collected by	Collected date/time	Received date/time
			J. Guillotte	01/11/19 12:21	01/12/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1223185	1	01/14/19 22:17	01/14/19 22:17	AMC

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1223185
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1223185
2-Propanol	67-63-0	60.10	1.25	3.07	1.69	4.16		1	WG1223185
Tetrachloroethylene	127-18-4	166	0.200	1.36	22.3	151		1	WG1223185
Trichloroethylene	79-01-6	131	0.200	1.07	0.553	2.96		1	WG1223185
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND	J4	1	WG1223185
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*93.6*				WG1223185

Method Blank (MB)

(MB) R3375805-2 01/14/19 10:31

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
2-Propanol	U		0.0882	1.25
Tetrachloroethylene	U		0.0497	0.200
Trichloroethylene	U		0.0545	0.200
Vinyl chloride	U		0.0457	0.200
(S) 1,4-Bromofluorobenzene	*95.6*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3375805-1 01/14/19 09:45 • (LCSD) R3375805-3 01/14/19 12:31

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	3.75	4.01	4.98	107	133	70.0-130		J4	21.4	25
2-Propanol	3.75	4.54	4.62	121	123	70.0-139			1.67	25
trans-1,2-Dichloroethene	3.75	4.45	4.52	119	121	70.0-130			1.58	25
cis-1,2-Dichloroethene	3.75	4.44	4.51	119	120	70.0-130			1.44	25
Trichloroethylene	3.75	4.38	4.42	117	118	70.0-130			0.999	25
Tetrachloroethylene	3.75	4.47	4.54	119	121	70.0-130			1.41	25
(S) 1,4-Bromofluorobenzene				*98.8*	*97.7*	*60.0-140*				

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Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
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Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
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Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J4	The associated batch QC was outside the established quality control range for accuracy.

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Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

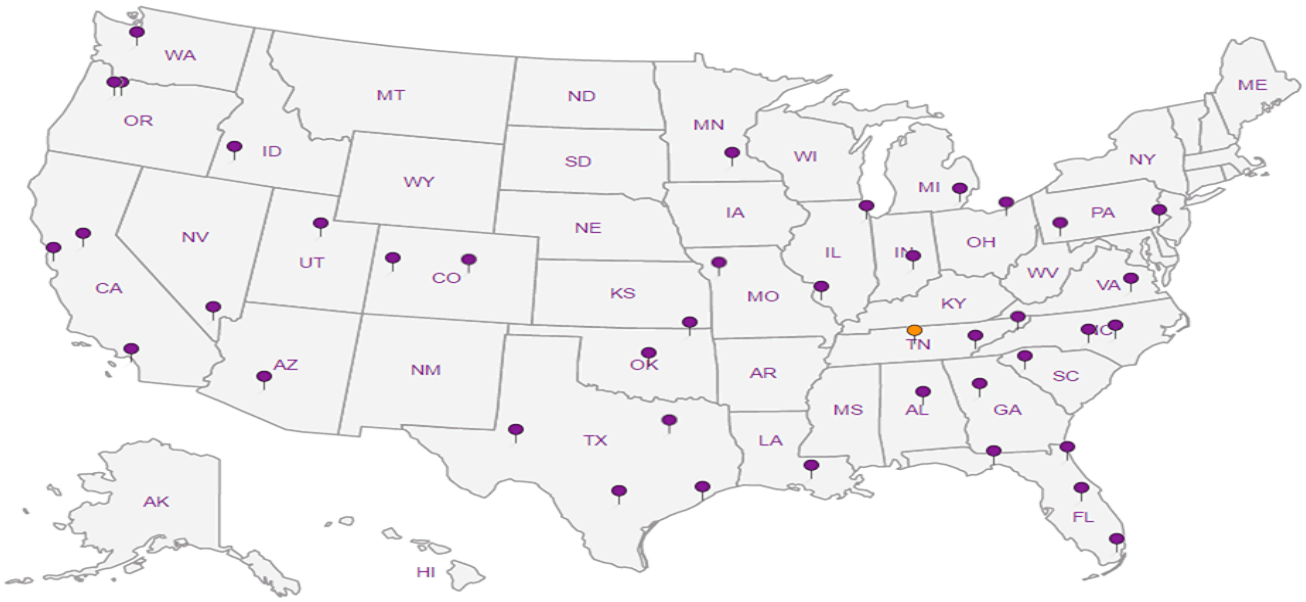
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Company Name/Address:
APEX COMPANIES
600 STEWART ST, SUITE 400
SEATTLE, WA 98101

Billing Information:
ACCOUNTS PAYABLE
3015 SW FIRST AVE
PORTLAND, OR 97201-4707

Report to: JIE XU

Email To: JFOXWELL@APEXCOS.COM, JIE.XU@APEXCOS.COM, KESLI.EVANS@APEXCOS.COM

Project Description: INGLEWOOD PLAZA

City/State Collected: SAMMAMISH, WA

Phone: 503-424-4704 Fax:

Client Project #: REGEN-220

Lab Project #: ASHCREPOR - REGEN220

Collected by (print): J. GUILLOTTE

Site/Facility ID #: INGLEWOOD PLAZA

P.O. #: REGEN-220

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

STANDARD Date Results Needed: TAT

Email? ___No ___Yes
FAX? ___No ___Yes

Canister Pressure/Vacuum

Analysis: TO-15

Chain of Custody Page 1 of 1

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # L1060608

M107

Acctnum:
Template: T139712
Prelogin:
TSR:
PB:
Shipped Via: FEDEX

Sample ID	Sample Description	Can #	Date	Time	Initial	Final	Rem./Contaminant	Sample # (lab only)
SV-1	SUB-SLAB	6965	1/11/19	1221	-30	-5		-01

Remarks: 451 426664703713

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ____	Condition: (lab use only)
	1/11/19	1600			OK
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	COC Seal Intact: ___Y ___N ___NA
				NA 1	✓
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 1/12/19	Time: 0830

pH Checked: NCF:

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: ASHCREPOR	SDG#	L1060688	
Cooler Received/Opened On: 1/12/19	Temperature:	Amb	
Received By: Eric Struck			
Signature:			

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

Appendix C

Boring Logs

Sample Descriptions

Classification of soils in this report is based on visual field and laboratory observations which include density/consistency, moisture condition, and grain size, and should not be construed to imply field nor laboratory testing unless presented herein. Visual-manual classification methods of ASTM D 2488 were used as an identification guide.

Soil descriptions consist of the following:
MAJOR CONSTITUENT with additional remarks; color, moisture, minor constituents, density/consistency.

Density/Consistency

Soil density/consistency in borings is related primarily to the Standard Penetration Resistance. Soil density/consistency in test pits and push probe explorations is estimated based on visual observation and is presented parenthetically on test pit and push probe exploration logs.

SAND and GRAVEL Density	Standard Penetration Resistance in Blows/Foot
Very loose	0 - 4
Loose	4 - 10
Medium dense	10 - 30
Dense	30 - 50
Very dense	>50

SILT or CLAY Density	Standard Penetration Resistance in Blows/Foot	Approximate Shear Strength in TSF
Very soft	0 - 2	<0.125
Soft	2 - 4	0.125 - 0.25
Medium stiff	4 - 8	0.25 - 0.5
Stiff	8 - 15	0.5 - 1.0
Very Stiff	15 - 30	1.0 - 2.0
Hard	>30	>2.0

Moisture

Dry	Little perceptible moisture.
Sl. Moist	Some perceptible moisture, probably below optimum.
Moist	Probably near optimum moisture content.
Wet	Much perceptible moisture, probably above optimum.

Minor Constituents

	Estimated Percentage
Not identified in description	0 - 5
Slightly (clayey, silty, etc.)	5 - 12
Clayey, silty, sandy, gravelly	12 - 30
Very (clayey, silty, etc.)	30 - 50

Sampling Symbols

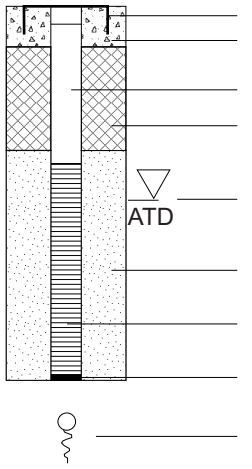
BORING AND PUSH-PROBE SYMBOLS

- Recovery
- No Recovery
- Temporarily Screened Interval
- PID — Photoionization Detector Reading
- W — Water Sample
- Sample Submitted for Chemical Analysis
- NS — No Sheen
- SS — Slight Sheen
- MS — Moderate Sheen
- HS — Heavy Sheen
- BF — Biogenic Film

TEST PIT SOIL SAMPLES

- Grab (Jar)
- Bag
- Shelby Tube

Groundwater Observations and Monitoring Well Construction



- Flush Mounted Monument
- Concrete Surface Seal
- Well Casing
- Bentonite Seal
- Groundwater Level on Date or (ATD) At Time of Drilling
- Sand Pack
- Well Screen
- End Cap
- Groundwater Seepage (Test Pits)

Key to Exploration Logs

Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number:	Drawn:	Approved:	Figure
REGEN-220	JP	JF	Key

January 2021

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Exploration Number: B-1

Project Number: **REGEN-220**
Logged By: M. Whitson
Date: September 23, 2014
Site Conditions: Overcast
Drilling Contractor: Cascade
Drilling Equipment: 420M Geoprobe
Sampler Type: 3' Macro Core
Depth to Water (ATD): --
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
					Carpet over concrete slab (~5") over base rock.
		B-1(1-2)	<5	NS	Gravelly SAND with silt (SM); light brown, slightly moist, medium dense.
		B-1(3)	<5	NS	Silt increases.
5			<5	NS	
		B-1(6)	<5	NS	
					Boring Refusal at 6.0' BGS.
10					

Exploration Number: B-2

Logged By: M. Whitson
Date: September 23, 2014
Site Conditions: Overcast
Drilling Contractor: Cascade
Drilling Equipment: 420M Geoprobe
Sampler Type: 3' Macro Core
Depth to Water (ATD): --
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
					Carpet over concrete slab (~5") over base rock.
			<5	NS	Silty SAND with gravel (SM); medium gray, slightly moist, medium dense.
		B-2(3-4)	<5	NS	
5					Becomes gravelly dense.
		B-2(6)	<5	NS	
					Boring Refusal at 6' 2" BGS.
10					

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

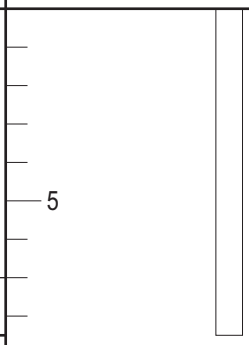
Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Exploration Number: B-3

Project Number: **REGEN-220**
Logged By: M. Whitson
Date: September 22, 2014
Site Conditions: Overcast
Drilling Contractor: Cascade
Drilling Equipment: 420M Geoprobe
Sampler Type: 3' Macro Core
Depth to Water (ATD): --
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
			<5	NS	Gravelly SAND (SP); brown, slightly moist, dense.
			<5	NS	
					Becomes silty.
5		B-3(5)	<5	NS	
		B-3(7-8)	<5	NS	Sandy GRAVEL (GP); brown, slightly moist, medium dense.
					Boring Refusal at 8.5' BGS.
10					



Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

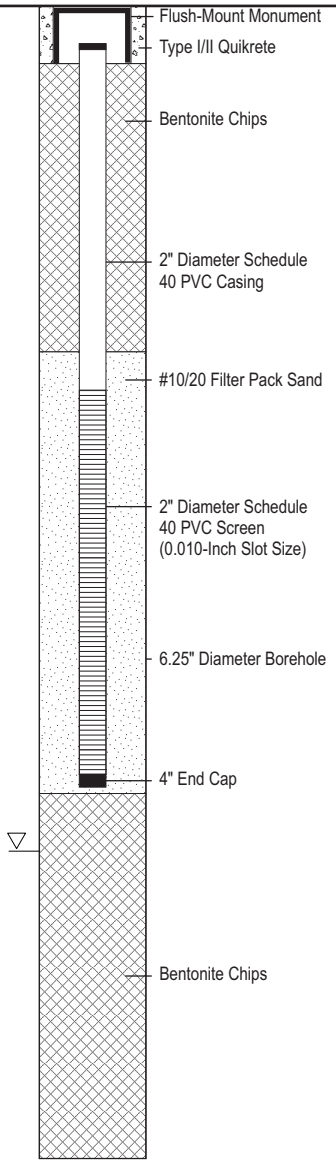
Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Exploration Number: MW-7

Project Number: **REGEN-220**
Logged By: A. Cerruti
Date: September 22, 2014
Site Conditions: Overcast
Drilling Contractor: Cascade
Drilling Equipment: 420M Geoprobe
Sampler Type: 3' Macro Core
Depth to Water (ATD): 22.0'
Surface Elevation: Not Measured

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0			<5	NS	Asphalt-concrete surface (5") over silty gravelly SAND (SP); grayish brown (2.5YR 5/2), slightly moist, silt fines, medium dense.
5					Some cobbles.
			<5	NS	
10					GRAVEL with silt and sand (GP); grayish brown (2.5YR 5/2), slightly moist, occasional cobbles, medium dense.
			<5	NS	
15					Silty SAND (SM); olive brown (2.5YR 4/4), moist to wet, some silt fines, loose to medium dense.
			<5	NS	Becomes gravelly.
20					Gravelly sandy SILT (ML); dark grayish brown (2.5Y 4/2), moist to wet, medium stiff.
		MW-7(21.5)	<5	NS	
			<5	NS	Silty GRAVEL with sand (GP); grayish brown (2.5Y 5/2), wet, some silt fines, occasional cobbles, loose.
25			<5	NS	
30					Bottom of Monitoring Well at 30.0' BGS.
35					

Well Construction Details and Notes:



Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

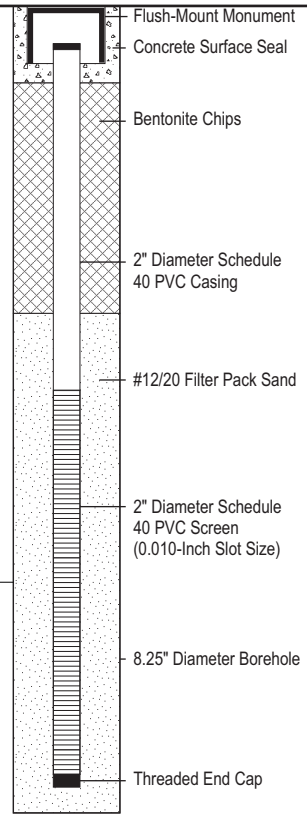
Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Exploration Number: MW-2R

Project Number: **REGEN-220**
Logged By: A. Cerruti
Date: July 10, 2018
Site Conditions: Clear, ~70°F
Drilling Contractor: Cascade
Drilling Equipment: HSA
Sampler Type: Split Spoon
Depth to Water (ATD): 15'
Surface Elevation: Not Measured

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0	Air Knife				Asphalt over gravel.
5		MW-2R(6-7)	<5	NS	Silty GRAVEL with sand; medium brown, slightly moist, well graded, loose. (80% rounded fine gravel, 15% fines, 5% medium to fine sand)
10		MW-2R(10-11)	<5	NS	Silty gravelly SAND; medium brown, slightly moist, well graded, loose. (60% fine to medium sand, 20% fines, 20% rounded fine gravel)
15		MW-2R(15-16)	<5	NS	Becomes less moist and fines increase. (60% fines, 20% rounded fine gravel, 20% fine sand)
			<5	NS	
20		MW-2R(20-21)	<5	NS	Becomes wet.
					Bottom of Monitoring Well at 21.0' BGS.
25					
30					
35					

Well Construction Details and Notes:



Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

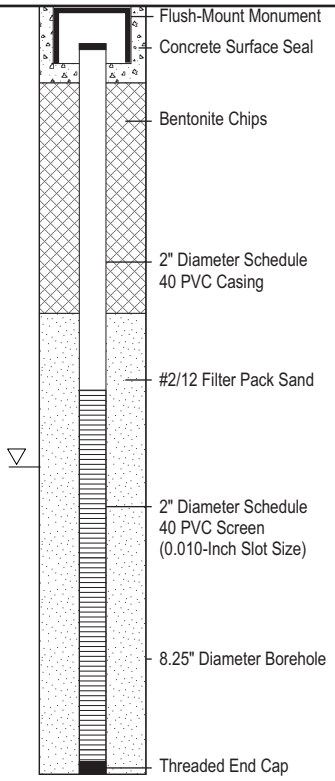
Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Exploration Number: MW-4R

Project Number: **REGEN-220**
Logged By: A. Cerruti
Date: July 10, 2018
Site Conditions: Clear, ~65°F
Drilling Contractor: Cascade
Drilling Equipment: HSA
Sampler Type: Split Spoon
Depth to Water (ATD): ~12'
Surface Elevation: Not Measured

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
0					Asphalt over gravel.
5	Air Knife	MW-4R(5-6)	<5	NS	Silty GRAVEL with sand; dark brown, slightly moist, well graded, loose. (85% rounded fine gravel, 10% fines, 5% medium to fine sand)
10		MW-4R(10-11)	<5	NS	Becomes more silty. (65% gravel, 30% silt)
12					SILT; light brown; wet, non plastic, loose. (90% fines, 5% fine to medium sand, 5% well rounded fine gravel)
15		MW-4R(15-15.5)	<5	NS	Silty GRAVEL with sand; dark brown, moist, well graded. (65% fine gravel, 30% fines, 5% fine to medium sand)
20					Bottom of Monitoring Well at 20.0' BGS.
25					
30					
35					

Well Construction Details and Notes:



Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Exploration Number: SB-1

Project Number: **REGEN-220**
Logged By: A. Cerruti
Date: July 11, 2018
Site Conditions: Clear, ~80°F, Indoors
Drilling Contractor: Cascade
Drilling Equipment: HSA
Sampler Type: Split Spoon
Depth to Water (ATD): --
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
		SB-1(0-1)	18	NS	Concrete over gravel.
		SB-1(2)	6	NS	Gravelly silty SAND; medium brown, slightly moist, poorly graded, loose. (80% fine sand, 15% fines, 5-10% fine gravel)
		SB-1(3)	5	NS	
5		SB-1(5)	12	NS	Becomes dense.
		SB-1(7)	<5	NS	Becomes less dense.
		SB-1(9)	<5	NS	
10			<5	NS	Sandy GRAVEL with silt; dark brown, slightly moist, well graded, loose, with organic material (roots). (75% fine to medium rounded gravel, 20% coarse sand, 5% fines)
			<5	NS	
			<5	NS	Gravelly silty SAND; medium brown, slightly moist, well graded, medium dense. (75% fine to medium sand, 15% fines, 10% gravel)
		SB-1(14-15)	<5	NS	With interbedded coarse sand lenses.
			<5	NS	

Bottom of Boring at 15.0' BGS.

Exploration Number: SB-2

Logged By: A. Cerruti
Date: July 11, 2018
Site Conditions: Clear, ~80°F, Indoors
Drilling Contractor: Cascade
Drilling Equipment: HSA
Sampler Type: Split Spoon
Depth to Water (ATD): --
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
	Hand Cleared		<5	NS	Concrete over gravel.
			<5	NS	
			<5	NS	
		SB-2(3-4)	25	NS	Gravelly silty SAND; light brown, slightly moist, well graded, dense. (75% fine to medium sand, 15% fines, 10% rounded fine gravel)
5			<5	NS	
			7	NS	Becomes more dense. Occasional gravel.
			<5	NS	Silty gravelly SAND; medium brown, dry, well graded, loose. (75% fine to medium sand, 15% fine gravel, 10% fines)
			<5	NS	
		SB-2(9)	<5	NS	
					Becomes slightly moist.
10			<5	NS	
					Silty gravelly SAND; light brown, slightly moist, well graded, dense. (75% fine to medium sand,15% fines, 10% fine gravel)
			<5	NS	
		SB-2(13)	<5	NS	
			<5	NS	Moisture increases.
			<5	NS	

Bottom of Boring at 15.0' BGS.

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Inglewood Plaza
701 228th Avenue NE
Sammamish, Washington

Exploration Number: SB-3

Project Number: **REGEN-220**
Logged By: A. Cerruti
Date: July 11, 2018
Site Conditions: Clear, ~80°F, Indoors
Drilling Contractor: Cascade
Drilling Equipment: HSA
Sampler Type: Split Spoon
Depth to Water (ATD): --
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
	Hand Cleared				Concrete over gravel.
		SB-3(2.5)	<5	NS	Silty gravelly SAND; dark brown, slightly moist, poorly graded, loose. (70% fine sand, 15% fines, 15% fine gravel)
		SB-3(4)	7	NS	
5		SB-3(5-6)	7	NS	Increase in gravel (20%), medium dense.
		SB-3(7)	12	NS	Becomes loose, dry, and dark brown.
		SB-3(9)	8	NS	Increase in fine gravel (30%).
10		SB-3(10)	<5	NS	
			7	NS	
			<5	NS	Increase gravel size/broken cobbles.
			<5	NS	
		SB-3(14-15)	<5	NS	
			<5	NS	

Bottom of Boring at 15.0' BGS.

Exploration Number: SB-4

Logged By: A. Cerruti
Date: July 11, 2018
Site Conditions: Clear, ~80°F, Indoors
Drilling Contractor: Cascade
Drilling Equipment: HSA
Sampler Type: Split Spoon
Depth to Water (ATD): --
Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description
	Hand Cleared		<5	NS	Concrete over gravel.
			<5	NS	
			<5	NS	
		SB-2(3-4)	25	NS	Gravelly silty SAND; medium brown, slightly moist, poorly graded, loose. (70% fine to medium sand, 15% fines, 15% fine gravel)
5			<5	NS	
			7	NS	Becomes dense.
			<5	NS	Becomes predominantly coarse sand.
			<5	NS	
		SB-2(9)	<5	NS	
10			<5	NS	
			<5	NS	Becomes fine to medium sand.
		SB-2(13)	<5	NS	
			<5	NS	
			<5	NS	

Bottom of Boring at 15.0' BGS.

Appendix D

Waste Disposal Documentation

DEPARTMENT OF PUBLIC WORKS
SOLID WASTE DIVISION
1600 – 13th Avenue South
Kelso, WA 98626
TEL (360) 577-3030
FAX (360) 636-0845
Washington Relay Service 711 or (888) 833-8633

www.co.cowlitz.wa.us/publicworks/

11/29/18

Clearcreek Contractors
3919 88th St. NE
Marysville, WA 98270

Subject: Contaminated Soils Disposal

To Whom It May Concern:

Clearcreek Contractors delivered contaminated soils for disposal to the Cowlitz County Headquarters Landfill, a Subtitle D facility. The project location was identified as the Former Dirks Fine Dry Cleaning in Sammamish WA. Loads were delivered between 11/20/18 and 11/28/18. A total of 5 loads and 137.89 tons delivered for disposal (load summary attached). The soils were not used as alternative daily cover.

I can be reached at 360-430-1806, if you have any questions.

Sincerely,

Larry Fulcher
Western Washington Waste Systems, LLC
Contractor for Cowlitz County

TranNum	DateOut	Truck	Gross	Tare	Net	GrossTN	TareTN	NetTN
528770	11/28/2018	CLEARCREEK 43	89320	41600	47720	44.66	20.8	23.86
528688	11/27/2018	CLEAR CREEK 43	96800	41560	55240	48.4	20.78	27.62
528619	11/26/2018	CLEARCREEK 43	95820	41640	54180	47.91	20.82	27.09
528492	11/21/2018	CLEARCREEK 43	92080	41560	50520	46.04	20.78	25.26
528431	11/20/2018	CLEARCREEK 43	109680	41560	68120	54.84	20.78	34.06

Total 137.89

DEPARTMENT OF ECOLOGY
State of Washington

Voluntary Cleanup Program

Washington State Department of Ecology
Toxics Cleanup Program

REQUEST FOR OPINION FORM

Use this form to request a written opinion on your planned or completed independent remedial action under the Voluntary Cleanup Program (VCP). Attach to this form the plans or reports documenting the remedial action. Please submit only one form for each request.

Step 1: IDENTIFY HAZARDOUS WASTE SITE

Please identify below the hazardous waste site for which you are requesting a written opinion under the VCP. This information may be found on the VCP Agreement.

Facility/Site Name: Former Dirks Fine Dry Cleaning

Facility/Site Address: 701 228th Avenue NE, Sammamish, Washington

Facility/Site No: 1044	VCP Project No.: NW 2746

Step 2: REQUEST WRITTEN OPINION ON PLAN OR REPORT

What type of independent remedial action plan or report are you submitting to Ecology for review under the VCP? Please check all that apply.

- ☐ Remedial investigation plan
- ☐ Remedial investigation report
- ☐ Feasibility study report
- ☐ Property cleanup* plan (* cleanup of one or more parcels located within the Site)
- ☐ Property cleanup* report
- ☐ Site cleanup plan
- ☒ Site cleanup report
- ☐ Other – please specify:

Do you want Ecology to provide you with a written opinion on the planned or completed independent remedial action?

☒ Yes ☐ No

Please note that Ecology's opinion will be limited to:

- Whether the planned or completed remedial action at the site meets the substantive requirements of the Model Toxics Control Act (MTCA), and/or
- Whether further remedial action is necessary at the site under MTCA.

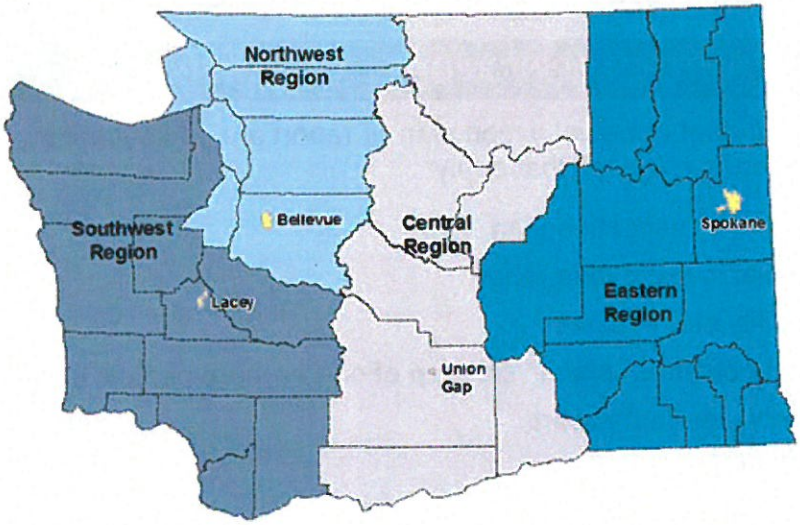
Step 3: REPRESENTATIONS AND SIGNATURE

The undersigned representative of the Customer hereby certifies that he or she is fully authorized to request services from Ecology under the Agreement for this VCP Project.

Name: John Foxwell		Title: Principal
Signature:		Date: 02/10/2021
Organization: Apex Companies		
Mailing address: 3015 SW 1st Avenue		
City: Portland	State: Or	Zip code: 97201
Phone: (503) 312-0676	Fax:	E-mail: jfoxwell@apexcos.com

Step 4: SUBMITTAL

Please mail your completed form and the independent remedial action plan or report that you are requesting Ecology review to the site manager Ecology assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.



Northwest Region: Attn: VCP Coordinator 3190 160th Ave. SE Bellevue, WA 98008-5452	**Central Region:** Attn: VCP Coordinator 1250 West Alder St. Union Gap, WA 98903-0009
Southwest Region: Attn: VCP Coordinator P.O. Box 47775 Olympia, WA 98504-7775	**Eastern Region:** Attn: VCP Coordinator N. 4601 Monroe Spokane WA 99205-1295

If you need this publication in an alternate format, please call the Toxics Cleanup Program at 360-407-7170. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.