



# AEI Consultants

January 7, 2022

## LIMITED PHASE II SUBSURFACE INVESTIGATION

**Property Identification:**

1580 and 1590 Maple Street  
Redwood City, California

AEI Project No. 452498

**Prepared for:**

City of Redwood City  
1017 Middlefield Road  
Redwood City, California 94093

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Environmental  
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January 7, 2022

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**Subject:** **Limited Phase II Subsurface Investigation**  
1580 and 1590 Maple Street,  
Redwood City, California  
AEI Project No. 452498

AEI Consultants (AEI) is pleased to provide this report which describes the activities and results of the Limited Phase II Subsurface Investigation (Phase II) performed at 1580 and 1590 Maple Street, Redwood City, California ("the Site"). This investigation was completed in general accordance with the authorized scope of services outlined in our authorized proposal number 81504. The investigation activities are presented below.

## 1.0 SITE DESCRIPTION

The Site is located on the west side of Maple Street, immediately north of U.S. Highway 101, in a generally commercial and industrial area of Redwood City, San Mateo County, California. The Site is approximately 2.0 acres and contains two single-story buildings and the foundation of a former building. In addition, property improvements include a storage shed, a paved parking lot, walkways, and landscaped areas. The current Site tenant is the LifeMoves Maple Street Shelter, a temporary residential facility. Figure 1 presents the Site vicinity.

The Site is situated on a relatively flat property, at an elevation of approximately 10 feet above mean sea level (msl). Redwood Creek is approximately 200 feet northeast of the Site. Site soils have been characterized by the U.S. Department of Agriculture's Soil Survey as consisting of Urban Land-Orthents, which is described as reclaimed complex with 0-2% slopes. Parent material is described as tidal flats; urban land index indicates that 65% of the Site area is classified as urban land with the remaining 35% classified as Orthents and minor components.

The topographic gradient in the Site vicinity slopes toward the northeast, and therefore, the direction of groundwater flow beneath the subject property is inferred to be to the northeast. Redwood Creek is located approximately 200 feet to the north-northeast and flows into the San Francisco Bay approximately 2 miles to the northwest. The groundwater gradient is likely tidally influenced, due to the proximity to the San Francisco Bay. Groundwater was previously encountered at a depth of 5.5 to 8.5 feet below ground surface (bgs) and rose to 4.0 to 6.9 feet bgs during sampling (ACC, 2017b).

Refer to Section 4.1 below for additional information on the site geology and groundwater conditions.

## **2.0 BACKGROUND**

In 2017, a Phase I Environmental Site Assessment (ESA) was performed by ACC Environmental Consultants (ACC, 2017a). According to the Phase I ESA, the Site and surrounding properties were historically marshland and were filled with material from unknown sources prior to 1907. In 1966, the Site was developed with the current one-story building located along the northeastern portion of the Site. A storage shed at the southern corner of this building reportedly housed a back-up generator with a diesel above-ground storage tank (AST). The second existing building was reportedly constructed between 1995 and 1998. The Phase I ESA identified a closed release case to the immediate north and west of the Site, where elevated concentrations of total petroleum hydrocarbons (TPH) and volatile organic compounds (VOCs) have been observed. In addition, polycyclic aromatic hydrocarbons (PAHs) were detected in soil at the site and were attributed to naturally-occurring organic material.

The historical placement of fill material and potential for contamination to have migrated onto the Site from releases at the adjacent property to the north and west were considered recognized environmental conditions (RECs). In 2017 and 2018, ACC performed Phase II subsurface investigations to evaluate the RECs (ACC, 2017b & 2018). During these investigations, PAHs and metals were observed in soil above health-based screening levels but were attributed to ambient conditions. In addition, TPH and some VOCs were observed in groundwater at relatively low concentrations. ACC concluded, however, that the impacts to groundwater may not have been fully delineated. VOCs were not detected in soil gas sample collected by ACC. The data from these investigations have been included in Appendix A.

The purpose of this investigation is to provide current site condition data to supplement the prior ACC investigations. AEI is also concurrently performing an updated Phase I ESA (AEI, 2021). AEI understands that the Site is under consideration for acquisition by the City of Redwood City, with envisioned site use to include a roadway and possible future residential development. The redevelopment of the Site is expected to involve import of fill material to raise the overall Site elevation.

## **3.0 INVESTIGATION EFFORTS**

AEI was requested to perform this investigation, including the collection of soil, groundwater, and soil gas samples to provide current site condition data to supplement the prior subsurface investigations. The previous investigations had detected PAH impacts to soil and relatively low concentrations of TPH and some VOCs to groundwater. The scope of work included the advancing of six soil borings for soil and groundwater sampling. At four of these locations, temporary soil gas probes were installed in adjacent borings. The location of the borings/probes are shown on Figure 2.

### **3.1 Health and Safety Plan**

A site-specific health and safety plan was prepared, reviewed by onsite personnel, and kept onsite for the duration of the fieldwork.

### **3.2 Permitting and Utility Clearance**

A drilling permit was obtained from the San Mateo County Environmental Health Services (SMCEHS) for this investigation, a copy of which is included in Appendix B.

Prior to field work activities, proposed boring locations were marked on the ground surface with white paint, where appropriate. Upon marking, Underground Services Alert 811 was contacted, who notified subscribing utility companies of the planned investigation work in order for their underground utility locations to be marked along the ground surface around the property boundaries and proposed boring locations, where accessible. Private utility locating was conducted by Foresite Engineering of Pleasant Hill, California under subcontract to AEI to further identify and locate underground utilities, as well as to shift proposed locations, as appropriate.

### **3.3 Drilling and Soil Sample Collection**

On December 3, 2021, five soil borings (SB-10, and SB-12 through SB-15) were advanced on the Site at the locations shown on Figure 2. AEI contracted Environmental Control Associates of Aptos, California to advance each of the soil borings using a truck-mounted direct-push drilling rig. The borings were advanced to 12 feet below ground surface (bgs). Refusal was encountered in boring SB-11 at 1 foot bgs in surficial concrete.

#### **3.3.1 Soil Sample Collection**

Soil core from each of the soil borings was continuously collected for the purposes of lithologic logging, headspace testing, and sample collection for potential laboratory analyses. Soil samples were obtained using a single-walled coring system approximately 2 inches in diameter and 4 feet in length containing plastic liners. The coring system was connected to 1-inch diameter, flush-jointed drill rod that was hydraulically driven (pushed) by the rig to each target sample depth. Upon retrieval from each sample depth interval, the coring system was opened, followed by the removal and opening of the plastic liners and preparation of soil samples for laboratory analyses. After opening the liners, the soils were visually inspected for the potential presence of impacted soils. Recovered soils were described on field boring logs in general conformance with the United Soil Classification System (USCS). Additional lithologic descriptions and drilling information were recorded on the boring logs presented in Appendix C.

The soil samples were collected for potential chemical analysis by cutting 6-inch increments from the acetate liner, sealing the ends with Teflon™ tape and plastic endcaps. The soil samples were labeled with the project name, project number, boring number, sample depth, and sampling date/time then placed into a chilled ice chest containing crushed ice for transport to the analytical laboratory. Chain-of-custody documentation was completed and accompanied the samples during transport to the analytical laboratory.

Drilling and sampling equipment were cleaned prior to and/or after drilling each boring. The equipment was cleaned using a triple-rinse method, which consisted of an initial rinse containing an Alconox and water solution, followed by two tap water rinses (second and third, final rinses).

#### **3.3.2 Headspace Testing**

Headspace testing was performed with a photoionization detector (PID) equipped with an electrodeless 10.6 eV ultraviolet lamp or equivalent for detecting the presence of total VOCs in

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the soil samples. To initiate the headspace testing procedure, soil samples were removed from the sample liners, placed into labeled, plastic bags, and sealed for conducting the tests. After sufficient time had elapsed for gas build-up inside the bag, each bag was punctured with the probe tip of the PID to allow for measurement of the headspace. Measurements of the headspace were obtained in the parts per million (ppm) range for total VOCs. The PID readings were recorded on the boring logs presented in Appendix C.

### **3.4 Groundwater Sample Collection**

On December 3, 2021, attempts were made to sample groundwater from the borings. Groundwater was collected from borings SB-10, SB-13, and SB-15 using temporary PVC well casing inserted into the borehole and a peristaltic pump with dedicated tubing. Groundwater could not be sampled in borings SG-12 and SB-14 due to a lack of groundwater infiltration into these temporary wells.

### **3.5 Soil Gas Sample Collection**

On December 3, 2021, soil gas sampling was conducted in general conformance with the *Advisory, Active Soil Gas Investigations* by the California Department of Toxic Substances Control (DTSC), et al (2015). The soil gas samples were collected using temporary soil gas sampling probes installed in borings located adjacent to four of the five soil borings for soil and/or groundwater sampling (SB-10, SB-12, SB-13, and SB-14). Each probe was constructed using 0.25-inch diameter Teflon tubing connected to the probe tip. The probe tip was placed in the middle of an annular filter pack composed of #2/12 sand placed at approximately 3.0 feet bgs in SB-10, and approximately 4.0 feet bgs in SB-12, SB-13, and SB-14. The probe was then sealed with a 1-foot layer of dry granular bentonite followed by hydrated (in lifts) granular bentonite to just below ground surface. Note that the probes were not placed at the planned 5.0 feet bgs depth to avoid shallow groundwater that was encountered at several locations.

Upon installation, each temporary soil gas probe was allowed to equilibrate for a minimum of two hours. Prior to sampling, a series of quality assurance/quality control (QA/QC) tests, including shut-in tests and leak tests, were performed in sequential order at each location. Shut-in tests were conducted to check for leaks in the above-ground sampling system. Leak tests were performed using helium to evaluate if leakage or ambient air was introduced into the soil gas samples during collection.

Leak check tests were performed by encapsulating the sample apparatus and surface completion of the soil gas probe inside a gas-impermeable shroud at each location. During purging and sampling at the location, helium was introduced into the shroud atmosphere. The concentration within the shroud atmosphere was measured using a helium detection meter and recorded. A significant leak was assumed to be present inside the shroud if the ratio of the helium concentration in the soil gas sample to the helium concentration inside the shroud was greater than 5% (see the Findings section below for further discussion).

Upon completion of the assembly testing at the location, soil gas samples were collected in 1-liter laboratory-supplied evacuated canisters fitted with laboratory-calibrated, flow controllers equipped with vacuum gauges and particulate filters. The canister was individually checked, tested, and certified by the laboratory for air tightness and proper vacuum prior to shipping. A

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total of three volumes of air were purged from the probe, and the sample was then obtained at flow rates between 80 and 150 milliliters per minute. Initial and final readings on the vacuum gauge was recorded at the beginning and end of the sampling process to confirm sample collection. Sampling was completed with a slight vacuum remaining in each of the canisters. Copies of the field data sheets have been included as Appendix D.

Upon sample retrieval, the sample canister was labeled with the appropriate project information, including the project name, project number, sample location and depth, date and time of sampling, sampler's name, canister identification number, and the initial and final canister vacuum. Chain-of-custody documentation was completed and accompanied the canisters to the analytical laboratory, a copy of which is included in Appendix E.

### **3.6 Boring Destruction**

Upon completion of sample collection and removal of probe construction materials, the borings were backfilled with neat cement grout and completed at the ground surface to match surrounding conditions.

### **3.7 Laboratory Analyses**

Soil samples were labeled and placed into a cooler with ice following sampling and transferred under appropriate chain-of-custody documentation to Torrent Laboratory, Inc. of Milpitas, California. Laboratory analytical documentation is provided in Appendix E.

Laboratory analysis of soil consisted of the following:

- Ten soil samples were analyzed for total petroleum hydrocarbons (TPH) using U.S. Environmental Protection Agency (EPA) Testing Method 8015M and VOCs using EPA Testing Method 8260B.
- Nine soil samples were analyzed for Title 22 (CAM 17) metals using EPA Testing Method 6010/7471.
- Two soil samples were analyzed for semi-volatile organic compounds (SVOCs) using EPA Testing Method 8270C, polychlorinated biphenyls (PCBs) using EPA Testing Method 8082, and asbestos using EPA 600/R-93/116 Method with CARB 435 Prep Level A.
- Four soil samples were analyzed for organochlorine pesticides (OCPs) using EPA Testing Method 8081.
- Six soil samples were analyzed for low-level detection of PAHs (a type of SVOC) using EPA Testing Method 8270 with single ion monitoring (SIM).

Laboratory analysis of groundwater consisted of three samples for TPH using EPA Testing Method 8015M and VOCs using EPA Testing Method 8260B.

Soil gas samples were labeled and transferred under appropriate chain-of-custody documentation to Pace Analytical National of Mt. Juliet, Tennessee. Four soil gas samples were analyzed for VOCs using EPA Testing Method TO-15 and helium (as a leak check), oxygen, carbon dioxide, and methane using Testing Method ASTM D1946-90.

### **3.8 Investigation Derived Wastes**

AEI personnel wore disposable Nitrile gloves during sample collection and changed gloves prior to and between each sample collection. Drilling and sampling equipment were decontaminated using a triple rinse system with the initial rinse consisting of an Alconox and tap water solution, followed by the second and third rinses consisting of tap water rinses.

Investigation-derived waste generated during the field activities was placed in two 5-gallon buckets and left at the Site.

## **4.0 FINDINGS**

For the purpose of providing context to the data obtained during this investigation, analytical results are compared to available regulatory screening levels. The San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels (ESLs) were used for comparison values under a residential land use scenario. AEI understands that the Site will be redeveloped, therefore, ESLs were also used for comparison values for construction worker land use scenario. In addition, the groundwater results were compared to the Maximum Contaminant Level (MCL) "priority" ESLs. The ESLs are considered to be conservative. Under most circumstances, and within the limitations described in the ESLs, the presence of a chemical in soil and/or soil gas at concentrations below the corresponding ESL may be assumed not to pose a significant risk to human health or the environment. Additional evaluation may be necessary at sites where a chemical is present at concentrations above the corresponding ESL.

### **4.1 Subsurface Conditions**

Subsurface conditions observed during the drilling activities of borings SB-10 and SB-12 through SB-15 indicated that soils underlying the Site consist primarily of asphalt, concrete, and loose, gravelly sands to approximately 1 foot bgs, identified as fill material. Soils consisting primarily of clays and clayey sands were encountered from approximately 1 foot bgs to a total depth explored of 12 feet bgs.

Groundwater was observed in borings SB-10, SB-12, SB-13, and SB-15 at approximately 8.0 to 9.5 feet bgs; however, insufficient groundwater infiltration occurred during the attempted sampling at boring SB-12 to collect a groundwater sample. Groundwater was not encountered in boring SB-14, but possible petroleum hydrocarbon odor was noted in soils from approximately 3 to 8 feet bgs in this boring. Groundwater at the other three borings stabilized between approximately 3.0 to 7.8 feet bgs.

### **4.2 Soil Sample Analytical Results**

Table 1 presents a summary of the soil sample analytical results for TPH and VOCs. The results can be further summarized as follows:

- TPH as gasoline (TPH-g) was not detected above the laboratory reporting limit in each of the soil samples collected and analyzed.
- TPH as diesel (TPH-d) was detected in each of the ten soil samples collected and analyzed, observed at a maximum concentration of 97.7 milligrams per kilogram (mg/kg) in boring

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SB-14 at 5 feet bgs, which does not exceed the residential or construction worker ESLs of 260 mg/kg and 1,100 mg/kg, respectively.

- TPH as motor oil (TPH-mo) was detected in each of the ten soil samples collected and analyzed, observed at a maximum concentration of 451 mg/kg in boring SB-14 at 5 feet bgs, which does not exceed the residential or construction worker ESLs of 12,000 mg/kg and 54,000 mg/kg, respectively.
- Chlorobenzene was detected in one of the ten soil samples collected and analyzed, observed at a concentration of 0.012 mg/kg in boring SB-11 at 12 feet bgs, which does not exceed the residential or construction worker ESLs of 270 mg/kg and 1,200 mg/kg, respectively.
- Benzene, toluene, ethylbenzene, and total xylenes (collectively the "BTEX" compounds) were not detected above the laboratory reporting limits in each of the soil samples collected and analyzed.
- Additional VOCs were not detected above the laboratory reporting limits in each of the soil samples collected and analyzed.

Table 2 presents a summary of the soil sample analytical results for metals and asbestos. The results can be further summarized as follows:

- Arsenic was detected in six of the nine soil samples collected and analyzed, observed at concentrations between 2.41 and 5.96 mg/kg. Each of the detected concentrations exceed the residential and construction worker ESLs of 0.067 and 0.98 mg/kg, respectively.
- Nickel was detected in each of the nine soil samples collected and analyzed, observed at a maximum concentration of 115 mg/kg. The concentration observed in four of the samples slightly exceed the construction worker ESL of 86 mg/kg, but do not exceed the residential ESL of 820 mg/kg.
- Several additional metals were detected in the soil samples collected and analyzed; however, these concentrations do not exceed their respective residential or construction worker ESLs.
- Asbestos was not detected the two 1-foot-bgs soil samples collected and analyzed.

Although the detected concentrations of arsenic are above the residential and construction worker ESLs, they are less than the maximum of 11 mg/kg for typical background concentrations of arsenic in the San Francisco Bay Area (Duverg  , 2011). Background levels of arsenic are generally accepted as an appropriate screening criterion for naturally occurring metals. Similarly, the concentrations of nickel detected are well below the maximum typical background concentration for nickel of 509 mg/kg (Bradford, 1996).

Table 3 presents a summary of the soil sample analytical results for SVOCs (including PAHs). The results can be further summarized as follows:

- The PAH benzo(a)pyrene was detected in four of the six soil samples collected and analyzed, observed at a maximum concentration of 0.54 mg/kg in boring SB-14 at 5 feet bgs. The concentration exceeds the residential ESL of 0.11 mg/kg but does not exceed the construction worker ESL of 11 mg/kg.
- Several other PAHs were detected in the six samples collected and analyzed, but the observed concentrations do not exceed their respective residential or construction worker ESLs, where available.

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- Other SVOCs were not detected above the laboratory reporting limits in the soil samples collected and analyzed.

Table 4 presents a summary of the soil sample analytical results for OCPs and PCBs. The results can be further summarized as follows:

- Several pesticides were detected in two of the four samples collected and analyzed, but the observed concentrations do not exceed their respective residential and construction worker ESLs, where available.
- PCBs were not detected above the laboratory reporting limit in the two soil samples collected and analyzed.

#### **4.3 Groundwater Sample Analytical Results**

Table 5 presents a summary of the groundwater sample analytical results. The results can be further summarized as follows:

- TPH-d was detected in each of the three groundwater samples collected and analyzed, observed at concentrations from 236 to 782 micrograms per liter ( $\mu\text{g}/\text{L}$ ), which exceed the MCL Priority ESL of 200  $\mu\text{g}/\text{L}$ .
- TPH-mo was detected in each of the three groundwater samples collected and analyzed, observed at concentrations from 631 to 1,930  $\mu\text{g}/\text{L}$ .
- TPH-g and VOCs were not detected above the laboratory reporting limits in each of the three groundwater samples collected and analyzed.

#### **4.4 Soil Gas Sample Analytical Results**

Table 6 presents a summary of the soil gas sample analytical results. The results can be further summarized as follows:

- Benzene was detected in each of the four soil gas samples collected and analyzed, observed at concentrations between 1.09 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) in SB-10 and 7.03  $\mu\text{g}/\text{m}^3$  in SB-13. The concentrations detected in SB-12 through SB-14 exceed the residential ESL of 3.2  $\mu\text{g}/\text{m}^3$ .
- Tetrachloroethene (PCE) was detected in three of the four soil gas samples collected and analyzed, observed at concentrations of 37.8, 2.76, and 5.45  $\mu\text{g}/\text{m}^3$  in SB-10, SB-12, and SB-15, respectively. The concentration observed in SB-10 exceeds the residential ESL of 15  $\mu\text{g}/\text{m}^3$ .
- Naphthalene was detected in one of the four soil gas samples collected and analyzed, observed at a concentration of 48.1  $\mu\text{g}/\text{m}^3$  in SB-12. The concentration observed in SB-12 exceeds the residential ESL of 2.8  $\mu\text{g}/\text{m}^3$ .
- Trichloroethene (TCE) and 1,2-cis-dichloroethene (DCE) were detected in soil gas sample SB-14 at concentrations of 13 and 1.42  $\mu\text{g}/\text{m}^3$ , respectively. These concentrations are less than their respective residential ESLs.
- Several additional VOCs were detected in the soil gas samples collected and analyzed but the concentrations were less than their respective residential ESLs, where available.

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- Oxygen was detected in each of the four soil gas samples collected and analyzed, observed at concentrations ranging from 7.58% to 21.5%, indicating generally aerobic conditions likely exist at the Site. Carbon dioxide was detected in two of the four soil gas samples collected and analyzed, observed at concentrations of 2.39% to 15.4% in SB-13 and SB-14, respectively. Methane was detected in one of the four soil gas samples collected and analyzed, observed at a concentration of 4.4% at boring SB-14, which exceeds the DTSC methane response level of 0.50% (DTSC, 2005). The observation of elevated concentrations of carbon dioxide and methane indicates that degradation of organic compounds is likely occurring in the subsurface at or near the Site.
- Helium, used for leak detection, was not detected in the four soil gas samples collected and analyzed, indicating that no leaks in the sampling apparatus were identified, and the sample results are deemed valid.

## **5.0 SUMMARY AND CONCLUSIONS**

AEI has performed a Phase II subsurface investigation at the Site as described above. The purpose of this investigation was to provide current site condition data to supplement the prior subsurface investigations (ACC, 2017b and 2018). AEI advanced five borings to a total depth 12 feet bgs for the collection of soil and groundwater samples. Groundwater samples were collected from three of the five borings (SB-10, SB-13, and SB-15). Four additional borings were advanced to a depth of approximately 3 to 4 feet bgs adjacent to borings (SB-10, SB-12, SB-13, and SB-14) and were converted into temporary probes for soil gas sampling.

TPH-d, TPH-mo, chlorobenzene, several metals, PAHs, and OCPs were detected soil samples, but only concentrations of arsenic, nickel and the PAH benzo(a)pyrene exceed their respective residential and/or construction worker ESLs. Arsenic and nickel were detected at concentrations that resemble background concentrations for metals found in the San Francisco Bay Area. The concentration of benzo(a)pyrene only exceeds the residential ESL in one sample collected at 5 feet bgs (boring SB-14) and may be associated with TPH-d and TPH-mo observed in the same sample (a petroleum-like odor was noted in the field in this boring from approximately 3 to 8 feet bgs). Based on the use of the vicinity of boring SB-14 as a parking lot and the proximity of the reported diesel generator and AST, AEI recommends additional investigation to characterize TPH-d, TPH-mo, and PAHs in shallow soil near SB-14. In addition, it may be appropriate to conduct a geophysical survey in the vicinity of the storage shed to look for potential underground storage tank(s) that may have been associated with the diesel generator. Benzo(a)pyrene was also detected in several 1-foot bgs samples at concentrations slightly below the residential ESL; however, cumulative risk from the carcinogenic PAHs likely exceeds acceptable residential levels. It is anticipated that a Site Management Plan (SMP) will need to be prepared for the Site to proscribe soil handling operations during Site redevelopment. Expected import of soil to the Site is likely to be adequate to address the potential residential exposure pathway to existing soil. Based on a March 29, 2018 letter from SMCEHS evaluating the prior investigation data (SMCEHS, 2018), the SMP will need to be submitted to SMCDEH for review and approval.

In addition to the soil impacts, TPH-d and TPH-mo were observed in groundwater at each of the three sampling locations, and concentrations of TPH-d exceed its Priority MCL ESL. Although these concentrations of TPH-d and TPH-mo are somewhat higher than what ACC observed in 2017 (ACC, 2017b), they appear to be generally consistent and may be related to an off-site

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source (or sources). AEI recommends attempting to obtain one or more groundwater samples in the vicinity of SB-14 to investigate the potential source of observed TPH-d in groundwater further.

In soil gas, benzene was observed at concentrations exceeding the residential ESL in three of the four samples collected and analyzed. Elevated levels of PCE and naphthalene were also observed in one soil gas sample each. While the previous investigation did not detect VOCs in soil gas (ACC, 2018), the difference appears to be largely a result of the somewhat higher detection limits obtained at the time. The aerobic conditions observed at the Site suggest that hydrocarbons, such as benzene and naphthalene, should naturally attenuate in the subsurface. Based on this and previous investigations, the presence of PCE above its residential ESL at SB-10 appears to be limited in extent and not likely indicative of a significant release. Methane was observed above the DTSC methane response level at location SB-14 and is likely associated with the TPH observed in soil at this boring. Further investigation of soil gas in the area of SB-10 and SB-14 may be appropriate to assess the potential need for vapor intrusion mitigation measures during site redevelopment.

Per the drilling permit requirements, AEI will submit the borings logs, site map, and analytical data to the SMCEHS.

## **6.0 REFERENCES**

An electronic record for this Site can be found on the State of California GeoTracker website at:

[https://geotracker.waterboards.ca.gov/profile\\_report?global\\_id=T10000011503](https://geotracker.waterboards.ca.gov/profile_report?global_id=T10000011503).

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## **7.0 REPORT LIMITATIONS AND RELIANCE**

This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the requested information, subject to scope of work for which AEI was retained and limitations inherent in this type of work, but it cannot be assumed that they are representative of areas not sampled. This report should not be regarded as a guarantee that no further contamination beyond that which could have been detected within the scope of this investigation is present beneath the subject property. Undocumented, unauthorized releases of hazardous material, the remains of which are not readily identifiable by visual inspection and are of different chemical constituents, are difficult and often impossible to detect within the scope of a chemical specific investigation.

Any conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document. These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work. No other warranty, either expressed or implied, has been made.

This investigation was prepared for the sole use and benefit of City of Redwood City. All reports, both verbal and written, whether in draft or final, are for the benefit of City of Redwood City. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of AEI. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with AEI granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against AEI, its officers, employees, vendors, successors or assigns. Reliance is provided in accordance with AEI's Proposal and Standard Terms & Conditions executed by City of Redwood City. The limitation of liability defined in the Terms and Conditions is the aggregate limit of AEI's liability to the client and all relying parties.

**Limited Phase II Subsurface Investigation**  
1580 and 1590 Maple Street, Redwood City, California

AEI appreciates the opportunity to support this important project. If there are any questions regarding our investigation, please do not hesitate to contact Mr. Peter McIntyre at (925) 746-6004, or the undersigned.

Sincerely,  
**AEI Consultants**

*Ryan Missel*

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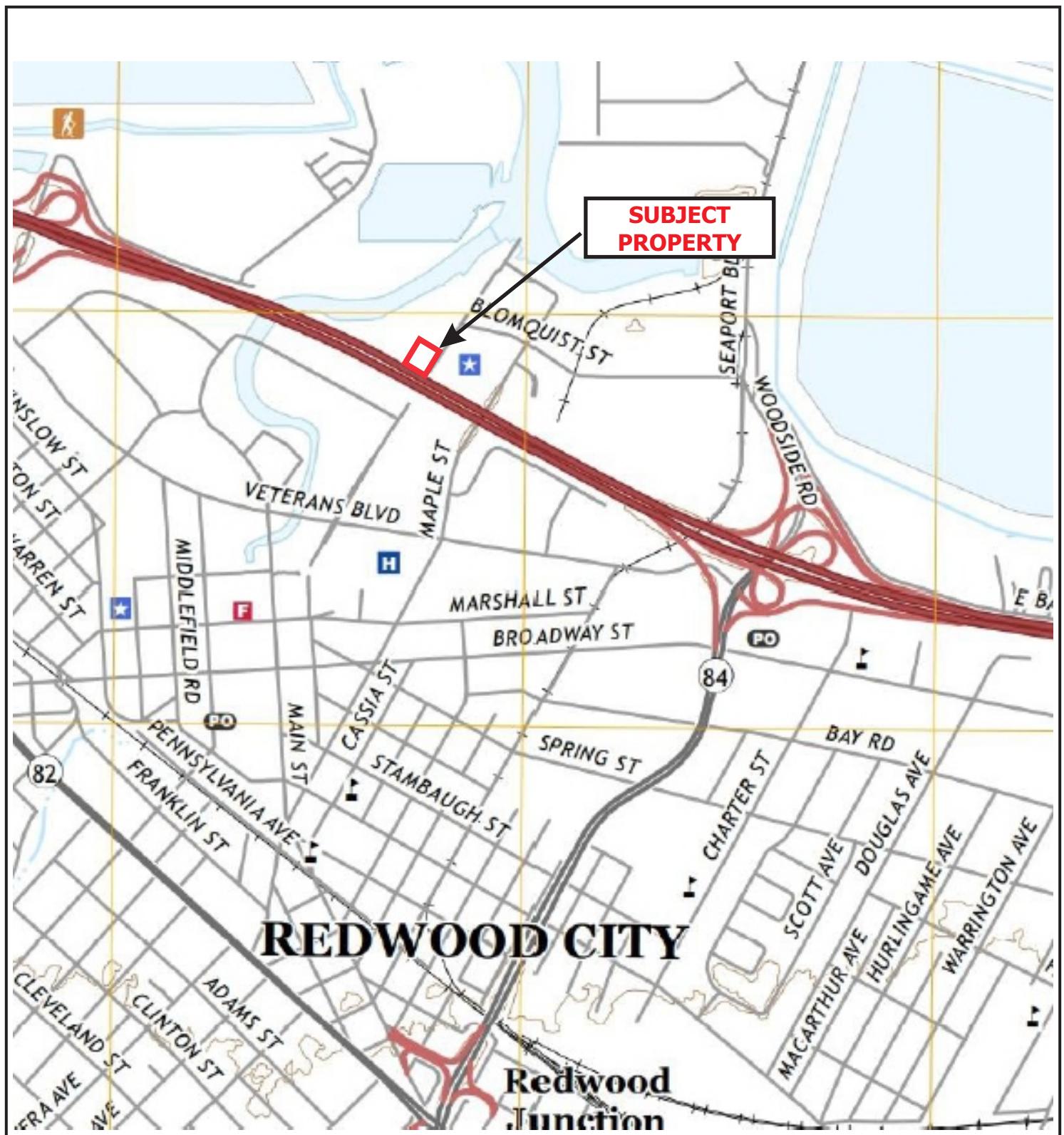
Neill D. Butcher, PE  
Senior Project Manager



## **FIGURES**



**AEI Consultants**



#### LEGEND



SCALE: 1" = 1,000'

Map: Topographic Map, Palo Alto, California  
Date: 2018  
Source: USGS

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#### SITE LOCATION MAP

1580 & 1590 MAPLE STREET  
REDWOOD CITY, CALIFORNIA

**FIGURE 1**  
Project No. 452498



## LEGEND

Base Map Source: Google Pro (Nov. 2021)

— Approximate Property Boundary

0 40 80  
SCALE: 1" = 100'

● Proposed Soil Boring Not Completed (refusal)

● Soil Boring for Soil, Groundwater and/or Soil Gas Sampling

□ Storage Shed with Reported Back-Up Diesel Generator

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**SITE MAP**

1580 & 1590 MAPLE STREET  
REDWOOD CITY, CALIFORNIA

**FIGURE 2**  
Project No. 452498

## TABLES



**AEI** Consultants

**TABLE 1: SOIL SAMPLE DATA SUMMARY - TPH and VOCs**  
**1580 and 1590 Maple Street, Redwood City, California**

Location ID	Date	Depth (feet bgs)	TPH-g (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	PCE (mg/kg)	TCE (mg/kg)	cis-1,2-DCE (mg/kg)	Vinyl Chloride (mg/kg)	Chloro-benzene (mg/kg)	Remaining VOCs (mg/kg)
SB-10	12/3/2021	1	<0.110	10.2	95.9	<0.011	<0.011	<0.011	<0.022	<0.011	<0.011	<0.011	<0.011	<0.011	<RL
SB-10	12/3/2021	12	<0.100	3.39	18.9	<0.010	<0.010	<0.010	<0.020	<0.010	<0.010	<0.010	<0.010	0.012	<RL
SB-12	12/3/2021	1	<0.150	20.4	279	<0.015	<0.015	<0.015	<0.030	<0.015	<0.015	<0.015	<0.015	<0.015	<RL
SB-12	12/3/2021	8	<0.120	17.5	173	<0.012	<0.012	<0.012	<0.024	<0.012	<0.012	<0.012	<0.012	<0.012	<RL
SB-13	12/3/2021	1	<0.100	55.0	284	<0.010	<0.010	<0.010	<0.020	<0.010	<0.010	<0.010	<0.010	<0.010	<RL
SB-13	12/3/2021	8	<0.100	9.22	95.5	<0.010	<0.010	<0.010	<0.020	<0.010	<0.010	<0.010	<0.010	<0.010	<RL
SB-14	12/3/2021	1	<0.110	<2.0	19.6	<0.011	<0.011	<0.011	<0.022	<0.011	<0.011	<0.011	<0.011	<0.011	<RL
SB-14	12/3/2021	5	<0.100	97.7	451	<0.010	<0.010	<0.010	<0.020	<0.010	<0.010	<0.010	<0.010	<0.010	<RL
SB-14	12/3/2021	12	<0.100	3.82	19.9	<0.010	<0.010	<0.010	<0.020	<0.010	<0.010	<0.010	<0.010	<0.010	<RL
SB-15	12/3/2021	8	<0.100	26.7	171	<0.010	<0.010	<0.010	<0.020	<0.010	<0.010	<0.010	<0.010	<0.010	<RL

Comparison Values:

ESL Direct Exposure - R	430	260	12,000	0.33	1,100	5.9	580	0.59	0.95	19	0.0083	270	Various
ESL Direct Exposure - CW	1,800	1,100	54,000	33	4,700	540	2,400	33	18	78	3.4	1,200	Various

Notes:

mg/kg	milligrams per kilogram
<RL	less than the laboratory reporting limit
NA	not analyzed
bgs	below ground surface
TPH-g	Total Petroleum Hydrocarbons as Gasoline
TPH-d	Total Petroleum Hydrocarbons as Diesel
TPH-mo	Total Petroleum Hydrocarbons as Motor Oil
PCE	Tetrachloroethene
TCE	Trichloroethene
cis-1,2-DCE	cis-1,2-Dichloroethene
VOC	Volatile organic compound
<b>Bold</b>	Result exceeds a Comparison Value

Comparison Values:

ESL Direct Exposure - R: Environmental Screening Levels (ESLs) showing Direct Exposure Human Health Residential (R) Use exposure risks from July 2019 (Rev. 2) ESL Summary Tables, prepared by the San Francisco Bay Regional Water Quality Control Board (RWQCB).

ESL Direct Exposure - CW: ESLs showing Direct Exposure Human Health Construction Worker (CW) Use exposure risks from July 2019 (Rev. 2) ESL Summary Tables, prepared by the RWQCB.

**TABLE 2: SOIL SAMPLE DATA SUMMARY - METALS AND ASBESTOS**  
**1580 and 1590 Maple Street, Redwood City, California**

Location ID	Date	Depth (feet bgs)	Sb (mg/kg)	As (mg/kg)	Ba (mg/kg)	Be (mg/kg)	Cd (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Ag (mg/kg)	Tl (mg/kg)	V (mg/kg)	Zn (mg/kg)	Asbestos (%)
SB-10	12/3/2021	1	<1.0	<b>3.12</b>	76.2	<1.0	<1.0	60.7	12.0	24.8	35.0	1.0	<1.0	<b>102</b>	<2.5	<1.0	<5.0	<25	61.0	<0.25
SB-10	12/3/2021	8	<1.0	<b>2.68</b>	24.6	<1.0	<1.0	41.7	6.26	12.4	3.55	<0.50	<1.0	47.9	<2.5	<1.0	<5.0	38.1	52.4	NA
SB-12	12/3/2021	1	<1.0	<1.0	11.3	<1.0	<1.0	37.0	18.1	73.1	2.95	<0.50	<1.0	38.3	<2.5	<1.0	<5.0	58.2	51.7	NA
SB-12	12/3/2021	8	<1.0	<b>2.41</b>	198	<1.0	<1.0	11.9	2.75	18.9	24.1	<0.50	2.2	18.3	<2.5	<1.0	<5.0	26.1	74.1	NA
SB-13	12/3/2021	1	<1.0	<b>5.96</b>	122	<1.0	<1.0	76.0	6.87	48.1	48.0	1.2	<1.0	<b>115</b>	<2.5	1.66	<5.0	38.2	134	NA
SB-13	12/3/2021	5	<1.0	<b>2.55</b>	123	<1.0	1.25	39.9	8.64	46.2	56.0	<0.50	<1.0	53.0	<2.5	<1.0	<5.0	28.7	177	NA
SB-14	12/3/2021	1	<1.0	<1.0	27.6	<1.0	<1.0	132	26.1	71.2	<1.0	<0.50	<1.0	<b>115</b>	<2.5	<1.0	<5.0	114	59.8	<0.25
SB-14	12/3/2021	5	<1.0	<b>5.12</b>	58.2	<1.0	1.04	75.2	15.6	55.5	39.6	<0.50	<1.0	<b>114</b>	<2.5	1.09	<5.0	52.8	102	NA
SB-15	12/3/2021	1	<1.0	<1.0	38.1	<1.0	<1.0	25.0	10.9	50.8	6.89	<0.50	<1.0	25.2	<2.5	<1.0	<5.0	46.8	34.9	NA
Comparison Values:																				
ESL Direct Exposure - R			11	0.067 <sup>1</sup>	15,000	16	78	--	23	3,100	80	13	390	820	--	390	0.78	390	23,000	--
ESL Direct Exposure - CW			50	0.98 <sup>1</sup>	3,000	27	51	--	28	14,000	160	44	1,800	86	1,700	1,800	3.5	470	110,000	--
Maximum Background Concentrations			1.95	11.0	1,400	2.70	1.70	1,579	46.9	96.4	97.1	0.90	9.6	509	0.43	8.3	12,890	288	236	

Notes:

mg/kg Milligrams per kilogram  
 <RL less than the laboratory reporting limit

NA not analyzed

bgs Below ground surface

-- not established

<sup>1</sup> Arsenic concentrations from the study, "Establishing Background Arsenic in Soil of the San Francisco Bay Region" (2010), indicate background levels of arsenic in Bay Area soil typically range between 1.2 and 11 mg/kg.

Sb	Antimony	As	Arsenic	Ba	Barium
Be	Berryllium	Cd	Cadmium	Cr	Chromium (total)
Co	Cobalt	Cu	Copper	Pb	Lead
Hg	Mercury	Mo	Molybdenum	Ni	Nickel
Se	Selenium	Ag	Silver	Tl	Thallium
V	Vanadium	Zn	Zinc		

**Bold** Exceeds one or more screening level and may be subject to disposal restrictions.

Comparison Values:

ESL Direct Exposure - R: Environmental Screening Levels (ESLs) Direct Exposure Human Health Residential (R) Use exposure risks from July 2019 (Rev. 2) ESL Summary Tables, prepared by the San Francisco Bay Regional Water Quality Control Board (RWQCB).  
 ESL Direct Exposure - CW: ESLs Direct Exposure Human Health Construction Worker (CW) Use exposure risks from July 2019 (Rev. 2) ESL Summary Tables, prepared by the RWQCB.

Max. Background: Typical background concentrations provided here are based on "Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region" by Duvergé, D.J., dated December 2011 for arsenic and "Background Concentrations of Trace and Major Elements in California Soils", by Bradford, G.R., et al., dated March 1996 for remaining metals.

**TABLE 3: SOIL SAMPLE DATA SUMMARY - SVOCs**  
**1580 and 1590 Maple Street, Redwood City, California**

Location ID	Date	Depth (feet bgs)	Acenaphthalene (mg/kg)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benz(a)anthracene (mg/kg)	Benzo(a)pyrene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(g,h,i)perylene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenz[a,h]anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd)pyrene (mg/kg)	1-Methyl-naphthalene (mg/kg)	2-Methyl-naphthalene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)	Remaining SVOCs (mg/kg)
SB-10	12/3/2021	1	0.0077 J	0.0013 J	0.0095 J	0.054	0.078	0.13	0.11	0.041	0.051	0.010 J	0.098	0.0030 J	0.20	0.0055 J	0.011 J	0.073	0.039	0.11	<RL
SB-10	12/3/2021	8	<0.020	<0.020	<0.020	0.0069 J	<0.020	0.0069 J	0.0021 J	<0.020	0.0036 J	<0.020	0.0042 J	0.0054 J	0.0013 J	0.0034 J	0.0058 J	0.0056 J	0.015 J	0.0036 J	NA
SB-12	12/3/2021	1	<0.20	<0.20	<0.20	0.092 J	0.046 J	0.038 J	0.084 J	<0.20	0.100 J	0.015 J	<0.20	<0.20	0.011 J	<0.20	<0.20	<0.20	<0.20	0.061 J	NA
SB-13	12/3/2021	1	0.0054 J	0.0011 J	0.0081 J	0.046	0.071	0.12	0.075	0.027	0.046	0.0081 J	0.083	0.0025 J	0.15	0.0040 J	0.0097 J	0.027	0.031	0.10	NA
SB-14	12/3/2021	1	<0.0079	<0.0079	<0.0079	0.0024 J	<0.0079	0.00086 J	0.0011 J	<0.0079	0.0013 J	<0.0079	<0.0079	<0.0079	<0.0079	<0.0079	<0.0079	<0.0079	<0.0079	0.0013 J	<RL
SB-14	12/3/2021	5	0.023 J	0.016 J	0.058	0.25	<b>0.54</b>	0.56	0.39	0.17	0.19	0.028 J	0.83	0.021 J	0.67	0.016 J	0.034 J	0.27	0.13	1.1	NA
Comparison Values:																					
ESL Direct Contact - R			--	3,600	18,000	1.1	0.11	1.1	--	11	110	0.11	2,400	2,400	1.1	--	240	3.8	--	1,800	Various
ESL Direct Contact - CW			--	10,000	50,000	110	11	110	--	910	9,100	11	6,700	6,700	110	--	670	400	--	5,000	Various

Notes:

bgs Below ground surface  
J Estimated value - reported concentration less than the practical quantitation limit (PQL).  
<RL Less than the laboratory reporting limit  
mg/kg Milligrams per kilogram  
-- Not established  
SVOCs Semivolatile organic compounds

**Bold** Result exceeds a Comparison Value

Comparison Values:

ESL Direct Exposure - R: ESLs showing Direct Exposure Human Health Residential Use (R) exposure risk from July 2019 (Rev. 2) ESL Summary Tables, prepared by the San Francisco Bay Regional Water Quality Control Board (RWQCB).

ESL Direct Exposure - CW: ESLs showing Direct Exposure Human Health Construction Worker (CW) Use exposure risks from July 2019 (Rev. 2) ESL Summary Tables, prepared by the RWQCB.

**TABLE 4: SOIL SAMPLE DATA SUMMARY - PESTICIDES AND PCBs**  
**1850 and 1590 Maple Street, Redwood City, California**

Location ID	Date	Depth (feet bgs)	Heptachlor Epoxide (mg/kg)	Chlordane (mg/kg)	$\alpha$ -Chlordane (mg/kg)	$\gamma$ -Chlordane (mg/kg)	p,p-DDD (mg/kg)	p,p-DDE (mg/kg)	p,p-DDT (mg/kg)	Dieldrin (mg/kg)	Remaining Pesticides (mg/kg)	PCBs (mg/kg)
SB-10	12/3/2021	1	0.00069 J	0.0376 J	0.00420 J	0.00486 J	0.00297 J	0.00504 J	0.00615	0.00537 J	<RL	<0.100
SB-12	12/3/2021	1	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<RL	NA
SB-13	12/3/2021	1	0.00147 J	0.0900	0.0126	0.0171	0.00855	0.00891	0.0222	0.0174	<RL	NA
SB-14	12/3/2021	1	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<RL	<0.100

Comparison Values:

ESL Direct Exposure - R	0.062	0.48	--	--	2.7	1.8	1.9	0.032	Various	0.23
ESL Direct Exposure - CW	1.9	14	--	--	81	57	57	1.1	Various	5.5

Notes:

bgs	Below ground surface
DDE	Dichlorodiphenyldichloroethylene
DDT	Dichlorodiphenyltrichloroethane
ESL	Environmental screening level
J	Estimated value - reported concentration less than the practical quantitation limit (PQL).
<RL	Less than the laboratory reporting limit
mg/kg	Milligrams per kilogram
--	Not established
NA	Not analyzed
PCB	Polychlorinated biphenyl
<b>Bold</b>	Result exceeds a Comparison Value

Comparison Values:

ESL Direct Exposure - R: ESLs showing Direct Exposure Human Health Residential Use (R) exposure risk from July 2019 (Rev. 2) ESL Summary Tables, prepared by the San Francisco Bay Regional Water Quality Control Board (RWQCB).  
 ESL Direct Exposure - CW: ESLs showing Direct Exposure Human Health Construction Worker (CW) Use exposure risks from July 2019 (Rev. 2) ESL Summary Tables, prepared by the RWQCB.

**TABLE 5: GROUNDWATER SAMPLE DATA SUMMARY**  
**1580 and 1590 Maple Street, Redwood City, California**

Location ID	Date	Depth (feet bgs)	TPH-g ( $\mu\text{g/L}$ )	TPH-d ( $\mu\text{g/L}$ )	TPH-mo ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	PCE ( $\mu\text{g/L}$ )	TCE ( $\mu\text{g/L}$ )	cis-1,2-DCE ( $\mu\text{g/L}$ )	trans-1,2-DCE ( $\mu\text{g/L}$ )	Vinyl Chloride ( $\mu\text{g/L}$ )	Remaining VOCs ( $\mu\text{g/L}$ )
SB-10-W	12/3/2021	3.0	<210	<b>236</b>	631	<2.1	<2.1	<2.1	<4.2	<2.1	<2.1	<2.1	<2.1	<2.1	<RL
SB-13-W	12/3/2021	7.8	<420	<b>238</b>	1,290	<4.2	<4.2	<4.2	<8.4	<4.2	<4.2	<4.2	<4.2	<4.2	<RL
SB-15-W	12/3/2021	3.9	<420	<b>783</b>	1,930	<4.2	<4.2	<4.2	<8.4	<4.2	<4.2	<4.2	<4.2	<4.2	<RL
Comparison Values:															
ESL MCL Priority			760	200	--	1.0	40	30	20	5.0	5.0	6.0	10	0.50	Various
ESL Vapor Intrusion - R:			--	--	--	0.42	1,200	3.5	390	0.64	1.2	49	220	0.0086	Various

Notes:

$\mu\text{g/L}$	micrograms per liter
<RL	less than the laboratory reporting limit
bgs	below ground surface
--	not established
TPH-g	Total Petroleum Hydrocarbons as Gasoline
TPH-d	Total Petroleum Hydrocarbons as Diesel
TPH-mo	Total Petroleum Hydrocarbons as Motor Oil
PCE	Tetrachloroethene
TCE	Trichloroethene
cis-1,2-DCE	cis-1,2-Dichloroethene
trans-1,2-DCE	trans-1,2-Dichloroethene
<b>Bold</b>	Result exceeds a Comparison Value

Comparison Values:

ESL MCL Priority: Environmental Screening Levels (ESLs) showing Maximum Contaminant Levels (MCLs) from July 2019 (Rev. 2) ESL Summary Tables, prepared by the San Francisco Bay Regional Water Quality Control Board (RWQCB).  
 ESL Vapor Intrusion - R: ESLs showing Groundwater Vapor Intrusion (VI) Human Health Risk Levels for Residential (R) exposure risks from July 2019 (Rev. 2) ESL Summary Tables, prepared by the RWQCB.

**TABLE 6: SOIL GAS SAMPLE DATA SUMMARY**  
1580 and 1590 Maple Street, Redwood City, California

Location ID	Date	Depth (feet bgs)	Benzene ( $\mu\text{g}/\text{m}^3$ )	Toluene ( $\mu\text{g}/\text{m}^3$ )	Ethylbenzene ( $\mu\text{g}/\text{m}^3$ )	Xylenes ( $\mu\text{g}/\text{m}^3$ )	PCE ( $\mu\text{g}/\text{m}^3$ )	TCE ( $\mu\text{g}/\text{m}^3$ )	cis-1,2-DCE ( $\mu\text{g}/\text{m}^3$ )	Acetone ( $\mu\text{g}/\text{m}^3$ )	Carbon Disulfide ( $\mu\text{g}/\text{m}^3$ )	Chlorobenzene ( $\mu\text{g}/\text{m}^3$ )	Chloromethane ( $\mu\text{g}/\text{m}^3$ )	Cyclohexane ( $\mu\text{g}/\text{m}^3$ )	1,4-Dioxane ( $\mu\text{g}/\text{m}^3$ )
SB-10	12/3/2021	5	1.09	11.3	1.90	18.8	<b>37.8</b>	<1.07	<0.793	47.5	2.44	<0.924	1.32	2.25	<0.721
SB-12	12/3/2021	5	<b>3.67</b>	9.04	5.59	18.6	2.76	<1.07	<0.793	45.9	34.9	<0.924	6.53	7.37	1.29
SB-13	12/3/2021	5	<b>7.03</b>	113	34.8	191	<1.36	<1.07	<0.793	43.5	25.7	<0.924	1.49	8.44	<0.721
SB-14	12/3/2021	5	<b>3.39</b>	19.5	<0.867	7.98	5.45	13.0	1.42	50.9	47.9	24.6	1.18	33.2	<0.721
Comparison Values:															
ESL Vapor Intrusion - R:			3.2	10,000	37	3,500	15	16	280	1,100,000	--	1,700	3,100	--	12

ESE Vapor Intrusion - R.	3.1
<b>Notes:</b>	
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
<RL	less than the laboratory reporting limit
bgs	below ground surface
--	not established
PCE	Tetrachloroethene
TCE	Trichloroethene
cis-1,2-DCE	cis-1,2-Dichloroethene
<b>Bold</b>	Result exceeds a Comparison Value

#### Comparison Values:

ESL Vapor Intrusion - R: Environmental Screening Levels (ESLs) showing Subslab/Soil Gas Vapor Intrusion Human Health Risk Levels for the Residential (R) Use Exposure Scenario from July 2019 ESL Summary Tables, prepared by the San Francisco Bay Regional Water Quality Control Board

**TABLE 6: SOIL GAS SAMPLE DATA SUMMARY**  
**1580 and 1590 Maple Street, Redwood City, California**

Location ID	Date	Depth (feet bgs)	Ethanol ( $\mu\text{g}/\text{m}^3$ )	4-Ethyltoluene ( $\mu\text{g}/\text{m}^3$ )	Trichlorofluoromethane ( $\mu\text{g}/\text{m}^3$ )	Dichlorodifluoromethane ( $\mu\text{g}/\text{m}^3$ )	Heptane ( $\mu\text{g}/\text{m}^3$ )	n-Hexane ( $\mu\text{g}/\text{m}^3$ )	Isopropylbenzene ( $\mu\text{g}/\text{m}^3$ )	Methylene Chloride ( $\mu\text{g}/\text{m}^3$ )	Methyl-isobutyl Ketone ( $\mu\text{g}/\text{m}^3$ )	2-Butanone ( $\mu\text{g}/\text{m}^3$ )	Naphthalene ( $\mu\text{g}/\text{m}^3$ )	2-Propanol ( $\mu\text{g}/\text{m}^3$ )	Propene ( $\mu\text{g}/\text{m}^3$ )	1,2,4-Trimethylbenzene ( $\mu\text{g}/\text{m}^3$ )
SB-10	12/3/2021	5	16.7	7.75	1.55	1.89	1.13	104	<0.983	1.02	<5.12	10.0	<3.30	17.3	<2.15	11.3
SB-12	12/3/2021	5	13.2	18.1	2.83	1.85	1.90	9.17	<0.983	1.80	5.12	13.1	<b>48.1</b>	23.0	50.6	39.1
SB-13	12/3/2021	5	11.0	26.7	1.74	1.62	13.6	15.5	8.70	1.02	<5.12	35.4	<3.30	7.35	<2.15	26.5
SB-14	12/3/2021	5	28.1	1.50	<1.12	<0.989	18.5	86.7	<0.983	<0.694	<5.12	19.0	<3.30	15.4	<2.15	2.23
Comparison Values:																
ESL Vapor Intrusion - R:																
--	--	--	--	--	--	--	--	--	--	34	100,000	170,000	2.8	--	--	--

Notes:

$\mu\text{g}/\text{m}^3$  micrograms per cubic meter  
 <RL less than the laboratory reporting limit  
 bgs below ground surface  
 -- not established  
 PCE Tetrachloroethene  
 TCE Trichloroethene  
 cis-1,2-DCE cis-1,2-Dichloroethene  
**Bold** Result exceeds a Comparison Value

Comparison Values:

ESL Vapor Intrusion - R: Environmental Screening Levels (ESLs) showing Subslab/Soil Gas Vapor Intrusion Human Health Risk Levels for the Residential (R) Use Exposure Scenario from July 2019 ESL Summary Tables, prepared by the San Francisco Bay Regional Water Quality Control Board

**TABLE 6: SOIL GAS SAMPLE DATA SUMMARY**  
**1580 and 1590 Maple Street, Redwood City, California**

Location ID	Date	Depth (feet bgs)	1,3,5-Trimethylbenzene ( $\mu\text{g}/\text{m}^3$ )	2,2,4-Trimethylbenzene ( $\mu\text{g}/\text{m}^3$ )	1,1-Difluoroethane ( $\mu\text{g}/\text{m}^3$ )	Remaining VOCs ( $\mu\text{g}/\text{m}^3$ )	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	Helium Detected in Sample (%)	Field Helium Shroud (%)	Maximum Allowable Helium Detection in Sample (%)
SB-10	12/3/2021	5	3.09	2.48	33.2	<RL	21.5	<0.50	<0.40	<0.100	21.1	1.06%
SB-12	12/3/2021	5	5.35	3.20	<2.70	<RL	18.6	<0.50	<0.40	<0.100	20.1	1.01%
SB-13	12/3/2021	5	10.8	7.33	138	<RL	18.2	2.39	<0.40	<0.100	24.7	1.24%
SB-14	12/3/2021	5	<0.982	13.8	101	<RL	7.58	4.88	4.40	<0.100	22.9	1.15%

Comparison Values:

ESL Vapor Intrusion - R:

-- -- -- Various -- -- -- -- -- -- --

Notes:

$\mu\text{g}/\text{m}^3$  micrograms per cubic meter

<RL less than the laboratory reporting limit

bgs below ground surface

-- not established

PCE Tetrachloroethene

TCE Trichloroethene

cis-1,2-DCE cis-1,2-Dichloroethene

**Bold** Result exceeds a Comparison Value

Comparison Values:

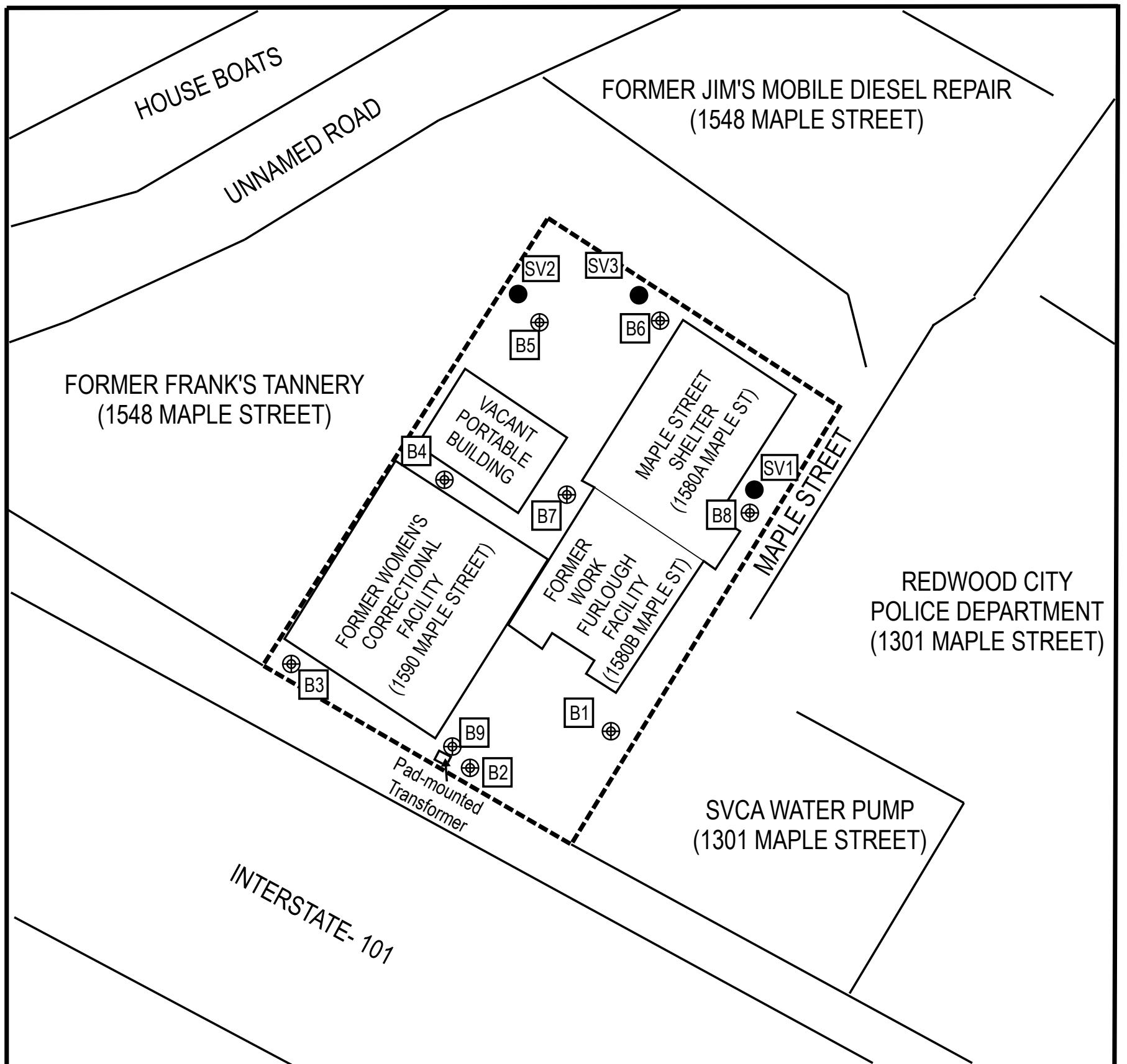
ESL Vapor Intrusion - R: Environmental Screening Levels (ESLs) showing Subslab/Soil Gas Vapor Intrusion Human Health Risk Levels for the Residential (R) Use Exposure Scenario from July 2019 ESL Summary Tables, prepared by the San Francisco Bay Regional Water Quality Control Board

**APPENDIX A**

**HISTORIC SITE DATA**



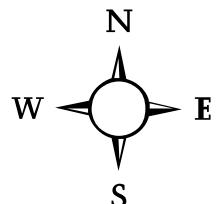
**AEI Consultants**



BASEMAP SOURCE: GOOGLE EARTH (04.19.17)

ALL DIMENSIONS & LOCATIONS APPROXIMATE

Scale (feet): 0 100 200



- = ACC SOIL VAPOR SAMPLING LOCATIONS (2018)
- ⊕ = PREVIOUS ACC SAMPLING LOCATIONS (2017)



**TABLE 1**  
**Soil Analytical Results Summary (TPH, VOCs, OCPs, PCBs & Asbestos)**  
**1580-1590 Maple Street, Redwood City, CA**  
**ACC Project Number: 6803-011.01**

Sample Date	Sample ID	Chemical Compound & Concentrations (mg/kg)																				
		TPH-g	TPH-d	TPH-mo	Acetone	2-Butanone (MEK)	Carbon Disulfide	Chlorobenzene	1,4-Dichlorobenzene	Ethylbenzene	Other VOCs	Chlordane (Technical)	a-Chlordane	g-Chlordane	DDD	DDE	DDT	Dieldrin	Heptachlor Epoxide	Other OCPs	Total PCBs	Asbestos (%)
8.15.2017	B1-0.5'	0.25	<1.0	4.4	<0.010	<0.020	<0.0050	<0.0050	<0.0050	<0.0050	ND	-	-	-	-	-	-	-	-	-		
	B2-0.5'	0.54	<1.0	6.4	<0.010	<0.020	<0.0050	<0.0050	<0.0050	<0.0050	ND	--	--	--	--	--	--	--	--	--		
	B3-0.5'	0.36	1.6	31	<0.010	<0.020	<0.0050	<0.0050	<0.0050	<0.0050	ND	--	--	--	--	--	--	--	--	<0.25		
	B3-4'	0.23	1.6	5.9	<0.010	<0.020	<0.0050	<0.0050	<0.0050	<0.0050	ND	--	--	--	--	--	--	--	--	<0.25		
	B4-0.5'	0.32	6.9	63	<0.010	<0.020	<0.0050	<0.0050	<0.0050	<0.0050	ND	--	--	--	--	--	--	--	--	--		
	B5-0.5'	0.38	4.2	35	<0.010	<0.020	<0.0050	<0.0050	<0.0050	<0.0050	ND	--	--	--	--	--	--	--	--	<0.25		
	B6-0.5'	0.30	<1.0	8.1	<0.010	<0.020	<0.0050	<0.0050	<0.0050	<0.0050	ND	--	--	--	--	--	--	--	--	--		
	B7-0.5'	0.37	3.5	26	<0.010	<0.020	<0.0050	<0.0050	<0.0050	<0.0050	ND	--	--	--	--	--	--	--	--	<0.25		
	B8-0.5'	0.38	<1.0	6.8	<0.010	<0.020	<0.0050	<0.0050	<0.0050	<0.0050	ND	--	--	--	--	--	--	--	--	--		
	B9-1'	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	ND <0.25		
	B1,2,3,4-0.5'	--	--	--	--	--	--	--	--	--	ND	0.15	0.020	0.020	<0.0010	0.0026	0.010	<0.0010	0.00090	ND	ND	
	B1,2,3,4-8'	1.2	1.4	7.9	0.080	0.016	0.033	0.011	0.0025	0.0027	ND	<0.025	<0.0010	0.00039	0.0019	0.0040	<0.0010	0.00083	<0.0010	ND	ND <0.25	
	B5,6,7,8-0.5'	--	--	--	--	--	--	--	--	--	ND	0.054	0.0078	0.0059	0.0030	0.0057	0.0092	0.0024	<0.0010	ND	ND	
	B5,6,7,8-8'	0.25	<1.0	<5.0	0.056	0.0069	0.0022	0.014	<0.0050	<0.0050	ND	<0.025	<0.0010	0.00047	0.00037	0.00042	<0.0010	<0.0010	<0.0010	ND	ND <0.25	
Direct Exposure HHRSLs (Residential, Table S-1)		740	230	11000	59000	31000	--	250	3.0	5.1	--	0.48	--	--	2.7	1.9	1.9	0.038	0.067	--	0.25	--
Direct Exposure HHRSLs (Construction, Table S-1)		2800	880	32000	260000	140000	--	1100	310	480	--	14	--	--	81	57	57	1.1	1.9	--	5.6	--
Hazardous Waste TTLC		--	--	--	--	--	--	--	--	--	ND	2.5	2.5	2.5	1.0	1.0	1.0	1.0	4.7	--	50	1%

TPH=Total Petroleum Hydrocarbons specified as gasoline-range (TPH-g), diesel-range (TPH-d) and motor oil-range (TPH-mo); VOCs = Volatile Organic Compounds; SVOCs = Semi-Volatile Organic Compounds; PAHs/PNAs = Polynuclear Aromatic Hydrocarbons; OCPs = Organochlorine Pesticides; mg/kg = milligrams per kilogram; HHR SLs = Human Health Risk Screening Levels published by the San Francisco Bay Regional Water Quality Control Board (February 2016);

TABLE 2  
Soil Analytical Results Summary (SVOCs & PAHs)  
1580-1590 Maple Street, Redwood City, CA  
ACC Project Number: 6803-011.01

Sample Date	Sample ID	Analytical Results (mg/kg)																							
		Benzo (a) pyrene	Benzo (b) fluoranthene	Dibenz (a,h) anthracene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenol	Other SVOCs	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenz (a,h) anthracene	Fluoranthene	Indeno (1,2,3-cd) pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	Other PAHs
8.15.2017	B1-0.5'	--	--	--	--	--	--	0.0041	<0.010	0.0073	<0.010	0.0034	0.0038	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	ND	
	B2-0.5'	--	--	--	--	--	--	<0.010	<0.010	0.0057	<0.010	0.0032	0.0033	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	ND	
	B3-0.5'	--	--	--	--	--	--	<0.050	<0.050	0.043	0.017	0.028	0.056	0.033	0.017	0.027	<0.050	0.024	<0.050	<0.050	<0.050	<0.050	<0.050	ND	
	B3-4'	--	--	--	--	--	--	<0.010	<0.010	0.032	0.015	0.027	0.0094	0.0096	0.035	<0.010	0.053	<0.0049	0.0053	0.0073	0.0033	0.038	0.065	ND	
	B4-0.5'	--	--	--	--	--	--	<0.010	<0.010	0.014	0.012	0.014	0.025	0.0097	0.011	0.0069	0.014	0.013	<0.010	0.0034	0.0047	0.0056	0.018	ND	
	B5-0.5'	--	--	--	--	--	--	0.0060	0.0078	0.045	0.087	0.10	0.20	0.047	0.054	0.014	0.11	0.11	<0.029	0.0024	0.0070	0.035	0.14	ND	
	B6-0.5'	--	--	--	--	--	--	<0.010	<0.010	0.010	0.0066	0.0097	0.014	0.0069	0.0050	0.0060	0.0079	0.0074	<0.029	<0.010	<0.016	0.0047	0.0092	ND	
	B7-0.5'	--	--	--	--	--	--	0.0051	0.0071	0.047	0.10	0.12	0.15	0.046	0.055	0.012	0.14	0.086	<0.029	<0.010	0.0063	0.029	0.18	ND	
	B8-0.5'	--	--	--	--	--	--	<0.010	<0.010	0.012	0.0072	0.010	0.017	0.0086	0.0065	0.0063	0.0083	0.0093	<0.029	<0.010	<0.016	0.0047	0.011	ND	
	B9-1'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	B1,2,3,4-0.5'	0.0048	<0.012	<0.0025	<0.012	<0.0025	1.1	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	B1,2,3,4-8'	0.012	0.016	<0.0025	<0.012	0.0028	2.3	ND	<0.010	<0.010	0.0089	0.0051	0.0089	0.0058	0.0027	0.0095	<0.010	0.0099	<0.010	<0.010	<0.010	0.0034	0.0083	0.012	ND
	B5,6,7,8-0.5'	0.039	0.045	0.0050	0.038	0.056	0.79	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	B5,6,7,8-8'	0.0052	<0.012	<0.0025	<0.012	<0.0025	0.40	ND	<0.010	<0.010	0.0092	0.0044	0.0071	0.0037	0.0022	0.0040	<0.010	0.0082	<0.010	<0.010	<0.010	0.0019	<0.010	0.014	ND
Direct Exposure HHRSLs (Residential, Table S-1)	0.016	0.16	0.016	0.16	3.3	23000	--	--	18000	0.16	0.016	0.16	--	1.6	15	0.016	2400	0.16	--	240	3.3	--	1800	--	
Direct Exposure HHRSLs (Construction, Table S-1)	1.6	0.16	1.6	0.16	350	98000	--	--	50000	16	1.6	16	--	150	1500	1.6	6700	16	--	670	350	--	5000	--	
Hazardous Waste TTLC	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		

TPH=Total Petroleum Hydrocarbons specified as gasoline-range (TPH-g), diesel-range (TPH-d) and motor oil-range (TPH-mo); VOCs = Volatile Organic Compounds; SVOCs = Semi-Volatile Organic Compounds; PAHs = Polynuclear Aromatic Hydrocarbons; OCPs = Organochlorine Pesticides; mg/kg = milligrams per kilogram; HHR SLs = Human Health Risk Screening Levels published by the San Francisco Bay Regional Water Quality Control Board (February 2016);

**TABLE 3**  
**Soil Analytical Results Summary (Metals)**  
**1580-1590 Maple Street, Redwood City, CA**  
**ACC Project Number: 6803-011.01**

Sample Date	Sample ID	Chemical Compound & Concentrations (mg/kg)																			
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Chromium STLC (mg/L)	Chromium TCLP (mg/L)	Cobalt	Copper	Lead	Lead STLC (mg/L)	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
8.15.2017	B1-0.5'	<0.50	0.52	15	0.26	0.12	77	0.15	--	23	86	3.9	--	0.076	0.25	71	0.15	0.12	<0.50	120	63
	B2-0.5'	0.19	2.2	83	0.44	0.073	84	0.13	--	16	41	4.8	--	0.089	0.37	72	0.14	0.078	<0.50	87	46
	B3-0.5'	0.13	1.3	45	0.34	0.14	81	0.19	--	24	100	11	--	0.12	0.28	78	0.2	0.11	<0.50	120	100
	B3-4'	0.52	2.2	250	0.10	<0.25	5.7	--	--	1.0	4.4	8.6	--	0.056	2.4	6.5	0.13	<0.50	<0.50	12	11
	B4-0.5'	2.4	4.4	340	0.37	0.42	83	0.23	--	14	150	72	0.94	0.30	1.1	83	0.29	0.21	0.22	66	170
	B5-0.5'	0.69	8.2	130	0.54	0.73	110	0.49	<0.10	15	49	51	0.96	1.3	1.3	150	0.42	1.2	0.18	56	120
	B6-0.5'	0.21	1.5	69	0.36	0.16	130	0.28	<0.10	25	73	8.3	--	0.12	1	110	0.18	0.10	<0.50	130	68
	B7-0.5'	0.41	4.1	95	0.39	0.65	110	0.37	<0.10	17	48	38	--	1.4	0.48	140	0.25	0.50	0.11	67	92
	B8-0.5'	0.20	2.2	87	0.43	0.22	150	0.30	<0.10	27	82	20	--	0.12	0.36	130	0.22	0.13	<0.50	150	86
	B9-1'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	B1,2,3,4-0.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	B1,2,3,4-8'	0.74	3.0	230	0.29	0.23	34	--	--	6.3	41	14	--	0.19	1.6	39	0.23	0.14	0.19	36	56
	B5,6,7,8-0.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	B5,6,7,8-8'	0.35	4.3	79	0.59	0.092	77	0.18	--	8.5	25	12	--	0.28	1.1	86	0.21	0.10	0.14	50	67
Direct Exposure HHRSLs (Residential, Table S-1)	31	0.067	15000	150	39	120000	--	--	23	3100	80	--	13	390	820	390	390	0.78	390	23000	
Direct Exposure HHRSLs (Construction, Table S-1)	140	0.98	3000	42	43	530000	--	--	28	14000	160	--	44	1800	86	1700	1800	3.5	470	110000	
Hazardous Waste TTLC	500	500	10000	75	100	2500	--	--	8000	2500	1000	--	20	3500	2000	100	500	700	2400	5000	
Hazardous Waste TCLP (mg/L)	--	--	--	--	--	--	--	10	--	--	--	--	--	--	--	--	--	--	--		
Hazardous Waste STLC (mg/L)	--	--	--	--	--	--	5.0	--	--	--	--	--	5.0	--	--	--	--	--	--		

mg/kg = milligrams per kilogram; HHR SLs = Human Health Risk Screening Levels published by the San Francisco Bay Regional Water Quality Control Board (February 2016); TTLC = Total Threshold Limit Concentration; STLC = Soluble Threshold Limit Concentration; TCLP = Toxicity Characteristic Leaching Procedure. \*Arsenic & Cobalt: Typical background levels for San Francisco Bay Area

**TABLE 4**  
**Groundwater Analytical Results Summary (TPH & VOCs)**  
**1580-1590 Maple Street, Redwood City, CA**  
**ACC Project Number: 6803-011.01**

Sample Date	Sample ID	Chemical Compound & Concentrations (ug/L)																	
		TPH-g	TPH-d	TPH-mo	Acetone	Benzene	2-Butanone (MEK)	t-Butyl alcohol (TBA)	Carbon Disulfide	Chlorobenzene	1,2-Dichlorobenzene	1,4-Dichlorobenzene	Methyl-t-butyl ether (MTBE)	Methylene chloride	MIBK	Styrene	Toluene	Total Xylenes	Other VOCs
8.16.2017	B3-W	<50	48	370	35	<0.50	5.1	<2.0	0.12	<0.50	<0.50	<0.50	0.43	0.11	0.46	<0.50	0.20	<0.50	ND
	B4-W	24	150	750	9.5	<1.2	<5.0	6.9	1.1	0.86	0.53	<1.2	58	<1.2	<1.2	0.79	0.14	1.2	ND
	B6-W	28	84	380	43	<0.50	8.5	1.5	0.72	9.1	<0.50	0.15	0.62	0.11	<0.50	<0.50	0.13	<0.50	ND
	B7-W	<50	<50	180	13	0.13	1.8	<2.0	0.15	0.20	0.11	<0.50	<0.50	0.12	<0.50	<0.50	0.11	<0.50	ND
	B8-W	<50	120	800	9.5	<0.50	1.6	<2.0	0.19	<0.50	<0.50	<0.50	0.11	<0.50	<0.50	0.060	<0.50	ND	
Vapor Intrusion HHR SLs (Residential, Table GW-3)		--	--	--	34000000	1.1	4300000	--	--	1400	12000	12	1200	48	1600000	30000	3600	1300	--
GW Direct Exposure HHRSLs (Table GW-1)		220	150	150	14000	0.15	5600	12	--	70	300	0.48	13	0.93	120	0.50	150	190	--
VOCs = Volatile Organic Compounds; ug/L = micrograms per liter; HHR SLs = Human Health Risk Screening Levels published by the San Francisco Bay Regional Water Quality Control Board (February 2016)																			



Air Toxics

EPA METHOD TO-15 GC/MS FULL SCAN  
1580 Maple

<b>Client ID:</b>	SV1	<b>Date/Time Analyzed:</b>	2/5/18 07:25 PM
<b>Lab ID:</b>	1802070A-01A	<b>Dilution Factor:</b>	2.44
<b>Date/Time Collecte</b>	1/30/18 11:50 AM	<b>Instrument/Filename:</b>	msd3.i / 3020517
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.61	2.7	6.6	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.40	3.4	8.4	Not Detected
1,1,2-Trichloroethane	79-00-5	0.89	2.7	6.6	Not Detected
1,1-Dichloroethane	75-34-3	0.54	2.0	4.9	Not Detected
1,1-Dichloroethene	75-35-4	0.63	1.9	4.8	Not Detected
1,2,4-Trichlorobenzene	120-82-1	1.9	14	36	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.23	2.4	6.0	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.64	3.7	9.4	Not Detected
1,2-Dichlorobenzene	95-50-1	0.52	2.9	7.3	Not Detected
1,2-Dichloroethane	107-06-2	0.51	2.0	4.9	Not Detected
1,2-Dichloropropane	78-87-5	0.71	2.2	5.6	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.56	2.4	6.0	Not Detected
1,3-Butadiene	106-99-0	0.89	1.1	2.7	Not Detected
1,3-Dichlorobenzene	541-73-1	0.48	2.9	7.3	Not Detected
1,4-Dichlorobenzene	106-46-7	0.25	2.9	7.3	Not Detected
1,4-Dioxane	123-91-1	1.8	7.0	18	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.47	2.3	5.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.6	5.8	14	Not Detected
2-Hexanone	591-78-6	1.6	8.0	20	Not Detected
2-Propanol	67-63-0	0.79	4.8	12	Not Detected
3-Chloropropene	107-05-1	1.2	6.1	15	Not Detected
4-Ethyltoluene	622-96-8	0.55	2.4	6.0	Not Detected
4-Methyl-2-pentanone	108-10-1	0.88	2.0	5.0	Not Detected
Acetone	67-64-1	1.4	4.6	29	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN  
1580 Maple

<b>Client ID:</b>	SV1	<b>Date/Time Analyzed:</b>	2/5/18 07:25 PM
<b>Lab ID:</b>	1802070A-01A	<b>Dilution Factor:</b>	2.44
<b>Date/Time Collecte</b>	1/30/18 11:50 AM	<b>Instrument/Filename:</b>	msd3.i / 3020517
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
alpha-Chlorotoluene	100-44-7	0.54	2.5	6.3	Not Detected
Benzene	71-43-2	0.38	1.6	3.9	Not Detected
Bromodichloromethane	75-27-4	0.67	3.3	8.2	Not Detected
Bromoform	75-25-2	0.49	5.0	13	Not Detected
Bromomethane	74-83-9	3.0	7.6	47	Not Detected
Carbon Disulfide	75-15-0	1.0	6.1	15	Not Detected
Carbon Tetrachloride	56-23-5	0.40	3.1	7.7	Not Detected
Chlorobenzene	108-90-7	0.46	2.2	5.6	Not Detected
Chloroethane	75-00-3	1.8	5.2	13	Not Detected
Chloroform	67-66-3	0.56	2.4	6.0	Not Detected
Chloromethane	74-87-3	1.8	4.0	25	Not Detected UJ
cis-1,2-Dichloroethene	156-59-2	0.58	1.9	4.8	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.65	2.2	5.5	Not Detected
Cumene	98-82-8	0.30	2.4	6.0	Not Detected
Cyclohexane	110-82-7	0.87	1.7	4.2	Not Detected
Dibromochloromethane	124-48-1	0.87	4.2	10	Not Detected
Ethanol	64-17-5	1.5	3.7	9.2	Not Detected
Ethyl Benzene	100-41-4	0.49	2.1	5.3	Not Detected
Freon 11	75-69-4	0.54	2.7	6.8	Not Detected
Freon 113	76-13-1	0.98	3.7	9.4	Not Detected
Freon 114	76-14-2	0.59	3.4	8.5	Not Detected
Freon 12	75-71-8	0.51	2.4	6.0	Not Detected
Heptane	142-82-5	0.61	2.0	5.0	Not Detected
Hexachlorobutadiene	87-68-3	1.8	21	52	Not Detected



Air Toxics

EPA METHOD TO-15 GC/MS FULL SCAN  
1580 Maple

<b>Client ID:</b>	SV1	<b>Date/Time Analyzed:</b>	2/5/18 07:25 PM
<b>Lab ID:</b>	1802070A-01A	<b>Dilution Factor:</b>	2.44
<b>Date/Time Collecte</b>	1/30/18 11:50 AM	<b>Instrument/Filename:</b>	msd3.i / 3020517
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	110-54-3	0.38	1.7	4.3	Not Detected
m,p-Xylene	108-38-3	0.49	2.1	5.3	Not Detected
Methyl tert-butyl ether	1634-04-4	0.69	7.0	18	Not Detected
Methylene Chloride	75-09-2	1.6	6.8	42	Not Detected
o-Xylene	95-47-6	0.22	2.1	5.3	Not Detected
Propylbenzene	103-65-1	0.47	2.4	6.0	Not Detected
Styrene	100-42-5	0.52	2.1	5.2	Not Detected
Tetrachloroethene	127-18-4	0.68	3.3	8.3	Not Detected
Tetrahydrofuran	109-99-9	0.46	1.4	3.6	Not Detected
Toluene	108-88-3	0.28	1.8	4.6	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	500	Not Detected
trans-1,2-Dichloroethene	156-60-5	1.1	1.9	4.8	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.35	2.2	5.5	Not Detected
Trichloroethene	79-01-6	1.0	2.6	6.6	Not Detected
Vinyl Chloride	75-01-4	0.29	1.2	3.1	Not Detected

UJ = Analyte associated with low bias in the CCV.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	92
4-Bromofluorobenzene	460-00-4	70-130	102
Toluene-d8	2037-26-5	70-130	102



Air Toxics

EPA METHOD TO-15 GC/MS FULL SCAN  
1580 Maple

<b>Client ID:</b>	SV1-DUP	<b>Date/Time Analyzed:</b>	2/5/18 07:51 PM
<b>Lab ID:</b>	1802070A-02A	<b>Dilution Factor:</b>	2.41
<b>Date/Time Collecte</b>	1/30/18 12:05 PM	<b>Instrument/Filename:</b>	msd3.i / 3020518
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.61	2.6	6.6	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.40	3.3	8.3	Not Detected
1,1,2-Trichloroethane	79-00-5	0.88	2.6	6.6	Not Detected
1,1-Dichloroethane	75-34-3	0.54	2.0	4.9	Not Detected
1,1-Dichloroethene	75-35-4	0.62	1.9	4.8	Not Detected
1,2,4-Trichlorobenzene	120-82-1	1.8	14	36	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.23	2.4	5.9	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.63	3.7	9.2	Not Detected
1,2-Dichlorobenzene	95-50-1	0.51	2.9	7.2	Not Detected
1,2-Dichloroethane	107-06-2	0.50	2.0	4.9	Not Detected
1,2-Dichloropropane	78-87-5	0.70	2.2	5.6	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.55	2.4	5.9	Not Detected
1,3-Butadiene	106-99-0	0.88	1.1	2.7	Not Detected
1,3-Dichlorobenzene	541-73-1	0.47	2.9	7.2	Not Detected
1,4-Dichlorobenzene	106-46-7	0.25	2.9	7.2	Not Detected
1,4-Dioxane	123-91-1	1.8	6.9	17	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.46	2.2	5.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.6	5.7	14	Not Detected
2-Hexanone	591-78-6	1.6	7.9	20	Not Detected
2-Propanol	67-63-0	0.78	4.7	12	Not Detected
3-Chloropropene	107-05-1	1.2	6.0	15	Not Detected
4-Ethyltoluene	622-96-8	0.54	2.4	5.9	Not Detected
4-Methyl-2-pentanone	108-10-1	0.87	2.0	4.9	Not Detected
Acetone	67-64-1	1.4	4.6	29	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN  
1580 Maple

<b>Client ID:</b>	SV1-DUP	<b>Date/Time Analyzed:</b>	2/5/18 07:51 PM
<b>Lab ID:</b>	1802070A-02A	<b>Dilution Factor:</b>	2.41
<b>Date/Time Collecte</b>	1/30/18 12:05 PM	<b>Instrument/Filename:</b>	msd3.i / 3020518
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
alpha-Chlorotoluene	100-44-7	0.54	2.5	6.2	Not Detected
Benzene	71-43-2	0.37	1.5	3.8	Not Detected
Bromodichloromethane	75-27-4	0.66	3.2	8.1	Not Detected
Bromoform	75-25-2	0.48	5.0	12	Not Detected
Bromomethane	74-83-9	3.0	7.5	47	Not Detected
Carbon Disulfide	75-15-0	1.0	6.0	15	Not Detected
Carbon Tetrachloride	56-23-5	0.40	3.0	7.6	Not Detected
Chlorobenzene	108-90-7	0.45	2.2	5.5	Not Detected
Chloroethane	75-00-3	1.8	5.1	13	Not Detected
Chloroform	67-66-3	0.56	2.4	5.9	Not Detected
Chloromethane	74-87-3	1.7	4.0	25	Not Detected UJ
cis-1,2-Dichloroethene	156-59-2	0.57	1.9	4.8	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.64	2.2	5.5	Not Detected
Cumene	98-82-8	0.30	2.4	5.9	Not Detected
Cyclohexane	110-82-7	0.86	1.6	4.1	Not Detected
Dibromochloromethane	124-48-1	0.86	4.1	10	Not Detected
Ethanol	64-17-5	1.5	3.6	9.1	Not Detected
Ethyl Benzene	100-41-4	0.49	2.1	5.2	Not Detected
Freon 11	75-69-4	0.53	2.7	6.8	Not Detected
Freon 113	76-13-1	0.96	3.7	9.2	Not Detected
Freon 114	76-14-2	0.59	3.4	8.4	Not Detected
Freon 12	75-71-8	0.50	2.4	6.0	Not Detected
Heptane	142-82-5	0.60	2.0	4.9	Not Detected
Hexachlorobutadiene	87-68-3	1.8	20	51	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN  
1580 Maple

<b>Client ID:</b>	SV1-DUP	<b>Date/Time Analyzed:</b>	2/5/18 07:51 PM
<b>Lab ID:</b>	1802070A-02A	<b>Dilution Factor:</b>	2.41
<b>Date/Time Collecte</b>	1/30/18 12:05 PM	<b>Instrument/Filename:</b>	msd3.i / 3020518
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	110-54-3	0.38	1.7	4.2	Not Detected
m,p-Xylene	108-38-3	0.48	2.1	5.2	Not Detected
Methyl tert-butyl ether	1634-04-4	0.68	7.0	17	Not Detected
Methylene Chloride	75-09-2	1.6	6.7	42	Not Detected
o-Xylene	95-47-6	0.22	2.1	5.2	Not Detected
Propylbenzene	103-65-1	0.46	2.4	5.9	Not Detected
Styrene	100-42-5	0.52	2.0	5.1	Not Detected
Tetrachloroethene	127-18-4	0.67	3.3	8.2	Not Detected
Tetrahydrofuran	109-99-9	0.46	1.4	3.6	Not Detected
Toluene	108-88-3	0.28	1.8	4.5	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	490	Not Detected
trans-1,2-Dichloroethene	156-60-5	1.1	1.9	4.8	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.34	2.2	5.5	Not Detected
Trichloroethene	79-01-6	0.99	2.6	6.5	Not Detected
Vinyl Chloride	75-01-4	0.28	1.2	3.1	Not Detected

UJ = Analyte associated with low bias in the CCV.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	93
4-Bromofluorobenzene	460-00-4	70-130	103
Toluene-d8	2037-26-5	70-130	103

EPA METHOD TO-15 GC/MS FULL SCAN  
1580 Maple

<b>Client ID:</b>	SV2	<b>Date/Time Analyzed:</b>	2/5/18 10:28 PM
<b>Lab ID:</b>	1802070A-03A	<b>Dilution Factor:</b>	2.37
<b>Date/Time Collecte</b>	1/30/18 02:18 AM	<b>Instrument/Filename:</b>	msd3.i / 3020519
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.60	2.6	6.5	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.39	3.2	8.1	Not Detected
1,1,2-Trichloroethane	79-00-5	0.86	2.6	6.5	Not Detected
1,1-Dichloroethane	75-34-3	0.53	1.9	4.8	Not Detected
1,1-Dichloroethene	75-35-4	0.61	1.9	4.7	Not Detected
1,2,4-Trichlorobenzene	120-82-1	1.8	14	35	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.23	2.3	5.8	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.62	3.6	9.1	Not Detected
1,2-Dichlorobenzene	95-50-1	0.50	2.8	7.1	Not Detected
1,2-Dichloroethane	107-06-2	0.49	1.9	4.8	Not Detected
1,2-Dichloropropane	78-87-5	0.69	2.2	5.5	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.54	2.3	5.8	Not Detected
1,3-Butadiene	106-99-0	0.86	1.0	2.6	Not Detected
1,3-Dichlorobenzene	541-73-1	0.46	2.8	7.1	Not Detected
1,4-Dichlorobenzene	106-46-7	0.24	2.8	7.1	Not Detected
1,4-Dioxane	123-91-1	1.8	6.8	17	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.46	2.2	5.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.6	5.6	14	Not Detected
2-Hexanone	591-78-6	1.6	7.8	19	Not Detected
2-Propanol	67-63-0	0.77	4.6	12	Not Detected
3-Chloropropene	107-05-1	1.1	5.9	15	Not Detected
4-Ethyltoluene	622-96-8	0.53	2.3	5.8	Not Detected
4-Methyl-2-pentanone	108-10-1	0.85	1.9	4.8	Not Detected
Acetone	67-64-1	1.4	4.5	28	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN  
1580 Maple

<b>Client ID:</b>	SV2	<b>Date/Time Analyzed:</b>	2/5/18 10:28 PM
<b>Lab ID:</b>	1802070A-03A	<b>Dilution Factor:</b>	2.37
<b>Date/Time Collecte</b>	1/30/18 02:18 AM	<b>Instrument/Filename:</b>	msd3.i / 3020519
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
alpha-Chlorotoluene	100-44-7	0.53	2.4	6.1	Not Detected
Benzene	71-43-2	0.36	1.5	3.8	Not Detected
Bromodichloromethane	75-27-4	0.65	3.2	7.9	Not Detected
Bromoform	75-25-2	0.47	4.9	12	Not Detected
Bromomethane	74-83-9	3.0	7.4	46	Not Detected
Carbon Disulfide	75-15-0	0.98	5.9	15	Not Detected
Carbon Tetrachloride	56-23-5	0.39	3.0	7.4	Not Detected
Chlorobenzene	108-90-7	0.44	2.2	5.4	Not Detected
Chloroethane	75-00-3	1.8	5.0	12	Not Detected
Chloroform	67-66-3	0.55	2.3	5.8	Not Detected
Chloromethane	74-87-3	1.7	3.9	24	Not Detected UJ
cis-1,2-Dichloroethene	156-59-2	0.56	1.9	4.7	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.63	2.2	5.4	Not Detected
Cumene	98-82-8	0.29	2.3	5.8	Not Detected
Cyclohexane	110-82-7	0.85	1.6	4.1	Not Detected
Dibromochloromethane	124-48-1	0.85	4.0	10	Not Detected
Ethanol	64-17-5	1.5	3.6	8.9	Not Detected
Ethyl Benzene	100-41-4	0.48	2.0	5.1	Not Detected
Freon 11	75-69-4	0.52	2.7	6.6	Not Detected
Freon 113	76-13-1	0.95	3.6	9.1	Not Detected
Freon 114	76-14-2	0.58	3.3	8.3	Not Detected
Freon 12	75-71-8	0.49	2.3	5.9	Not Detected
Heptane	142-82-5	0.60	1.9	4.8	Not Detected
Hexachlorobutadiene	87-68-3	1.8	20	50	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN  
1580 Maple

<b>Client ID:</b>	SV2	<b>Date/Time Analyzed:</b>	2/5/18 10:28 PM
<b>Lab ID:</b>	1802070A-03A	<b>Dilution Factor:</b>	2.37
<b>Date/Time Collecte</b>	1/30/18 02:18 AM	<b>Instrument/Filename:</b>	msd3.i / 3020519
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	110-54-3	0.37	1.7	4.2	Not Detected
m,p-Xylene	108-38-3	0.48	2.0	5.1	Not Detected
Methyl tert-butyl ether	1634-04-4	0.67	6.8	17	Not Detected
Methylene Chloride	75-09-2	1.5	6.6	41	Not Detected
o-Xylene	95-47-6	0.21	2.0	5.1	Not Detected
Propylbenzene	103-65-1	0.46	2.3	5.8	Not Detected
Styrene	100-42-5	0.51	2.0	5.0	Not Detected
Tetrachloroethene	127-18-4	0.66	3.2	8.0	Not Detected
Tetrahydrofuran	109-99-9	0.45	1.4	3.5	Not Detected
Toluene	108-88-3	0.28	1.8	4.5	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	480	Not Detected
trans-1,2-Dichloroethene	156-60-5	1.1	1.9	4.7	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.34	2.2	5.4	Not Detected
Trichloroethene	79-01-6	0.98	2.5	6.4	Not Detected
Vinyl Chloride	75-01-4	0.28	1.2	3.0	Not Detected

UJ = Analyte associated with low bias in the CCV.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	92
4-Bromofluorobenzene	460-00-4	70-130	106
Toluene-d8	2037-26-5	70-130	104

EPA METHOD TO-15 GC/MS FULL SCAN  
1580 Maple

<b>Client ID:</b>	SV3	<b>Date/Time Analyzed:</b>	2/5/18 10:54 PM
<b>Lab ID:</b>	1802070A-04A	<b>Dilution Factor:</b>	2.28
<b>Date/Time Collecte</b>	1/30/18 03:07 AM	<b>Instrument/Filename:</b>	msd3.i / 3020520
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.57	2.5	6.2	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.37	3.1	7.8	Not Detected
1,1,2-Trichloroethane	79-00-5	0.83	2.5	6.2	Not Detected
1,1-Dichloroethane	75-34-3	0.51	1.8	4.6	Not Detected
1,1-Dichloroethene	75-35-4	0.59	1.8	4.5	Not Detected
1,2,4-Trichlorobenzene	120-82-1	1.7	14	34	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.22	2.2	5.6	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.60	3.5	8.8	Not Detected
1,2-Dichlorobenzene	95-50-1	0.48	2.7	6.8	Not Detected
1,2-Dichloroethane	107-06-2	0.47	1.8	4.6	Not Detected
1,2-Dichloropropane	78-87-5	0.66	2.1	5.3	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.52	2.2	5.6	Not Detected
1,3-Butadiene	106-99-0	0.83	1.0	2.5	Not Detected
1,3-Dichlorobenzene	541-73-1	0.44	2.7	6.8	Not Detected
1,4-Dichlorobenzene	106-46-7	0.23	2.7	6.8	Not Detected
1,4-Dioxane	123-91-1	1.7	6.6	16	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.44	2.1	5.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.5	5.4	13	Not Detected
2-Hexanone	591-78-6	1.5	7.5	19	Not Detected
2-Propanol	67-63-0	0.74	4.5	11	Not Detected
3-Chloropropene	107-05-1	1.1	5.7	14	Not Detected
4-Ethyltoluene	622-96-8	0.51	2.2	5.6	Not Detected
4-Methyl-2-pentanone	108-10-1	0.82	1.9	4.7	Not Detected
Acetone	67-64-1	1.4	4.3	27	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN  
1580 Maple

<b>Client ID:</b>	SV3	<b>Date/Time Analyzed:</b>	2/5/18 10:54 PM
<b>Lab ID:</b>	1802070A-04A	<b>Dilution Factor:</b>	2.28
<b>Date/Time Collecte</b>	1/30/18 03:07 AM	<b>Instrument/Filename:</b>	msd3.i / 3020520
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
alpha-Chlorotoluene	100-44-7	0.51	2.4	5.9	Not Detected
Benzene	71-43-2	0.35	1.4	3.6	Not Detected
Bromodichloromethane	75-27-4	0.63	3.0	7.6	Not Detected
Bromoform	75-25-2	0.45	4.7	12	Not Detected
Bromomethane	74-83-9	2.8	7.1	44	Not Detected
Carbon Disulfide	75-15-0	0.94	5.7	14	Not Detected
Carbon Tetrachloride	56-23-5	0.38	2.9	7.2	Not Detected
Chlorobenzene	108-90-7	0.43	2.1	5.2	Not Detected
Chloroethane	75-00-3	1.7	4.8	12	Not Detected
Chloroform	67-66-3	0.53	2.2	5.6	Not Detected
Chloromethane	74-87-3	1.6	3.8	24	Not Detected UJ
cis-1,2-Dichloroethene	156-59-2	0.54	1.8	4.5	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.61	2.1	5.2	Not Detected
Cumene	98-82-8	0.28	2.2	5.6	Not Detected
Cyclohexane	110-82-7	0.81	1.6	3.9	Not Detected
Dibromochloromethane	124-48-1	0.81	3.9	9.7	Not Detected
Ethanol	64-17-5	1.4	3.4	8.6	Not Detected
Ethyl Benzene	100-41-4	0.46	2.0	4.9	Not Detected
Freon 11	75-69-4	0.50	2.6	6.4	Not Detected
Freon 113	76-13-1	0.91	3.5	8.7	Not Detected
Freon 114	76-14-2	0.56	3.2	8.0	Not Detected
Freon 12	75-71-8	0.47	2.2	5.6	Not Detected
Heptane	142-82-5	0.57	1.9	4.7	Not Detected
Hexachlorobutadiene	87-68-3	1.7	19	49	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN  
1580 Maple

<b>Client ID:</b>	SV3	<b>Date/Time Analyzed:</b>	2/5/18 10:54 PM
<b>Lab ID:</b>	1802070A-04A	<b>Dilution Factor:</b>	2.28
<b>Date/Time Collecte</b>	1/30/18 03:07 AM	<b>Instrument/Filename:</b>	msd3.i / 3020520
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	110-54-3	0.36	1.6	4.0	Not Detected
m,p-Xylene	108-38-3	0.46	2.0	5.0	Not Detected
Methyl tert-butyl ether	1634-04-4	0.64	6.6	16	Not Detected
Methylene Chloride	75-09-2	1.5	6.3	40	Not Detected
o-Xylene	95-47-6	0.20	2.0	5.0	Not Detected
Propylbenzene	103-65-1	0.44	2.2	5.6	Not Detected
Styrene	100-42-5	0.49	1.9	4.8	Not Detected
Tetrachloroethene	127-18-4	0.64	3.1	7.7	Not Detected
Tetrahydrofuran	109-99-9	0.43	1.3	3.4	Not Detected
Toluene	108-88-3	0.27	1.7	4.3	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	470	Not Detected
trans-1,2-Dichloroethene	156-60-5	1.1	1.8	4.5	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.32	2.1	5.2	Not Detected
Trichloroethene	79-01-6	0.94	2.4	6.1	Not Detected
Vinyl Chloride	75-01-4	0.27	1.2	2.9	Not Detected

UJ = Analyte associated with low bias in the CCV.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	92
4-Bromofluorobenzene	460-00-4	70-130	104
Toluene-d8	2037-26-5	70-130	103



Air Toxics

Client Sample ID: SV1

Lab ID#: 1802070B-01A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	10020607	Date of Collection:	1/30/18 11:50:00 AM
Dil. Factor:	2.44	Date of Analysis:	2/6/18 09:33 AM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.24		7.8
Methane	0.00024		Not Detected
Carbon Dioxide	0.024		7.6
Helium	0.12		Not Detected

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: SV1-DUP

Lab ID#: 1802070B-02A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	10020608	Date of Collection:	1/30/18 12:05:00 PM
Dil. Factor:	2.37	Date of Analysis:	2/6/18 10:09 AM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.24		7.3
Methane	0.00024		Not Detected
Carbon Dioxide	0.024		7.5
Helium	0.12		Not Detected

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: SV2

Lab ID#: 1802070B-03A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	10020609	Date of Collection:	1/30/18 2:18:00 AM
Dil. Factor:	2.37	Date of Analysis:	2/6/18 10:31 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	18
Methane	0.00024	Not Detected
Carbon Dioxide	0.024	4.1
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: SV3

Lab ID#: 1802070B-04A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	10020610	Date of Collection:	1/30/18 3:07:00 AM
Dil. Factor:	2.27	Date of Analysis:	2/6/18 10:53 AM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.23	20	
Methane	0.00023	Not Detected	
Carbon Dioxide	0.023	1.6	
Helium	0.11	Not Detected	

Container Type: 1 Liter Summa Canister

**APPENDIX B**

**DRILLING PERMIT**



**AEI Consultants**

ORDINANCE: 04023



PERMIT 21-1815

P/E: 2011 ENVIRONMENTAL SOIL BORINGS

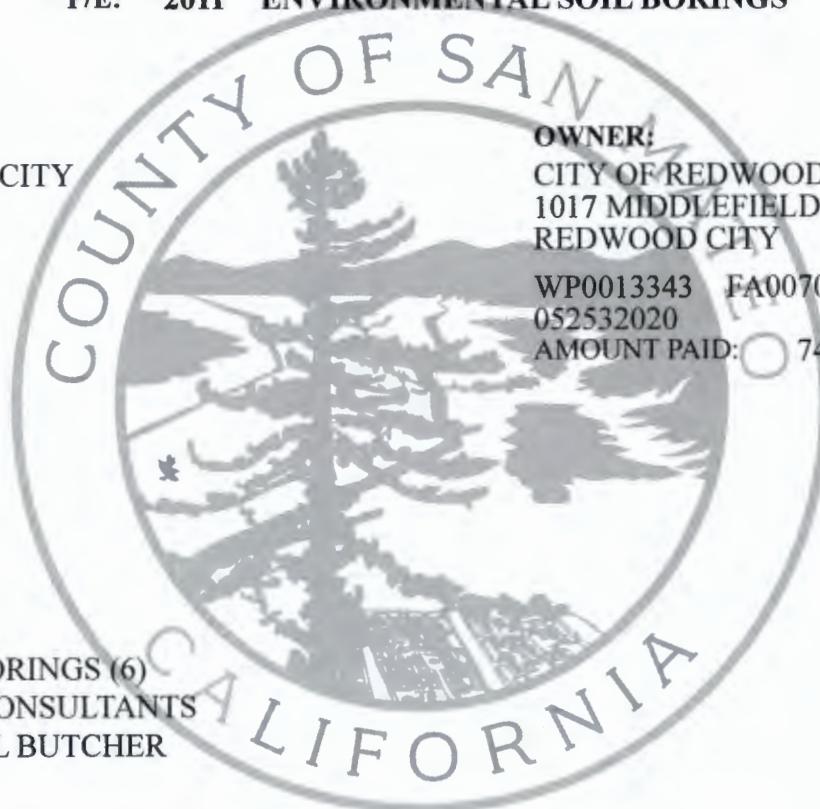
FACILITY:  
1580 MAPLE ST, REDWOOD CITY

CONTRACTOR:  
ECA

**TERMS & CONDITIONS:**

CONSTRUCT SOIL BORINGS (6)  
CONSULTANT: AEI CONSULTANTS  
PROJECT MGR: NEILL BUTCHER

OWNER:  
CITY OF REDWOOD CITY  
1017 MIDDLEFIELD RD  
REDWOOD CITY  
WP0013343 FA0070034  
052532020  
AMOUNT PAID:  747.00



DATE ISSUED: 12/3/2021

KIAN ATKINSON

---

ENVIRONMENTAL HEALTH SPECIALIST

EXPIRATION DATE: 4/3/2022

THIS CERTIFICATE IS NONTRANSFERABLE AND MUST BE POSTED ON-SITE IN A CONSPICUOUS PLACE.



SAN MATEO COUNTY  
ENVIRONMENTAL  
HEALTH SERVICES

SAN MATEO COUNTY  
ENVIRONMENTAL HEALTH

NOV 29 2021

RECEIVED

Environmental Health Services  
Groundwater Protection Program  
2000 Alameda de las Pulgas, Suite #100  
San Mateo, CA 94403  
Phone: (650) 372-6200 | Fax: (650) 627-8244  
smchealth.org/gpp

\$ 747.00

CC VISA  
OTP  
12-2-21  
JN

**SUBSURFACE DRILLING PERMIT APPLICATION**

Allow three (3) full working days for processing a complete permit application which includes payment (one permit per parcel). Drilling start date & time must be scheduled with County staff at (650) 464-0047 or [drilling@smcgov.org](mailto:drilling@smcgov.org) at least 2 full working days (i.e. 48 hours) in advance.  
Visit [smchealth.org/ehfees](http://smchealth.org/ehfees) for Groundwater Protection Program fees.

PURPOSE OF  Groundwater Monitoring/Vapor Well Installation  Construct Soil Borings (variance request if to be left open >24 hrs)

APPLICATION  Groundwater Monitoring/Vapor Well Destruction Extension of Permit # \_\_\_\_\_

No. of Wells

No. of Borings/16

Well/Boring Names SB-10 through SB-14/5

PURPOSE OF  Environmental LEAD  County GPP (permit approval is not to be considered work plan approval)  
DRILLING  Geotechnical  AGENCY  RWQCB/DTSC/USEPA (Provide approval letter)  None (i.e. voluntary)

**SITE / DRILLING INFORMATION**

Agency Case # N/A Assessor's Parcel # (required) 052532020 (one per permit)

Drilling Location Address: 1580 Maple Street City: Redwood City Zip: 94063

To Be Constructed In:  Public Property  Private Property  Refuse

Maximum Proposed Depth (wells/borings) 12 (feet) Drilling Method: Direct Push

Boring Diameter: 2 Casing Diameter:n/a Filter Pack Interval:n/a Screen Interval:n/a

Destruction Method:  Pressure Grouting (provide well construction logs and grout calcs)  
(6 gallons water max/94 lb cement, up to 5% bentonite)  Overdrilling (guide rods for total depth prior to starting required)

**WELL/BORING OWNER** (Well/boring owner name or contact person should match signature)

Name: City of Redwood City

Contact Person: Alex Khojikian

Address: 1017 Middlefield Road

City, State, Zip: Redwood City, CA 94063

Telephone: 650-780-7300

Email: [akhojikian@redwoodcity.org](mailto:akhojikian@redwoodcity.org)

It is my responsibility to notify the County of any known changes in the purpose of this well/boring from that which is indicated on this application, to submit indication of annual usage of wells to the County, and to maintain the well in good condition. (Letter signed by well/boring owner/contact person, containing above language and attesting to knowledge of all permit requirements and conditions, may be substituted for signature.)

Well/Boring Owner's/Contact Person's Signature:

Date: 11/29/21

**PROPERTY OWNER**

(Name as appears on assessor's roles should match signature)

Name: County of San Mateo

Contact Person: Sam Lin

Address: 555 County Center, 4th F

City, State, Zip: Redwood City, CA 94603

Phone: 650-369-4766

Email: [sllin@smcgov.org](mailto:sllin@smcgov.org)

I understand that a well/boring is being installed on my property. I agree to notify the County and Well Owner of any known damage or future access issues to the well (Letter signed by property owner, containing above language, or encroachment permit may be substituted for signature)

Property Owner's Signature:

sam lin

Date: 11/29/2021

**DRILLING COMPANY**

Drilling Company: Environmental Control Associates

Contact Person: Bryan Cook

Address: 3011 Twin Palms Drive

City, State, Zip: Aptos, CA 95003

Phone: 916-417-6858

Email: [bryancook101562@gmail.com](mailto:bryancook101562@gmail.com)

C57 Drillers License # 695970

I certify that the well/boring will be constructed in compliance with the conditions of this permit (see reverse), the San Mateo County Well Ordinance, and the State Water Well Standards, and that the license listed above is considered current and active by the Contractors State License Board.

Driller's Signature:

Date:

**CONSULTANT COMPANY**

Consultant Company: AEI Consultants

Project Manager: Neill Butcher

Address: 2500 Camino Diablo

City, State, Zip: Walnut Creek, California 94597

Telephone: 925-746-6000

Email: [nbutcher@aeiconsultants.com](mailto:nbutcher@aeiconsultants.com)

Field Contact & Cell # (if known): Jeff Stromberg 949-939-5623

I certify that this application is correct to the best of my knowledge and the well/boring will be constructed/destroyed in compliance with the conditions of this permit (see page 2), the San Mateo County Well Ordinance, and the State Water Well Standards. I understand that I am responsible for General Conditions E, F, K, and L of this permit and if I indicated the purpose of drilling is geotechnical, then no one will use the boring to collect any samples for environmental analyses. If there is a change in Responsible Professional, I will notify San Mateo County GPP staff.

Responsible Professional's Name (Please print legibly): Neill Butcher, P.E.

Responsible Professional's Signature:

Date:

11/29/2021

California Professional Geologist (PG) No.

or Civil Engineer (PE) No. C61666

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Rev. 1/19/2021

FA70034



## SUBSURFACE DRILLING PERMIT APPLICATION CHECKLIST

### CHECKLIST

- Legibly filled in all appropriate blanks and boxes, except signature and date (review instructions to verify appropriate fields to leave any lines blank or unchecked).
- Have all required signatures (can be on separate pages, do not need to be wet signatures).
- Include appropriate fee with application. Payment can be made by credit card over phone to (650) 372-6200 (indicate when and how application submitted).
- Include scaled site map of site in relation to cross streets and drilling location in relation to site features.
- Show approximate location(s) and ID/Name of well/borings.
- For well installations, indicate (i.e. mark on permit application) anticipated destruction method of these wells.  
May be asked to provide written description for small diameter (<2") wells.
- For well destructions via pressure grouting, included well construction logs and grout volume calculations.  
An approved work plan is required for all well destructions.  
Shallow (<10') vapor wells do not need to be permitted. However, still must comply with well standards for
- installation and destruction (i.e. do not use bentonite alone in vadose zone for sanitary seal and remove all non-native material).
- Notify permitting inspector 2 full working days prior to start of drilling.  
**Separate notification to case worker if known contaminated site.**
- Consultant must submit all required information within 60 days of drilling (preferably to [drilling@smgov.org](mailto:drilling@smgov.org)).
- For Borings and wells: require logs, site map, and analytical data.
- For wells: require surveyed coordinates and elevation, Well Completion Report (or indicate upload to Department of Water Resources Online System of Well Completion Reports DWR's OSWCR).

### COMMON MISTAKES TO AVOID ON APPLICATION

Listed potential buyer as Property Owner,

Listed case's address rather than drilling location's address.

Failed to include Assessor's Parcel Number of the drilling location.

- Provided variance justification memo if temporary wells/borings may need to be left open for more than 24 hours to wait for groundwater recharge with estimate of maximum time needed.

- Permit is for one **mobilization** only. If work included in this permit cannot be done in a single mobilization, another permit may be required.

- Well owner must submit indication of annual use of wells (monitoring reports in association with corrective action requests satisfies this requirement); otherwise, wells need to be destroyed within year of last originally intended use.

- Any application for drilling within a landfill (geotechnical or environmental) must be accompanied by a work plan. Work plans must be approved by San Mateo County Environmental Health Services (EHS) and the Groundwater Protection Program prior to drilling.

# SUBSURFACE DRILLING PERMIT APPLICATION

## REQUIREMENTS

An accurate and correct map **must** be submitted with the application and include the following: north arrow, existing and historic site features, existing and proposed well/boring locations with ID's to scale, property lines and any other pertinent information. A work plan describing the drilling and construction/destruction methodology must be submitted to County staff. A complete application with appropriate fees must be submitted 3 working days in advance of drilling and notification of start date and time must be provided at least 2 working days prior to drilling. The permit is subject to both General and Special Conditions stated below. A copy of the approved Subsurface Drilling Permit must be available on site while work related to the permit is being performed. **Drilling may begin at the notified date and time whether County staff is present or not.**

## GENERAL CONDITIONS

- A. **Field notification must be provided to GPP drilling inspection staff at least 2 full working days prior to the start of drilling. GPP Caseworker also must be notified if site is associated with a remedial action case.**
- B. Well and boring construction and destruction under this permit are subject to the Standards for the Construction of Wells in San Mateo County, County Groundwater Protection Program (GPP) Guidelines, Policies & Procedures, the State Water Well Standards, and any instructions by EHS representative.
- C. Well/Boring Owner, Driller, and Responsible Professional assume responsibility for all activities and uses under the permit, including compliance with Workmen's Compensation Laws, and indemnify, defend and save the County of San Mateo, its officers, agents and employees, free and harmless from any and all expense, cost, or liability in connection with or resulting from work or stopped-work associated with the permit, including, but not limited to, property damage, personal injury, wrongful death, and loss of income.
- D. All borings **must** be properly destroyed (grouted/sealed) within 24 hours of drilling, unless special conditions are approved beforehand in writing as part of this permit, and must be continuously protected and stabilized.
- E. Analytical results of all soil, vapor, and groundwater samples collected during the execution of drilling under this permit **must** be submitted to County GPP staff by the Responsible Professional within 60 days of sample collection. If contamination is discovered during drilling, verbal notification to County GPP by the Responsible Professional is **required** within 72 hours of discovery. Proper storage, labeling & disposal of investigation-derived residual wastes are the responsibility of the consultant unless stated otherwise contractually.
- F. Boring logs, well construction details, and finalized as-built location map for all borings/ wells (except geotechnical borings) signed by a Responsible Professional, **must** be submitted to County GPP by the Responsible Professional within 60 days of drilling/construction/destruction. DWR Form 188 must be filed with the State per water code 13752.
- G. Permit is valid only for the purpose specified herein. No change in purpose or required procedures, as described on this permit application, in the associated workplan, or in the special conditions below, will be allowed except upon written permission from the County. Construction aspects can be changed based on conditions encountered in the field.
- H. **Permit is valid for one mobilization** associated with originally permitted boring/well locations only, including contingency locations, and is automatically canceled if not exercised, or if an extension is not applied for and granted within 120 days of the original permit issuance date. Failure to notify staff of cancellation or delay in start time **will result in the Consultant being billed an inspection cancellation fee if GPP staff attempted to perform an inspection. Fees are listed at smchealth.org/ehfees.**
- I. Wells installed under this permit may not be used for domestic, municipal, agricultural, or irrigation water supply.
- J. All work performed **must** conform to Business and Profession Codes and State Water Well Standards.
- K. Top-of-casing elevation of all wells **must** be surveyed to the nearest 0.01-foot relative to Mean Sea Level or NAVD88 and submitted to County GPP within 60 days of drilling, and to State GeoTracker as appropriate. Geotechnical wells are exempt from this requirement if a written variance from GPP is obtained prior to drilling.
- L. Latitude and longitude of all wells **must** be surveyed with sub-meter accuracy relative to NAD83 and submitted to County GPP within 60 days of drilling, and to State GeoTracker as appropriate.
- M. Violation of any requirement or general or special permit condition may result in an order by GPP staff to cease work under this permit, correct the violation, potentially re-permit the work as a new mobilization, and potential actions may be taken against the Well Owner, Property Owner, or Responsible Professional by GPP.

SPECIAL CONDITIONS:

(agency use only)

Agency Use Only:

Signature:

FA #

Date:

12/2/2021

Page 3 of 5

## PERMIT APPLICATION INSTRUCTIONS AND FEES

A subsurface drilling permit for borings and wells is required if groundwater is anticipated to be encountered or if drilling extends to 10 feet or deeper. Sub-slab and vapor wells shallower than 10 feet do not require a permit. Should groundwater be encountered shallower than 10 feet unexpectedly, then contact San Mateo County EHS Groundwater Protection Program (GPP) immediately and a permit application will be required retroactively. GPP is the permitting agency for all subsurface drilling for environmental and geotechnical purposes within San Mateo County. San Mateo County EHS Land Use Program (LUP) reviews all water well permit applications ([smchealth.org/environ/forms](http://smchealth.org/environ/forms)) for public supply, domestic, agricultural, cathodic protection, exploratory, and geothermal heat exchange well construction and destruction and permit applications for all reconnaissance, investigation, and excavation work strictly for land use purposes. Please contact the LUP at (650) 372-6200 to discuss permitting, notification, and drilling requirements.

A 120-day extension may be granted for permits which have not been used during the original 120-day time frame. Submit another Subsurface Drilling Permit Application and payment for the permit extension fee at 50% of the fee for the type of drilling. Extension must be requested prior to the original permit expiring. If there are several wells and borings over several contiguous assessor's parcels and public right-of-ways, then discuss the fee with the County inspector at (650) 464-0047 or [drilling@smcgov.org](mailto:drilling@smcgov.org). The County inspector may charge only one fee for borings and wells constructed across contiguous assessor's parcels and public right-of-ways. However, this is dependent on how much the County inspector believes will need to be inspected in the field and how much review time of required submittals will be needed.

### Section 1: Purpose of Application

At least one of the four boxes must be selected; however, multiple boxes may be selected as long as all of the wells and borings are on the same assessor's parcel or public right-of-way (see Section 4). A **boring** under this permit application is defined as a constructed hole lasting less than 24 hours before being properly destroyed. After 24 hours, the constructed hole is considered a **well** under this permit application which needs to be constructed appropriately unless special conditions are approved as part of the permit. If permit extension is selected, then write in the permit number of the permit to be extended. List the number of wells and borings anticipated to be drilled and what they will be named. This number may change in the field based on conditions encountered.

### Section 2: Purpose of Drilling

At least one of the two boxes must be selected; however, both boxes may be selected as long as both purposes of drilling are to be conducted on the same assessor's parcel or public right-of-way (see Section 4). Geotechnical drilling may also be conducted under San Mateo County's Annual Geotechnical Drilling Permit in which consulting companies pay an annual fee to perform this type of drilling an unlimited amount of times for 365 days after obtaining the Annual Geotechnical Drilling Permit. Fees are listed at [smchealth.org/ehfees](http://smchealth.org/ehfees). Please note, a Notification Form (not available on website) similar to this Subsurface Drilling Permit Application must be completely filled out and submitted at least 2 business days (48 hours) prior to drilling under the Annual Geotechnical Drilling Permit.

### Section 3: Lead Agency

One of the three boxes must be selected. The EHS GPP would be selected only for investigations of known contaminated sites that the County is the lead agency. For drilling required by the Regional Water Quality Control Board (RWQCB), Department of Toxic Substances Control (DTSC), or the United States Environmental Protection Agency (USEPA), please include a copy of their approval letter. None would refer to investigations required by the County CUPA (Hazardous Materials Program), County Land Use or Solid Waste Programs, County or City Planning or Building Departments or voluntary investigations for due diligence or property transactions.

### Section 4: Drilling Information

All applicable spaces must be filled in. Agency Case # refers to the lead agency's case number, if overseen by an agency, for the project under which the investigation is being conducted. Assessor's parcel number is the 9-digit number corresponding to the specific private property the drilling is proposed to be conducted on (can be found under Secured Property Taxes at [sanmateocountytaxcollector.org](http://sanmateocountytaxcollector.org) or [here](#)). Each permit must include only one assessor's parcel number. If the drilling is to be conducted only in public right-of-ways, then the assessor's parcel number space should be filled in with N/A for not applicable. If drilling is to occur on both a private property and a contiguous public right-of-way, then two permits (one for the private property and one for the public right-of-way) must be filled out. Address, City, and Zip refer to the location of the specific property drilling is proposed to be conducted on. The address for a public right-of-way would simply be the name of the specific section of the public right-of-way (ie. 100 block of Main Street). To be Constructed in must have one box selected. Again, this differentiates between a public right-of-way and a private property. Refuse is a special land use designation which needs to be indicated on the permit application.

## **PERMIT APPLICATION INSTRUCTIONS AND FEES (CONTINUED)**

### **Section 4: Drilling Information (continued)**

The rest of this section is self-explanatory, may change in the field based on conditions encountered, and must be filled in except **Destruction Method** for borings only. Schematics may be submitted instead of filling in the well construction details, particularly if wells will be constructed differently from each other.

**Destruction Method** requires the use of a maximum of 7 gallons of water per 94 pounds of cement. This measurement (for both water and cement) must be able to be demonstrated in the field upon request from the inspector (such as using a 5-gallon bucket for measuring the water and using entire bags of cement). For **pressure grouting**, the well construction log and grout calculations must be submitted. The sand pack may not be more than 3 feet above the top of the screened interval, the screened interval may not be longer than 25 feet, and the bottom of the original boring may not be more than 2 feet deeper than the bottom of the constructed well. The total depth of the well and the fact that there are no obstructions in the well must be verified in the field. Type I/II cement grout must be tremied into the well, followed by application of 25 psi pressure maintained for 5 minutes. If the well does not meet pressure grouting criteria, it must be destroyed by drilling out to the total depth of the original boring. For **overdrilling**, the well casing and all annular material must be removed using a guide rod for the entire depth of the well inserted prior to drilling, and the boring tremie grouted to the surface using Type I/II cement grout. A general observation is that grouting borings using a  $\frac{3}{4}$  inch PVC pipe, typically used to collect grab groundwater samples in borings, does not work with a screened section. Free falling grout is only allowed if the boring is dry, or if water is present in less than 10% of the boring, and less than 30 feet deep. Grout calculations must be provided in a well destruction workplan.

### **Section 5: Well/Boring Owner**

The name of the entity owning the wells and borings must be listed along with their contact person (if different from the name of the well/boring owner), address, telephone number, and email address. The **contact person** must be directly associated with or an agent of the entity owning the wells and borings such as a property manager, real estate manager, contractor, or lawyer but not the environmental consultant listed on the permit application in Section 8. A **phone number** and an **email address** must be provided to allow the inspector to contact the well/boring owner to verify information if necessary. By providing an email address, the well/ boring owner will receive an electronic copy of the permit. The permit application must be **signed and dated** by either the entity listed as the owner of the wells and borings or the contact person. **Signatures (Sections 5 through 8)** do not need to be original; however, one copy of the permit application must contain all of the information besides the signatures in a legible format. ALL SIGNATURES REQUIRED (SECTIONS 5 THROUGH 8) DO NOT NEED TO BE ON THE SAME COPY OF THE PERMIT APPLICATION.

### **Section 6: Property Owner**

The name of the entity owning the property must be listed and needs to match the name listed with the County Assessor for this property. The **contact person** must be directly associated with or an agent of the entity owning the property such as a property manager, real estate manager, contractor, or lawyer but not the environmental consultant listed on the permit application in Section 8. A **telephone number** and an **email address** must be provided to allow the inspector to contact the property owner to verify information if necessary. By providing an email address, the property owner will receive an electronic copy of the permit. The permit application must be signed and dated by the entity listed as the property owner only.

**AGENTS CANNOT SIGN FOR THE PROPERTY OWNER.** For public rights-of-way, a copy of the encroachment permit can be substituted for the property owner signature. The City of San Mateo, among others, will not issue an encroachment permit until the subsurface drilling permit is issued, but the City of San Mateo will issue a letter of intent to issue an encroachment permit which is acceptable as a substitute for the property owner signature in City of San Mateo rights-of-way.

### **Section 7: Drilling Company**

The name of the company proposed to drill the wells and borings must be listed along with the drilling company **contact person, address, phone number, and email address**. In addition, the driller's **C57 license number** must be provided. By providing an email address, the drilling company will receive an electronic copy of the permit. The permit application must be signed and dated by the driller's contact person. If the drilling company changes, then a new subsurface drilling permit application should be filled out completely except for Sections 5, 6, and 8.

### **Section 8: Consulting Company**

The name of the company overseeing the proposed drilling of the wells and borings must be listed along with the **project manager, address, phone number, and email address**. The responsible professional overseeing the work must print their name legibly, **sign** their name and date, and provide either their **California Professional Geologist or Civil Engineering number**. Field contact name and number, if known, are optional but beneficial for all parties involved.



SAN MATEO COUNTY HEALTH  
**ENVIRONMENTAL  
HEALTH SERVICES**

**Environmental Health Services  
Groundwater Protection Program**  
2000 Alameda de las Pulgas, Suite #100  
San Mateo, CA 94403  
Phone: (650) 372-6200 | Fax: (650) 627-8244  
smchealth.org/gpp

## SUBSURFACE DRILLING PERMIT APPLICATION

Allow three (3) full working days for processing a complete permit application which includes payment (one permit per parcel). Drilling start date & time must be scheduled with County staff at (650) 464-0047 or [drilling@smcgov.org](mailto:drilling@smcgov.org) at least 2 full working days (i.e. 48 hours) in advance.  
Visit [smchealth.org/ehfees](http://smchealth.org/ehfees) for Groundwater Protection Program fees.

PURPOSE OF	<input type="checkbox"/> Groundwater Monitoring/Vapor Well Installation	<input checked="" type="checkbox"/> Construct Soil Borings (variance request if to be left open >24 hrs)
APPLICATION	<input type="checkbox"/> Groundwater Monitoring/Vapor Well Destruction	Extension of Permit # _____
No. of Wells	No. of Borings	Well/Boring Names SB-10 through SB-1#S

PURPOSE OF  Environmental LEAD  County GPP (permit approval is not to be considered work plan approval)  
DRILLING  Geotechnical AGENCY  RWQCB/DTSC/USEPA (Provide approval letter)  None (i.e. voluntary)

### SITE / DRILLING INFORMATION

Agency Case # N/A Assessor's Parcel # (required) 052532020 (one per permit)

Drilling Location Address: 1580 Maple Street City: Redwood City Zip: 94063

To Be Constructed In:  Public Property  Private Property  Refuse

Maximum Proposed Depth (wells/borings) 12 (feet) Drilling Method: Direct Push

Boring Diameter: 2 Casing Diameter: n/a Filter Pack Interval: n/a Screen Interval: n/a

Destruction Method:  Pressure Grouting (provide well construction logs and grout calcs)

(6 gallons water max/94 lb cement, up to 5% bentonite)  Overdrilling (guide rods for total depth prior to starting required)

### WELL/BORING OWNER (Well/boring owner name or contact person should match signature)

Name: City of Redwood City Contact Person: Melissa Stevenson Diaz

Address: 1017 Middlefield Road City, State, Zip: Redwood City, CA 94063

Telephone: 650-780-7300 Email: [mdiaz@redwoodcity.org](mailto:mdiaz@redwoodcity.org)

It is my responsibility to notify the County of any known changes in the purpose of this well/boring from that which is indicated on this application, to submit indication of annual usage of wells to the County, and to maintain the well in good condition. (Letter signed by well/boring owner/contact person, containing above language and attesting to knowledge of all permit requirements and conditions, may be substituted for signature.)

Well/Boring Owner's/Contact Person's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### PROPERTY OWNER (Name as appears on assessor's roles should match signature)

Name: \_\_\_\_\_ Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_ City, State, Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

I understand that a well/boring is being installed on my property. I agree to notify the County and Well Owner of any known damage or future access issues to the well (Letter signed by property owner, containing above language, or encroachment permit may be substituted for signature)

Property Owner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### DRILLING COMPANY

Drilling Company: Environmental Control Associates Contact Person: Bryan Cook

Address: 3011 Twin Palms Drive City, State, Zip: Aptos, CA 95003

Phone: 916-417-6858 Email: [bryancook101562@gmail.com](mailto:bryancook101562@gmail.com) C57 Drillers License # 695970

I certify that the well/boring will be constructed in compliance with the conditions of this permit (see reverse), the San Mateo County Well Ordinance, and the State Water Well Standards, and that the license listed above is considered current and active by the Contractors State License Board.

Driller's Signature: Kenneth B. Cook Date: 11/24/21

Digitally signed by Kenneth B. Cook  
Date: 2021.11.24 14:17:27 -0700

### CONSULTANT COMPANY

Consultant Company: AEI Consultants Project Manager: Neill Butcher

Address: 2500 Camino Diablo City, State, Zip: Walnut Creek, California 94597

Telephone: 925-746-6000 Email: [nbutcher@aeiconsultants.com](mailto:nbutcher@aeiconsultants.com)

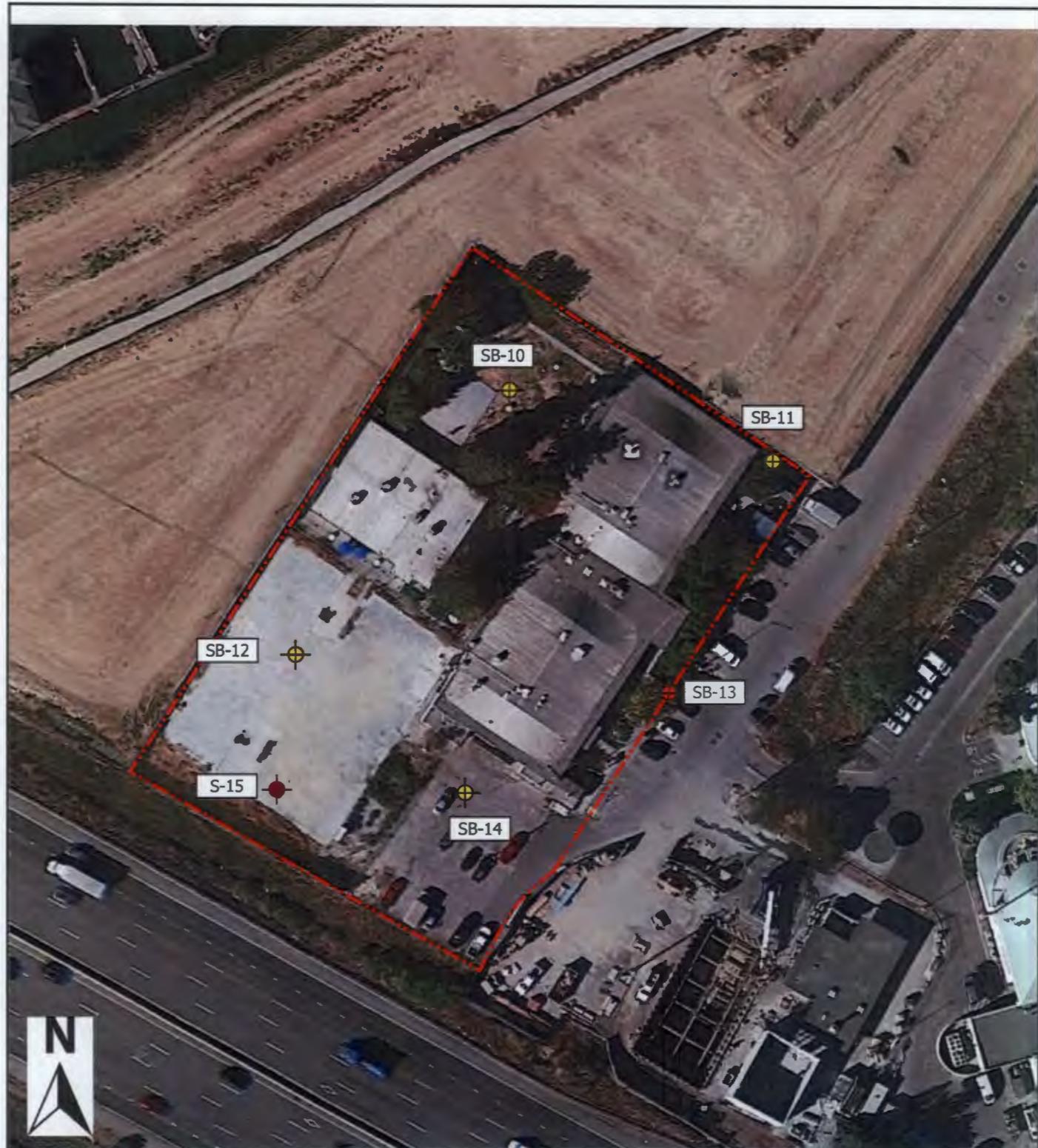
Field Contact & Cell # (if known): Jeff Stromberg 949-939-5523

I certify that this application is correct to the best of my knowledge and the well/boring will be constructed/destroyed in compliance with the conditions of this permit (see page 2), the San Mateo County Well Ordinance, and the State Water Well Standards. I understand that I am responsible for General Conditions E, F, K, and L of this permit and if I indicated the purpose of drilling is geotechnical, then no one will use the boring to collect any samples for environmental analyses. If there is a change in Responsible Professional, I will notify San Mateo County GPP staff.

Responsible Professional's Name (Please print legibly): Neill Butcher, P.E.

Responsible Professional's Signature:  Date: 11/24/2021

California Professional Geologist (PG) No. [Rev. 1/19/2021](https://www.smcgov.org/GeologistSearch.aspx) or Civil Engineer (PE) No. C4666 Page 2 of 5



## LEGEND

Base Map Source: Google Pro (Nov. 2021)

- Approximate Property Boundary
- Proposed Soil Boring
- Proposed Soil Boring & Soil Gas Probe

0 40 80  
SCALE: 1" = 100'

**AEI** Consultants

## SITE MAP

1580-1590 Maple Street  
Redwood City, California

**FIGURE 1**  
Proposal No. 81504

**APPENDIX C**

**SOIL BORING LOGS**



**AEI** Consultants



AEI Consultants  
2500 Camino Diablo  
Walnut Creek 94596 CA  
Telephone: 925-746-6000  
Fax: 925-746-6099

# BORING NUMBER SB-10

PAGE 1 OF 1

CLIENT City of Redwood City

PROJECT NUMBER 452498

DATE STARTED 12/3/21 COMPLETED 12/3/21

DRILLING CONTRACTOR Environmental Control Associates, Inc.

DRILLING METHOD Direct Push

LOGGED BY R. Missel CHECKED BY N. Butcher

NOTES \_\_\_\_\_

PROJECT NAME Focused Phase II Subsurface Investigation

PROJECT LOCATION 1580-1590 Maple Street, Redwood City, California

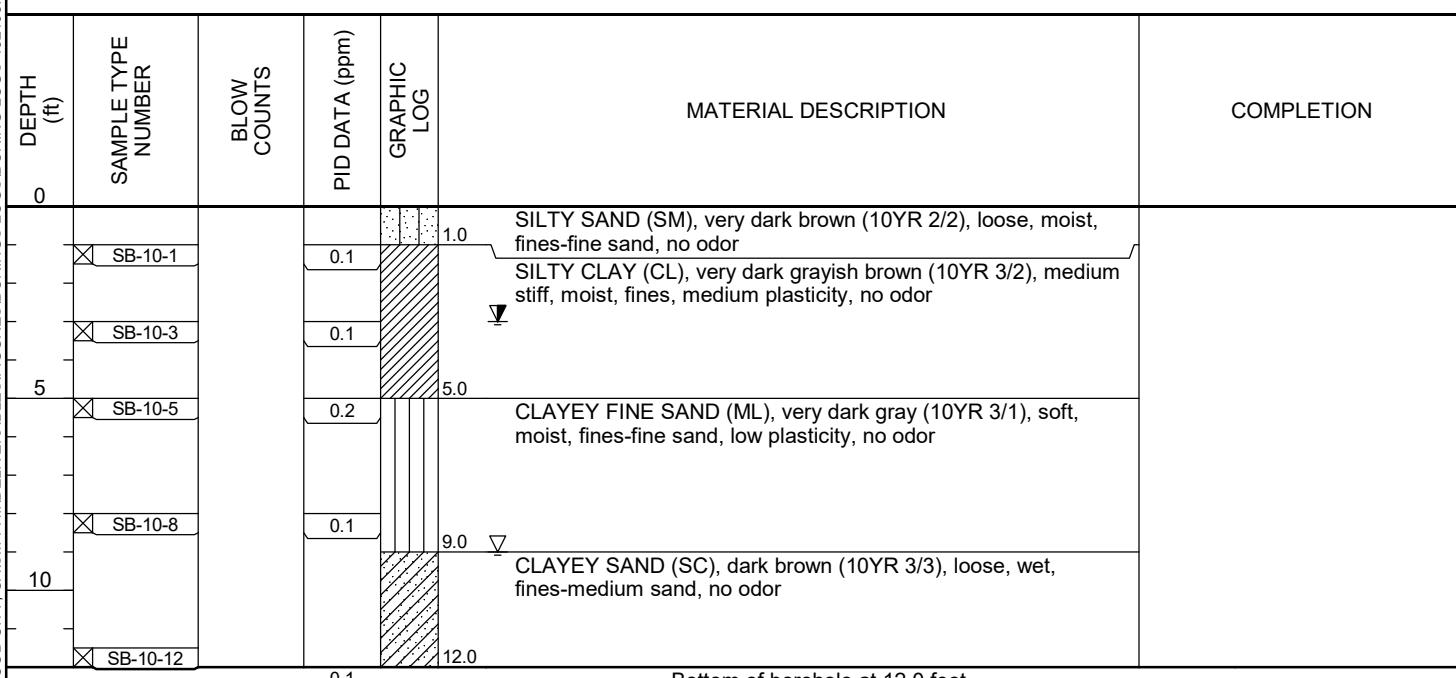
GROUND ELEVATION \_\_\_\_\_ HOLE SIZE 2.25 inches

GROUND WATER LEVELS:

▽ AT TIME OF DRILLING 9.00 ft

AT END OF DRILLING ---

▼ AFTER DRILLING 3.00 ft





AEI Consultants  
2500 Camino Diablo  
Walnut Creek 94596 CA  
Telephone: 925-746-6000  
Fax: 925-746-6099

# BORING NUMBER SB-12

PAGE 1 OF 1

CLIENT City of Redwood City

PROJECT NUMBER 452498

DATE STARTED 12/3/21 COMPLETED 12/3/21

DRILLING CONTRACTOR Environmental Control Associates, Inc.

DRILLING METHOD Direct Push

LOGGED BY R. Missel CHECKED BY N. Butcher

NOTES \_\_\_\_\_

PROJECT NAME Focused Phase II Subsurface Investigation

PROJECT LOCATION 1580-1590 Maple Street, Redwood City, California

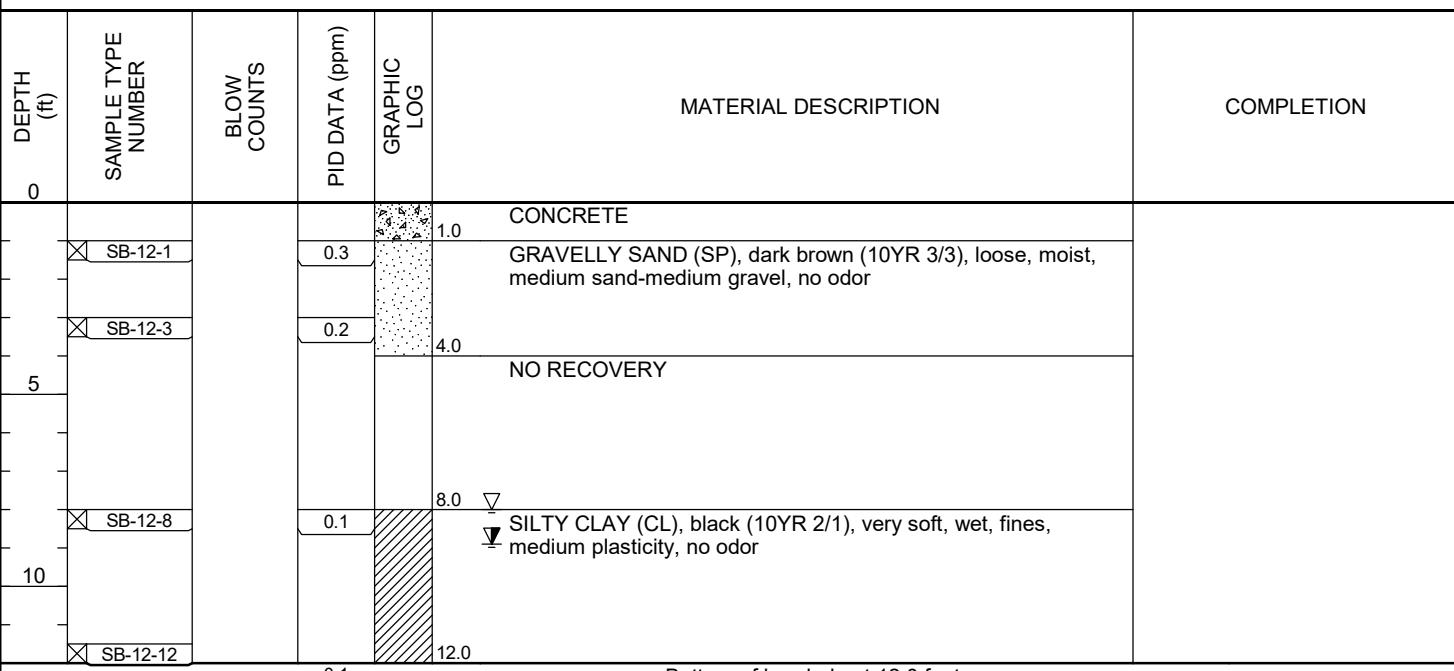
GROUND ELEVATION \_\_\_\_\_ HOLE SIZE 2.25 inches

GROUND WATER LEVELS:

▽ AT TIME OF DRILLING 8.00 ft

AT END OF DRILLING ---

▼ AFTER DRILLING 8.90 ft



Bottom of borehole at 12.0 feet.



AEI Consultants  
2500 Camino Diablo  
Walnut Creek 94596 CA  
Telephone: 925-746-6000  
Fax: 925-746-6099

# BORING NUMBER SB-13

PAGE 1 OF 1

CLIENT City of Redwood City

PROJECT NUMBER 452498

DATE STARTED 12/3/21 COMPLETED 12/3/21

DRILLING CONTRACTOR Environmental Control Associates, Inc.

DRILLING METHOD Direct Push

LOGGED BY R. Missel CHECKED BY N. Butcher

NOTES

PROJECT NAME Focused Phase II Subsurface Investigation

PROJECT LOCATION 1580-1590 Maple Street, Redwood City, California

GROUND ELEVATION HOLE SIZE 2.25 inches

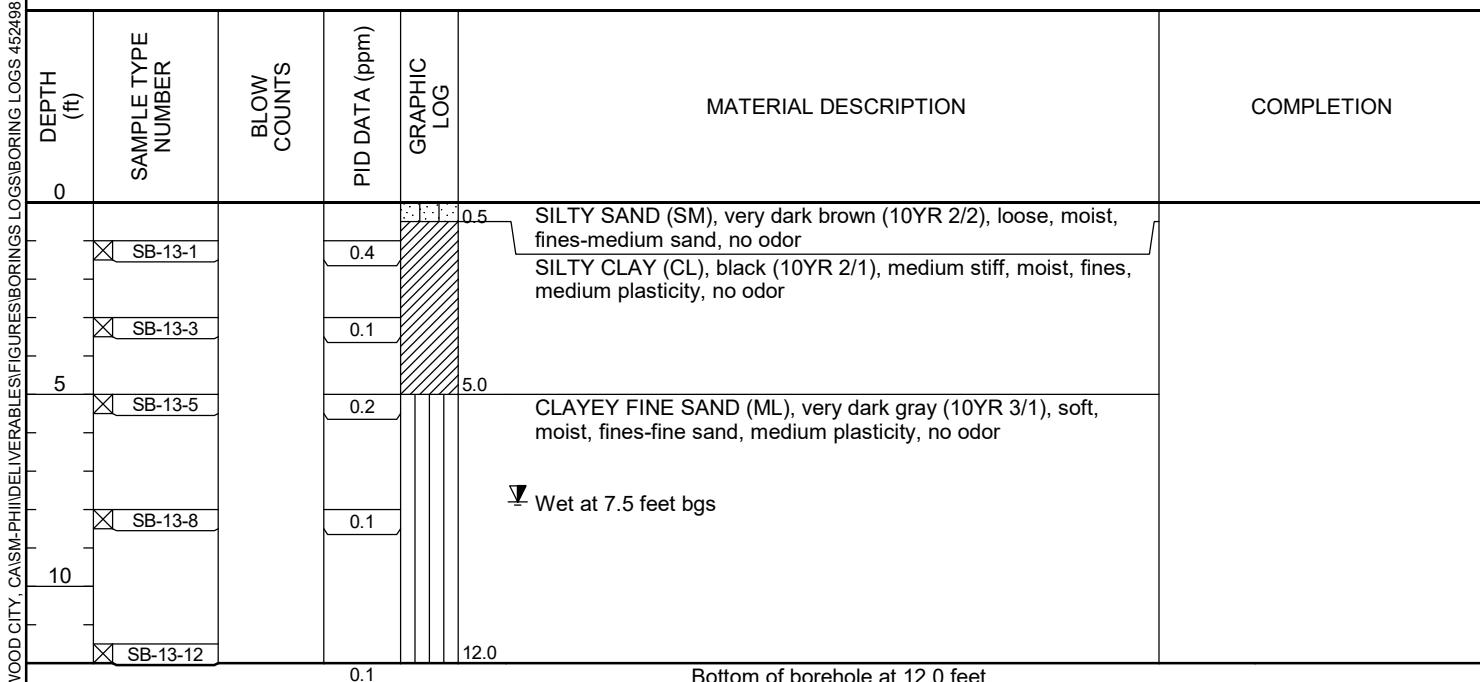
GROUND WATER LEVELS:

AT TIME OF DRILLING ---

AT END OF DRILLING ---

▼ AFTER DRILLING 7.80 ft

GPJ





AEI Consultants  
2500 Camino Diablo  
Walnut Creek 94596 CA  
Telephone: 925-746-6000  
Fax: 925-746-6099

# BORING NUMBER SB-14

PAGE 1 OF 1

CLIENT City of Redwood City

PROJECT NUMBER 452498

DATE STARTED 12/3/21 COMPLETED 12/3/21

DRILLING CONTRACTOR Environmental Control Associates, Inc.

DRILLING METHOD Direct Push

LOGGED BY R. Missel CHECKED BY N. Butcher

NOTES \_\_\_\_\_

PROJECT NAME Focused Phase II Subsurface Investigation

PROJECT LOCATION 1580-1590 Maple Street, Redwood City, California

GROUND ELEVATION \_\_\_\_\_ HOLE SIZE 2.25 inches

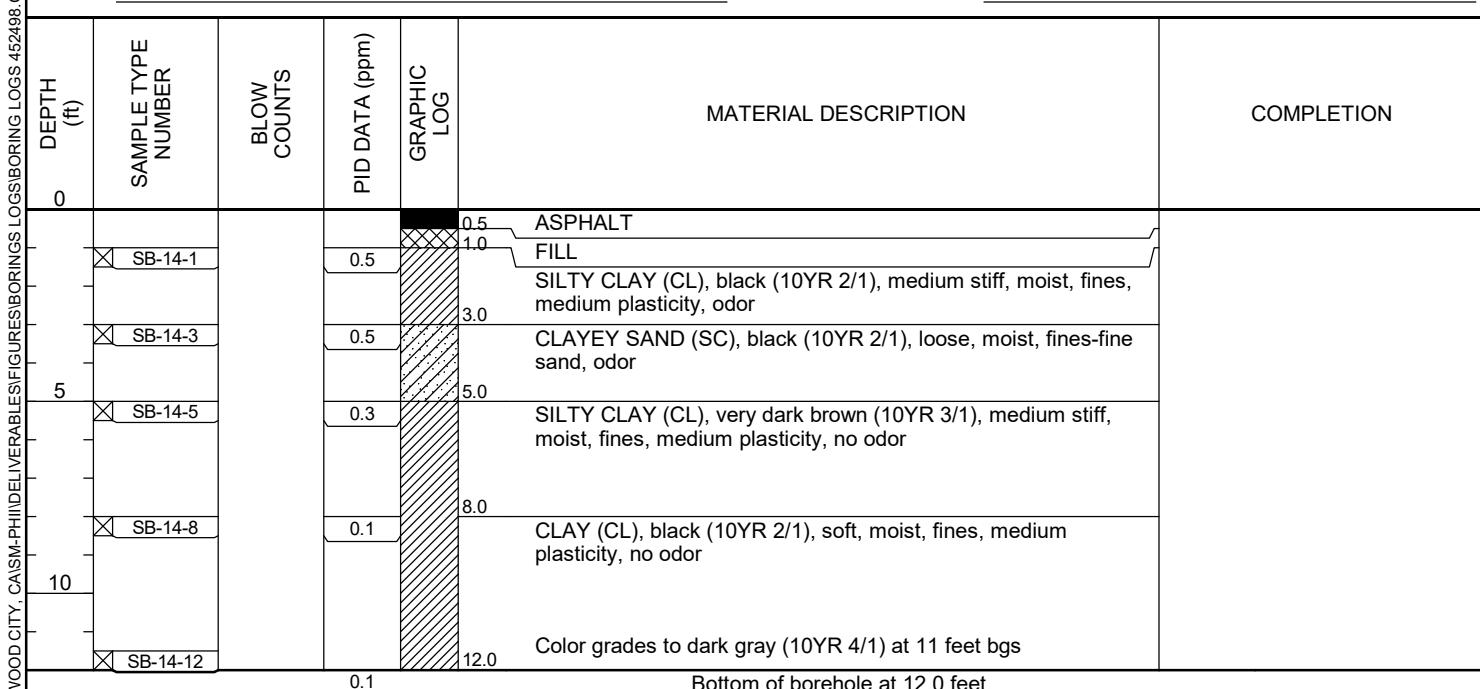
GROUND WATER LEVELS:

AT TIME OF DRILLING ---

AT END OF DRILLING ---

AFTER DRILLING ---

JPG





AEI Consultants  
2500 Camino Diablo  
Walnut Creek 94596 CA  
Telephone: 925-746-6000  
Fax: 925-746-6099

# BORING NUMBER SB-15

PAGE 1 OF 1

CLIENT City of Redwood City

PROJECT NUMBER 452498

DATE STARTED 12/3/21 COMPLETED 12/3/21

DRILLING CONTRACTOR Environmental Control Associates, Inc.

DRILLING METHOD Direct Push

LOGGED BY R. Missel CHECKED BY N. Butcher

NOTES \_\_\_\_\_

PROJECT NAME Focused Phase II Subsurface Investigation

PROJECT LOCATION 1580-1590 Maple Street, Redwood City, California

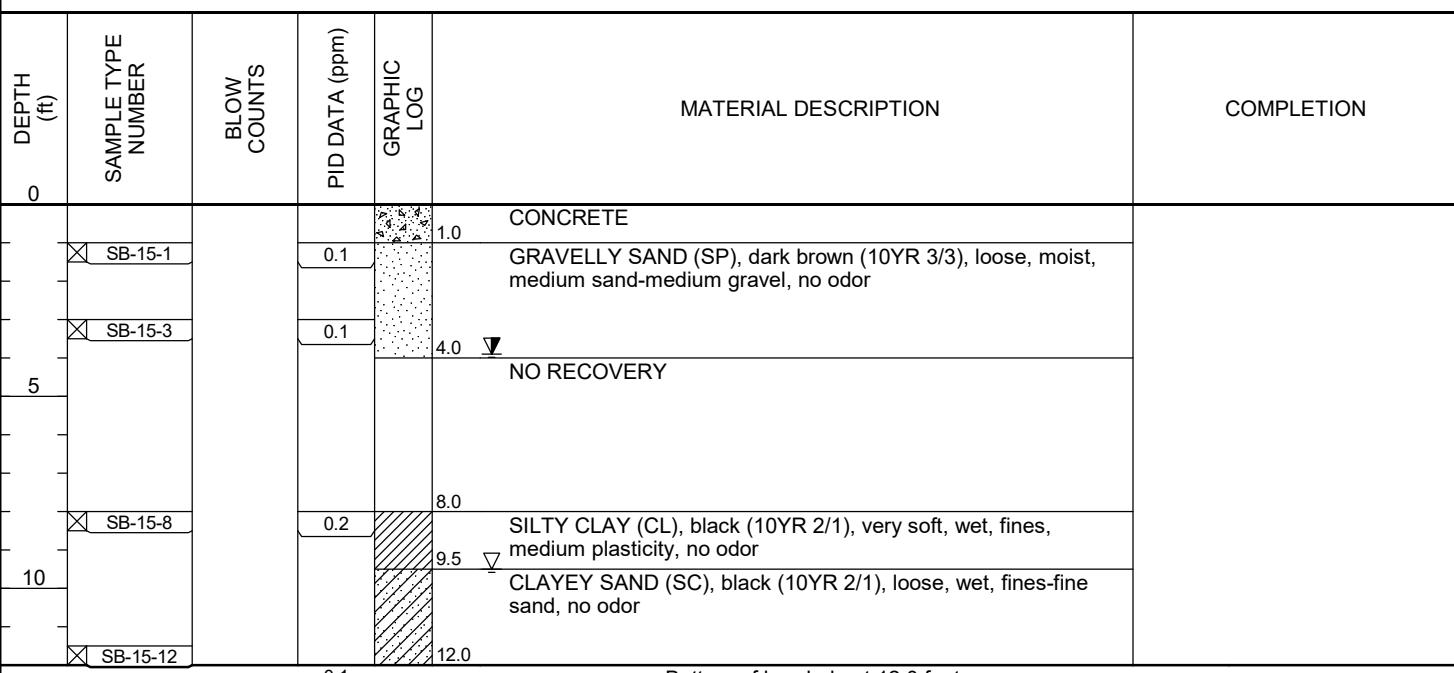
GROUND ELEVATION \_\_\_\_\_ HOLE SIZE 2.25 inches

GROUND WATER LEVELS:

▽ AT TIME OF DRILLING 9.50 ft

AT END OF DRILLING ---

▼ AFTER DRILLING 3.90 ft



**APPENDIX D**  
**FIELD DATA SHEETS**



**AEI Consultants**

**AEI CONSULTANTS**  
SOIL GAS SAMPLING FIELD FORM

50-10

**SOIL GAS PROBE ID:**

Project Name:			Date of Sampling:	12/3/2021
Project Number:	452498		Start Time:	1615
Project Address:	1580-1590 Maple St, Redwood City, CA		End Time:	1618
Helium Detector Model:	Radiodetection MGD-2002	Serial #:	Calibrated by: EI	

**SOIL GAS SAMPLING EQUIPMENT**

Number of Samples / Container Size and Type	One (1) 1-Liter Summa Canister		
Sample Container Number	10402		
Sampling Manifold / Flow Controller Number	10761		

**SHUT-IN TEST DATA**

Shut-In Test Start Time/Date	8:00	Start Vacuum Pressure (in -Hg)	-22.5	Shut-in Test
Shut-In Test Stop Time/Date	8:5	End Vacuum Pressure (in -Hg)	-22.5	Pass / Fail

**SOIL GAS PROBE DATA**

Amount of Rain (>1/2") in Last 24 hours?	Yes / No If yes, estimate storm duration _____ day(s)		
Time/Date Vapor Probe Set (HH:MM / MO/DAY/YEAR)	1415 12/3/2021		
Tubing Type (circle one)	Teflon Nylaflow Other _____		
Wellbox and Tubing Condition	Wellbox good/poor Tubing good/poor		
Depth of Probe (ft bgs)	3		
Sampling Flow Rate (mL/min) (circle one)	100 / 150 / 200		
Purge Method	Summa / Pump / Syringe / Other: _____		
Number of Purge Volumes (Default: Three (3) purge volumes unless sub-slab, one (1) purge volume for 5-foot deep soil vapor probe = 300 mL)			
Start Purge Time	1615	Start Purge Vacuum (in-Hg)	-10.0
End Purge Time	1616	End Purge Vacuum (in-Hg)	-7.5
Total Volume Purged (mL)	300		
Moisture / Water Present in Tubing?	Yes / No		

**SAMPLING DATA**

Initial Helium Shroud Concentration (%)	27.4		
Helium Detected in Sample Train	0 ppm / %		
Helium Leak Check %	0 %	Leak <5%? (circle one)	Yes / No (if no, troubleshoot and recheck)
Helium Leak Final Re-Check %	%	Leak <5%? (circle one)	Yes / No
Time	Canister Vacuum (in-Hg)	He Shroud %	Down Hole Vacuum (in-Hg)
1615	-18.0	22.7	0
1616	-15.0	21.1	0
1618	-5.0	30.2	0
Laboratory Analyses	TO-15 / TO-17 / Other		

**NOTES & COMMENTS**

Probe re-installed at 5 ft bgs after standing set 5 ft bgs

Leak Check Calculation

If helium detected in sample train is in %

$$\frac{\text{sample train helium \%}}{\text{helium shroud \%}} \times 100\% = \text{Leak Check \%}$$

If helium detected in sample train is in ppm:

$$\frac{\text{sample train helium ppm}}{\text{helium shroud \%}} \times \frac{1\%}{10,000 \text{ ppm}} \times 100\% = \text{Leak Check \%}$$

**AEI CONSULTANTS**  
**SOIL GAS SAMPLING FIELD FORM**

58-1A

**SOIL GAS PROBE ID:**

Project Name			Date of Sampling	12/20/21
Project Number	452498		Start Time	1541
Project Address	1580-1590 Maple St, Redwood City, CA		End Time	1545
Helium Detector Model	Radiodetection MGD-2002	Serial #	Name of Sampler	RM
			Calibrated by	EJ

<b>SOIL GAS SAMPLING EQUIPMENT</b>			
Number of Samples / Container Size and Type	One (1) 1-liter Summa Canister		
Sample Container Number	7259		
Sampling Manifold / Flow Controller Number	11781		

<b>SHUT-IN TEST DATA</b>			
Shut-In Test Start Time/Date	1541	Start Vacuum Pressure (in -Hg)	-22.0
Shut-In Test Stop Time/Date	1542	End Vacuum Pressure (in -Hg)	-22.0
		Shut-in Test	Pass / Fail

<b>SOIL GAS PROBE DATA</b>				
Amount of Rain (>1/2") in Last 24 hours?	Yes / No If yes, estimate storm duration _____ day(s)			
Time/Date Vapor Probe Set (HH.MM / MO/DAY/YEAR)				
Tubing Type (circle one)	Teflon	Nylatflow	Other _____	
Wellbox and Tubing Condition	Wellbox	good + poor	Tubing	good + poor
Depth of Probe (ft bgs)	100 / 150 / 200			
Sampling Flow Rate (mL/min) (circle one)	Summa / Pump / Syringe / Other _____			
Purge Method				
Number of Purge Volumes (Default: Three (3) purge volumes unless sub-slab; one (1) purge volume for 5-foot deep' soil vapor probe = 300 mL)				
Start Purge Time	1530	Start Purge Vacuum (in-Hg)	-24.8	
End Purge Time	1535	End Purge Vacuum (in-Hg)	-22.0	
Total Volume Purged (mL)				
Moisture / Water Present in Tubing?	Yes / No			

<b>SAMPLING DATA</b>				
Initial Helium Shroud Concentration (%)	35.6			
Helium Detected in Sample Train	0 ppm / %			
Helium Leak Check %	0 %	Leak <5%? (circle one)	Yes / No (if no, troubleshoot and recheck)	
Helium Leak Final Re-Check %	%	Leak <5%? (circle one)	Yes / No	
Time	Canister Vacuum (in-Hg)	He Shroud %	Down Hole Vacuum (in-Hg)	
1541	-29.0	20.9	0	
1543	-15.0	25.2	0	
1545	-5.0	20.1	0	
		TO-15 / TO-17 / Other		
Laboratory Analyses				

**NOTES & COMMENTS**

**Leak Check Calculation**

If helium detected in sample train is in %

$$\frac{\text{sample train helium \%}}{\text{helium shroud \%}} \times 100\% = \text{Leak Check \%}$$

If helium detected in sample train is in ppm

$$\frac{\text{sample train helium ppm}}{\text{helium shroud ppm}} \times \frac{100}{1000} \times 100\% = \text{Leak Check \%}$$

SB-13  
SFH

**AEL CONSULTANTS**  
**SOIL GAS SAMPLING FIELD FORM**

**SOIL GAS PROBE ID:**

Project Name			Date of Sampling	12/3/2021
Project Number	452498		Start Time	16:09
Project Address	1580-1590 Maple St. Redwood City, CA		End Time	16:13
Helium Detector Model	Radiodetection MGD-2002	Serial #	Name of Sampler	EI

**SOIL GAS SAMPLING EQUIPMENT**

Number of Samples / Container Size and Type	One (1) 1-Liter Summa Canister		
Sample Container Number	12567		
Sampling Manifold / Flow Controller Number	30967		

**SHUT-IN TEST DATA**

Shut-In Test Start Time/Date	8:57	Start Vacuum Pressure (in-Hg)	-12.5	Shut-in Test
Shut-In Test Stop Time/Date	9:57	End Vacuum Pressure (in-Hg)	-12.5	Pass / Fail

**SOIL GAS PROBE DATA**

Amount of Rain (>1/2") in Last 24 hours?	Yes / No If yes, estimate storm duration _____ day(s) 14.00 / 44s 12/13/2021		
Time/Date Vapor Probe Set (HH MM / MO/DAY/YEAR)			
Tubing Type (circle one)	Feltig	Nylaton	Other
Wellbox and Tubing Condition	Wetbox	Good / Poor	Tubing Good / Poor
Depth of Probe (ft bgs)	100 / 150 / 200		
Sampling Flow Rate (mL/min) (circle one)	Summa / Pump / Syringe / Other		
Purge Method			
Number of Purge Volumes (Default Three (3); purge volumes unless sub-slab, one (1) purge volume for 5-foot deep soil vapor probe = 300 mL)			
Start Purge Time	16:00	Start Purge Vacuum (in-Hg)	-15.5
End Purge Time	16:05	End Purge Vacuum (in-Hg)	-15.0
Total Volume Purged (mL)	300		
Moisture / Water Present in Tubing?	Yes / No		

**SAMPLING DATA**

Initial Helium Shroud Concentration (%)	14.2		
Helium Detected in Sample Train	0 ppm / %		
Helium Leak Check %	0 %	Leak <5%? (circle one)	Yes / No (If no, troubleshoot and recheck)
Helium Leak Final Re-Check %	%	Leak <5%? (circle one)	Yes / No
Time	Canister Vacuum (in-Hg)	He Shroud %	Down Hole Vacuum (in-Hg)
16:09	-18.0	19.8	0
16:11	-18.0	14.7	0
16:13	-18.0	16.6	0
Laboratory Analyses:	TO-15 / TO-17 / Other		

**NOTES & COMMENTS**

**Leak Check Calculation**

If helium detected in sample train is in %

$$\frac{\text{sample train helium \%}}{\text{helium shroud \%}} \times 100\% = \text{Leak Check \%}$$

If helium detected in sample train is in ppm

$$\frac{\text{sample train helium ppm}}{\text{helium shroud ppm}} \times \frac{1\%}{10,000 \text{ ppm}} \times 100\% = \text{Leak Check \%}$$

**AEI CONSULTANTS**  
SOIL GAS SAMPLING FIELD FORM

58-14

**SOIL GAS PROBE ID:**

Project Name				Date of Sampling	12/3/2021
Project Number	452498			Start Time	1:05
Project Address	1580-1590 Maple St. Redwood City, CA			End Time	(50)
Helium Detector Model		Radiodetection MGD-2002	Serial #	Name of Sampler	RM
					EI

<b>SOIL GAS SAMPLING EQUIPMENT</b>	
Number of Samples / Container Size and Type	One (1) 1-Liter Summa Canister
Sample Container Number	10733
Sampling Manifold / Flow Controller Number	11779

<b>SHUT-IN TEST DATA</b>			
Shut-In Test Start Time/Date	1448	Start Vacuum Pressure (in-Hg)	-22.5
Shut-In Test Stop Time/Date	1554 1454	End Vacuum Pressure (in-Hg)	-22.5
			Pass / Fail

<b>SOIL GAS PROBE DATA</b>			
Amount of Rain (>1/2") in Last 24 hours?	Yes / No If yes, estimate storm duration _____ day(s)		
Time/Date Vapor Probe Set (HH:MM / MO/DAY/YEAR)	12:00 12/21/2021		
Tubing Type (circle one)	Teflon	Nylaflow	Other: _____
Wellbox and Tubing Condition	Wellbox: good/poor	Tubing: good / poor	4
Depth of Probe (ft bgs)	100 / 150 / 200		
Sampling Flow Rate (mL/min) (circle one)	Summa / Pump / Syringe / Other: _____		
Purge Method			
Number of Purge Volumes (Default: Three (3) purge volumes unless sub-slab, one (1) purge volume for 5-foot deep' soil vapor probe = 300 mL)			
Start Purge Time	45 1456	Start Purge Vacuum (in-Hg)	-22.5
End Purge Time	1501	End Purge Vacuum (in-Hg)	-22.0
Total Volume Purged (mL)			
Moisture / Water Present in Tubing?	Yes / (No)		

<b>SAMPLING DATA</b>			
Initial Helium Shroud Concentration (%)	37.4		
Helium Detected in Sample Train	0 ppm / %		
Helium Leak Check %	0 %	Leak <5%? (circle one)	Yes / No (if no, troubleshoot and recheck)
Helium Leak Final Re-Check %	% .	Leak <5%? (circle one)	Yes / No
Time	Canister Vacuum (in-Hg)	He Shroud %	Down Hole Vacuum (in-Hg)
1505	-22.0	33.6	0
1507	-15.0	27.0	0
1509	-5.0	22.9	0
Laboratory Analyses:	TO-15 / TO-17 / Other: _____		

**NOTES & COMMENTS**

**Leak Check Calculation**

If helium detected in sample train is in %:

$$\frac{\text{sample train helium \%}}{\text{helium shroud \%}} \times 100\% = \text{Leak Check \%}$$

If helium detected in sample train is in ppm:

$$\frac{\text{sample train helium ppm}}{\text{helium shroud \%}} \times \frac{1\%}{10,000 \text{ ppm}} \times 100\% = \text{Leak Check \%}$$

**APPENDIX E**

**LABORATORY ANALYTICAL REPORTS**



**AEI Consultants**



AEI Consultants  
2500 Camino Diablo  
Walnut Creek, California 94597  
Tel: 925-746-6048

RE:

Work Order No.: 2112042 Rev. 1

Dear Neill Butcher:

Torrent Laboratory, Inc. received 26 sample(s) on December 03, 2021 for the analyses presented in the following Report.

10 samples are on hold.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

A handwritten signature in blue ink that reads "Kathie Evans". The signature is fluid and cursive, with "Kathie" on the left and "Evans" on the right, separated by a small circle.

---

Kathie Evans  
Project Manager

December 08, 2021

---

Date



Date: 12/8/2021

---

**Client:** AEI Consultants

**Project:**

**Work Order:** 2112042

## CASE NARRATIVE

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Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Laboratory, Inc.

Note: for 8260B/GCMS-GRO: Final result & MDL/PQL (Detection Limit/Reporting limit) have been corrected for actual mass removed from the Terra Core container.

Asbestos analysis was sub-contracted to ELAP certified laboratory EMSL. Sub-contract data will follow under a separate cover.

Analytical Comments for method 6020A, 2112042-001A MS/MSD, QC Preparation Batch ID 1137483, Note: The % recoveries for several metals are outside of laboratory control limits but RPD is within limits. The associated LCS/LCSD is within both % Recovery and RPD limits. No corrective action required.

The spikes in the MS/MSD for Nickel are not recoverable. The sample concentration is greater than 4X the spike concentration. No corrective action is required.

Analytical Comments for method 7471B, 2112042-001A MS, QC Preparation Batch ID 1137514, Note: The % recovery for Mercury is outside of laboratory control limits but RPD is within limits. The associated LCS/LCSD is within both % Recovery and RPD limits. No corrective action required.

The spikes in the MS/MSD for 8270PAH SIM are not recoverable due to the necessary sample dilution

## REVISIONS

Report revised to include sub-contracted Asbestos data. Sub-contract data appears as an attachment to the Torrent generated report.

Rev. 1 (12/15/21)



## Sample Result Summary

Report prepared for: Neill Butcher  
AEI Consultants

Date Received: 12/03/21

Date Reported: 12/08/21

2112042-001

SB-10-1

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Arsenic	6020A	1	0.21	1.0	3.12	mg/Kg
Barium	6020A	1	0.84	1.0	76.2	mg/Kg
Chromium	6020A	1	0.097	1.0	60.7	mg/Kg
Cobalt	6020A	1	0.21	1.0	12.0	mg/Kg
Copper	6020A	1	0.17	2.5	24.8	mg/Kg
Lead	6020A	1	0.054	1.0	35.0	mg/Kg
Nickel	6020A	1	1.2	5.0	102	mg/Kg
Zinc	6020A	1	0.70	2.5	61.0	mg/Kg
Mercury	SW7471B	1	0.083	0.50	1.0	mg/Kg
TPH as Diesel	SW8015B	1	0.85	2.0	10.2	mg/Kg
TPH as Motor Oil	SW8015B	1	3.2	10	95.9	mg/Kg
Heptachlor Epoxide	SW8081B	3	0.23	6.0	0.690	ug/Kg
gamma-Chlordane	SW8081B	3	0.49	6.0	4.86	ug/Kg
alpha-Chlordane	SW8081B	3	0.52	6.0	4.20	ug/Kg
4,4'-DDE	SW8081B	3	0.58	6.0	5.04	ug/Kg
Dieldrin	SW8081B	3	0.44	6.0	5.37	ug/Kg
4,4'-DDD	SW8081B	3	1.7	6.0	2.97	ug/Kg
4,4'-DDT	SW8081B	3	0.39	6.0	6.15	ug/Kg
Chlordane	SW8081B	3	6.3	60	37.6	ug/Kg
Naphthalene	SW8270C	5	2.6	20	73	ug/Kg
2-Methylnaphthalene	SW8270C	5	1.1	20	11	ug/Kg
1-Methylnaphthalene	SW8270C	5	0.92	20	5.5	ug/Kg
Acenaphthelene	SW8270C	5	0.93	20	7.7	ug/Kg
Acenaphthene	SW8270C	5	0.81	20	1.3	ug/Kg
Fluorene	SW8270C	5	1.3	20	3.0	ug/Kg
Phenanthrene	SW8270C	5	3.0	20	39	ug/Kg
Anthracene	SW8270C	5	2.7	20	9.5	ug/Kg
Fluoranthene	SW8270C	5	2.7	20	98	ug/Kg
Pyrene	SW8270C	5	2.7	20	110	ug/Kg
Benz[a]anthracene	SW8270C	5	2.3	20	54	ug/Kg
Chrysene	SW8270C	5	2.5	20	51	ug/Kg
Benzo[b]fluoranthene	SW8270C	5	1.2	20	130	ug/Kg
Benzo[k]fluoranthene	SW8270C	5	1.1	20	41	ug/Kg
Benzo[a]pyrene	SW8270C	5	1.4	20	78	ug/Kg
Indeno[1,2,3-cd]pyrene	SW8270C	5	1.1	20	200	ug/Kg
Dibenz[a,h]anthracene	SW8270C	5	1.4	20	10	ug/Kg
Benzo[g,h,i]perylene	SW8270C	5	1.3	20	110	ug/Kg



## Sample Result Summary

Report prepared for: Neill Butcher  
AEI Consultants

Date Received: 12/03/21

Date Reported: 12/08/21

2112042-004

SB-10-8

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Arsenic	6020A	1	0.21	1.0	2.68	mg/Kg
Barium	6020A	1	0.84	1.0	24.6	mg/Kg
Chromium	6020A	1	0.097	1.0	41.7	mg/Kg
Cobalt	6020A	1	0.21	1.0	6.26	mg/Kg
Copper	6020A	1	0.17	2.5	12.4	mg/Kg
Lead	6020A	1	0.054	1.0	3.55	mg/Kg
Nickel	6020A	1	1.2	5.0	47.9	mg/Kg
Vanadium	6020A	1	0.28	25	38.1	mg/Kg
Zinc	6020A	1	0.70	2.5	52.4	mg/Kg
Naphthalene	SW8270C	5	2.6	20	5.6	ug/Kg
2-Methylnaphthalene	SW8270C	5	1.1	20	5.8	ug/Kg
1-Methylnaphthalene	SW8270C	5	0.92	20	3.4	ug/Kg
Fluorene	SW8270C	5	1.3	20	5.4	ug/Kg
Phenanthrene	SW8270C	5	3.0	20	15	ug/Kg
Fluoranthene	SW8270C	5	2.7	20	4.2	ug/Kg
Pyrene	SW8270C	5	2.7	20	3.6	ug/Kg
Benz[a]anthracene	SW8270C	5	2.3	20	6.9	ug/Kg
Chrysene	SW8270C	5	2.5	20	3.6	ug/Kg
Benzo[b]fluoranthene	SW8270C	5	1.2	20	6.9	ug/Kg
Indeno[1,2,3-cd]pyrene	SW8270C	5	1.1	20	1.3	ug/Kg
Benzo[g,h,i]perylene	SW8270C	5	1.3	20	2.1	ug/Kg

SB-10-12

2112042-005

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Diesel	SW8015B	1	0.85	2.0	3.39	mg/Kg
TPH as Motor Oil	SW8015B	1	3.2	10	18.9	mg/Kg
Chlorobenzene	SW8260B	1	1.8	10	12.0	ug/Kg



## Sample Result Summary

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date Received:** 12/03/21

**Date Reported:** 12/08/21

2112042-006

**SB-12-1**

<b>Parameters:</b>	<b>Analysis Method</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Results</b>	<b>Unit</b>
Barium	6020A	1	0.84	1.0	11.3	mg/Kg
Chromium	6020A	1	0.097	1.0	37.0	mg/Kg
Cobalt	6020A	1	0.21	1.0	18.1	mg/Kg
Copper	6020A	1	0.17	2.5	73.1	mg/Kg
Lead	6020A	1	0.054	1.0	2.95	mg/Kg
Nickel	6020A	1	1.2	5.0	38.3	mg/Kg
Vanadium	6020A	1	0.28	25	58.2	mg/Kg
Zinc	6020A	1	0.70	2.5	51.7	mg/Kg
TPH as Diesel	SW8015B	1	3.4	8.0	20.4	mg/Kg
TPH as Motor Oil	SW8015B	1	13	40	279	mg/Kg
Pyrene	SW8270C	50	27	200	61	ug/Kg
Benz[a]anthracene	SW8270C	50	23	200	92	ug/Kg
Chrysene	SW8270C	50	25	200	100	ug/Kg
Benzo[b]fluoranthene	SW8270C	50	12	200	38	ug/Kg
Benzo[a]pyrene	SW8270C	50	14	200	46	ug/Kg
Indeno[1,2,3-cd]pyrene	SW8270C	50	11	200	11	ug/Kg
Dibenz[a,h]anthracene	SW8270C	50	14	200	15	ug/Kg
Benzo[g,h,i]perylene	SW8270C	50	13	200	84	ug/Kg

2112042-008

**SB-12-8**

<b>Parameters:</b>	<b>Analysis Method</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Results</b>	<b>Unit</b>
Arsenic	6020A	1	0.21	1.0	2.41	mg/Kg
Barium	6020A	1	0.84	1.0	198	mg/Kg
Chromium	6020A	1	0.097	1.0	11.9	mg/Kg
Cobalt	6020A	1	0.21	1.0	2.75	mg/Kg
Copper	6020A	1	0.17	2.5	18.9	mg/Kg
Lead	6020A	1	0.054	1.0	24.1	mg/Kg
Molybdenum	6020A	1	0.13	1.0	2.20	mg/Kg
Nickel	6020A	1	1.2	5.0	18.3	mg/Kg
Vanadium	6020A	1	0.28	25	26.1	mg/Kg
Zinc	6020A	1	0.70	2.5	74.1	mg/Kg
TPH as Diesel	SW8015B	1	1.7	4.0	17.5	mg/Kg
TPH as Motor Oil	SW8015B	1	6.4	20	173	mg/Kg
2-Butanone	SW8260B	1	2.7	11.8	14.7	ug/Kg



## Sample Result Summary

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date Received:** 12/03/21

**Date Reported:** 12/08/21

2112042-010

SB-13-1

<b>Parameters:</b>	<b>Analysis Method</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Results</b>	<b>Unit</b>
Arsenic	6020A	1	0.21	1.0	5.96	mg/Kg
Barium	6020A	1	0.84	1.0	122	mg/Kg
Chromium	6020A	1	0.097	1.0	76.0	mg/Kg
Cobalt	6020A	1	0.21	1.0	6.87	mg/Kg
Copper	6020A	1	0.17	2.5	48.1	mg/Kg
Lead	6020A	1	0.054	1.0	48.0	mg/Kg
Nickel	6020A	1	1.2	5.0	115	mg/Kg
Silver	6020A	1	0.098	1.0	1.66	mg/Kg
Vanadium	6020A	1	0.28	25	38.2	mg/Kg
Zinc	6020A	1	0.70	2.5	134	mg/Kg
Mercury	SW7471B	1	0.083	0.50	1.2	mg/Kg
TPH as Diesel	SW8015B	2	3.4	8.0	55.0	mg/Kg
TPH as Motor Oil	SW8015B	2	13	40	284	mg/Kg
Heptachlor Epoxide	SW8081B	3	0.23	6.0	1.47	ug/Kg
gamma-Chlordane	SW8081B	3	0.49	6.0	17.1	ug/Kg
alpha-Chlordane	SW8081B	3	0.52	6.0	12.6	ug/Kg
4,4'-DDE	SW8081B	3	0.58	6.0	8.91	ug/Kg
Dieldrin	SW8081B	3	0.44	6.0	17.4	ug/Kg
4,4'-DDD	SW8081B	3	1.7	6.0	8.55	ug/Kg
4,4'-DDT	SW8081B	3	0.39	6.0	22.2	ug/Kg
Chlordane	SW8081B	3	6.3	60	90.0	ug/Kg
Naphthalene	SW8270C	5	2.6	20	27	ug/Kg
2-Methylnaphthalene	SW8270C	5	1.1	20	9.7	ug/Kg
1-Methylnaphthalene	SW8270C	5	0.92	20	4.0	ug/Kg
Acenaphthene	SW8270C	5	0.93	20	5.4	ug/Kg
Acenaphthene	SW8270C	5	0.81	20	1.1	ug/Kg
Fluorene	SW8270C	5	1.3	20	2.5	ug/Kg
Phenanthrene	SW8270C	5	3.0	20	31	ug/Kg
Anthracene	SW8270C	5	2.7	20	8.1	ug/Kg
Fluoranthene	SW8270C	5	2.7	20	83	ug/Kg
Pyrene	SW8270C	5	2.7	20	100	ug/Kg
Benz[a]anthracene	SW8270C	5	2.3	20	46	ug/Kg
Chrysene	SW8270C	5	2.5	20	46	ug/Kg
Benzo[b]fluoranthene	SW8270C	5	1.2	20	120	ug/Kg
Benzo[k]fluoranthene	SW8270C	5	1.1	20	27	ug/Kg
Benzo[a]pyrene	SW8270C	5	1.4	20	71	ug/Kg
Indeno[1,2,3-cd]pyrene	SW8270C	5	1.1	20	150	ug/Kg
Dibenz[a,h]anthracene	SW8270C	5	1.4	20	8.1	ug/Kg
Benzo[g,h,i]perylene	SW8270C	5	1.3	20	75	ug/Kg



## Sample Result Summary

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date Received:** 12/03/21

**Date Reported:** 12/08/21

2112042-012

**SB-13-5**

<b>Parameters:</b>	<b>Analysis Method</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Results</b>	<b>Unit</b>
Arsenic	6020A	1	0.21	1.0	2.55	mg/Kg
Barium	6020A	1	0.84	1.0	123	mg/Kg
Cadmium	6020A	1	0.084	1.0	1.25	mg/Kg
Chromium	6020A	1	0.097	1.0	39.9	mg/Kg
Cobalt	6020A	1	0.21	1.0	8.64	mg/Kg
Copper	6020A	1	0.17	2.5	46.2	mg/Kg
Lead	6020A	1	0.054	1.0	56.0	mg/Kg
Nickel	6020A	1	1.2	5.0	53.0	mg/Kg
Vanadium	6020A	1	0.28	25	28.7	mg/Kg
Zinc	6020A	1	0.70	2.5	177	mg/Kg

**SB-13-8**

2112042-013

<b>Parameters:</b>	<b>Analysis Method</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Results</b>	<b>Unit</b>
TPH as Diesel	SW8015B	1	3.4	8.0	9.22	mg/Kg
TPH as Motor Oil	SW8015B	1	13	40	95.5	mg/Kg

**SB-14-1**

2112042-015

<b>Parameters:</b>	<b>Analysis Method</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Results</b>	<b>Unit</b>
Barium	6020A	1	0.84	1.0	27.6	mg/Kg
Chromium	6020A	1	0.097	1.0	132	mg/Kg
Cobalt	6020A	1	0.21	1.0	26.1	mg/Kg
Copper	6020A	1	0.17	2.5	71.2	mg/Kg
Nickel	6020A	1	1.2	5.0	115	mg/Kg
Vanadium	6020A	1	0.28	25	114	mg/Kg
Zinc	6020A	1	0.70	2.5	59.8	mg/Kg
TPH as Motor Oil	SW8015B	1	3.2	10	19.6	mg/Kg
Pyrene	SW8270C	2	1.1	7.9	1.3	ug/Kg
Benz[a]anthracene	SW8270C	2	0.93	7.9	2.4	ug/Kg
Chrysene	SW8270C	2	0.98	7.9	1.3	ug/Kg
Benzo[b]fluoranthene	SW8270C	2	0.49	7.9	0.86	ug/Kg
Benzo[g,h,i]perylene	SW8270C	2	0.54	7.9	1.1	ug/Kg



## Sample Result Summary

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date Received:** 12/03/21

**Date Reported:** 12/08/21

2112042-017

**SB-14-5**

<b>Parameters:</b>	<b>Analysis Method</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Results</b>	<b>Unit</b>
Arsenic	6020A	1	0.21	1.0	5.12	mg/Kg
Barium	6020A	1	0.84	1.0	58.2	mg/Kg
Cadmium	6020A	1	0.084	1.0	1.04	mg/Kg
Chromium	6020A	1	0.097	1.0	75.2	mg/Kg
Cobalt	6020A	1	0.21	1.0	15.6	mg/Kg
Copper	6020A	1	0.17	2.5	55.5	mg/Kg
Lead	6020A	1	0.054	1.0	39.6	mg/Kg
Nickel	6020A	1	1.2	5.0	114	mg/Kg
Silver	6020A	1	0.098	1.0	1.09	mg/Kg
Vanadium	6020A	1	0.28	25	52.8	mg/Kg
Zinc	6020A	1	0.70	2.5	102	mg/Kg
TPH as Diesel	SW8015B	5	8.5	20	97.7	mg/Kg
TPH as Motor Oil	SW8015B	5	32	100	451	mg/Kg
Naphthalene	SW8270C	10	5.1	40	270	ug/Kg
2-Methylnaphthalene	SW8270C	10	2.2	40	34	ug/Kg
1-Methylnaphthalene	SW8270C	10	1.8	40	16	ug/Kg
Acenaphthene	SW8270C	10	1.9	40	23	ug/Kg
Acenaphthene	SW8270C	10	1.6	40	16	ug/Kg
Fluorene	SW8270C	10	2.7	40	21	ug/Kg
Phenanthrene	SW8270C	10	5.9	40	130	ug/Kg
Anthracene	SW8270C	10	5.3	40	58	ug/Kg
Fluoranthene	SW8270C	10	5.3	40	830	ug/Kg
Pyrene	SW8270C	10	5.5	40	1100	ug/Kg
Benz[a]anthracene	SW8270C	10	4.6	40	250	ug/Kg
Chrysene	SW8270C	10	4.9	40	190	ug/Kg
Benzo[b]fluoranthene	SW8270C	10	2.4	40	560	ug/Kg
Benzo[k]fluoranthene	SW8270C	10	2.3	40	170	ug/Kg
Benzo[a]pyrene	SW8270C	10	2.8	40	540	ug/Kg
Indeno[1,2,3-cd]pyrene	SW8270C	10	2.2	40	670	ug/Kg
Dibenz[a,h]anthracene	SW8270C	10	2.7	40	28	ug/Kg
Benzo[g,h,i]perylene	SW8270C	10	2.7	40	390	ug/Kg

2112042-019

**SB-14-12**

<b>Parameters:</b>	<b>Analysis Method</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Results</b>	<b>Unit</b>
TPH as Diesel	SW8015B	1	0.85	2.0	3.82	mg/Kg
TPH as Motor Oil	SW8015B	1	3.2	10	19.9	mg/Kg



## Sample Result Summary

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date Received:** 12/03/21

**Date Reported:** 12/08/21

2112042-020

**SB-15-1**

<b>Parameters:</b>	<b>Analysis Method</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Results</b>	<b>Unit</b>
Barium	6020A	1	0.84	1.0	38.1	mg/Kg
Chromium	6020A	1	0.097	1.0	25.0	mg/Kg
Cobalt	6020A	1	0.21	1.0	10.9	mg/Kg
Copper	6020A	1	0.17	2.5	50.8	mg/Kg
Lead	6020A	1	0.054	1.0	6.89	mg/Kg
Nickel	6020A	1	1.2	5.0	25.2	mg/Kg
Vanadium	6020A	1	0.28	25	46.8	mg/Kg
Zinc	6020A	1	0.70	2.5	34.9	mg/Kg

**SB-15-8**

2112042-022

<b>Parameters:</b>	<b>Analysis Method</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Results</b>	<b>Unit</b>
TPH as Diesel	SW8015B	1	1.7	4.0	26.7	mg/Kg
TPH as Motor Oil	SW8015B	1	6.4	20	171	mg/Kg

**SB-10-W**

2112042-024

<b>Parameters:</b>	<b>Analysis Method</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Results</b>	<b>Unit</b>
TPH as Diesel	SW8015B	1	0.046	0.13	0.236	mg/L
TPH as Motor Oil	SW8015B	1	0.14	0.50	0.631	mg/L

**SB-13-W**

2112042-025

<b>Parameters:</b>	<b>Analysis Method</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Results</b>	<b>Unit</b>
TPH as Diesel	SW8015B	1	0.039	0.11	0.238	mg/L
TPH as Motor Oil	SW8015B	1	0.12	0.42	1.29	mg/L

**SB-15-W**

2112042-026

<b>Parameters:</b>	<b>Analysis Method</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Results</b>	<b>Unit</b>
TPH as Diesel	SW8015B	1	0.046	0.13	0.783	mg/L
TPH as Motor Oil	SW8015B	1	0.14	0.50	1.93	mg/L



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-10-1	<b>Lab Sample ID:</b>	2112042-001A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 9:14		
<b>SDG:</b>			

<b>Prep Method:</b> 7471BP	<b>Prep Batch Date/Time:</b> 12/7/21 1:40:00PM
<b>Prep Batch ID:</b> 1137514	<b>Prep Analyst:</b> ERVS

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Mercury	SW7471B	1	0.083	0.50	1.0		mg/Kg	12/08/21	15:08	BJAY	462021



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm

Date Reported: 12/08/21

Client Sample ID:	SB-10-1	Lab Sample ID:	2112042-001A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 9:14		
SDG:			

Prep Method:	6020S-P	Prep Batch Date/Time:	12/7/21	3:30:00PM
Prep Batch ID:	1137483	Prep Analyst:	BJAY	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Antimony	6020A	1	0.12	1.0	ND		mg/Kg	12/07/21	21:57	ERR	461993
Arsenic	6020A	1	0.21	1.0	<b>3.12</b>		mg/Kg	12/07/21	21:57	ERR	461993
Barium	6020A	1	0.84	1.0	<b>76.2</b>		mg/Kg	12/07/21	21:57	ERR	461993
Beryllium	6020A	1	0.16	1.0	ND		mg/Kg	12/07/21	21:57	ERR	461993
Cadmium	6020A	1	0.084	1.0	ND		mg/Kg	12/07/21	21:57	ERR	461993
Chromium	6020A	1	0.097	1.0	<b>60.7</b>		mg/Kg	12/07/21	21:57	ERR	461993
Cobalt	6020A	1	0.21	1.0	<b>12.0</b>		mg/Kg	12/07/21	21:57	ERR	461993
Copper	6020A	1	0.17	2.5	<b>24.8</b>		mg/Kg	12/07/21	21:57	ERR	461993
Lead	6020A	1	0.054	1.0	<b>35.0</b>		mg/Kg	12/07/21	21:57	ERR	461993
Molybdenum	6020A	1	0.13	1.0	ND		mg/Kg	12/07/21	21:57	ERR	461993
Nickel	6020A	1	1.2	5.0	<b>102</b>		mg/Kg	12/07/21	21:57	ERR	461993
Selenium	6020A	1	0.035	2.5	ND		mg/Kg	12/07/21	21:57	ERR	461993
Silver	6020A	1	0.098	1.0	ND		mg/Kg	12/07/21	21:57	ERR	461993
Thallium	6020A	1	1.00	5.0	ND		mg/Kg	12/07/21	21:57	ERR	461993
Vanadium	6020A	1	0.28	25	ND		mg/Kg	12/07/21	21:57	ERR	461993
Zinc	6020A	1	0.70	2.5	<b>61.0</b>		mg/Kg	12/07/21	21:57	ERR	461993



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-10-1	<b>Lab Sample ID:</b>	2112042-001A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 9:14		
<b>SDG:</b>			

<b>Prep Method:</b> 3546_PAHSIM	<b>Prep Batch Date/Time:</b> 12/6/21 11:02:00AM
<b>Prep Batch ID:</b> 1137435	<b>Prep Analyst:</b> NBAIN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
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**The results shown below are reported using their MDL.**

Naphthalene	SW8270C	5	2.6	20	73		ug/Kg	12/06/21	15:59	MT	461945
2-Methylnaphthalene	SW8270C	5	1.1	20	11	J	ug/Kg	12/06/21	15:59	MT	461945
1-Methylnaphthalene	SW8270C	5	0.92	20	5.5	J	ug/Kg	12/06/21	15:59	MT	461945
Acenaphthelene	SW8270C	5	0.93	20	7.7	J	ug/Kg	12/06/21	15:59	MT	461945
Acenaphthene	SW8270C	5	0.81	20	1.3	J	ug/Kg	12/06/21	15:59	MT	461945
Fluorene	SW8270C	5	1.3	20	3.0	J	ug/Kg	12/06/21	15:59	MT	461945
Phenanthrene	SW8270C	5	3.0	20	39		ug/Kg	12/06/21	15:59	MT	461945
Anthracene	SW8270C	5	2.7	20	9.5	J	ug/Kg	12/06/21	15:59	MT	461945
Fluoranthene	SW8270C	5	2.7	20	98		ug/Kg	12/06/21	15:59	MT	461945
Pyrene	SW8270C	5	2.7	20	110		ug/Kg	12/06/21	15:59	MT	461945
Benz[a]anthracene	SW8270C	5	2.3	20	54		ug/Kg	12/06/21	15:59	MT	461945
Chrysene	SW8270C	5	2.5	20	51		ug/Kg	12/06/21	15:59	MT	461945
Benzo[b]fluoranthene	SW8270C	5	1.2	20	130		ug/Kg	12/06/21	15:59	MT	461945
Benzo[k]fluoranthene	SW8270C	5	1.1	20	41		ug/Kg	12/06/21	15:59	MT	461945
Benzo[a]pyrene	SW8270C	5	1.4	20	78		ug/Kg	12/06/21	15:59	MT	461945
Indeno[1,2,3-cd]pyrene	SW8270C	5	1.1	20	200		ug/Kg	12/06/21	15:59	MT	461945
Dibenz[a,h]anthracene	SW8270C	5	1.4	20	10	J	ug/Kg	12/06/21	15:59	MT	461945
Benzo[g,h,i]perylene	SW8270C	5	1.3	20	110		ug/Kg	12/06/21	15:59	MT	461945
Acceptance Limits											
2-Fluorobiphenyl (S)	SW8270C	45 - 125		89		%	12/06/21	15:59	MT	461945	
p-Terphenyl-d14 (S)	SW8270C	30 - 125		95		%	12/06/21	15:59	MT	461945	

**NOTE:** Sample diluted due to nature of the matrix (dark, viscous extract)



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm

Date Reported: 12/08/21

Client Sample ID:	SB-10-1	Lab Sample ID:	2112042-001A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 9:14		
SDG:			

Prep Method:	3546_PCB	Prep Batch Date/Time:	12/6/21	10:43:00AM
Prep Batch ID:	1137434	Prep Analyst:	NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Aroclor1016	SW8082A	1	35.0	100	ND		ug/Kg	12/06/21	17:07	MK	461946
Aroclor1221	SW8082A	1	5.00	100	ND		ug/Kg	12/06/21	17:07	MK	461946
Aroclor1232	SW8082A	1	17.0	100	ND		ug/Kg	12/06/21	17:07	MK	461946
Aroclor1242	SW8082A	1	3.00	100	ND		ug/Kg	12/06/21	17:07	MK	461946
Aroclor1248	SW8082A	1	2.00	100	ND		ug/Kg	12/06/21	17:07	MK	461946
Aroclor1254	SW8082A	1	14.0	100	ND		ug/Kg	12/06/21	17:07	MK	461946
Aroclor1260	SW8082A	1	24.0	100	ND		ug/Kg	12/06/21	17:07	MK	461946
Acceptance Limits											
TCMX (S)	SW8082A		48 - 125		74.0		%	12/06/21	17:07	MK	461946
DCBP (S)	SW8082A		48 - 135		74.0		%	12/06/21	17:07	MK	461946



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-10-1	<b>Lab Sample ID:</b>	2112042-001A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 9:14		
<b>SDG:</b>			

<b>Prep Method:</b> 3546_OCP	<b>Prep Batch Date/Time:</b> 12/6/21 11:07:00AM
<b>Prep Batch ID:</b> 1137436	<b>Prep Analyst:</b> NBAIN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
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**The results shown below are reported using their MDL.**

alpha-BHC	SW8081B	3	0.38	6.0	ND		ug/Kg	12/07/21	1:20	MK	461969
gamma-BHC (Lindane)	SW8081B	3	0.48	6.0	ND		ug/Kg	12/07/21	1:20	MK	461969
beta-BHC	SW8081B	3	0.95	6.0	ND		ug/Kg	12/07/21	1:20	MK	461969
delta-BHC	SW8081B	3	0.47	6.0	ND		ug/Kg	12/07/21	1:20	MK	461969
Heptachlor	SW8081B	3	0.32	6.0	ND		ug/Kg	12/07/21	1:20	MK	461969
Aldrin	SW8081B	3	0.59	6.0	ND		ug/Kg	12/07/21	1:20	MK	461969
Heptachlor Epoxide	SW8081B	3	0.23	6.0	<b>0.690</b>	J	ug/Kg	12/07/21	1:20	MK	461969
gamma-Chlordane	SW8081B	3	0.49	6.0	<b>4.86</b>	J	ug/Kg	12/07/21	1:20	MK	461969
alpha-Chlordane	SW8081B	3	0.52	6.0	<b>4.20</b>	J	ug/Kg	12/07/21	1:20	MK	461969
4,4'-DDE	SW8081B	3	0.58	6.0	<b>5.04</b>	J	ug/Kg	12/07/21	1:20	MK	461969
Endosulfan I	SW8081B	3	0.55	6.0	ND		ug/Kg	12/07/21	1:20	MK	461969
Dieldrin	SW8081B	3	0.44	6.0	<b>5.37</b>	J	ug/Kg	12/07/21	1:20	MK	461969
Endrin	SW8081B	3	0.56	6.0	ND		ug/Kg	12/07/21	1:20	MK	461969
4,4'-DDD	SW8081B	3	1.7	6.0	<b>2.97</b>	J	ug/Kg	12/07/21	1:20	MK	461969
Endosulfan II	SW8081B	3	1.7	6.0	ND		ug/Kg	12/07/21	1:20	MK	461969
4,4'-DDT	SW8081B	3	0.39	6.0	<b>6.15</b>		ug/Kg	12/07/21	1:20	MK	461969
Endrin Aldehyde	SW8081B	3	0.45	6.0	ND		ug/Kg	12/07/21	1:20	MK	461969
Methoxychlor	SW8081B	3	0.60	6.0	ND		ug/Kg	12/07/21	1:20	MK	461969
Endosulfan Sulfate	SW8081B	3	0.35	6.0	ND		ug/Kg	12/07/21	1:20	MK	461969
Endrin Ketone	SW8081B	3	0.28	6.0	ND		ug/Kg	12/07/21	1:20	MK	461969
Chlordane	SW8081B	3	6.3	60	<b>37.6</b>	J	ug/Kg	12/07/21	1:20	MK	461969
Toxaphene	SW8081B	3	26	150	ND		ug/Kg	12/07/21	1:20	MK	461969
Acceptance Limits											
Tetrachloro-M-Xylene (S)	SW8081B	48 - 125		<b>82.9</b>			%	12/07/21	1:20	MK	461969
Decachlorobiphenyl (S)	SW8081B	38 - 135		<b>101</b>			%	12/07/21	1:20	MK	461969

**NOTE:** Sample diluted due to the nature of the sample matrix (dark colored extract)



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-10-1	Lab Sample ID:	2112042-001A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 9:14		
SDG:			

Prep Method: 3546_BNA	Prep Batch Date/Time: 12/3/21 9:04:00AM
Prep Batch ID: 1137399	Prep Analyst: AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
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The results shown below are reported using their MDL.

N-Nitrosodimethylamine	SW8270C	5	234	3600	ND		ug/Kg	12/06/21	14:59	MT	461897
Phenol	SW8270C	5	219	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
Bis(2-chloroethyl)ether	SW8270C	5	66.5	720	ND		ug/Kg	12/06/21	14:59	MT	461897
2-Chlorophenol	SW8270C	5	238	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
1,3-Dichlorobenzene	SW8270C	5	65.7	720	ND		ug/Kg	12/06/21	14:59	MT	461897
1,4-Dichlorobenzene	SW8270C	5	73.1	720	ND		ug/Kg	12/06/21	14:59	MT	461897
Benzyl Alcohol	SW8270C	5	102	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
1,2-Dichlorobenzene	SW8270C	5	67.5	720	ND		ug/Kg	12/06/21	14:59	MT	461897
2-Methylphenol (o-Cresol)	SW8270C	5	147	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
N-Methyl-2-Pyrrolidone (NMP)	SW8270C	5	340	3600	ND		ug/Kg	12/06/21	14:59	MT	461897
3-/4-Methylphenol (p-/m-Cresol)	SW8270C	5	157	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
N-nitroso-di-n-propylamine	SW8270C	5	65.7	720	ND		ug/Kg	12/06/21	14:59	MT	461897
Hexachloroethane	SW8270C	5	85.3	720	ND		ug/Kg	12/06/21	14:59	MT	461897
Nitrobenzene	SW8270C	5	64.2	720	ND		ug/Kg	12/06/21	14:59	MT	461897
Isophorone	SW8270C	5	60.9	720	ND		ug/Kg	12/06/21	14:59	MT	461897
2-Nitrophenol	SW8270C	5	127	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
2,4-Dimethylphenol	SW8270C	5	114	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
Benzoic Acid	SW8270C	5	209	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
Bis(2-Chloroethoxy)methane	SW8270C	5	49.0	720	ND		ug/Kg	12/06/21	14:59	MT	461897
Bis(2-chloroisopropyl)ether	SW8270C	5	63.0	720	ND		ug/Kg	12/06/21	14:59	MT	461897
2,4-Dichlorophenol	SW8270C	5	196	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
1,2,4-Trichlorobenzene	SW8270C	5	59.2	720	ND		ug/Kg	12/06/21	14:59	MT	461897
2,6-Dichlorophenol	SW8270C	5	179	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
Hexachloro-1,3-butadiene	SW8270C	5	41.7	720	ND		ug/Kg	12/06/21	14:59	MT	461897
4-Chloro-3-methylphenol	SW8270C	5	169	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
Hexachlorocyclopentadiene	SW8270C	5	64.7	720	ND		ug/Kg	12/06/21	14:59	MT	461897
2,4,6-Trichlorophenol	SW8270C	5	180	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
2,4,5-Trichlorophenol	SW8270C	5	167	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
2-Chloronaphthalene	SW8270C	5	53.0	720	ND		ug/Kg	12/06/21	14:59	MT	461897
1,4-Dinitrobenzene	SW8270C	5	51.6	720	ND		ug/Kg	12/06/21	14:59	MT	461897
Dimethyl phthalate	SW8270C	5	70.8	3600	ND		ug/Kg	12/06/21	14:59	MT	461897
1,3-Dinitrobenzene	SW8270C	5	52.0	720	ND		ug/Kg	12/06/21	14:59	MT	461897
2,6-Dinitrotoluene	SW8270C	5	56.6	720	ND		ug/Kg	12/06/21	14:59	MT	461897
1,2-Dinitrobenzene	SW8270C	5	78.8	720	ND		ug/Kg	12/06/21	14:59	MT	461897
2,4-Dinitrophenol	SW8270C	5	388	3600	ND		ug/Kg	12/06/21	14:59	MT	461897
4-Nitrophenol	SW8270C	5	274	3600	ND		ug/Kg	12/06/21	14:59	MT	461897
Dibenzofuran	SW8270C	5	56.1	720	ND		ug/Kg	12/06/21	14:59	MT	461897
2,4-Dinitrotoluene	SW8270C	5	60.4	720	ND		ug/Kg	12/06/21	14:59	MT	461897



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-10-1	<b>Lab Sample ID:</b>	2112042-001A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 9:14		
<b>SDG:</b>			

<b>Prep Method:</b> 3546_BNA	<b>Prep Batch Date/Time:</b> 12/3/21 9:04:00AM
<b>Prep Batch ID:</b> 1137399	<b>Prep Analyst:</b> AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
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**The results shown below are reported using their MDL.**

2,3,5,6-Tetrachlorophenol	SW8270C	5	138	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
2,3,4,6-Tetrachlorophenol	SW8270C	5	157	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
Diethylphthalate	SW8270C	5	68.1	3600	ND		ug/Kg	12/06/21	14:59	MT	461897
4-Chlorophenyl-phenylether	SW8270C	5	46.6	720	ND		ug/Kg	12/06/21	14:59	MT	461897
4,6-Dinitro-2-methylphenol	SW8270C	5	66.9	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
Diphenylamine	SW8270C	5	65.2	720	ND		ug/Kg	12/06/21	14:59	MT	461897
Azobenzene	SW8270C	5	569	720	ND		ug/Kg	12/06/21	14:59	MT	461897
4-Bromophenyl-phenylether	SW8270C	5	41.1	720	ND		ug/Kg	12/06/21	14:59	MT	461897
Hexachlorobenzene	SW8270C	5	43.3	720	ND		ug/Kg	12/06/21	14:59	MT	461897
Pentachlorophenol	SW8270C	5	125	1440	ND		ug/Kg	12/06/21	14:59	MT	461897
Carbazole	SW8270C	5	53.7	720	ND		ug/Kg	12/06/21	14:59	MT	461897
Di-n-butylphthalate	SW8270C	5	67.5	720	ND		ug/Kg	12/06/21	14:59	MT	461897
Benzidine	SW8270C	5	735	720	ND		ug/Kg	12/06/21	14:59	MT	461897
Butylbenzylphthalate	SW8270C	5	105	3600	ND		ug/Kg	12/06/21	14:59	MT	461897
3,3-Dichlorobenzidine	SW8270C	5	588	720	ND		ug/Kg	12/06/21	14:59	MT	461897
Bis(2-Ethylhexyl)phthalate	SW8270C	5	76.7	3600	ND		ug/Kg	12/06/21	14:59	MT	461897
Di-n-Octylphthalate	SW8270C	5	61.4	720	ND		ug/Kg	12/06/21	14:59	MT	461897
Pyridine	SW8270C	5	219	3600	ND		ug/Kg	12/06/21	14:59	MT	461897
Acceptance Limits											
2-Fluorophenol (S)	SW8270C		25 - 121		<b>69.2</b>		%	12/06/21	14:59	MT	461897
Phenol-d6 (S)	SW8270C		24 - 113		<b>70.7</b>		%	12/06/21	14:59	MT	461897
2,4,6-Tribromophenol (S)	SW8270C		19 - 122		<b>70.3</b>		%	12/06/21	14:59	MT	461897
2-Fluorobiphenyl (S)	SW8270C		45 - 143		<b>80.7</b>		%	12/06/21	14:59	MT	461897
Nitrobenzene-d5 (S)	SW8270C		23 - 120		<b>70.3</b>		%	12/06/21	14:59	MT	461897
p-Terphenyl-d14 (S)	SW8270C		18 - 137		<b>84.2</b>		%	12/06/21	14:59	MT	461897

**NOTE:** Sample diluted due to nature of the matrix (dark, viscous extract)



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm

Date Reported: 12/08/21

Client Sample ID:	SB-10-1	Lab Sample ID:	2112042-001A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 9:14		
SDG:			

Prep Method:	3546_TPH	Prep Batch Date/Time:	12/7/21	9:25:00AM
Prep Batch ID:	1137438	Prep Analyst:	NBAIN	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.85	2.0	10.2	x	mg/Kg	12/07/21	15:21	SN	461995
TPH as Motor Oil	SW8015B	1	3.2	10	95.9		mg/Kg	12/07/21	15:21	SN	461995
Acceptance Limits											
Pentacosane (S)	SW8015B	45 - 130			70.2		%	12/07/21	15:21	SN	461995

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-10-1	Lab Sample ID:	2112042-001B
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 9:14		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 12/7/21 8:58:00AM
Prep Batch ID: 1137497	Prep Analyst: CSACH

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	1.3	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Chloromethane	SW8260B	1	1.9	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Vinyl Chloride	SW8260B	1	2.2	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Bromomethane	SW8260B	1	2.9	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Chloroethane	SW8260B	1	3.2	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Trichlorofluoromethane	SW8260B	1	2.2	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,1-Dichloroethene	SW8260B	1	2.2	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Freon 113	SW8260B	1	2.0	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Methylene Chloride	SW8260B	1	7.5	11	ND		ug/Kg	12/07/21	15:29	CS	461982
trans-1,2-Dichloroethene	SW8260B	1	2.2	11	ND		ug/Kg	12/07/21	15:29	CS	461982
MTBE	SW8260B	1	2.5	11	ND		ug/Kg	12/07/21	15:29	CS	461982
TBA	SW8260B	1	12	53.1	ND		ug/Kg	12/07/21	15:29	CS	461982
Diisopropyl ether	SW8260B	1	2.4	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,1-Dichloroethane	SW8260B	1	2.3	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Ethyl tert-Butyl ether	SW8260B	1	2.4	11	ND		ug/Kg	12/07/21	15:29	CS	461982
cis-1,2-Dichloroethene	SW8260B	1	2.4	11	ND		ug/Kg	12/07/21	15:29	CS	461982
2,2-Dichloropropane	SW8260B	1	2.0	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Bromochloromethane	SW8260B	1	2.5	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Chloroform	SW8260B	1	2.5	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Carbon Tetrachloride	SW8260B	1	2.2	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,1,1-Trichloroethane	SW8260B	1	2.2	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,1-Dichloropropene	SW8260B	1	2.1	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Benzene	SW8260B	1	2.4	11	ND		ug/Kg	12/07/21	15:29	CS	461982
TAME	SW8260B	1	2.4	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,2-Dichloroethane	SW8260B	1	2.5	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Trichloroethylene	SW8260B	1	1.9	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Dibromomethane	SW8260B	1	1.9	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,2-Dichloropropane	SW8260B	1	2.0	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Bromodichloromethane	SW8260B	1	2.1	11	ND		ug/Kg	12/07/21	15:29	CS	461982
cis-1,3-Dichloropropene	SW8260B	1	1.7	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Toluene	SW8260B	1	1.9	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Tetrachloroethylene	SW8260B	1	1.8	11	ND		ug/Kg	12/07/21	15:29	CS	461982
trans-1,3-Dichloropropene	SW8260B	1	1.7	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,1,2-Trichloroethane	SW8260B	1	1.9	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Dibromochloromethane	SW8260B	1	2.0	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,3-Dichloropropane	SW8260B	1	1.9	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,2-Dibromoethane	SW8260B	1	1.9	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Chlorobenzene	SW8260B	1	1.9	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Ethylbenzene	SW8260B	1	1.8	11	ND		ug/Kg	12/07/21	15:29	CS	461982



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-10-1	<b>Lab Sample ID:</b>	2112042-001B
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 9:14		
<b>SDG:</b>			

<b>Prep Method:</b> 5035	<b>Prep Batch Date/Time:</b> 12/7/21 8:58:00AM
<b>Prep Batch ID:</b> 1137497	<b>Prep Analyst:</b> CSACH

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	2.0	11	ND		ug/Kg	12/07/21	15:29	CS	461982
m,p-Xylene	SW8260B	1	3.4	11	ND		ug/Kg	12/07/21	15:29	CS	461982
o-Xylene	SW8260B	1	1.8	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Styrene	SW8260B	1	1.7	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Bromoform	SW8260B	1	1.8	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Isopropyl Benzene	SW8260B	1	1.7	11	ND		ug/Kg	12/07/21	15:29	CS	461982
n-Propylbenzene	SW8260B	1	1.7	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Bromobenzene	SW8260B	1	1.9	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,1,2,2-Tetrachloroethane	SW8260B	1	2.0	11	ND		ug/Kg	12/07/21	15:29	CS	461982
2-Chlorotoluene	SW8260B	1	1.9	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,3,5-Trimethylbenzene	SW8260B	1	1.7	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,2,3-Trichloropropane	SW8260B	1	2.0	11	ND		ug/Kg	12/07/21	15:29	CS	461982
4-Chlorotoluene	SW8260B	1	1.7	11	ND		ug/Kg	12/07/21	15:29	CS	461982
tert-Butylbenzene	SW8260B	1	1.7	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,2,4-Trimethylbenzene	SW8260B	1	1.4	11	ND		ug/Kg	12/07/21	15:29	CS	461982
sec-Butyl Benzene	SW8260B	1	1.7	11	ND		ug/Kg	12/07/21	15:29	CS	461982
p-Isopropyltoluene	SW8260B	1	1.6	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,3-Dichlorobenzene	SW8260B	1	1.8	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,4-Dichlorobenzene	SW8260B	1	1.8	11	ND		ug/Kg	12/07/21	15:29	CS	461982
n-Butylbenzene	SW8260B	1	1.5	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,2-Dichlorobenzene	SW8260B	1	1.9	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,2-Dibromo-3-Chloropropane	SW8260B	1	2.0	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Hexachlorobutadiene	SW8260B	1	1.5	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,2,4-Trichlorobenzene	SW8260B	1	1.6	11	ND		ug/Kg	12/07/21	15:29	CS	461982
Naphthalene	SW8260B	1	1.8	11	ND		ug/Kg	12/07/21	15:29	CS	461982
1,2,3-Trichlorobenzene	SW8260B	1	1.8	11	ND		ug/Kg	12/07/21	15:29	CS	461982
2-Butanone	SW8260B	1	2.4	10.6	ND		ug/Kg	12/07/21	15:29	CS	461982
(S) Dibromofluoromethane	SW8260B		59.8 - 148		155	S	%	12/07/21	15:29	CS	461982
(S) Toluene-d8	SW8260B		55.2 - 133		107		%	12/07/21	15:29	CS	461982
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		105		%	12/07/21	15:29	CS	461982

**NOTE:** S:- Internal standard areas were outside of the QC limits indicating a matrix effect,analyzed twice. High surrogate recovery attributed to suppression of the internal standard used for peak quantitation.



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date/Time Received:** 12/03/21, 6:00 pm

**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-10-1	<b>Lab Sample ID:</b>	2112042-001B
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 9:14		
<b>SDG:</b>			

<b>Prep Method:</b> 5035GRO	<b>Prep Batch Date/Time:</b> 12/7/21 8:58:00AM
<b>Prep Batch ID:</b> 1137509	<b>Prep Analyst:</b> CSACH

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	46	110	ND		ug/Kg	12/07/21	15:29	CS	461982
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		38.2	S	%	12/07/21	15:29	CS	461982

**NOTE:** S-surrogate outside of control limits due to possible matrix interference,analyzed twice.



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-10-8	<b>Lab Sample ID:</b>	2112042-004A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 9:20		
<b>SDG:</b>			

<b>Prep Method:</b> 7471BP	<b>Prep Batch Date/Time:</b> 12/7/21 1:40:00PM
<b>Prep Batch ID:</b> 1137514	<b>Prep Analyst:</b> ERVS

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Mercury	SW7471B	1	0.083	0.50	ND		mg/Kg	12/08/21	15:15	BJAY	462021



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-10-8	Lab Sample ID:	2112042-004A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 9:20		
SDG:			

Prep Method:	6020S-P	Prep Batch Date/Time:	12/7/21	3:30:00PM
Prep Batch ID:	1137483	Prep Analyst:	BJAY	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Antimony	6020A	1	0.12	1.0	ND		mg/Kg	12/07/21	22:12	ERR	461993
Arsenic	6020A	1	0.21	1.0	<b>2.68</b>		mg/Kg	12/07/21	22:12	ERR	461993
Barium	6020A	1	0.84	1.0	<b>24.6</b>		mg/Kg	12/07/21	22:12	ERR	461993
Beryllium	6020A	1	0.16	1.0	ND		mg/Kg	12/07/21	22:12	ERR	461993
Cadmium	6020A	1	0.084	1.0	ND		mg/Kg	12/07/21	22:12	ERR	461993
Chromium	6020A	1	0.097	1.0	<b>41.7</b>		mg/Kg	12/07/21	22:12	ERR	461993
Cobalt	6020A	1	0.21	1.0	<b>6.26</b>		mg/Kg	12/07/21	22:12	ERR	461993
Copper	6020A	1	0.17	2.5	<b>12.4</b>		mg/Kg	12/07/21	22:12	ERR	461993
Lead	6020A	1	0.054	1.0	<b>3.55</b>		mg/Kg	12/07/21	22:12	ERR	461993
Molybdenum	6020A	1	0.13	1.0	ND		mg/Kg	12/07/21	22:12	ERR	461993
Nickel	6020A	1	1.2	5.0	<b>47.9</b>		mg/Kg	12/07/21	22:12	ERR	461993
Selenium	6020A	1	0.035	2.5	ND		mg/Kg	12/07/21	22:12	ERR	461993
Silver	6020A	1	0.098	1.0	ND		mg/Kg	12/07/21	22:12	ERR	461993
Thallium	6020A	1	1.00	5.0	ND		mg/Kg	12/07/21	22:12	ERR	461993
Vanadium	6020A	1	0.28	25	<b>38.1</b>		mg/Kg	12/07/21	22:12	ERR	461993
Zinc	6020A	1	0.70	2.5	<b>52.4</b>		mg/Kg	12/07/21	22:12	ERR	461993



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm

Date Reported: 12/08/21

Client Sample ID:	SB-10-8	Lab Sample ID:	2112042-004A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 9:20		
SDG:			

Prep Method:	3546_PAHSIM	Prep Batch Date/Time:	12/6/21	11:02:00AM
Prep Batch ID:	1137435	Prep Analyst:	NBAIN	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
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The results shown below are reported using their MDL.

Naphthalene	SW8270C	5	2.6	20	5.6	J	ug/Kg	12/06/21	19:28	MT	461945
2-Methylnaphthalene	SW8270C	5	1.1	20	5.8	J	ug/Kg	12/06/21	19:28	MT	461945
1-Methylnaphthalene	SW8270C	5	0.92	20	3.4	J	ug/Kg	12/06/21	19:28	MT	461945
Acenaphthelene	SW8270C	5	0.93	20	ND		ug/Kg	12/06/21	19:28	MT	461945
Acenaphthene	SW8270C	5	0.81	20	ND		ug/Kg	12/06/21	19:28	MT	461945
Fluorene	SW8270C	5	1.3	20	5.4	J	ug/Kg	12/06/21	19:28	MT	461945
Phenanthrene	SW8270C	5	3.0	20	15	J	ug/Kg	12/06/21	19:28	MT	461945
Anthracene	SW8270C	5	2.7	20	ND		ug/Kg	12/06/21	19:28	MT	461945
Fluoranthene	SW8270C	5	2.7	20	4.2	J	ug/Kg	12/06/21	19:28	MT	461945
Pyrene	SW8270C	5	2.7	20	3.6	J	ug/Kg	12/06/21	19:28	MT	461945
Benz[a]anthracene	SW8270C	5	2.3	20	6.9	J	ug/Kg	12/06/21	19:28	MT	461945
Chrysene	SW8270C	5	2.5	20	3.6	J	ug/Kg	12/06/21	19:28	MT	461945
Benzo[b]fluoranthene	SW8270C	5	1.2	20	6.9	J	ug/Kg	12/06/21	19:28	MT	461945
Benzo[k]fluoranthene	SW8270C	5	1.1	20	ND		ug/Kg	12/06/21	19:28	MT	461945
Benzo[a]pyrene	SW8270C	5	1.4	20	ND		ug/Kg	12/06/21	19:28	MT	461945
Indeno[1,2,3-cd]pyrene	SW8270C	5	1.1	20	1.3	J	ug/Kg	12/06/21	19:28	MT	461945
Dibenz[a,h]anthracene	SW8270C	5	1.4	20	ND		ug/Kg	12/06/21	19:28	MT	461945
Benzo[g,h,i]perylene	SW8270C	5	1.3	20	2.1	J	ug/Kg	12/06/21	19:28	MT	461945
Acceptance Limits											
2-Fluorobiphenyl (S)	SW8270C	45 - 125		87		%	12/06/21	19:28	MT	461945	
p-Terphenyl-d14 (S)	SW8270C	30 - 125		86		%	12/06/21	19:28	MT	461945	

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-10-12	<b>Lab Sample ID:</b>	2112042-005A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 9:22		
<b>SDG:</b>			

<b>Prep Method:</b> 3546_TPH	<b>Prep Batch Date/Time:</b> 12/7/21 9:25:00AM
<b>Prep Batch ID:</b> 1137438	<b>Prep Analyst:</b> NBAIN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.85	2.0	3.39	x	mg/Kg	12/07/21	15:46	SN	461995
TPH as Motor Oil	SW8015B	1	3.2	10	18.9		mg/Kg	12/07/21	15:46	SN	461995
		Acceptance Limits									
Pentacosane (S)	SW8015B		45 - 130		79.2		%	12/07/21	15:46	SN	461995

**NOTE:** x- Diesel result due to unknown organics within quantified range



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-10-12	Lab Sample ID:	2112042-005A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 9:22		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 12/7/21 9:29:00AM
Prep Batch ID: 1137504	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	1.2	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Chloromethane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Vinyl Chloride	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Bromomethane	SW8260B	1	2.7	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Chloroethane	SW8260B	1	3.0	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Trichlorofluoromethane	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,1-Dichloroethene	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Freon 113	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Methylene Chloride	SW8260B	1	7.1	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
trans-1,2-Dichloroethene	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
MTBE	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
TBA	SW8260B	1	12	50	ND		ug/Kg	12/07/21	17:04	JZ	461986
Diisopropyl ether	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,1-Dichloroethane	SW8260B	1	2.2	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Ethyl tert-Butyl ether	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
cis-1,2-Dichloroethene	SW8260B	1	2.2	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
2,2-Dichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Bromochloromethane	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Chloroform	SW8260B	1	2.4	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Carbon Tetrachloride	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,1,1-Trichloroethane	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,1-Dichloropropene	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Benzene	SW8260B	1	2.2	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
TAME	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,2-Dichloroethane	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Trichloroethylene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Dibromomethane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,2-Dichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Bromodichloromethane	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
cis-1,3-Dichloropropene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Toluene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Tetrachloroethene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
trans-1,3-Dichloropropene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,1,2-Trichloroethane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Dibromochloromethane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,3-Dichloropropane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,2-Dibromoethane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Chlorobenzene	SW8260B	1	1.8	10	12.0		ug/Kg	12/07/21	17:04	JZ	461986
Ethylbenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:04	JZ	461986



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-10-12	<b>Lab Sample ID:</b>	2112042-005A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 9:22		
<b>SDG:</b>			

<b>Prep Method:</b> 5035	<b>Prep Batch Date/Time:</b> 12/7/21 9:29:00AM
<b>Prep Batch ID:</b> 1137504	<b>Prep Analyst:</b> BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
m,p-Xylene	SW8260B	1	3.2	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
o-Xylene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Styrene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Bromoform	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Isopropyl Benzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
n-Propylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Bromobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,1,2,2-Tetrachloroethane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
2-Chlorotoluene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,3,5-Trimethylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,2,3-Trichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
4-Chlorotoluene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
tert-Butylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,2,4-Trimethylbenzene	SW8260B	1	1.4	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
sec-Butyl Benzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
p-Isopropyltoluene	SW8260B	1	1.5	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,3-Dichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,4-Dichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
n-Butylbenzene	SW8260B	1	1.5	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,2-Dichlorobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,2-Dibromo-3-Chloropropane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Hexachlorobutadiene	SW8260B	1	1.4	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,2,4-Trichlorobenzene	SW8260B	1	1.5	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
Naphthalene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
1,2,3-Trichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:04	JZ	461986
2-Butanone	SW8260B	1	2.3	10.0	ND		ug/Kg	12/07/21	17:04	JZ	461986
(S) Dibromofluoromethane	SW8260B		59.8 - 148		68.0		%	12/07/21	17:04	JZ	461986
(S) Toluene-d8	SW8260B		55.2 - 133		97.8		%	12/07/21	17:04	JZ	461986
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		83.1		%	12/07/21	17:04	JZ	461986



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date/Time Received:** 12/03/21, 6:00 pm

**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-10-12	<b>Lab Sample ID:</b>	2112042-005A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 9:22		
<b>SDG:</b>			

<b>Prep Method:</b> 5035GRO	<b>Prep Batch Date/Time:</b> 12/7/21 9:29:00AM
<b>Prep Batch ID:</b> 1137507	<b>Prep Analyst:</b> BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	43	100	ND		ug/Kg	12/07/21	17:04	JZ	461986
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		<b>62.4</b>		%	12/07/21	17:04	JZ	461986



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date/Time Received:** 12/03/21, 6:00 pm

**Date Reported:** 12/08/21

**Client Sample ID:** SB-12-1  
**Project Name/Location:**  
**Project Number:** 452498  
**Date/Time Sampled:** 12/03/21 / 13:54  
**SDG:**

**Lab Sample ID:** 2112042-006A  
**Sample Matrix:** Soil

<b>Prep Method:</b> 7471BP	<b>Prep Batch Date/Time:</b> 12/7/21 1:40:00PM
<b>Prep Batch ID:</b> 1137514	<b>Prep Analyst:</b> ERVS

<b>Parameters:</b>	<b>Analysis Method</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Results</b>	<b>Q</b>	<b>Units</b>	<b>Analyzed</b>	<b>Time</b>	<b>By</b>	<b>Analytical Batch</b>
Mercury	SW7471B	1	0.083	0.50	ND		mg/Kg	12/08/21	15:17	BJAY	462021



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-12-1	Lab Sample ID:	2112042-006A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 13:54		
SDG:			

Prep Method:	6020S-P	Prep Batch Date/Time:	12/7/21	3:30:00PM
Prep Batch ID:	1137483	Prep Analyst:	BJAY	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Antimony	6020A	1	0.12	1.0	ND		mg/Kg	12/07/21	22:16	ERR	461993
Arsenic	6020A	1	0.21	1.0	ND		mg/Kg	12/07/21	22:16	ERR	461993
Barium	6020A	1	0.84	1.0	<b>11.3</b>		mg/Kg	12/07/21	22:16	ERR	461993
Beryllium	6020A	1	0.16	1.0	ND		mg/Kg	12/07/21	22:16	ERR	461993
Cadmium	6020A	1	0.084	1.0	ND		mg/Kg	12/07/21	22:16	ERR	461993
Chromium	6020A	1	0.097	1.0	<b>37.0</b>		mg/Kg	12/07/21	22:16	ERR	461993
Cobalt	6020A	1	0.21	1.0	<b>18.1</b>		mg/Kg	12/07/21	22:16	ERR	461993
Copper	6020A	1	0.17	2.5	<b>73.1</b>		mg/Kg	12/07/21	22:16	ERR	461993
Lead	6020A	1	0.054	1.0	<b>2.95</b>		mg/Kg	12/07/21	22:16	ERR	461993
Molybdenum	6020A	1	0.13	1.0	ND		mg/Kg	12/07/21	22:16	ERR	461993
Nickel	6020A	1	1.2	5.0	<b>38.3</b>		mg/Kg	12/07/21	22:16	ERR	461993
Selenium	6020A	1	0.035	2.5	ND		mg/Kg	12/07/21	22:16	ERR	461993
Silver	6020A	1	0.098	1.0	ND		mg/Kg	12/07/21	22:16	ERR	461993
Thallium	6020A	1	1.00	5.0	ND		mg/Kg	12/07/21	22:16	ERR	461993
Vanadium	6020A	1	0.28	25	<b>58.2</b>		mg/Kg	12/07/21	22:16	ERR	461993
Zinc	6020A	1	0.70	2.5	<b>51.7</b>		mg/Kg	12/07/21	22:16	ERR	461993



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm

Date Reported: 12/08/21

Client Sample ID:	SB-12-1	Lab Sample ID:	2112042-006A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 13:54		
SDG:			

Prep Method:	3546_PAHSIM	Prep Batch Date/Time:	12/6/21	11:02:00AM
Prep Batch ID:	1137435	Prep Analyst:	NBAIN	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
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The results shown below are reported using their MDL.

Naphthalene	SW8270C	50	26	200	ND		ug/Kg	12/06/21	16:59	MT	461945
2-Methylnaphthalene	SW8270C	50	11	200	ND		ug/Kg	12/06/21	16:59	MT	461945
1-Methylnaphthalene	SW8270C	50	9.2	200	ND		ug/Kg	12/06/21	16:59	MT	461945
Acenaphthelene	SW8270C	50	9.3	200	ND		ug/Kg	12/06/21	16:59	MT	461945
Acenaphthene	SW8270C	50	8.1	200	ND		ug/Kg	12/06/21	16:59	MT	461945
Fluorene	SW8270C	50	13	200	ND		ug/Kg	12/06/21	16:59	MT	461945
Phenanthrene	SW8270C	50	30	200	ND		ug/Kg	12/06/21	16:59	MT	461945
Anthracene	SW8270C	50	27	200	ND		ug/Kg	12/06/21	16:59	MT	461945
Fluoranthene	SW8270C	50	27	200	ND		ug/Kg	12/06/21	16:59	MT	461945
Pyrene	SW8270C	50	27	200	61	J	ug/Kg	12/06/21	16:59	MT	461945
Benz[a]anthracene	SW8270C	50	23	200	92	J	ug/Kg	12/06/21	16:59	MT	461945
Chrysene	SW8270C	50	25	200	100	J	ug/Kg	12/06/21	16:59	MT	461945
Benzo[b]fluoranthene	SW8270C	50	12	200	38	J	ug/Kg	12/06/21	16:59	MT	461945
Benzo[k]fluoranthene	SW8270C	50	11	200	ND		ug/Kg	12/06/21	16:59	MT	461945
Benzo[a]pyrene	SW8270C	50	14	200	46	J	ug/Kg	12/06/21	16:59	MT	461945
Indeno[1,2,3-cd]pyrene	SW8270C	50	11	200	11	J	ug/Kg	12/06/21	16:59	MT	461945
Dibenz[a,h]anthracene	SW8270C	50	14	200	15	J	ug/Kg	12/06/21	16:59	MT	461945
Benzo[g,h,i]perylene	SW8270C	50	13	200	84	J	ug/Kg	12/06/21	16:59	MT	461945
Acceptance Limits											
2-Fluorobiphenyl (S)	SW8270C	45 - 125		0.00	D	%	12/06/21	16:59	MT	461945	
p-Terphenyl-d14 (S)	SW8270C	30 - 125		0.00	D	%	12/06/21	16:59	MT	461945	

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-12-1	<b>Lab Sample ID:</b>	2112042-006A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 13:54		
<b>SDG:</b>			

<b>Prep Method:</b> 3546_OCP	<b>Prep Batch Date/Time:</b> 12/6/21 11:07:00AM
<b>Prep Batch ID:</b> 1137436	<b>Prep Analyst:</b> NBAIN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
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**The results shown below are reported using their MDL.**

alpha-BHC	SW8081B	10	1.3	20	ND		ug/Kg	12/07/21	1:33	MK	461969
gamma-BHC (Lindane)	SW8081B	10	1.6	20	ND		ug/Kg	12/07/21	1:33	MK	461969
beta-BHC	SW8081B	10	3.2	20	ND		ug/Kg	12/07/21	1:33	MK	461969
delta-BHC	SW8081B	10	1.6	20	ND		ug/Kg	12/07/21	1:33	MK	461969
Heptachlor	SW8081B	10	1.1	20	ND		ug/Kg	12/07/21	1:33	MK	461969
Aldrin	SW8081B	10	2.0	20	ND		ug/Kg	12/07/21	1:33	MK	461969
Heptachlor Epoxide	SW8081B	10	0.78	20	ND		ug/Kg	12/07/21	1:33	MK	461969
gamma-Chlordane	SW8081B	10	1.6	20	ND		ug/Kg	12/07/21	1:33	MK	461969
alpha-Chlordane	SW8081B	10	1.7	20	ND		ug/Kg	12/07/21	1:33	MK	461969
4,4'-DDE	SW8081B	10	1.9	20	ND		ug/Kg	12/07/21	1:33	MK	461969
Endosulfan I	SW8081B	10	1.8	20	ND		ug/Kg	12/07/21	1:33	MK	461969
Dieldrin	SW8081B	10	1.5	20	ND		ug/Kg	12/07/21	1:33	MK	461969
Endrin	SW8081B	10	1.9	20	ND		ug/Kg	12/07/21	1:33	MK	461969
4,4'-DDD	SW8081B	10	5.7	20	ND		ug/Kg	12/07/21	1:33	MK	461969
Endosulfan II	SW8081B	10	5.8	20	ND		ug/Kg	12/07/21	1:33	MK	461969
4,4'-DDT	SW8081B	10	1.3	20	ND		ug/Kg	12/07/21	1:33	MK	461969
Endrin Aldehyde	SW8081B	10	1.5	20	ND		ug/Kg	12/07/21	1:33	MK	461969
Methoxychlor	SW8081B	10	2.0	20	ND		ug/Kg	12/07/21	1:33	MK	461969
Endosulfan Sulfate	SW8081B	10	1.2	20	ND		ug/Kg	12/07/21	1:33	MK	461969
Endrin Ketone	SW8081B	10	0.94	20	ND		ug/Kg	12/07/21	1:33	MK	461969
Chlordane	SW8081B	10	21	200	ND		ug/Kg	12/07/21	1:33	MK	461969
Toxaphene	SW8081B	10	85	500	ND		ug/Kg	12/07/21	1:33	MK	461969
Acceptance Limits											
Tetrachloro-M-Xylene (S)	SW8081B	48 - 125		<b>92.5</b>			%	12/07/21	1:33	MK	461969
Decachlorobiphenyl (S)	SW8081B	38 - 135		<b>101</b>			%	12/07/21	1:33	MK	461969

**NOTE:** Sample diluted due to the nature of the sample matrix (dark colored extract)



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-12-1	<b>Lab Sample ID:</b>	2112042-006A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 13:54		
<b>SDG:</b>			

<b>Prep Method:</b> 3546_TPH	<b>Prep Batch Date/Time:</b> 12/7/21 9:25:00AM
<b>Prep Batch ID:</b> 1137438	<b>Prep Analyst:</b> NBAIN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	3.4	8.0	20.4	x	mg/Kg	12/07/21	16:11	SN	461995
TPH as Motor Oil	SW8015B	1	13	40	279		mg/Kg	12/07/21	16:11	SN	461995
Acceptance Limits											
Pentacosane (S)	SW8015B		45 - 130		89.8		%	12/07/21	16:11	SN	461995

**NOTE:** x-Diesel value the result of overlap of Oil range into Diesel range



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-12-1	Lab Sample ID:	2112042-006B
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 13:54		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 12/6/21 9:07:00AM
Prep Batch ID: 1137465	Prep Analyst: CSACH

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	1.8	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Chloromethane	SW8260B	1	2.7	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Vinyl Chloride	SW8260B	1	3.0	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Bromomethane	SW8260B	1	4.0	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Chloroethane	SW8260B	1	4.5	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Trichlorofluoromethane	SW8260B	1	3.0	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,1-Dichloroethene	SW8260B	1	3.0	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Freon 113	SW8260B	1	2.8	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Methylene Chloride	SW8260B	1	11	15	ND		ug/Kg	12/06/21	18:27	CS	461955
trans-1,2-Dichloroethene	SW8260B	1	3.1	15	ND		ug/Kg	12/06/21	18:27	CS	461955
MTBE	SW8260B	1	3.5	15	ND		ug/Kg	12/06/21	18:27	CS	461955
TBA	SW8260B	1	17	74.0	ND		ug/Kg	12/06/21	18:27	CS	461955
Diisopropyl ether	SW8260B	1	3.4	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,1-Dichloroethane	SW8260B	1	3.3	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Ethyl tert-Butyl ether	SW8260B	1	3.4	15	ND		ug/Kg	12/06/21	18:27	CS	461955
cis-1,2-Dichloroethene	SW8260B	1	3.3	15	ND		ug/Kg	12/06/21	18:27	CS	461955
2,2-Dichloropropane	SW8260B	1	2.8	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Bromochloromethane	SW8260B	1	3.5	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Chloroform	SW8260B	1	3.5	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Carbon Tetrachloride	SW8260B	1	3.0	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,1,1-Trichloroethane	SW8260B	1	3.1	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,1-Dichloropropene	SW8260B	1	2.9	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Benzene	SW8260B	1	3.3	15	ND		ug/Kg	12/06/21	18:27	CS	461955
TAME	SW8260B	1	3.4	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,2-Dichloroethane	SW8260B	1	3.4	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Trichloroethylene	SW8260B	1	2.7	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Dibromomethane	SW8260B	1	2.7	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,2-Dichloropropane	SW8260B	1	2.8	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Bromodichloromethane	SW8260B	1	2.9	15	ND		ug/Kg	12/06/21	18:27	CS	461955
cis-1,3-Dichloropropene	SW8260B	1	2.4	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Toluene	SW8260B	1	2.7	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Tetrachloroethylene	SW8260B	1	2.5	15	ND		ug/Kg	12/06/21	18:27	CS	461955
trans-1,3-Dichloropropene	SW8260B	1	2.4	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,1,2-Trichloroethane	SW8260B	1	2.7	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Dibromochloromethane	SW8260B	1	2.8	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,3-Dichloropropane	SW8260B	1	2.7	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,2-Dibromoethane	SW8260B	1	2.7	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Chlorobenzene	SW8260B	1	2.7	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Ethylbenzene	SW8260B	1	2.4	15	ND		ug/Kg	12/06/21	18:27	CS	461955



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-12-1	<b>Lab Sample ID:</b>	2112042-006B
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 13:54		
<b>SDG:</b>			

<b>Prep Method:</b> 5035	<b>Prep Batch Date/Time:</b> 12/6/21 9:07:00AM
<b>Prep Batch ID:</b> 1137465	<b>Prep Analyst:</b> CSACH

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	2.9	15	ND		ug/Kg	12/06/21	18:27	CS	461955
m,p-Xylene	SW8260B	1	4.7	15	ND		ug/Kg	12/06/21	18:27	CS	461955
o-Xylene	SW8260B	1	2.6	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Styrene	SW8260B	1	2.4	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Bromoform	SW8260B	1	2.5	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Isopropyl Benzene	SW8260B	1	2.4	15	ND		ug/Kg	12/06/21	18:27	CS	461955
n-Propylbenzene	SW8260B	1	2.3	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Bromobenzene	SW8260B	1	2.6	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,1,2,2-Tetrachloroethane	SW8260B	1	2.8	15	ND		ug/Kg	12/06/21	18:27	CS	461955
2-Chlorotoluene	SW8260B	1	2.6	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,3,5-Trimethylbenzene	SW8260B	1	2.3	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,2,3-Trichloropropane	SW8260B	1	2.8	15	ND		ug/Kg	12/06/21	18:27	CS	461955
4-Chlorotoluene	SW8260B	1	2.4	15	ND		ug/Kg	12/06/21	18:27	CS	461955
tert-Butylbenzene	SW8260B	1	2.4	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,2,4-Trimethylbenzene	SW8260B	1	2.0	15	ND		ug/Kg	12/06/21	18:27	CS	461955
sec-Butyl Benzene	SW8260B	1	2.3	15	ND		ug/Kg	12/06/21	18:27	CS	461955
p-Isopropyltoluene	SW8260B	1	2.2	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,3-Dichlorobenzene	SW8260B	1	2.5	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,4-Dichlorobenzene	SW8260B	1	2.5	15	ND		ug/Kg	12/06/21	18:27	CS	461955
n-Butylbenzene	SW8260B	1	2.1	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,2-Dichlorobenzene	SW8260B	1	2.6	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,2-Dibromo-3-Chloropropane	SW8260B	1	2.7	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Hexachlorobutadiene	SW8260B	1	2.0	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,2,4-Trichlorobenzene	SW8260B	1	2.2	15	ND		ug/Kg	12/06/21	18:27	CS	461955
Naphthalene	SW8260B	1	2.5	15	ND		ug/Kg	12/06/21	18:27	CS	461955
1,2,3-Trichlorobenzene	SW8260B	1	2.5	15	ND		ug/Kg	12/06/21	18:27	CS	461955
2-Butanone	SW8260B	1	3.4	14.8	ND		ug/Kg	12/06/21	18:27	CS	461955
(S) Dibromofluoromethane	SW8260B		59.8 - 148		146		%	12/06/21	18:27	CS	461955
(S) Toluene-d8	SW8260B		55.2 - 133		107		%	12/06/21	18:27	CS	461955
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		97.7		%	12/06/21	18:27	CS	461955

**NOTE:** Internal standard areas were outside of the QC limits, matrix effect suspected, analyzed twice.



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date/Time Received:** 12/03/21, 6:00 pm

**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-12-1	<b>Lab Sample ID:</b>	2112042-006B
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 13:54		
<b>SDG:</b>			

<b>Prep Method:</b> 5035GRO	<b>Prep Batch Date/Time:</b> 12/6/21 9:07:00AM
<b>Prep Batch ID:</b> 1137467	<b>Prep Analyst:</b> CSACH

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	64	150	ND		ug/Kg	12/06/21	18:27	CS	461955
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		50.4		%	12/06/21	18:27	CS	461955



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-12-8	<b>Lab Sample ID:</b>	2112042-008A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 13:08		
<b>SDG:</b>			

<b>Prep Method:</b> 7471BP	<b>Prep Batch Date/Time:</b> 12/7/21 1:40:00PM
<b>Prep Batch ID:</b> 1137514	<b>Prep Analyst:</b> ERVS

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Mercury	SW7471B	1	0.083	0.50	ND		mg/Kg	12/08/21	15:19	BJAY	462021



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm

Date Reported: 12/08/21

Client Sample ID:	SB-12-8	Lab Sample ID:	2112042-008A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 13:08		
SDG:			

Prep Method:	6020S-P	Prep Batch Date/Time:	12/7/21	3:30:00PM
Prep Batch ID:	1137483	Prep Analyst:	BJAY	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Antimony	6020A	1	0.12	1.0	ND		mg/Kg	12/07/21	22:21	ERR	461993
Arsenic	6020A	1	0.21	1.0	<b>2.41</b>		mg/Kg	12/07/21	22:21	ERR	461993
Barium	6020A	1	0.84	1.0	<b>198</b>		mg/Kg	12/07/21	22:21	ERR	461993
Beryllium	6020A	1	0.16	1.0	ND		mg/Kg	12/07/21	22:21	ERR	461993
Cadmium	6020A	1	0.084	1.0	ND		mg/Kg	12/07/21	22:21	ERR	461993
Chromium	6020A	1	0.097	1.0	<b>11.9</b>		mg/Kg	12/07/21	22:21	ERR	461993
Cobalt	6020A	1	0.21	1.0	<b>2.75</b>		mg/Kg	12/07/21	22:21	ERR	461993
Copper	6020A	1	0.17	2.5	<b>18.9</b>		mg/Kg	12/07/21	22:21	ERR	461993
Lead	6020A	1	0.054	1.0	<b>24.1</b>		mg/Kg	12/07/21	22:21	ERR	461993
Molybdenum	6020A	1	0.13	1.0	<b>2.20</b>		mg/Kg	12/07/21	22:21	ERR	461993
Nickel	6020A	1	1.2	5.0	<b>18.3</b>		mg/Kg	12/07/21	22:21	ERR	461993
Selenium	6020A	1	0.035	2.5	ND		mg/Kg	12/07/21	22:21	ERR	461993
Silver	6020A	1	0.098	1.0	ND		mg/Kg	12/07/21	22:21	ERR	461993
Thallium	6020A	1	1.00	5.0	ND		mg/Kg	12/07/21	22:21	ERR	461993
Vanadium	6020A	1	0.28	25	<b>26.1</b>		mg/Kg	12/07/21	22:21	ERR	461993
Zinc	6020A	1	0.70	2.5	<b>74.1</b>		mg/Kg	12/07/21	22:21	ERR	461993



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm

Date Reported: 12/08/21

Client Sample ID:	SB-12-8	Lab Sample ID:	2112042-008A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 13:08		
SDG:			

Prep Method:	3546_TPH	Prep Batch Date/Time:	12/7/21	9:25:00AM
Prep Batch ID:	1137438	Prep Analyst:	NBAIN	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	1.7	4.0	17.5	x	mg/Kg	12/07/21	16:36	SN	461995
TPH as Motor Oil	SW8015B	1	6.4	20	173		mg/Kg	12/07/21	16:36	SN	461995
Pentacosane (S)	SW8015B	Acceptance Limits			62.9		%	12/07/21	16:36	SN	461995
NOTE: x-Diesel value the result of overlap of Oil range into Diesel range											



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-12-8	Lab Sample ID:	2112042-008B
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 13:08		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 12/7/21 8:58:00AM
Prep Batch ID: 1137497	Prep Analyst: CSACH

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	1.5	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Chloromethane	SW8260B	1	2.2	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Vinyl Chloride	SW8260B	1	2.4	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Bromomethane	SW8260B	1	3.2	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Chloroethane	SW8260B	1	3.6	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Trichlorofluoromethane	SW8260B	1	2.4	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,1-Dichloroethene	SW8260B	1	2.4	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Freon 113	SW8260B	1	2.2	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Methylene Chloride	SW8260B	1	8.4	12	ND		ug/Kg	12/07/21	17:24	CS	461982
trans-1,2-Dichloroethene	SW8260B	1	2.5	12	ND		ug/Kg	12/07/21	17:24	CS	461982
MTBE	SW8260B	1	2.8	12	ND		ug/Kg	12/07/21	17:24	CS	461982
TBA	SW8260B	1	14	59.1	ND		ug/Kg	12/07/21	17:24	CS	461982
Diisopropyl ether	SW8260B	1	2.7	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,1-Dichloroethane	SW8260B	1	2.6	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Ethyl tert-Butyl ether	SW8260B	1	2.7	12	ND		ug/Kg	12/07/21	17:24	CS	461982
cis-1,2-Dichloroethene	SW8260B	1	2.6	12	ND		ug/Kg	12/07/21	17:24	CS	461982
2,2-Dichloropropane	SW8260B	1	2.3	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Bromochloromethane	SW8260B	1	2.8	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Chloroform	SW8260B	1	2.8	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Carbon Tetrachloride	SW8260B	1	2.4	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,1,1-Trichloroethane	SW8260B	1	2.5	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,1-Dichloropropene	SW8260B	1	2.3	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Benzene	SW8260B	1	2.6	12	ND		ug/Kg	12/07/21	17:24	CS	461982
TAME	SW8260B	1	2.7	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,2-Dichloroethane	SW8260B	1	2.7	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Trichloroethylene	SW8260B	1	2.1	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Dibromomethane	SW8260B	1	2.2	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,2-Dichloropropane	SW8260B	1	2.2	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Bromodichloromethane	SW8260B	1	2.3	12	ND		ug/Kg	12/07/21	17:24	CS	461982
cis-1,3-Dichloropropene	SW8260B	1	1.9	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Toluene	SW8260B	1	2.2	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Tetrachloroethylene	SW8260B	1	2.0	12	ND		ug/Kg	12/07/21	17:24	CS	461982
trans-1,3-Dichloropropene	SW8260B	1	1.9	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,1,2-Trichloroethane	SW8260B	1	2.2	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Dibromochloromethane	SW8260B	1	2.2	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,3-Dichloropropane	SW8260B	1	2.2	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,2-Dibromoethane	SW8260B	1	2.1	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Chlorobenzene	SW8260B	1	2.1	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Ethylbenzene	SW8260B	1	2.0	12	ND		ug/Kg	12/07/21	17:24	CS	461982



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-12-8	<b>Lab Sample ID:</b>	2112042-008B
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 13:08		
<b>SDG:</b>			

<b>Prep Method:</b> 5035	<b>Prep Batch Date/Time:</b> 12/7/21 8:58:00AM
<b>Prep Batch ID:</b> 1137497	<b>Prep Analyst:</b> CSACH

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	2.3	12	ND		ug/Kg	12/07/21	17:24	CS	461982
m,p-Xylene	SW8260B	1	3.7	12	ND		ug/Kg	12/07/21	17:24	CS	461982
o-Xylene	SW8260B	1	2.0	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Styrene	SW8260B	1	1.9	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Bromoform	SW8260B	1	2.0	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Isopropyl Benzene	SW8260B	1	1.9	12	ND		ug/Kg	12/07/21	17:24	CS	461982
n-Propylbenzene	SW8260B	1	1.8	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Bromobenzene	SW8260B	1	2.1	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,1,2,2-Tetrachloroethane	SW8260B	1	2.3	12	ND		ug/Kg	12/07/21	17:24	CS	461982
2-Chlorotoluene	SW8260B	1	2.1	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,3,5-Trimethylbenzene	SW8260B	1	1.9	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,2,3-Trichloropropane	SW8260B	1	2.2	12	ND		ug/Kg	12/07/21	17:24	CS	461982
4-Chlorotoluene	SW8260B	1	1.9	12	ND		ug/Kg	12/07/21	17:24	CS	461982
tert-Butylbenzene	SW8260B	1	1.9	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,2,4-Trimethylbenzene	SW8260B	1	1.6	12	ND		ug/Kg	12/07/21	17:24	CS	461982
sec-Butyl Benzene	SW8260B	1	1.8	12	ND		ug/Kg	12/07/21	17:24	CS	461982
p-Isopropyltoluene	SW8260B	1	1.7	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,3-Dichlorobenzene	SW8260B	1	2.0	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,4-Dichlorobenzene	SW8260B	1	2.0	12	ND		ug/Kg	12/07/21	17:24	CS	461982
n-Butylbenzene	SW8260B	1	1.7	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,2-Dichlorobenzene	SW8260B	1	2.1	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,2-Dibromo-3-Chloropropane	SW8260B	1	2.2	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Hexachlorobutadiene	SW8260B	1	1.6	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,2,4-Trichlorobenzene	SW8260B	1	1.7	12	ND		ug/Kg	12/07/21	17:24	CS	461982
Naphthalene	SW8260B	1	2.0	12	ND		ug/Kg	12/07/21	17:24	CS	461982
1,2,3-Trichlorobenzene	SW8260B	1	2.0	12	ND		ug/Kg	12/07/21	17:24	CS	461982
2-Butanone	SW8260B	1	2.7	11.8	14.7		ug/Kg	12/07/21	17:24	CS	461982
(S) Dibromofluoromethane	SW8260B		59.8 - 148		157	S	%	12/07/21	17:24	CS	461982
(S) Toluene-d8	SW8260B		55.2 - 133		117		%	12/07/21	17:24	CS	461982
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		110		%	12/07/21	17:24	CS	461982

**NOTE:** S:- Internal standard areas were outside of the QC limits. Subsequent re-analysis of sample yielded the same result indicating a matrix effect.High surrogate recovery attributed to suppression of the internal standard used for peak quantitation.



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-12-8	Lab Sample ID:	2112042-008B
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 13:08		
SDG:			

Prep Method:	5035GRO	Prep Batch Date/Time:	12/7/21	8:58:00AM
Prep Batch ID:	1137509	Prep Analyst:	CSACH	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	51	120	ND		ug/Kg	12/07/21	17:24	CS	461982
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		<b>26.6</b>	S	%	12/07/21	17:24	CS	461982

NOTE: S-surrogate outside of control limits due to possible matrix interference, analyzed twice.



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-13-1	<b>Lab Sample ID:</b>	2112042-010A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 11:00		
<b>SDG:</b>			

<b>Prep Method:</b> 7471BP	<b>Prep Batch Date/Time:</b> 12/7/21 1:40:00PM
<b>Prep Batch ID:</b> 1137514	<b>Prep Analyst:</b> ERVS

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Mercury	SW7471B	1	0.083	0.50	1.2		mg/Kg	12/08/21	15:21	BJAY	462021



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-13-1	Lab Sample ID:	2112042-010A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 11:00		
SDG:			

Prep Method:	6020S-P	Prep Batch Date/Time:	12/7/21	3:30:00PM
Prep Batch ID:	1137483	Prep Analyst:	BJAY	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Antimony	6020A	1	0.12	1.0	ND		mg/Kg	12/07/21	22:26	ERR	461993
Arsenic	6020A	1	0.21	1.0	<b>5.96</b>		mg/Kg	12/07/21	22:26	ERR	461993
Barium	6020A	1	0.84	1.0	<b>122</b>		mg/Kg	12/07/21	22:26	ERR	461993
Beryllium	6020A	1	0.16	1.0	ND		mg/Kg	12/07/21	22:26	ERR	461993
Cadmium	6020A	1	0.084	1.0	ND		mg/Kg	12/07/21	22:26	ERR	461993
Chromium	6020A	1	0.097	1.0	<b>76.0</b>		mg/Kg	12/07/21	22:26	ERR	461993
Cobalt	6020A	1	0.21	1.0	<b>6.87</b>		mg/Kg	12/07/21	22:26	ERR	461993
Copper	6020A	1	0.17	2.5	<b>48.1</b>		mg/Kg	12/07/21	22:26	ERR	461993
Lead	6020A	1	0.054	1.0	<b>48.0</b>		mg/Kg	12/07/21	22:26	ERR	461993
Molybdenum	6020A	1	0.13	1.0	ND		mg/Kg	12/07/21	22:26	ERR	461993
Nickel	6020A	1	1.2	5.0	<b>115</b>		mg/Kg	12/07/21	22:26	ERR	461993
Selenium	6020A	1	0.035	2.5	ND		mg/Kg	12/07/21	22:26	ERR	461993
Silver	6020A	1	0.098	1.0	<b>1.66</b>		mg/Kg	12/07/21	22:26	ERR	461993
Thallium	6020A	1	1.00	5.0	ND		mg/Kg	12/07/21	22:26	ERR	461993
Vanadium	6020A	1	0.28	25	<b>38.2</b>		mg/Kg	12/07/21	22:26	ERR	461993
Zinc	6020A	1	0.70	2.5	<b>134</b>		mg/Kg	12/07/21	22:26	ERR	461993



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-13-1	<b>Lab Sample ID:</b>	2112042-010A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 11:00		
<b>SDG:</b>			

<b>Prep Method:</b> 3546_PAHSIM	<b>Prep Batch Date/Time:</b> 12/6/21 11:02:00AM
<b>Prep Batch ID:</b> 1137435	<b>Prep Analyst:</b> NBAIN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
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**The results shown below are reported using their MDL.**

Naphthalene	SW8270C	5	2.6	20	27		ug/Kg	12/06/21	17:58	MT	461945
2-Methylnaphthalene	SW8270C	5	1.1	20	9.7	J	ug/Kg	12/06/21	17:58	MT	461945
1-Methylnaphthalene	SW8270C	5	0.92	20	4.0	J	ug/Kg	12/06/21	17:58	MT	461945
Acenaphthelene	SW8270C	5	0.93	20	5.4	J	ug/Kg	12/06/21	17:58	MT	461945
Acenaphthene	SW8270C	5	0.81	20	1.1	J	ug/Kg	12/06/21	17:58	MT	461945
Fluorene	SW8270C	5	1.3	20	2.5	J	ug/Kg	12/06/21	17:58	MT	461945
Phenanthrene	SW8270C	5	3.0	20	31		ug/Kg	12/06/21	17:58	MT	461945
Anthracene	SW8270C	5	2.7	20	8.1	J	ug/Kg	12/06/21	17:58	MT	461945
Fluoranthene	SW8270C	5	2.7	20	83		ug/Kg	12/06/21	17:58	MT	461945
Pyrene	SW8270C	5	2.7	20	100		ug/Kg	12/06/21	17:58	MT	461945
Benz[a]anthracene	SW8270C	5	2.3	20	46		ug/Kg	12/06/21	17:58	MT	461945
Chrysene	SW8270C	5	2.5	20	46		ug/Kg	12/06/21	17:58	MT	461945
Benzo[b]fluoranthene	SW8270C	5	1.2	20	120		ug/Kg	12/06/21	17:58	MT	461945
Benzo[k]fluoranthene	SW8270C	5	1.1	20	27		ug/Kg	12/06/21	17:58	MT	461945
Benzo[a]pyrene	SW8270C	5	1.4	20	71		ug/Kg	12/06/21	17:58	MT	461945
Indeno[1,2,3-cd]pyrene	SW8270C	5	1.1	20	150		ug/Kg	12/06/21	17:58	MT	461945
Dibenz[a,h]anthracene	SW8270C	5	1.4	20	8.1	J	ug/Kg	12/06/21	17:58	MT	461945
Benzo[g,h,i]perylene	SW8270C	5	1.3	20	75		ug/Kg	12/06/21	17:58	MT	461945
Acceptance Limits											
2-Fluorobiphenyl (S)	SW8270C	45 - 125		88		%	12/06/21	17:58	MT	461945	
p-Terphenyl-d14 (S)	SW8270C	30 - 125		92		%	12/06/21	17:58	MT	461945	

**NOTE:** Sample diluted due to nature of the matrix (dark, viscous extract)



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-13-1	<b>Lab Sample ID:</b>	2112042-010A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 11:00		
<b>SDG:</b>			

<b>Prep Method:</b> 3546_OCP	<b>Prep Batch Date/Time:</b> 12/6/21 11:07:00AM
<b>Prep Batch ID:</b> 1137436	<b>Prep Analyst:</b> NBAIN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
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**The results shown below are reported using their MDL.**

alpha-BHC	SW8081B	3	0.38	6.0	ND		ug/Kg	12/07/21	1:46	MK	461969
gamma-BHC (Lindane)	SW8081B	3	0.48	6.0	ND		ug/Kg	12/07/21	1:46	MK	461969
beta-BHC	SW8081B	3	0.95	6.0	ND		ug/Kg	12/07/21	1:46	MK	461969
delta-BHC	SW8081B	3	0.47	6.0	ND		ug/Kg	12/07/21	1:46	MK	461969
Heptachlor	SW8081B	3	0.32	6.0	ND		ug/Kg	12/07/21	1:46	MK	461969
Aldrin	SW8081B	3	0.59	6.0	ND		ug/Kg	12/07/21	1:46	MK	461969
Heptachlor Epoxide	SW8081B	3	0.23	6.0	<b>1.47</b>	J	ug/Kg	12/07/21	1:46	MK	461969
gamma-Chlordane	SW8081B	3	0.49	6.0	<b>17.1</b>		ug/Kg	12/07/21	1:46	MK	461969
alpha-Chlordane	SW8081B	3	0.52	6.0	<b>12.6</b>		ug/Kg	12/07/21	1:46	MK	461969
4,4'-DDE	SW8081B	3	0.58	6.0	<b>8.91</b>		ug/Kg	12/07/21	1:46	MK	461969
Endosulfan I	SW8081B	3	0.55	6.0	ND		ug/Kg	12/07/21	1:46	MK	461969
Dieldrin	SW8081B	3	0.44	6.0	<b>17.4</b>		ug/Kg	12/07/21	1:46	MK	461969
Endrin	SW8081B	3	0.56	6.0	ND		ug/Kg	12/07/21	1:46	MK	461969
4,4'-DDD	SW8081B	3	1.7	6.0	<b>8.55</b>		ug/Kg	12/07/21	1:46	MK	461969
Endosulfan II	SW8081B	3	1.7	6.0	ND		ug/Kg	12/07/21	1:46	MK	461969
4,4'-DDT	SW8081B	3	0.39	6.0	<b>22.2</b>		ug/Kg	12/07/21	1:46	MK	461969
Endrin Aldehyde	SW8081B	3	0.45	6.0	ND		ug/Kg	12/07/21	1:46	MK	461969
Methoxychlor	SW8081B	3	0.60	6.0	ND		ug/Kg	12/07/21	1:46	MK	461969
Endosulfan Sulfate	SW8081B	3	0.35	6.0	ND		ug/Kg	12/07/21	1:46	MK	461969
Endrin Ketone	SW8081B	3	0.28	6.0	ND		ug/Kg	12/07/21	1:46	MK	461969
Chlordane	SW8081B	3	6.3	60	<b>90.0</b>		ug/Kg	12/07/21	1:46	MK	461969
Toxaphene	SW8081B	3	26	150	ND		ug/Kg	12/07/21	1:46	MK	461969
Acceptance Limits											
Tetrachloro-M-Xylene (S)	SW8081B	48 - 125		<b>75.3</b>			%	12/07/21	1:46	MK	461969
Decachlorobiphenyl (S)	SW8081B	38 - 135		<b>82.1</b>			%	12/07/21	1:46	MK	461969

**NOTE:** Sample diluted due to the nature of the sample matrix (dark colored extract)



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-13-1	<b>Lab Sample ID:</b>	2112042-010A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 11:00		
<b>SDG:</b>			

<b>Prep Method:</b> 3546_TPH	<b>Prep Batch Date/Time:</b> 12/7/21 9:25:00AM
<b>Prep Batch ID:</b> 1137438	<b>Prep Analyst:</b> NBAIN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	2	3.4	8.0	55.0	x	mg/Kg	12/08/21	9:13	SN	461995
TPH as Motor Oil	SW8015B	2	13	40	284		mg/Kg	12/08/21	9:13	SN	461995
Acceptance Limits											
Pentacosane (S)	SW8015B		45 - 130		99.3		%	12/08/21	9:13	SN	461995

**NOTE:** x-Diesel value the result of overlap of Oil range into Diesel range



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-13-1	Lab Sample ID:	2112042-010B
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 11:00		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 12/7/21 8:58:00AM
Prep Batch ID: 1137497	Prep Analyst: CSACH

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	1.3	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Chloromethane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Vinyl Chloride	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Bromomethane	SW8260B	1	2.8	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Chloroethane	SW8260B	1	3.1	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Trichlorofluoromethane	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,1-Dichloroethene	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Freon 113	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Methylene Chloride	SW8260B	1	7.3	10	ND		ug/Kg	12/07/21	15:58	CS	461982
trans-1,2-Dichloroethene	SW8260B	1	2.2	10	ND		ug/Kg	12/07/21	15:58	CS	461982
MTBE	SW8260B	1	2.4	10	ND		ug/Kg	12/07/21	15:58	CS	461982
TBA	SW8260B	1	12	51.7	ND		ug/Kg	12/07/21	15:58	CS	461982
Diisopropyl ether	SW8260B	1	2.4	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,1-Dichloroethane	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Ethyl tert-Butyl ether	SW8260B	1	2.4	10	ND		ug/Kg	12/07/21	15:58	CS	461982
cis-1,2-Dichloroethene	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	15:58	CS	461982
2,2-Dichloropropane	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Bromochloromethane	SW8260B	1	2.4	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Chloroform	SW8260B	1	2.4	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Carbon Tetrachloride	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,1,1-Trichloroethane	SW8260B	1	2.2	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,1-Dichloropropene	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Benzene	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	15:58	CS	461982
TAME	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,2-Dichloroethane	SW8260B	1	2.4	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Trichloroethylene	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Dibromomethane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,2-Dichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Bromodichloromethane	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	15:58	CS	461982
cis-1,3-Dichloropropene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Toluene	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Tetrachloroethylene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	15:58	CS	461982
trans-1,3-Dichloropropene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,1,2-Trichloroethane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Dibromochloromethane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,3-Dichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,2-Dibromoethane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Chlorobenzene	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Ethylbenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	15:58	CS	461982



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-13-1	<b>Lab Sample ID:</b>	2112042-010B
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 11:00		
<b>SDG:</b>			

<b>Prep Method:</b> 5035	<b>Prep Batch Date/Time:</b> 12/7/21 8:58:00AM
<b>Prep Batch ID:</b> 1137497	<b>Prep Analyst:</b> CSACH

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	15:58	CS	461982
m,p-Xylene	SW8260B	1	3.3	10	ND		ug/Kg	12/07/21	15:58	CS	461982
o-Xylene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Styrene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Bromoform	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Isopropyl Benzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	15:58	CS	461982
n-Propylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Bromobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,1,2,2-Tetrachloroethane	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	15:58	CS	461982
2-Chlorotoluene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,3,5-Trimethylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,2,3-Trichloropropane	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	15:58	CS	461982
4-Chlorotoluene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	15:58	CS	461982
tert-Butylbenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,2,4-Trimethylbenzene	SW8260B	1	1.4	10	ND		ug/Kg	12/07/21	15:58	CS	461982
sec-Butyl Benzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	15:58	CS	461982
p-Isopropyltoluene	SW8260B	1	1.5	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,3-Dichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,4-Dichlorobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	15:58	CS	461982
n-Butylbenzene	SW8260B	1	1.5	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,2-Dichlorobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,2-Dibromo-3-Chloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Hexachlorobutadiene	SW8260B	1	1.4	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,2,4-Trichlorobenzene	SW8260B	1	1.5	10	ND		ug/Kg	12/07/21	15:58	CS	461982
Naphthalene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	15:58	CS	461982
1,2,3-Trichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	15:58	CS	461982
2-Butanone	SW8260B	1	2.4	10.3	ND		ug/Kg	12/07/21	15:58	CS	461982
(S) Dibromofluoromethane	SW8260B		59.8 - 148		160	S	%	12/07/21	15:58	CS	461982
(S) Toluene-d8	SW8260B		55.2 - 133		107		%	12/07/21	15:58	CS	461982
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		107		%	12/07/21	15:58	CS	461982

**NOTE:** S:- Internal standard areas were outside of the QC limits indicating a matrix effect,analyzed twice. High surrogate recovery attributed to suppression of the internal standard used for peak quantitation.



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-13-1	<b>Lab Sample ID:</b>	2112042-010B
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 11:00		
<b>SDG:</b>			

<b>Prep Method:</b> 5035GRO	<b>Prep Batch Date/Time:</b> 12/7/21	8:58:00AM
<b>Prep Batch ID:</b> 1137509	<b>Prep Analyst:</b>	CSACH

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	45	100	ND		ug/Kg	12/07/21	15:58	CS	461982
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		37.3	S	%	12/07/21	15:58	CS	461982

**NOTE:** S-surrogate outside of control limits due to possible matrix interference, analyzed twice.



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date/Time Received:** 12/03/21, 6:00 pm

**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-13-5	<b>Lab Sample ID:</b>	2112042-012A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 11:04		
<b>SDG:</b>			

<b>Prep Method:</b>	7471BP	<b>Prep Batch Date/Time:</b>	12/7/21	1:40:00PM
<b>Prep Batch ID:</b>	1137514	<b>Prep Analyst:</b>	ERVS	
<b>Parameters:</b>	<b>Analysis Method</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>

Mercury	SW7471B	1	0.083	0.50	ND		mg/Kg	12/08/21	15:27	BJAY	462021
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## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm

Date Reported: 12/08/21

Client Sample ID:	SB-13-5	Lab Sample ID:	2112042-012A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 11:04		
SDG:			

Prep Method:	6020S-P	Prep Batch Date/Time:	12/7/21	3:30:00PM
Prep Batch ID:	1137483	Prep Analyst:	BJAY	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Antimony	6020A	1	0.12	1.0	ND		mg/Kg	12/07/21	22:31	ERR	461993
Arsenic	6020A	1	0.21	1.0	<b>2.55</b>		mg/Kg	12/07/21	22:31	ERR	461993
Barium	6020A	1	0.84	1.0	<b>123</b>		mg/Kg	12/07/21	22:31	ERR	461993
Beryllium	6020A	1	0.16	1.0	ND		mg/Kg	12/07/21	22:31	ERR	461993
Cadmium	6020A	1	0.084	1.0	<b>1.25</b>		mg/Kg	12/07/21	22:31	ERR	461993
Chromium	6020A	1	0.097	1.0	<b>39.9</b>		mg/Kg	12/07/21	22:31	ERR	461993
Cobalt	6020A	1	0.21	1.0	<b>8.64</b>		mg/Kg	12/07/21	22:31	ERR	461993
Copper	6020A	1	0.17	2.5	<b>46.2</b>		mg/Kg	12/07/21	22:31	ERR	461993
Lead	6020A	1	0.054	1.0	<b>56.0</b>		mg/Kg	12/07/21	22:31	ERR	461993
Molybdenum	6020A	1	0.13	1.0	ND		mg/Kg	12/07/21	22:31	ERR	461993
Nickel	6020A	1	1.2	5.0	<b>53.0</b>		mg/Kg	12/07/21	22:31	ERR	461993
Selenium	6020A	1	0.035	2.5	ND		mg/Kg	12/07/21	22:31	ERR	461993
Silver	6020A	1	0.098	1.0	ND		mg/Kg	12/07/21	22:31	ERR	461993
Thallium	6020A	1	1.00	5.0	ND		mg/Kg	12/07/21	22:31	ERR	461993
Vanadium	6020A	1	0.28	25	<b>28.7</b>		mg/Kg	12/07/21	22:31	ERR	461993
Zinc	6020A	1	0.70	2.5	<b>177</b>		mg/Kg	12/07/21	22:31	ERR	461993



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date/Time Received:** 12/03/21, 6:00 pm

**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-13-8	<b>Lab Sample ID:</b>	2112042-013A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 11:06		
<b>SDG:</b>			

<b>Prep Method:</b> 3546_TPH	<b>Prep Batch Date/Time:</b> 12/7/21	9:25:00AM
<b>Prep Batch ID:</b> 1137438	<b>Prep Analyst:</b>	NBAIN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	3.4	8.0	9.22	x	mg/Kg	12/07/21	17:26	SN	461995
TPH as Motor Oil	SW8015B	1	13	40	95.5		mg/Kg	12/07/21	17:26	SN	461995
		Acceptance Limits									
Pentacosane (S)	SW8015B		45 - 130		76.4		%	12/07/21	17:26	SN	461995

**NOTE:** x-Diesel value the result of overlap of Oil range into Diesel range



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-13-8	Lab Sample ID:	2112042-013A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 11:06		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 12/7/21 9:29:00AM
Prep Batch ID: 1137504	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	1.2	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Chloromethane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Vinyl Chloride	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Bromomethane	SW8260B	1	2.7	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Chloroethane	SW8260B	1	3.0	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Trichlorofluoromethane	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,1-Dichloroethene	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Freon 113	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Methylene Chloride	SW8260B	1	7.1	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
trans-1,2-Dichloroethene	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
MTBE	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
TBA	SW8260B	1	12	50	ND		ug/Kg	12/07/21	17:34	JZ	461986
Diisopropyl ether	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,1-Dichloroethane	SW8260B	1	2.2	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Ethyl tert-Butyl ether	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
cis-1,2-Dichloroethene	SW8260B	1	2.2	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
2,2-Dichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Bromochloromethane	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Chloroform	SW8260B	1	2.4	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Carbon Tetrachloride	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,1,1-Trichloroethane	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,1-Dichloropropene	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Benzene	SW8260B	1	2.2	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
TAME	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,2-Dichloroethane	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Trichloroethylene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Dibromomethane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,2-Dichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Bromodichloromethane	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
cis-1,3-Dichloropropene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Toluene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Tetrachloroethene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
trans-1,3-Dichloropropene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,1,2-Trichloroethane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Dibromochloromethane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,3-Dichloropropane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,2-Dibromoethane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Chlorobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Ethylbenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:34	JZ	461986



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-13-8	<b>Lab Sample ID:</b>	2112042-013A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 11:06		
<b>SDG:</b>			

<b>Prep Method:</b> 5035	<b>Prep Batch Date/Time:</b> 12/7/21 9:29:00AM
<b>Prep Batch ID:</b> 1137504	<b>Prep Analyst:</b> BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
m,p-Xylene	SW8260B	1	3.2	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
o-Xylene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Styrene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Bromoform	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Isopropyl Benzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
n-Propylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Bromobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,1,2,2-Tetrachloroethane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
2-Chlorotoluene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,3,5-Trimethylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,2,3-Trichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
4-Chlorotoluene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
tert-Butylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,2,4-Trimethylbenzene	SW8260B	1	1.4	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
sec-Butyl Benzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
p-Isopropyltoluene	SW8260B	1	1.5	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,3-Dichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,4-Dichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
n-Butylbenzene	SW8260B	1	1.5	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,2-Dichlorobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,2-Dibromo-3-Chloropropane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Hexachlorobutadiene	SW8260B	1	1.4	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,2,4-Trichlorobenzene	SW8260B	1	1.5	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
Naphthalene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
1,2,3-Trichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	17:34	JZ	461986
2-Butanone	SW8260B	1	2.3	10.0	ND		ug/Kg	12/07/21	17:34	JZ	461986
(S) Dibromofluoromethane	SW8260B		59.8 - 148		65.5		%	12/07/21	17:34	JZ	461986
(S) Toluene-d8	SW8260B		55.2 - 133		100		%	12/07/21	17:34	JZ	461986
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		82.4		%	12/07/21	17:34	JZ	461986



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date/Time Received:** 12/03/21, 6:00 pm

**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-13-8	<b>Lab Sample ID:</b>	2112042-013A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 11:06		
<b>SDG:</b>			

<b>Prep Method:</b> 5035GRO	<b>Prep Batch Date/Time:</b> 12/7/21 9:29:00AM
<b>Prep Batch ID:</b> 1137507	<b>Prep Analyst:</b> BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	43	100	ND		ug/Kg	12/07/21	17:34	JZ	461986
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		51.7		%	12/07/21	17:34	JZ	461986



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-14-1	<b>Lab Sample ID:</b>	2112042-015A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 12:00		
<b>SDG:</b>			

<b>Prep Method:</b> 7471BP	<b>Prep Batch Date/Time:</b> 12/7/21 1:40:00PM
<b>Prep Batch ID:</b> 1137514	<b>Prep Analyst:</b> ERVS

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Mercury	SW7471B	1	0.083	0.50	ND		mg/Kg	12/08/21	15:29	BJAY	462021



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-14-1	Lab Sample ID:	2112042-015A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 12:00		
SDG:			

Prep Method:	6020S-P	Prep Batch Date/Time:	12/7/21	3:30:00PM
Prep Batch ID:	1137483	Prep Analyst:	BJAY	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Antimony	6020A	1	0.12	1.0	ND		mg/Kg	12/07/21	22:46	ERR	461993
Arsenic	6020A	1	0.21	1.0	ND		mg/Kg	12/07/21	22:46	ERR	461993
Barium	6020A	1	0.84	1.0	<b>27.6</b>		mg/Kg	12/07/21	22:46	ERR	461993
Beryllium	6020A	1	0.16	1.0	ND		mg/Kg	12/07/21	22:46	ERR	461993
Cadmium	6020A	1	0.084	1.0	ND		mg/Kg	12/07/21	22:46	ERR	461993
Chromium	6020A	1	0.097	1.0	<b>132</b>		mg/Kg	12/07/21	22:46	ERR	461993
Cobalt	6020A	1	0.21	1.0	<b>26.1</b>		mg/Kg	12/07/21	22:46	ERR	461993
Copper	6020A	1	0.17	2.5	<b>71.2</b>		mg/Kg	12/07/21	22:46	ERR	461993
Lead	6020A	1	0.054	1.0	ND		mg/Kg	12/07/21	22:46	ERR	461993
Molybdenum	6020A	1	0.13	1.0	ND		mg/Kg	12/07/21	22:46	ERR	461993
Nickel	6020A	1	1.2	5.0	<b>115</b>		mg/Kg	12/07/21	22:46	ERR	461993
Selenium	6020A	1	0.035	2.5	ND		mg/Kg	12/07/21	22:46	ERR	461993
Silver	6020A	1	0.098	1.0	ND		mg/Kg	12/07/21	22:46	ERR	461993
Thallium	6020A	1	1.00	5.0	ND		mg/Kg	12/07/21	22:46	ERR	461993
Vanadium	6020A	1	0.28	25	<b>114</b>		mg/Kg	12/07/21	22:46	ERR	461993
Zinc	6020A	1	0.70	2.5	<b>59.8</b>		mg/Kg	12/07/21	22:46	ERR	461993



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-14-1	Lab Sample ID:	2112042-015A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 12:00		
SDG:			

Prep Method: 3546_PAHSIM	Prep Batch Date/Time: 12/6/21 11:02:00AM
Prep Batch ID: 1137435	Prep Analyst: NBAIN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
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The results shown below are reported using their MDL.

Naphthalene	SW8270C	2	1.0	7.9	ND		ug/Kg	12/06/21	18:28	MT	461945
2-Methylnaphthalene	SW8270C	2	0.45	7.9	ND		ug/Kg	12/06/21	18:28	MT	461945
1-Methylnaphthalene	SW8270C	2	0.37	7.9	ND		ug/Kg	12/06/21	18:28	MT	461945
Acenaphthelene	SW8270C	2	0.37	7.9	ND		ug/Kg	12/06/21	18:28	MT	461945
Acenaphthene	SW8270C	2	0.32	7.9	ND		ug/Kg	12/06/21	18:28	MT	461945
Fluorene	SW8270C	2	0.54	7.9	ND		ug/Kg	12/06/21	18:28	MT	461945
Phenanthrene	SW8270C	2	1.2	7.9	ND		ug/Kg	12/06/21	18:28	MT	461945
Anthracene	SW8270C	2	1.1	7.9	ND		ug/Kg	12/06/21	18:28	MT	461945
Fluoranthene	SW8270C	2	1.1	7.9	ND		ug/Kg	12/06/21	18:28	MT	461945
Pyrene	SW8270C	2	1.1	7.9	1.3	J	ug/Kg	12/06/21	18:28	MT	461945
Benz[a]anthracene	SW8270C	2	0.93	7.9	2.4	J	ug/Kg	12/06/21	18:28	MT	461945
Chrysene	SW8270C	2	0.98	7.9	1.3	J	ug/Kg	12/06/21	18:28	MT	461945
Benzo[b]fluoranthene	SW8270C	2	0.49	7.9	0.86	J	ug/Kg	12/06/21	18:28	MT	461945
Benzo[k]fluoranthene	SW8270C	2	0.45	7.9	ND		ug/Kg	12/06/21	18:28	MT	461945
Benzo[a]pyrene	SW8270C	2	0.57	7.9	ND		ug/Kg	12/06/21	18:28	MT	461945
Indeno[1,2,3-cd]pyrene	SW8270C	2	0.44	7.9	ND		ug/Kg	12/06/21	18:28	MT	461945
Dibenz[a,h]anthracene	SW8270C	2	0.55	7.9	ND		ug/Kg	12/06/21	18:28	MT	461945
Benzo[g,h,i]perylene	SW8270C	2	0.54	7.9	1.1	J	ug/Kg	12/06/21	18:28	MT	461945
Acceptance Limits											
2-Fluorobiphenyl (S)	SW8270C		45 - 125		86		%	12/06/21	18:28	MT	461945
p-Terphenyl-d14 (S)	SW8270C		30 - 125		93		%	12/06/21	18:28	MT	461945

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm

Date Reported: 12/08/21

Client Sample ID:	SB-14-1	Lab Sample ID:	2112042-015A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 12:00		
SDG:			

Prep Method:	3546_PCB	Prep Batch Date/Time:	12/6/21	10:43:00AM
Prep Batch ID:	1137434	Prep Analyst:	NDUM	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Aroclor1016	SW8082A	1	35.0	100	ND		ug/Kg	12/06/21	17:21	MK	461946
Aroclor1221	SW8082A	1	5.00	100	ND		ug/Kg	12/06/21	17:21	MK	461946
Aroclor1232	SW8082A	1	17.0	100	ND		ug/Kg	12/06/21	17:21	MK	461946
Aroclor1242	SW8082A	1	3.00	100	ND		ug/Kg	12/06/21	17:21	MK	461946
Aroclor1248	SW8082A	1	2.00	100	ND		ug/Kg	12/06/21	17:21	MK	461946
Aroclor1254	SW8082A	1	14.0	100	ND		ug/Kg	12/06/21	17:21	MK	461946
Aroclor1260	SW8082A	1	24.0	100	ND		ug/Kg	12/06/21	17:21	MK	461946
Acceptance Limits											
TCMX (S)	SW8082A		48 - 125		95.0		%	12/06/21	17:21	MK	461946
DCBP (S)	SW8082A		48 - 135		87.0		%	12/06/21	17:21	MK	461946



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-14-1	<b>Lab Sample ID:</b>	2112042-015A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 12:00		
<b>SDG:</b>			

<b>Prep Method:</b> 3546_OCP	<b>Prep Batch Date/Time:</b> 12/6/21 11:07:00AM
<b>Prep Batch ID:</b> 1137436	<b>Prep Analyst:</b> NBAIN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
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**The results shown below are reported using their MDL.**

alpha-BHC	SW8081B	3	0.38	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
gamma-BHC (Lindane)	SW8081B	3	0.48	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
beta-BHC	SW8081B	3	0.95	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
delta-BHC	SW8081B	3	0.47	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
Heptachlor	SW8081B	3	0.32	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
Aldrin	SW8081B	3	0.59	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
Heptachlor Epoxide	SW8081B	3	0.23	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
gamma-Chlordane	SW8081B	3	0.49	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
alpha-Chlordane	SW8081B	3	0.52	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
4,4'-DDE	SW8081B	3	0.58	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
Endosulfan I	SW8081B	3	0.55	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
Dieldrin	SW8081B	3	0.44	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
Endrin	SW8081B	3	0.56	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
4,4'-DDD	SW8081B	3	1.7	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
Endosulfan II	SW8081B	3	1.7	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
4,4'-DDT	SW8081B	3	0.39	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
Endrin Aldehyde	SW8081B	3	0.45	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
Methoxychlor	SW8081B	3	0.60	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
Endosulfan Sulfate	SW8081B	3	0.35	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
Endrin Ketone	SW8081B	3	0.28	6.0	ND		ug/Kg	12/07/21	1:59	MK	461969
Chlordane	SW8081B	3	6.3	60	ND		ug/Kg	12/07/21	1:59	MK	461969
Toxaphene	SW8081B	3	26	150	ND		ug/Kg	12/07/21	1:59	MK	461969
Acceptance Limits											
Tetrachloro-M-Xylene (S)	SW8081B		48 - 125		85.1		%	12/07/21	1:59	MK	461969
Decachlorobiphenyl (S)	SW8081B		38 - 135		88.0		%	12/07/21	1:59	MK	461969

**NOTE:** Sample diluted due to the nature of the sample matrix (dark colored extract)



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-14-1	Lab Sample ID:	2112042-015A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 12:00		
SDG:			

Prep Method: 3546_BNA	Prep Batch Date/Time: 12/3/21 9:04:00AM
Prep Batch ID: 1137399	Prep Analyst: AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
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The results shown below are reported using their MDL.

N-Nitrosodimethylamine	SW8270C	2	93.8	1440	ND		ug/Kg	12/06/21	15:29	MT	461897
Phenol	SW8270C	2	87.6	576	ND		ug/Kg	12/06/21	15:29	MT	461897
Bis(2-chloroethyl)ether	SW8270C	2	26.6	288	ND		ug/Kg	12/06/21	15:29	MT	461897
2-Chlorophenol	SW8270C	2	95.4	576	ND		ug/Kg	12/06/21	15:29	MT	461897
1,3-Dichlorobenzene	SW8270C	2	26.3	288	ND		ug/Kg	12/06/21	15:29	MT	461897
1,4-Dichlorobenzene	SW8270C	2	29.3	288	ND		ug/Kg	12/06/21	15:29	MT	461897
Benzyl Alcohol	SW8270C	2	40.9	576	ND		ug/Kg	12/06/21	15:29	MT	461897
1,2-Dichlorobenzene	SW8270C	2	27.0	288	ND		ug/Kg	12/06/21	15:29	MT	461897
2-Methylphenol (o-Cresol)	SW8270C	2	58.7	576	ND		ug/Kg	12/06/21	15:29	MT	461897
N-Methyl-2-Pyrrolidone (NMP)	SW8270C	2	136	1440	ND		ug/Kg	12/06/21	15:29	MT	461897
3-/4-Methylphenol (p-/m-Cresol)	SW8270C	2	62.6	576	ND		ug/Kg	12/06/21	15:29	MT	461897
N-nitroso-di-n-propylamine	SW8270C	2	26.3	288	ND		ug/Kg	12/06/21	15:29	MT	461897
Hexachloroethane	SW8270C	2	34.1	288	ND		ug/Kg	12/06/21	15:29	MT	461897
Nitrobenzene	SW8270C	2	25.7	288	ND		ug/Kg	12/06/21	15:29	MT	461897
Isophorone	SW8270C	2	24.3	288	ND		ug/Kg	12/06/21	15:29	MT	461897
2-Nitrophenol	SW8270C	2	50.8	576	ND		ug/Kg	12/06/21	15:29	MT	461897
2,4-Dimethylphenol	SW8270C	2	45.6	576	ND		ug/Kg	12/06/21	15:29	MT	461897
Benzoic Acid	SW8270C	2	83.4	576	ND		ug/Kg	12/06/21	15:29	MT	461897
Bis(2-Chloroethoxy)methane	SW8270C	2	19.6	288	ND		ug/Kg	12/06/21	15:29	MT	461897
Bis(2-chloroisopropyl)ether	SW8270C	2	25.2	288	ND		ug/Kg	12/06/21	15:29	MT	461897
2,4-Dichlorophenol	SW8270C	2	78.6	576	ND		ug/Kg	12/06/21	15:29	MT	461897
1,2,4-Trichlorobenzene	SW8270C	2	23.7	288	ND		ug/Kg	12/06/21	15:29	MT	461897
2,6-Dichlorophenol	SW8270C	2	71.6	576	ND		ug/Kg	12/06/21	15:29	MT	461897
Hexachloro-1,3-butadiene	SW8270C	2	16.7	288	ND		ug/Kg	12/06/21	15:29	MT	461897
4-Chloro-3-methylphenol	SW8270C	2	67.6	576	ND		ug/Kg	12/06/21	15:29	MT	461897
Hexachlorocyclopentadiene	SW8270C	2	25.9	288	ND		ug/Kg	12/06/21	15:29	MT	461897
2,4,6-Trichlorophenol	SW8270C	2	71.9	576	ND		ug/Kg	12/06/21	15:29	MT	461897
2,4,5-Trichlorophenol	SW8270C	2	66.8	576	ND		ug/Kg	12/06/21	15:29	MT	461897
2-Chloronaphthalene	SW8270C	2	21.2	288	ND		ug/Kg	12/06/21	15:29	MT	461897
1,4-Dinitrobenzene	SW8270C	2	20.6	288	ND		ug/Kg	12/06/21	15:29	MT	461897
Dimethyl phthalate	SW8270C	2	28.3	1440	ND		ug/Kg	12/06/21	15:29	MT	461897
1,3-Dinitrobenzene	SW8270C	2	20.8	288	ND		ug/Kg	12/06/21	15:29	MT	461897
2,6-Dinitrotoluene	SW8270C	2	22.6	288	ND		ug/Kg	12/06/21	15:29	MT	461897
1,2-Dinitrobenzene	SW8270C	2	31.5	288	ND		ug/Kg	12/06/21	15:29	MT	461897
2,4-Dinitrophenol	SW8270C	2	155	1440	ND		ug/Kg	12/06/21	15:29	MT	461897
4-Nitrophenol	SW8270C	2	109	1440	ND		ug/Kg	12/06/21	15:29	MT	461897
Dibenzofuran	SW8270C	2	22.4	288	ND		ug/Kg	12/06/21	15:29	MT	461897
2,4-Dinitrotoluene	SW8270C	2	24.2	288	ND		ug/Kg	12/06/21	15:29	MT	461897



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-14-1	<b>Lab Sample ID:</b>	2112042-015A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 12:00		
<b>SDG:</b>			

<b>Prep Method:</b> 3546_BNA	<b>Prep Batch Date/Time:</b> 12/3/21 9:04:00AM
<b>Prep Batch ID:</b> 1137399	<b>Prep Analyst:</b> AKIZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
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**The results shown below are reported using their MDL.**

2,3,5,6-Tetrachlorophenol	SW8270C	2	55.2	576	ND		ug/Kg	12/06/21	15:29	MT	461897
2,3,4,6-Tetrachlorophenol	SW8270C	2	62.9	576	ND		ug/Kg	12/06/21	15:29	MT	461897
Diethylphthalate	SW8270C	2	27.3	1440	ND		ug/Kg	12/06/21	15:29	MT	461897
4-Chlorophenyl-phenylether	SW8270C	2	18.6	288	ND		ug/Kg	12/06/21	15:29	MT	461897
4,6-Dinitro-2-methylphenol	SW8270C	2	26.8	576	ND		ug/Kg	12/06/21	15:29	MT	461897
Diphenylamine	SW8270C	2	26.1	288	ND		ug/Kg	12/06/21	15:29	MT	461897
Azobenzene	SW8270C	2	227	288	ND		ug/Kg	12/06/21	15:29	MT	461897
4-Bromophenyl-phenylether	SW8270C	2	16.5	288	ND		ug/Kg	12/06/21	15:29	MT	461897
Hexachlorobenzene	SW8270C	2	17.3	288	ND		ug/Kg	12/06/21	15:29	MT	461897
Pentachlorophenol	SW8270C	2	50.0	576	ND		ug/Kg	12/06/21	15:29	MT	461897
Carbazole	SW8270C	2	21.5	288	ND		ug/Kg	12/06/21	15:29	MT	461897
Di-n-butylphthalate	SW8270C	2	27.0	288	ND		ug/Kg	12/06/21	15:29	MT	461897
Benzidine	SW8270C	2	294	288	ND		ug/Kg	12/06/21	15:29	MT	461897
Butylbenzylphthalate	SW8270C	2	42.1	1440	ND		ug/Kg	12/06/21	15:29	MT	461897
3,3-Dichlorobenzidine	SW8270C	2	235	288	ND		ug/Kg	12/06/21	15:29	MT	461897
Bis(2-Ethylhexyl)phthalate	SW8270C	2	30.7	1440	ND		ug/Kg	12/06/21	15:29	MT	461897
Di-n-Octylphthalate	SW8270C	2	24.6	288	ND		ug/Kg	12/06/21	15:29	MT	461897
Pyridine	SW8270C	2	87.6	1440	ND		ug/Kg	12/06/21	15:29	MT	461897

### Acceptance Limits

2-Fluorophenol (S)	SW8270C	25 - 121	80.8	%	12/06/21	15:29	MT	461897
Phenol-d6 (S)	SW8270C	24 - 113	87.7	%	12/06/21	15:29	MT	461897
2,4,6-Tribromophenol (S)	SW8270C	19 - 122	88.2	%	12/06/21	15:29	MT	461897
2-Fluorobiphenyl (S)	SW8270C	45 - 143	90.3	%	12/06/21	15:29	MT	461897
Nitrobenzene-d5 (S)	SW8270C	23 - 120	79.7	%	12/06/21	15:29	MT	461897
p-Terphenyl-d14 (S)	SW8270C	18 - 137	94.2	%	12/06/21	15:29	MT	461897

**NOTE:** Sample diluted due to nature of the matrix (dark, viscous extract)



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-14-1	<b>Lab Sample ID:</b>	2112042-015A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 12:00		
<b>SDG:</b>			

<b>Prep Method:</b> 3546_TPH	<b>Prep Batch Date/Time:</b> 12/7/21 9:25:00AM
<b>Prep Batch ID:</b> 1137438	<b>Prep Analyst:</b> NBAIN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.85	2.0	ND		mg/Kg	12/07/21	18:01	SN	461995
TPH as Motor Oil	SW8015B	1	3.2	10	19.6		mg/Kg	12/07/21	18:01	SN	461995
Pentacosane (S)	SW8015B	Acceptance Limits			97.2		%	12/07/21	18:01	SN	461995



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-14-1	Lab Sample ID:	2112042-015B
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 12:00		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 12/6/21 9:07:00AM
Prep Batch ID: 1137465	Prep Analyst: CSACH

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	1.4	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Chloromethane	SW8260B	1	2.1	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Vinyl Chloride	SW8260B	1	2.3	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Bromomethane	SW8260B	1	3.1	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Chloroethane	SW8260B	1	3.5	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Trichlorofluoromethane	SW8260B	1	2.4	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,1-Dichloroethene	SW8260B	1	2.3	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Freon 113	SW8260B	1	2.1	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Methylene Chloride	SW8260B	1	8.1	11	ND		ug/Kg	12/06/21	19:25	CS	461955
trans-1,2-Dichloroethene	SW8260B	1	2.4	11	ND		ug/Kg	12/06/21	19:25	CS	461955
MTBE	SW8260B	1	2.7	11	ND		ug/Kg	12/06/21	19:25	CS	461955
TBA	SW8260B	1	13	57.2	ND		ug/Kg	12/06/21	19:25	CS	461955
Diisopropyl ether	SW8260B	1	2.6	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,1-Dichloroethane	SW8260B	1	2.5	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Ethyl tert-Butyl ether	SW8260B	1	2.6	11	ND		ug/Kg	12/06/21	19:25	CS	461955
cis-1,2-Dichloroethene	SW8260B	1	2.5	11	ND		ug/Kg	12/06/21	19:25	CS	461955
2,2-Dichloropropane	SW8260B	1	2.2	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Bromochloromethane	SW8260B	1	2.7	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Chloroform	SW8260B	1	2.7	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Carbon Tetrachloride	SW8260B	1	2.3	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,1,1-Trichloroethane	SW8260B	1	2.4	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,1-Dichloropropene	SW8260B	1	2.3	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Benzene	SW8260B	1	2.5	11	ND		ug/Kg	12/06/21	19:25	CS	461955
TAME	SW8260B	1	2.6	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,2-Dichloroethane	SW8260B	1	2.7	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Trichloroethylene	SW8260B	1	2.1	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Dibromomethane	SW8260B	1	2.1	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,2-Dichloropropane	SW8260B	1	2.1	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Bromodichloromethane	SW8260B	1	2.3	11	ND		ug/Kg	12/06/21	19:25	CS	461955
cis-1,3-Dichloropropene	SW8260B	1	1.8	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Toluene	SW8260B	1	2.1	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Tetrachloroethylene	SW8260B	1	1.9	11	ND		ug/Kg	12/06/21	19:25	CS	461955
trans-1,3-Dichloropropene	SW8260B	1	1.9	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,1,2-Trichloroethane	SW8260B	1	2.1	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Dibromochloromethane	SW8260B	1	2.1	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,3-Dichloropropane	SW8260B	1	2.1	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,2-Dibromoethane	SW8260B	1	2.1	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Chlorobenzene	SW8260B	1	2.1	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Ethylbenzene	SW8260B	1	1.9	11	ND		ug/Kg	12/06/21	19:25	CS	461955



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-14-1	<b>Lab Sample ID:</b>	2112042-015B
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 12:00		
<b>SDG:</b>			

<b>Prep Method:</b> 5035	<b>Prep Batch Date/Time:</b> 12/6/21 9:07:00AM
<b>Prep Batch ID:</b> 1137465	<b>Prep Analyst:</b> CSACH

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	2.2	11	ND		ug/Kg	12/06/21	19:25	CS	461955
m,p-Xylene	SW8260B	1	3.6	11	ND		ug/Kg	12/06/21	19:25	CS	461955
o-Xylene	SW8260B	1	2.0	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Styrene	SW8260B	1	1.9	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Bromoform	SW8260B	1	1.9	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Isopropyl Benzene	SW8260B	1	1.8	11	ND		ug/Kg	12/06/21	19:25	CS	461955
n-Propylbenzene	SW8260B	1	1.8	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Bromobenzene	SW8260B	1	2.0	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,1,2,2-Tetrachloroethane	SW8260B	1	2.2	11	ND		ug/Kg	12/06/21	19:25	CS	461955
2-Chlorotoluene	SW8260B	1	2.0	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,3,5-Trimethylbenzene	SW8260B	1	1.8	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,2,3-Trichloropropane	SW8260B	1	2.2	11	ND		ug/Kg	12/06/21	19:25	CS	461955
4-Chlorotoluene	SW8260B	1	1.9	11	ND		ug/Kg	12/06/21	19:25	CS	461955
tert-Butylbenzene	SW8260B	1	1.9	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,2,4-Trimethylbenzene	SW8260B	1	1.6	11	ND		ug/Kg	12/06/21	19:25	CS	461955
sec-Butyl Benzene	SW8260B	1	1.8	11	ND		ug/Kg	12/06/21	19:25	CS	461955
p-Isopropyltoluene	SW8260B	1	1.7	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,3-Dichlorobenzene	SW8260B	1	1.9	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,4-Dichlorobenzene	SW8260B	1	2.0	11	ND		ug/Kg	12/06/21	19:25	CS	461955
n-Butylbenzene	SW8260B	1	1.7	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,2-Dichlorobenzene	SW8260B	1	2.0	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,2-Dibromo-3-Chloropropane	SW8260B	1	2.1	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Hexachlorobutadiene	SW8260B	1	1.6	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,2,4-Trichlorobenzene	SW8260B	1	1.7	11	ND		ug/Kg	12/06/21	19:25	CS	461955
Naphthalene	SW8260B	1	1.9	11	ND		ug/Kg	12/06/21	19:25	CS	461955
1,2,3-Trichlorobenzene	SW8260B	1	1.9	11	ND		ug/Kg	12/06/21	19:25	CS	461955
2-Butanone	SW8260B	1	2.6	11.4	ND		ug/Kg	12/06/21	19:25	CS	461955
(S) Dibromofluoromethane	SW8260B		59.8 - 148		151	S	%	12/06/21	19:25	CS	461955
(S) Toluene-d8	SW8260B		55.2 - 133		125		%	12/06/21	19:25	CS	461955
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		98.2		%	12/06/21	19:25	CS	461955

**NOTE:** Internal standard areas and Surrogates were outside of the QC limits, matrix effect suspected, analyzed twice.



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-14-1	<b>Lab Sample ID:</b>	2112042-015B
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 12:00		
<b>SDG:</b>			

<b>Prep Method:</b> 5035GRO	<b>Prep Batch Date/Time:</b>	12/6/21	9:07:00AM
<b>Prep Batch ID:</b> 1137467	<b>Prep Analyst:</b>	CSACH	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	49	110	ND		ug/Kg	12/06/21	19:25	CS	461955
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		44.0		%	12/06/21	19:25	CS	461955



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-14-5	<b>Lab Sample ID:</b>	2112042-017A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 12:04		
<b>SDG:</b>			

<b>Prep Method:</b> 7471BP	<b>Prep Batch Date/Time:</b> 12/7/21 1:40:00PM
<b>Prep Batch ID:</b> 1137514	<b>Prep Analyst:</b> ERVS

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Mercury	SW7471B	1	0.083	0.50	ND		mg/Kg	12/08/21	15:32	BJAY	462021



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm

Date Reported: 12/08/21

Client Sample ID:	SB-14-5	Lab Sample ID:	2112042-017A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 12:04		
SDG:			

Prep Method:	6020S-P	Prep Batch Date/Time:	12/7/21	3:30:00PM
Prep Batch ID:	1137483	Prep Analyst:	BJAY	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Antimony	6020A	1	0.12	1.0	ND		mg/Kg	12/07/21	22:50	ERR	461993
Arsenic	6020A	1	0.21	1.0	5.12		mg/Kg	12/07/21	22:50	ERR	461993
Barium	6020A	1	0.84	1.0	58.2		mg/Kg	12/07/21	22:50	ERR	461993
Beryllium	6020A	1	0.16	1.0	ND		mg/Kg	12/07/21	22:50	ERR	461993
Cadmium	6020A	1	0.084	1.0	1.04		mg/Kg	12/07/21	22:50	ERR	461993
Chromium	6020A	1	0.097	1.0	75.2		mg/Kg	12/07/21	22:50	ERR	461993
Cobalt	6020A	1	0.21	1.0	15.6		mg/Kg	12/07/21	22:50	ERR	461993
Copper	6020A	1	0.17	2.5	55.5		mg/Kg	12/07/21	22:50	ERR	461993
Lead	6020A	1	0.054	1.0	39.6		mg/Kg	12/07/21	22:50	ERR	461993
Molybdenum	6020A	1	0.13	1.0	ND		mg/Kg	12/07/21	22:50	ERR	461993
Nickel	6020A	1	1.2	5.0	114		mg/Kg	12/07/21	22:50	ERR	461993
Selenium	6020A	1	0.035	2.5	ND		mg/Kg	12/07/21	22:50	ERR	461993
Silver	6020A	1	0.098	1.0	1.09		mg/Kg	12/07/21	22:50	ERR	461993
Thallium	6020A	1	1.00	5.0	ND		mg/Kg	12/07/21	22:50	ERR	461993
Vanadium	6020A	1	0.28	25	52.8		mg/Kg	12/07/21	22:50	ERR	461993
Zinc	6020A	1	0.70	2.5	102		mg/Kg	12/07/21	22:50	ERR	461993



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-14-5	Lab Sample ID:	2112042-017A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 12:04		
SDG:			

Prep Method: 3546_PAHSIM	Prep Batch Date/Time: 12/6/21 11:02:00AM
Prep Batch ID: 1137435	Prep Analyst: NBAIN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
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The results shown below are reported using their MDL.

Naphthalene	SW8270C	10	5.1	40	270		ug/Kg	12/06/21	18:58	MT	461945
2-Methylnaphthalene	SW8270C	10	2.2	40	34	J	ug/Kg	12/06/21	18:58	MT	461945
1-Methylnaphthalene	SW8270C	10	1.8	40	16	J	ug/Kg	12/06/21	18:58	MT	461945
Acenaphthelene	SW8270C	10	1.9	40	23	J	ug/Kg	12/06/21	18:58	MT	461945
Acenaphthene	SW8270C	10	1.6	40	16	J	ug/Kg	12/06/21	18:58	MT	461945
Fluorene	SW8270C	10	2.7	40	21	J	ug/Kg	12/06/21	18:58	MT	461945
Phenanthrene	SW8270C	10	5.9	40	130		ug/Kg	12/06/21	18:58	MT	461945
Anthracene	SW8270C	10	5.3	40	58		ug/Kg	12/06/21	18:58	MT	461945
Fluoranthene	SW8270C	10	5.3	40	830		ug/Kg	12/06/21	18:58	MT	461945
Pyrene	SW8270C	10	5.5	40	1100		ug/Kg	12/06/21	18:58	MT	461945
Benz[a]anthracene	SW8270C	10	4.6	40	250		ug/Kg	12/06/21	18:58	MT	461945
Chrysene	SW8270C	10	4.9	40	190		ug/Kg	12/06/21	18:58	MT	461945
Benzo[b]fluoranthene	SW8270C	10	2.4	40	560		ug/Kg	12/06/21	18:58	MT	461945
Benzo[k]fluoranthene	SW8270C	10	2.3	40	170		ug/Kg	12/06/21	18:58	MT	461945
Benzo[a]pyrene	SW8270C	10	2.8	40	540		ug/Kg	12/06/21	18:58	MT	461945
Indeno[1,2,3-cd]pyrene	SW8270C	10	2.2	40	670		ug/Kg	12/06/21	18:58	MT	461945
Dibenz[a,h]anthracene	SW8270C	10	2.7	40	28	J	ug/Kg	12/06/21	18:58	MT	461945
Benzo[g,h,i]perylene	SW8270C	10	2.7	40	390		ug/Kg	12/06/21	18:58	MT	461945
Acceptance Limits											
2-Fluorobiphenyl (S)	SW8270C		45 - 125		89		%	12/06/21	18:58	MT	461945
p-Terphenyl-d14 (S)	SW8270C		30 - 125		92		%	12/06/21	18:58	MT	461945

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-14-5	<b>Lab Sample ID:</b>	2112042-017A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 12:04		
<b>SDG:</b>			

<b>Prep Method:</b> 3546_TPH	<b>Prep Batch Date/Time:</b> 12/7/21	9:25:00AM
<b>Prep Batch ID:</b> 1137438	<b>Prep Analyst:</b>	NBAIN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	5	8.5	20	97.7	x	mg/Kg	12/08/21	9:38	SN	461995
TPH as Motor Oil	SW8015B	5	32	100	451		mg/Kg	12/08/21	9:38	SN	461995
		Acceptance Limits									
Pentacosane (S)	SW8015B		45 - 130		106		%	12/08/21	9:38	SN	461995

**NOTE:** x-Diesel value the result of overlap of Oil range into Diesel range



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-14-5	Lab Sample ID:	2112042-017A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 12:04		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 12/7/21 9:29:00AM
Prep Batch ID: 1137504	Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	1.2	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Chloromethane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Vinyl Chloride	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Bromomethane	SW8260B	1	2.7	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Chloroethane	SW8260B	1	3.0	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Trichlorofluoromethane	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,1-Dichloroethene	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Freon 113	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Methylene Chloride	SW8260B	1	7.1	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
trans-1,2-Dichloroethene	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
MTBE	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
TBA	SW8260B	1	12	50	ND		ug/Kg	12/07/21	18:04	JZ	461986
Diisopropyl ether	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,1-Dichloroethane	SW8260B	1	2.2	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Ethyl tert-Butyl ether	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
cis-1,2-Dichloroethene	SW8260B	1	2.2	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
2,2-Dichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Bromochloromethane	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Chloroform	SW8260B	1	2.4	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Carbon Tetrachloride	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,1,1-Trichloroethane	SW8260B	1	2.1	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,1-Dichloropropene	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Benzene	SW8260B	1	2.2	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
TAME	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,2-Dichloroethane	SW8260B	1	2.3	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Trichloroethylene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Dibromomethane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,2-Dichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Bromodichloromethane	SW8260B	1	2.0	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
cis-1,3-Dichloropropene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Toluene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Tetrachloroethene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
trans-1,3-Dichloropropene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,1,2-Trichloroethane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Dibromochloromethane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,3-Dichloropropane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,2-Dibromoethane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Chlorobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Ethylbenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	18:04	JZ	461986



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID: SB-14-5  
Project Name/Location:  
Project Number: 452498  
Date/Time Sampled: 12/03/21 / 12:04  
SDG:

Lab Sample ID: 2112042-017A  
Sample Matrix: Soil

Prep Method: 5035 Prep Batch Date/Time: 12/7/21 9:29:00AM  
Prep Batch ID: 1137504 Prep Analyst: BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
m,p-Xylene	SW8260B	1	3.2	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
o-Xylene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Styrene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Bromoform	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Isopropyl Benzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
n-Propylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Bromobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,1,2,2-Tetrachloroethane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
2-Chlorotoluene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,3,5-Trimethylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,2,3-Trichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
4-Chlorotoluene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
tert-Butylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,2,4-Trimethylbenzene	SW8260B	1	1.4	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
sec-Butyl Benzene	SW8260B	1	1.6	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
p-Isopropyltoluene	SW8260B	1	1.5	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,3-Dichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,4-Dichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
n-Butylbenzene	SW8260B	1	1.5	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,2-Dichlorobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,2-Dibromo-3-Chloropropane	SW8260B	1	1.8	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Hexachlorobutadiene	SW8260B	1	1.4	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,2,4-Trichlorobenzene	SW8260B	1	1.5	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
Naphthalene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
1,2,3-Trichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/07/21	18:04	JZ	461986
2-Butanone	SW8260B	1	2.3	10.0	ND		ug/Kg	12/07/21	18:04	JZ	461986
(S) Dibromofluoromethane	SW8260B		59.8 - 148		67.7		%	12/07/21	18:04	JZ	461986
(S) Toluene-d8	SW8260B		55.2 - 133		96.4		%	12/07/21	18:04	JZ	461986
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		84.9		%	12/07/21	18:04	JZ	461986



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-14-5	<b>Lab Sample ID:</b>	2112042-017A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 12:04		
<b>SDG:</b>			

<b>Prep Method:</b> 5035GRO	<b>Prep Batch Date/Time:</b> 12/7/21 9:29:00AM
<b>Prep Batch ID:</b> 1137507	<b>Prep Analyst:</b> BPATEL

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	43	100	ND		ug/Kg	12/07/21	18:04	JZ	461986
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		<b>56.9</b>		%	12/07/21	18:04	JZ	461986



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm

Date Reported: 12/08/21

Client Sample ID:	SB-14-12	Lab Sample ID:	2112042-019A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 12:20		
SDG:			

Prep Method:	3546_TPH	Prep Batch Date/Time:	12/7/21	9:25:00AM
Prep Batch ID:	1137438	Prep Analyst:	NBAIN	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.85	2.0	3.82	x	mg/Kg	12/07/21	18:51	SN	461995
TPH as Motor Oil	SW8015B	1	3.2	10	19.9		mg/Kg	12/07/21	18:51	SN	461995
Acceptance Limits											
Pentacosane (S)	SW8015B		45 - 130		82.3		%	12/07/21	18:51	SN	461995

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-14-12	Lab Sample ID:	2112042-019A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 12:20		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 12/6/21 2:41:00PM
Prep Batch ID: 1137458	Prep Analyst: JZH趙

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	1.2	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Chloromethane	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Vinyl Chloride	SW8260B	1	2.0	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Bromomethane	SW8260B	1	2.7	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Chloroethane	SW8260B	1	3.0	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Trichlorofluoromethane	SW8260B	1	2.1	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,1-Dichloroethene	SW8260B	1	2.0	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Freon 113	SW8260B	1	1.9	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Methylene Chloride	SW8260B	1	7.1	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
trans-1,2-Dichloroethene	SW8260B	1	2.1	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
MTBE	SW8260B	1	2.3	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
TBA	SW8260B	1	12	50	ND		ug/Kg	12/06/21	20:21	JZ	461948
Diisopropyl ether	SW8260B	1	2.3	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,1-Dichloroethane	SW8260B	1	2.2	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Ethyl tert-Butyl ether	SW8260B	1	2.3	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
cis-1,2-Dichloroethene	SW8260B	1	2.2	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
2,2-Dichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Bromochloromethane	SW8260B	1	2.3	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Chloroform	SW8260B	1	2.4	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Carbon Tetrachloride	SW8260B	1	2.1	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,1,1-Trichloroethane	SW8260B	1	2.1	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,1-Dichloropropene	SW8260B	1	2.0	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Benzene	SW8260B	1	2.2	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
TAME	SW8260B	1	2.3	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,2-Dichloroethane	SW8260B	1	2.3	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Trichloroethylene	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Dibromomethane	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,2-Dichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Bromodichloromethane	SW8260B	1	2.0	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
cis-1,3-Dichloropropene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Toluene	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Tetrachloroethene	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
trans-1,3-Dichloropropene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,1,2-Trichloroethane	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Dibromochloromethane	SW8260B	1	1.9	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,3-Dichloropropane	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,2-Dibromoethane	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Chlorobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Ethylbenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:21	JZ	461948



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-14-12	<b>Lab Sample ID:</b>	2112042-019A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 12:20		
<b>SDG:</b>			

<b>Prep Method:</b> 5035	<b>Prep Batch Date/Time:</b> 12/6/21 2:41:00PM
<b>Prep Batch ID:</b> 1137458	<b>Prep Analyst:</b> JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	1.9	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
m,p-Xylene	SW8260B	1	3.2	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
o-Xylene	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Styrene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Bromoform	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Isopropyl Benzene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
n-Propylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Bromobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,1,2,2-Tetrachloroethane	SW8260B	1	1.9	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
2-Chlorotoluene	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,3,5-Trimethylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,2,3-Trichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
4-Chlorotoluene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
tert-Butylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,2,4-Trimethylbenzene	SW8260B	1	1.4	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
sec-Butyl Benzene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
p-Isopropyltoluene	SW8260B	1	1.5	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,3-Dichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,4-Dichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
n-Butylbenzene	SW8260B	1	1.5	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,2-Dichlorobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,2-Dibromo-3-Chloropropane	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Hexachlorobutadiene	SW8260B	1	1.4	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,2,4-Trichlorobenzene	SW8260B	1	1.5	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
Naphthalene	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
1,2,3-Trichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:21	JZ	461948
2-Butanone	SW8260B	1	2.3	10.0	ND		ug/Kg	12/06/21	20:21	JZ	461948
(S) Dibromofluoromethane	SW8260B		59.8 - 148		69.7		%	12/06/21	20:21	JZ	461948
(S) Toluene-d8	SW8260B		55.2 - 133		108		%	12/06/21	20:21	JZ	461948
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		77.0		%	12/06/21	20:21	JZ	461948



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-14-12	Lab Sample ID:	2112042-019A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 12:20		
SDG:			

Prep Method:	5035GRO	Prep Batch Date/Time:	12/6/21	2:41:00PM
Prep Batch ID:	1137459	Prep Analyst:	JZHAO	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	43	100	ND		ug/Kg	12/06/21	20:21	JZ	461948
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		42.6	S	%	12/06/21	20:21	JZ	461948

NOTE: Surrogate recovery was outside the control limit due to matrix interference.



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date/Time Received:** 12/03/21, 6:00 pm

**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-15-1	<b>Lab Sample ID:</b>	2112042-020A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 14:28		
<b>SDG:</b>			

<b>Prep Method:</b> 7471BP	<b>Prep Batch Date/Time:</b> 12/7/21 1:40:00PM
<b>Prep Batch ID:</b> 1137514	<b>Prep Analyst:</b> ERVS

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Mercury	SW7471B	1	0.083	0.50	ND		mg/Kg	12/08/21	15:34	BJAY	462021



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-15-1	Lab Sample ID:	2112042-020A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 14:28		
SDG:			

Prep Method:	6020S-P	Prep Batch Date/Time:	12/7/21	3:30:00PM
Prep Batch ID:	1137483	Prep Analyst:	BJAY	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Antimony	6020A	1	0.12	1.0	ND		mg/Kg	12/07/21	22:55	ERR	461993
Arsenic	6020A	1	0.21	1.0	ND		mg/Kg	12/07/21	22:55	ERR	461993
Barium	6020A	1	0.84	1.0	<b>38.1</b>		mg/Kg	12/07/21	22:55	ERR	461993
Beryllium	6020A	1	0.16	1.0	ND		mg/Kg	12/07/21	22:55	ERR	461993
Cadmium	6020A	1	0.084	1.0	ND		mg/Kg	12/07/21	22:55	ERR	461993
Chromium	6020A	1	0.097	1.0	<b>25.0</b>		mg/Kg	12/07/21	22:55	ERR	461993
Cobalt	6020A	1	0.21	1.0	<b>10.9</b>		mg/Kg	12/07/21	22:55	ERR	461993
Copper	6020A	1	0.17	2.5	<b>50.8</b>		mg/Kg	12/07/21	22:55	ERR	461993
Lead	6020A	1	0.054	1.0	<b>6.89</b>		mg/Kg	12/07/21	22:55	ERR	461993
Molybdenum	6020A	1	0.13	1.0	ND		mg/Kg	12/07/21	22:55	ERR	461993
Nickel	6020A	1	1.2	5.0	<b>25.2</b>		mg/Kg	12/07/21	22:55	ERR	461993
Selenium	6020A	1	0.035	2.5	ND		mg/Kg	12/07/21	22:55	ERR	461993
Silver	6020A	1	0.098	1.0	ND		mg/Kg	12/07/21	22:55	ERR	461993
Thallium	6020A	1	1.00	5.0	ND		mg/Kg	12/07/21	22:55	ERR	461993
Vanadium	6020A	1	0.28	25	<b>46.8</b>		mg/Kg	12/07/21	22:55	ERR	461993
Zinc	6020A	1	0.70	2.5	<b>34.9</b>		mg/Kg	12/07/21	22:55	ERR	461993



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm

Date Reported: 12/08/21

Client Sample ID:	SB-15-8	Lab Sample ID:	2112042-022A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 14:32		
SDG:			

Prep Method:	3546_TPH	Prep Batch Date/Time:	12/7/21	9:25:00AM
Prep Batch ID:	1137438	Prep Analyst:	NBAIN	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	1.7	4.0	26.7	x	mg/Kg	12/07/21	19:16	SN	461995
TPH as Motor Oil	SW8015B	1	6.4	20	171		mg/Kg	12/07/21	19:16	SN	461995
		Acceptance Limits									
Pentacosane (S)	SW8015B		45 - 130		62.5		%	12/07/21	19:16	SN	461995

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-15-8	Lab Sample ID:	2112042-022A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 14:32		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 12/6/21 2:41:00PM
Prep Batch ID: 1137458	Prep Analyst: JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	1	1.2	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Chloromethane	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Vinyl Chloride	SW8260B	1	2.0	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Bromomethane	SW8260B	1	2.7	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Chloroethane	SW8260B	1	3.0	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Trichlorofluoromethane	SW8260B	1	2.1	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,1-Dichloroethene	SW8260B	1	2.0	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Freon 113	SW8260B	1	1.9	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Methylene Chloride	SW8260B	1	7.1	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
trans-1,2-Dichloroethene	SW8260B	1	2.1	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
MTBE	SW8260B	1	2.3	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
TBA	SW8260B	1	12	50	ND		ug/Kg	12/06/21	20:50	JZ	461948
Diisopropyl ether	SW8260B	1	2.3	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,1-Dichloroethane	SW8260B	1	2.2	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Ethyl tert-Butyl ether	SW8260B	1	2.3	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
cis-1,2-Dichloroethene	SW8260B	1	2.2	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
2,2-Dichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Bromochloromethane	SW8260B	1	2.3	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Chloroform	SW8260B	1	2.4	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Carbon Tetrachloride	SW8260B	1	2.1	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,1,1-Trichloroethane	SW8260B	1	2.1	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,1-Dichloropropene	SW8260B	1	2.0	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Benzene	SW8260B	1	2.2	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
TAME	SW8260B	1	2.3	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,2-Dichloroethane	SW8260B	1	2.3	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Trichloroethylene	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Dibromomethane	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,2-Dichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Bromodichloromethane	SW8260B	1	2.0	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
cis-1,3-Dichloropropene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Toluene	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Tetrachloroethene	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
trans-1,3-Dichloropropene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,1,2-Trichloroethane	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Dibromochloromethane	SW8260B	1	1.9	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,3-Dichloropropane	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,2-Dibromoethane	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Chlorobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Ethylbenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:50	JZ	461948



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-15-8	Lab Sample ID:	2112042-022A
Project Name/Location:		Sample Matrix:	Soil
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 14:32		
SDG:			

Prep Method: 5035	Prep Batch Date/Time: 12/6/21 2:41:00PM
Prep Batch ID: 1137458	Prep Analyst: JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	1	1.9	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
m,p-Xylene	SW8260B	1	3.2	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
o-Xylene	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Styrene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Bromoform	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Isopropyl Benzene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
n-Propylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Bromobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,1,2,2-Tetrachloroethane	SW8260B	1	1.9	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
2-Chlorotoluene	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,3,5-Trimethylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,2,3-Trichloropropane	SW8260B	1	1.9	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
4-Chlorotoluene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
tert-Butylbenzene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,2,4-Trimethylbenzene	SW8260B	1	1.4	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
sec-Butyl Benzene	SW8260B	1	1.6	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
p-Isopropyltoluene	SW8260B	1	1.5	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,3-Dichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,4-Dichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
n-Butylbenzene	SW8260B	1	1.5	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,2-Dichlorobenzene	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,2-Dibromo-3-Chloropropane	SW8260B	1	1.8	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Hexachlorobutadiene	SW8260B	1	1.4	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,2,4-Trichlorobenzene	SW8260B	1	1.5	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
Naphthalene	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
1,2,3-Trichlorobenzene	SW8260B	1	1.7	10	ND		ug/Kg	12/06/21	20:50	JZ	461948
2-Butanone	SW8260B	1	2.3	10.0	ND		ug/Kg	12/06/21	20:50	JZ	461948
(S) Dibromofluoromethane	SW8260B		59.8 - 148		10.7	S	%	12/06/21	20:50	JZ	461948
(S) Toluene-d8	SW8260B		55.2 - 133		99.5		%	12/06/21	20:50	JZ	461948
(S) 4-Bromofluorobenzene	SW8260B		55.8 - 141		84.4		%	12/06/21	20:50	JZ	461948

NOTE: Surrogate recovery was outside the control limit due to matrix interference.



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date/Time Received:** 12/03/21, 6:00 pm

**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-15-8	<b>Lab Sample ID:</b>	2112042-022A
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 14:32		
<b>SDG:</b>			

<b>Prep Method:</b> 5035GRO	<b>Prep Batch Date/Time:</b> 12/6/21 2:41:00PM
<b>Prep Batch ID:</b> 1137459	<b>Prep Analyst:</b> JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Gasoline	8260TPH	1	43	100	ND		ug/Kg	12/06/21	20:50	JZ	461948
(S) 4-Bromofluorobenzene	8260TPH		43.9 - 127		<b>63.2</b>		%	12/06/21	20:50	JZ	461948



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm

Date Reported: 12/08/21

Client Sample ID:	SB-10-W	Lab Sample ID:	2112042-024A
Project Name/Location:		Sample Matrix:	Groundwater
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 14:15		
SDG:			

Prep Method:	3510_TPH	Prep Batch Date/Time:	12/7/21	9:33:00AM
Prep Batch ID:	1137462	Prep Analyst:	AKIZ	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.046	0.13	0.236	x	mg/L	12/07/21	23:52	SN	461985
TPH as Motor Oil	SW8015B	1	0.14	0.50	0.631		mg/L	12/07/21	23:52	SN	461985
Acceptance Limits											
Pentacosane (S)	SW8015B		59 - 129		47.5	S	%	12/07/21	23:52	SN	461985

NOTE: Reporting limits increased due to limited sample available for extraction  
x-Diesel value the result of overlap of Oil range into Diesel range  
S - Surrogate recovery outside the laboratory control limit due to potential matrix effects (heavy emulsion)



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-10-W	Lab Sample ID:	2112042-024B
Project Name/Location:		Sample Matrix:	Groundwater
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 14:15		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/6/21 12:41:00PM
Prep Batch ID: 1137477	Prep Analyst: JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	4.2	1.1	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Chloromethane	SW8260B	4.2	0.70	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Vinyl Chloride	SW8260B	4.2	0.87	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Bromomethane	SW8260B	4.2	0.89	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Chloroethane	SW8260B	4.2	0.48	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Trichlorofluoromethane	SW8260B	4.2	0.78	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,1-Dichloroethene	SW8260B	4.2	0.60	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Freon 113	SW8260B	4.2	1.4	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Methylene Chloride	SW8260B	4.2	0.55	4.2	ND		ug/L	12/06/21	19:18	JZ	461968
trans-1,2-Dichloroethene	SW8260B	4.2	0.68	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
MTBE	SW8260B	4.2	0.32	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
tert-Butanol	SW8260B	4.2	12	21	ND		ug/L	12/06/21	19:18	JZ	461968
DIPE	SW8260B	4.2	0.51	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,1-Dichloroethane	SW8260B	4.2	0.51	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
ETBE	SW8260B	4.2	0.27	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
cis-1,2-Dichloroethene	SW8260B	4.2	0.63	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
2,2-Dichloropropane	SW8260B	4.2	0.39	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Bromochloromethane	SW8260B	4.2	0.63	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Chloroform	SW8260B	4.2	0.51	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Carbon Tetrachloride	SW8260B	4.2	0.66	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,1,1-Trichloroethane	SW8260B	4.2	0.68	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,1-Dichloropropene	SW8260B	4.2	0.78	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Benzene	SW8260B	4.2	0.27	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
TAME	SW8260B	4.2	0.30	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,2-Dichloroethane	SW8260B	4.2	0.46	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Trichloroethylene	SW8260B	4.2	0.61	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Dibromomethane	SW8260B	4.2	0.45	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,2-Dichloropropane	SW8260B	4.2	0.37	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Bromodichloromethane	SW8260B	4.2	0.32	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
cis-1,3-Dichloropropene	SW8260B	4.2	0.33	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Toluene	SW8260B	4.2	0.60	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Tetrachloroethylene	SW8260B	4.2	1.00	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
trans-1,3-Dichloropropene	SW8260B	4.2	0.91	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,1,2-Trichloroethane	SW8260B	4.2	0.32	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Dibromochloromethane	SW8260B	4.2	0.76	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,3-Dichloropropane	SW8260B	4.2	0.91	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,2-Dibromoethane	SW8260B	4.2	0.33	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Chlorobenzene	SW8260B	4.2	0.68	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Ethylbenzene	SW8260B	4.2	0.82	2.1	ND		ug/L	12/06/21	19:18	JZ	461968



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-10-W	<b>Lab Sample ID:</b>	2112042-024B
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 14:15		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/6/21 12:41:00PM
<b>Prep Batch ID:</b> 1137477	<b>Prep Analyst:</b> JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	4.2	0.37	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
m,p-Xylene	SW8260B	4.2	1.7	4.2	ND		ug/L	12/06/21	19:18	JZ	461968
o-Xylene	SW8260B	4.2	0.65	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Styrene	SW8260B	4.2	0.46	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Bromoform	SW8260B	4.2	0.32	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Isopropyl Benzene	SW8260B	4.2	0.91	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
n-Propylbenzene	SW8260B	4.2	1.2	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
Bromobenzene	SW8260B	4.2	0.63	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,1,2,2-Tetrachloroethane	SW8260B	4.2	0.33	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
2-Chlorotoluene	SW8260B	4.2	1.1	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,3,5-Trimethylbenzene	SW8260B	4.2	1.0	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,2,3-Trichloropropane	SW8260B	4.2	0.61	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
4-Chlorotoluene	SW8260B	4.2	0.90	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
tert-Butylbenzene	SW8260B	4.2	1.1	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,2,4-Trimethylbenzene	SW8260B	4.2	0.97	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
sec-Butyl Benzene	SW8260B	4.2	1.2	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
p-Isopropyltoluene	SW8260B	4.2	1.1	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,3-Dichlorobenzene	SW8260B	4.2	0.70	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,4-Dichlorobenzene	SW8260B	4.2	0.74	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
n-Butylbenzene	SW8260B	4.2	1.1	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,2-Dichlorobenzene	SW8260B	4.2	0.67	2.1	ND		ug/L	12/06/21	19:18	JZ	461968
1,2-Dibromo-3-Chloropropane	SW8260B	4.2	3.2	8.4	ND		ug/L	12/06/21	19:18	JZ	461968
Hexachlorobutadiene	SW8260B	4.2	2.6	8.4	ND		ug/L	12/06/21	19:18	JZ	461968
1,2,4-Trichlorobenzene	SW8260B	4.2	3.9	8.4	ND		ug/L	12/06/21	19:18	JZ	461968
Naphthalene	SW8260B	4.2	5.1	8.4	ND		ug/L	12/06/21	19:18	JZ	461968
1,2,3-Trichlorobenzene	SW8260B	4.2	5.1	8.4	ND		ug/L	12/06/21	19:18	JZ	461968
(S) Dibromofluoromethane	SW8260B		61.2 - 131		97.3		%	12/06/21	19:18	JZ	461968
(S) Toluene-d8	SW8260B		75.1 - 127		85.7		%	12/06/21	19:18	JZ	461968
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		75.4		%	12/06/21	19:18	JZ	461968

**NOTE:** Reporting limits were raised due to foaming during purge



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date/Time Received:** 12/03/21, 6:00 pm

**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-10-W	<b>Lab Sample ID:</b>	2112042-024B
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 14:15		
<b>SDG:</b>			

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 12/6/21 12:41:00PM
<b>Prep Batch ID:</b> 1137480	<b>Prep Analyst:</b> JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	4.2	120	210	ND		ug/L	12/06/21	19:18	JZ	461968
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		85.7		%	12/06/21	19:18	JZ	461968

**NOTE:** Reporting limits were raised due to foaming during purge



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm

Date Reported: 12/08/21

Client Sample ID:	SB-13-W	Lab Sample ID:	2112042-025A
Project Name/Location:		Sample Matrix:	Groundwater
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 13:45		
SDG:			

Prep Method:	3510_TPH	Prep Batch Date/Time:	12/7/21	9:33:00AM
Prep Batch ID:	1137462	Prep Analyst:	AKIZ	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.039	0.11	0.238	x	mg/L	12/08/21	0:15	SN	461985
TPH as Motor Oil	SW8015B	1	0.12	0.42	1.29		mg/L	12/08/21	0:15	SN	461985
		Acceptance Limits									
Pentacosane (S)	SW8015B		59 - 129		46.9	S	%	12/08/21	0:15	SN	461985

NOTE: x-Diesel value the result of overlap of Oil range into Diesel range  
S - Surrogate recovery outside the laboratory control limit due to potential matrix effects (heavy emulsion present during extraction)



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-13-W	Lab Sample ID:	2112042-025B
Project Name/Location:		Sample Matrix:	Groundwater
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 13:45		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/6/21 12:41:00PM
Prep Batch ID: 1137477	Prep Analyst: JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	8.4	2.2	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Chloromethane	SW8260B	8.4	1.4	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Vinyl Chloride	SW8260B	8.4	1.7	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Bromomethane	SW8260B	8.4	1.8	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Chloroethane	SW8260B	8.4	0.96	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Trichlorofluoromethane	SW8260B	8.4	1.6	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,1-Dichloroethene	SW8260B	8.4	1.2	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Freon 113	SW8260B	8.4	2.9	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Methylene Chloride	SW8260B	8.4	1.1	8.4	ND		ug/L	12/06/21	20:18	JZ	461968
trans-1,2-Dichloroethene	SW8260B	8.4	1.4	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
MTBE	SW8260B	8.4	0.65	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
tert-Butanol	SW8260B	8.4	25	42	ND		ug/L	12/06/21	20:18	JZ	461968
DIPE	SW8260B	8.4	1.0	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,1-Dichloroethane	SW8260B	8.4	1.0	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
ETBE	SW8260B	8.4	0.54	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
cis-1,2-Dichloroethene	SW8260B	8.4	1.3	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
2,2-Dichloropropane	SW8260B	8.4	0.79	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Bromochloromethane	SW8260B	8.4	1.3	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Chloroform	SW8260B	8.4	1.0	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Carbon Tetrachloride	SW8260B	8.4	1.3	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,1,1-Trichloroethane	SW8260B	8.4	1.4	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,1-Dichloropropene	SW8260B	8.4	1.6	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Benzene	SW8260B	8.4	0.55	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
TAME	SW8260B	8.4	0.60	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,2-Dichloroethane	SW8260B	8.4	0.92	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Trichloroethylene	SW8260B	8.4	1.2	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Dibromomethane	SW8260B	8.4	0.90	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,2-Dichloropropane	SW8260B	8.4	0.75	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Bromodichloromethane	SW8260B	8.4	0.64	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
cis-1,3-Dichloropropene	SW8260B	8.4	0.66	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Toluene	SW8260B	8.4	1.2	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Tetrachloroethylene	SW8260B	8.4	2.0	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
trans-1,3-Dichloropropene	SW8260B	8.4	1.8	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,1,2-Trichloroethane	SW8260B	8.4	0.64	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Dibromochloromethane	SW8260B	8.4	1.5	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,3-Dichloropropane	SW8260B	8.4	1.8	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,2-Dibromoethane	SW8260B	8.4	0.66	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Chlorobenzene	SW8260B	8.4	1.4	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Ethylbenzene	SW8260B	8.4	1.6	4.2	ND		ug/L	12/06/21	20:18	JZ	461968



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-13-W	<b>Lab Sample ID:</b>	2112042-025B
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 13:45		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/6/21 12:41:00PM
<b>Prep Batch ID:</b> 1137477	<b>Prep Analyst:</b> JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	8.4	0.73	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
m,p-Xylene	SW8260B	8.4	3.3	8.4	ND		ug/L	12/06/21	20:18	JZ	461968
o-Xylene	SW8260B	8.4	1.3	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Styrene	SW8260B	8.4	0.92	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Bromoform	SW8260B	8.4	0.64	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Isopropyl Benzene	SW8260B	8.4	1.8	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
n-Propylbenzene	SW8260B	8.4	2.5	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
Bromobenzene	SW8260B	8.4	1.3	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,1,2,2-Tetrachloroethane	SW8260B	8.4	0.66	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
2-Chlorotoluene	SW8260B	8.4	2.1	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,3,5-Trimethylbenzene	SW8260B	8.4	2.0	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,2,3-Trichloropropane	SW8260B	8.4	1.2	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
4-Chlorotoluene	SW8260B	8.4	1.8	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
tert-Butylbenzene	SW8260B	8.4	2.2	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,2,4-Trimethylbenzene	SW8260B	8.4	1.9	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
sec-Butyl Benzene	SW8260B	8.4	2.5	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
p-Isopropyltoluene	SW8260B	8.4	2.2	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,3-Dichlorobenzene	SW8260B	8.4	1.4	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,4-Dichlorobenzene	SW8260B	8.4	1.5	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
n-Butylbenzene	SW8260B	8.4	2.3	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,2-Dichlorobenzene	SW8260B	8.4	1.3	4.2	ND		ug/L	12/06/21	20:18	JZ	461968
1,2-Dibromo-3-Chloropropane	SW8260B	8.4	6.4	17	ND		ug/L	12/06/21	20:18	JZ	461968
Hexachlorobutadiene	SW8260B	8.4	5.2	17	ND		ug/L	12/06/21	20:18	JZ	461968
1,2,4-Trichlorobenzene	SW8260B	8.4	7.8	17	ND		ug/L	12/06/21	20:18	JZ	461968
Naphthalene	SW8260B	8.4	10	17	ND		ug/L	12/06/21	20:18	JZ	461968
1,2,3-Trichlorobenzene	SW8260B	8.4	10	17	ND		ug/L	12/06/21	20:18	JZ	461968
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>98.5</b>		%	12/06/21	20:18	JZ	461968
(S) Toluene-d8	SW8260B		75.1 - 127		<b>86.2</b>		%	12/06/21	20:18	JZ	461968
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>79.6</b>		%	12/06/21	20:18	JZ	461968

**NOTE:** Reporting limits were raised due to foaming during purge



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date/Time Received:** 12/03/21, 6:00 pm

**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-13-W	<b>Lab Sample ID:</b>	2112042-025B
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 13:45		
<b>SDG:</b>			

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 12/6/21 12:41:00PM
<b>Prep Batch ID:</b> 1137480	<b>Prep Analyst:</b> JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	8.4	250	420	ND		ug/L	12/06/21	20:18	JZ	461968
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		93.7		%	12/06/21	20:18	JZ	461968

**NOTE:** Reporting limits were raised due to foaming during purge



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants

Date/Time Received: 12/03/21, 6:00 pm

Date Reported: 12/08/21

Client Sample ID:	SB-15-W	Lab Sample ID:	2112042-026A
Project Name/Location:		Sample Matrix:	Groundwater
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 15:15		
SDG:			

Prep Method:	3510_TPH	Prep Batch Date/Time:	12/7/21	9:33:00AM
Prep Batch ID:	1137462	Prep Analyst:	AKIZ	

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH as Diesel	SW8015B	1	0.046	0.13	0.783	x	mg/L	12/08/21	0:39	SN	461985
TPH as Motor Oil	SW8015B	1	0.14	0.50	1.93		mg/L	12/08/21	0:39	SN	461985
Acceptance Limits											
Pentacosane (S)	SW8015B		59 - 129		83.2		%	12/08/21	0:39	SN	461985

NOTE: Reporting limits increased due to limited sample available for extraction  
x-Diesel value the result of overlap of Oil range into Diesel range



## SAMPLE RESULTS

Report prepared for: Neill Butcher  
AEI Consultants Date/Time Received: 12/03/21, 6:00 pm  
Date Reported: 12/08/21

Client Sample ID:	SB-15-W	Lab Sample ID:	2112042-026B
Project Name/Location:		Sample Matrix:	Groundwater
Project Number:	452498		
Date/Time Sampled:	12/03/21 / 15:15		
SDG:			

Prep Method: 5030VOC	Prep Batch Date/Time: 12/6/21 12:41:00PM
Prep Batch ID: 1137477	Prep Analyst: JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dichlorodifluoromethane	SW8260B	8.4	2.2	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Chloromethane	SW8260B	8.4	1.4	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Vinyl Chloride	SW8260B	8.4	1.7	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Bromomethane	SW8260B	8.4	1.8	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Chloroethane	SW8260B	8.4	0.96	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Trichlorofluoromethane	SW8260B	8.4	1.6	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,1-Dichloroethene	SW8260B	8.4	1.2	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Freon 113	SW8260B	8.4	2.9	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Methylene Chloride	SW8260B	8.4	1.1	8.4	ND		ug/L	12/06/21	20:48	JZ	461968
trans-1,2-Dichloroethene	SW8260B	8.4	1.4	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
MTBE	SW8260B	8.4	0.65	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
tert-Butanol	SW8260B	8.4	25	42	ND		ug/L	12/06/21	20:48	JZ	461968
DIPE	SW8260B	8.4	1.0	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,1-Dichloroethane	SW8260B	8.4	1.0	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
ETBE	SW8260B	8.4	0.54	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
cis-1,2-Dichloroethene	SW8260B	8.4	1.3	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
2,2-Dichloropropane	SW8260B	8.4	0.79	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Bromochloromethane	SW8260B	8.4	1.3	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Chloroform	SW8260B	8.4	1.0	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Carbon Tetrachloride	SW8260B	8.4	1.3	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,1,1-Trichloroethane	SW8260B	8.4	1.4	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,1-Dichloropropene	SW8260B	8.4	1.6	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Benzene	SW8260B	8.4	0.55	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
TAME	SW8260B	8.4	0.60	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,2-Dichloroethane	SW8260B	8.4	0.92	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Trichloroethylene	SW8260B	8.4	1.2	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Dibromomethane	SW8260B	8.4	0.90	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,2-Dichloropropane	SW8260B	8.4	0.75	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Bromodichloromethane	SW8260B	8.4	0.64	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
cis-1,3-Dichloropropene	SW8260B	8.4	0.66	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Toluene	SW8260B	8.4	1.2	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Tetrachloroethylene	SW8260B	8.4	2.0	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
trans-1,3-Dichloropropene	SW8260B	8.4	1.8	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,1,2-Trichloroethane	SW8260B	8.4	0.64	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Dibromochloromethane	SW8260B	8.4	1.5	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,3-Dichloropropane	SW8260B	8.4	1.8	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,2-Dibromoethane	SW8260B	8.4	0.66	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Chlorobenzene	SW8260B	8.4	1.4	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Ethylbenzene	SW8260B	8.4	1.6	4.2	ND		ug/L	12/06/21	20:48	JZ	461968



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants      **Date/Time Received:** 12/03/21, 6:00 pm  
**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-15-W	<b>Lab Sample ID:</b>	2112042-026B
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 15:15		
<b>SDG:</b>			

<b>Prep Method:</b> 5030VOC	<b>Prep Batch Date/Time:</b> 12/6/21 12:41:00PM
<b>Prep Batch ID:</b> 1137477	<b>Prep Analyst:</b> JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
1,1,1,2-Tetrachloroethane	SW8260B	8.4	0.73	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
m,p-Xylene	SW8260B	8.4	3.3	8.4	ND		ug/L	12/06/21	20:48	JZ	461968
o-Xylene	SW8260B	8.4	1.3	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Styrene	SW8260B	8.4	0.92	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Bromoform	SW8260B	8.4	0.64	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Isopropyl Benzene	SW8260B	8.4	1.8	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
n-Propylbenzene	SW8260B	8.4	2.5	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
Bromobenzene	SW8260B	8.4	1.3	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,1,2,2-Tetrachloroethane	SW8260B	8.4	0.66	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
2-Chlorotoluene	SW8260B	8.4	2.1	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,3,5-Trimethylbenzene	SW8260B	8.4	2.0	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,2,3-Trichloropropane	SW8260B	8.4	1.2	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
4-Chlorotoluene	SW8260B	8.4	1.8	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
tert-Butylbenzene	SW8260B	8.4	2.2	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,2,4-Trimethylbenzene	SW8260B	8.4	1.9	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
sec-Butyl Benzene	SW8260B	8.4	2.5	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
p-Isopropyltoluene	SW8260B	8.4	2.2	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,3-Dichlorobenzene	SW8260B	8.4	1.4	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,4-Dichlorobenzene	SW8260B	8.4	1.5	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
n-Butylbenzene	SW8260B	8.4	2.3	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,2-Dichlorobenzene	SW8260B	8.4	1.3	4.2	ND		ug/L	12/06/21	20:48	JZ	461968
1,2-Dibromo-3-Chloropropane	SW8260B	8.4	6.4	17	ND		ug/L	12/06/21	20:48	JZ	461968
Hexachlorobutadiene	SW8260B	8.4	5.2	17	ND		ug/L	12/06/21	20:48	JZ	461968
1,2,4-Trichlorobenzene	SW8260B	8.4	7.8	17	ND		ug/L	12/06/21	20:48	JZ	461968
Naphthalene	SW8260B	8.4	10	17	ND		ug/L	12/06/21	20:48	JZ	461968
1,2,3-Trichlorobenzene	SW8260B	8.4	10	17	ND		ug/L	12/06/21	20:48	JZ	461968
(S) Dibromofluoromethane	SW8260B		61.2 - 131		<b>96.3</b>		%	12/06/21	20:48	JZ	461968
(S) Toluene-d8	SW8260B		75.1 - 127		<b>85.7</b>		%	12/06/21	20:48	JZ	461968
(S) 4-Bromofluorobenzene	SW8260B		64.1 - 120		<b>76.3</b>		%	12/06/21	20:48	JZ	461968

**NOTE:** Reporting limits were raised due to foaming during purge



## SAMPLE RESULTS

**Report prepared for:** Neill Butcher  
AEI Consultants

**Date/Time Received:** 12/03/21, 6:00 pm

**Date Reported:** 12/08/21

<b>Client Sample ID:</b>	SB-15-W	<b>Lab Sample ID:</b>	2112042-026B
<b>Project Name/Location:</b>		<b>Sample Matrix:</b>	Groundwater
<b>Project Number:</b>	452498		
<b>Date/Time Sampled:</b>	12/03/21 / 15:15		
<b>SDG:</b>			

<b>Prep Method:</b> 5030GRO	<b>Prep Batch Date/Time:</b> 12/6/21 12:41:00PM
<b>Prep Batch ID:</b> 1137480	<b>Prep Analyst:</b> JZHAO

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
TPH(Gasoline)	8260TPH	8.4	250	420	ND		ug/L	12/06/21	20:48	JZ	461968
(S) 4-Bromofluorobenzene	8260TPH		41.5 - 125		89.7		%	12/06/21	20:48	JZ	461968

**NOTE:** Reporting limits were raised due to foaming during purge



## MB Summary Report

Work Order:	2112042	Prep Method:	3546_BNA	Prep Date:	12/03/21	Prep Batch:	1137399
Matrix:	Soil	Analytical Method:	SW8270C	Analyzed Date:	12/3/2021	Analytical Batch:	461897
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
N-Nitrosodimethylamine	46.9	720	ND		
Phenol	43.8	288	ND		
Bis(2-chloroethyl)ether	13.3	144	ND		
2-Chlorophenol	47.7	288	ND		
1,3-Dichlorobenzene	13.1	144	ND		
1,4-Dichlorobenzene	14.6	144	ND		
Benzyl Alcohol	20.5	288	ND		
1,2-Dichlorobenzene	13.5	144	ND		
2-Methylphenol (o-Cresol)	29.3	288	ND		
N-Methyl-2-Pyrrolidone (NMP)	68.0	720	ND		
3-/4-Methylphenol (p-/m-Cresol)	31.3	288	ND		
N-nitroso-di-n-propylamine	13.2	144	ND		
Hexachloroethane	17.1	144	ND		
Nitrobenzene	12.8	144	ND		
Isophorone	12.2	144	ND		
2-Nitrophenol	25.4	288	ND		
2,4-Dimethylphenol	22.8	288	ND		
Benzoic Acid	41.7	288	ND		
Bis(2-Chloroethoxy)methane	9.79	144	ND		
Bis(2-chloroisopropyl)ether	12.6	144	ND		
2,4-Dichlorophenol	39.3	288	ND		
1,2,4-Trichlorobenzene	11.8	144	ND		
Naphthalene	10.6	144	ND		
2,6-Dichlorophenol	35.8	288	ND		
Hexachloro-1,3-butadiene	8.34	144	ND		
4-Chloro-3-methylphenol	33.8	288	ND		
2-Methylnaphthalene	10.4	144	ND		
1-Methylnaphthalene	12.2	144	ND		
Hexachlorocyclopentadiene	12.9	144	ND		
2,4,6-Trichlorophenol	35.9	288	ND		
2,4,5-Trichlorophenol	33.4	288	ND		
2-Chloronaphthalene	10.6	144	ND		
1,4-Dinitrobenzene	10.3	144	ND		
Dimethyl phthalate	14.2	720	ND		
1,3-Dinitrobenzene	10.4	144	ND		
Acenaphthylene	8.28	144	ND		
2,6-Dinitrotoluene	11.3	144	ND		
1,2-Dinitrobenzene	15.8	144	ND		
Acenaphthene	10.7	144	ND		
2,4-Dinitrophenol	77.6	720	ND		
4-Nitrophenol	54.7	720	ND		
Dibenzofuran	11.2	144	ND		
2,4-Dinitrotoluene	12.1	144	ND		
2,3,5,6-Tetrachlorophenol	27.6	288	ND		
2,3,4,6-Tetrachlorophenol	31.5	288	ND		



## MB Summary Report

Work Order:	2112042	Prep Method:	3546_BNA	Prep Date:	12/03/21	Prep Batch:	1137399
Matrix:	Soil	Analytical Method:	SW8270C	Analyzed Date:	12/3/2021	Analytical Batch:	461897
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Diethylphthalate	13.6	720	ND		
Fluorene	10.3	144	ND		
4-Chlorophenyl-phenylether	9.32	144	ND		
4,6-Dinitro-2-methylphenol	13.4	288	ND		
Diphenylamine	13.0	144	ND		
Azobenzene	114	144	ND		
4-Bromophenyl-phenylether	8.23	144	ND		
Hexachlorobenzene	8.66	144	ND		
Pentachlorophenol	25.0	288	ND		
Phenanthrene	9.32	144	ND		
Anthracene	8.91	144	ND		
Carbazole	10.7	144	ND		
Di-n-butylphthalate	13.5	144	ND		
Fluoranthene	10.0	144	ND		
Benzidine	147	144	ND		
Pyrene	12.0	144	ND		
Butylbenzylphthalate	21.0	720	ND		
Benzo(a)anthracene	9.80	144	ND		
3,3-Dichlorobenzidine	118	144	ND		
Chrysene	15.2	144	ND		
Bis(2-Ethylhexyl)phthalate	15.3	720	ND		
Di-n-Octylphthalate	12.3	144	ND		
Benzo(b)fluoranthene	12.0	144	ND		
benzo(k)fluoranthene	8.16	144	ND		
Benzo(a)pyrene	9.80	144	ND		
Indeno(1,2,3-c,d)pyrene	13.8	144	ND		
Dibenzo(a,h)anthracene	12.7	144	ND		
Benzo(g,h,i)perylene	12.7	144	ND		
Pyridine	43.8	720	ND		
2-Fluorophenol (S)			81.8		
Phenol-d6 (S)			89.5		
2,4,6-Tribromophenol (S)			87.3		
2-Fluorobiphenyl (S)			85.2		
Nitrobenzene-d5 (S)			82.0		
p-Terphenyl-d14 (S)			93.9		



## MB Summary Report

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	3546_PCB	<b>Prep Date:</b>	12/06/21	<b>Prep Batch:</b>	1137434
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8082A	<b>Analyzed Date:</b>	12/6/2021	<b>Analytical Batch:</b>	461946
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
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Aroclor1016                                   35.0           100           ND  
Aroclor1221                                   5.00          100           ND  
Aroclor1232                                   17.0          100           ND  
Aroclor1242                                   3.00          100           ND  
Aroclor1248                                   2.00          100           ND  
Aroclor1254                                   14.0          100           ND  
Aroclor1260                                   24.0          100           ND  
TCMX (S)                                       118  
DCBP (S)                                       97.0

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	3546_PAHSIM	<b>Prep Date:</b>	12/06/21	<b>Prep Batch:</b>	1137435
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8270C	<b>Analyzed Date:</b>	12/6/2021	<b>Analytical Batch:</b>	461945
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
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Naphthalene                                   0.51          1.8           ND  
2-Methylnaphthalene                       0.22          1.8           ND  
1-Methylnaphthalene                       0.18          1.8           ND  
Acenaphthelene                              0.19          1.8           ND  
Acenaphthene                                0.16          1.8           ND  
Fluorene                                     0.27          1.8           ND  
Phenanthrene                                0.59          1.8           ND  
Anthracene                                   0.53          1.8           ND  
Fluoranthene                                0.53          1.8           ND  
Pyrene                                        0.55          1.8           ND  
Benz[a]anthracene                         0.46          1.8           1.08  
Chrysene                                     0.49          1.8           ND  
Benzo[b]fluoranthene                     0.24          1.8           ND  
Benzo[k]fluoranthene                     0.23          1.8           ND  
Benzo[a]pyrene                            0.28          1.8           ND  
Indeno[1,2,3-cd]pyrene                   0.22          1.8           ND  
Dibenz[a,h]anthracene                    0.27          1.8           ND  
Benzo[g,h,i]perylene                    0.27          1.8           ND  
2-Fluorobiphenyl (S)                    87.6  
p-Terphenyl-d14 (S)                     90.5



## MB Summary Report

Work Order:	2112042	Prep Method:	3546_OCP	Prep Date:	12/06/21	Prep Batch:	1137436
Matrix:	Soil	Analytical Method:	SW8081B	Analyzed Date:	12/7/2021	Analytical Batch:	461969
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
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alpha-BHC	0.13	2.0	ND	
gamma-BHC (Lindane)	0.16	2.0	ND	
beta-BHC	0.32	2.0	ND	
delta-BHC	0.16	2.0	ND	
Heptachlor	0.11	2.0	ND	
Aldrin	0.20	2.0	ND	
Heptachlor Epoxide	0.078	2.0	ND	
gamma-Chlordane	0.16	2.0	ND	
alpha-Chlordane	0.17	2.0	ND	
4,4'-DDE	0.19	2.0	ND	
Endosulfan I	0.18	2.0	ND	
Dieldrin	0.15	2.0	ND	
Endrin	0.19	2.0	ND	
4,4'-DDD	0.57	2.0	ND	
Endosulfan II	0.58	2.0	ND	
4,4'-DDT	0.13	2.0	ND	
Endrin Aldehyde	0.15	2.0	ND	
Methoxychlor	0.20	2.0	ND	
Endosulfan Sulfate	0.12	2.0	ND	
Endrin Ketone	0.094	2.0	ND	
Chlordane	2.1	20	ND	
Toxaphene	8.5	50	ND	
Tetrachloro-M-Xylene (S)		104		
Decachlorobiphenyl (S)		111		

Work Order:	2112042	Prep Method:	3546_TPH	Prep Date:	12/07/21	Prep Batch:	1137438
Matrix:	Soil	Analytical Method:	SW8015B	Analyzed Date:	12/7/2021	Analytical Batch:	461995
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
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TPH as Diesel	0.85	2.0	ND	
TPH as Motor Oil	3.2	10	ND	
Pentacosane (S)			81.7	



## MB Summary Report

Work Order:	2112042	Prep Method:	5035	Prep Date:	12/06/21	Prep Batch:	1137458
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	12/6/2021	Analytical Batch:	461948
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	1.2	10	ND		
Chloromethane	1.8	10	ND		
Vinyl Chloride	2.0	10	ND		
Bromomethane	2.7	10	ND		
Chloroethane	3.0	10	ND		
Trichlorofluoromethane	2.1	10	ND		
1,1-Dichloroethene	2.0	10	ND		
Freon 113	1.9	10	ND		
Methylene Chloride	7.1	10	ND		
trans-1,2-Dichloroethene	2.1	10	ND		
MTBE	2.3	10	ND		
TBA	12	50	ND		
Diisopropyl ether	2.3	10	ND		
1,1-Dichloroethane	2.2	10	ND		
Ethyl tert-Butyl ether	2.3	10	ND		
cis-1,2-Dichloroethene	2.2	10	ND		
2,2-Dichloropropane	1.9	10	ND		
Bromochloromethane	2.3	10	ND		
Chloroform	2.4	10	ND		
Carbon Tetrachloride	2.1	10	ND		
1,1,1-Trichloroethane	2.1	10	ND		
1,1-Dichloropropene	2.0	10	ND		
Benzene	2.2	10	ND		
TAME	2.3	10	ND		
1,2-Dichloroethane	2.3	10	ND		
Trichloroethylene	1.8	10	ND		
Dibromomethane	1.8	10	ND		
1,2-Dichloropropane	1.9	10	ND		
Bromodichloromethane	2.0	10	ND		
cis-1,3-Dichloropropene	1.6	10	ND		
Toluene	1.8	10	ND		
Tetrachloroethene	1.7	10	ND		
trans-1,3-Dichloropropene	1.6	10	ND		
1,1,2-Trichloroethane	1.8	10	ND		
Dibromochloromethane	1.9	10	ND		
1,3-Dichloropropane	1.8	10	ND		
1,2-Dibromoethane	1.8	10	ND		
Chlorobenzene	1.8	10	ND		
Ethylbenzene	1.7	10	ND		
1,1,1,2-Tetrachloroethane	1.9	10	ND		
m,p-Xylene	3.2	10	ND		
o-Xylene	1.7	10	ND		
Styrene	1.6	10	ND		
Bromoform	1.7	10	ND		
Isopropyl Benzene	1.6	10	ND		



## MB Summary Report

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	12/06/21	<b>Prep Batch:</b>	1137458
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/6/2021	<b>Analytical Batch:</b>	461948
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
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n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	ND	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	ND	
1,2,4-Trimethylbenzene	1.4	10	ND	
sec-Butyl Benzene	1.6	10	ND	
p-Isopropyltoluene	1.5	10	ND	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	ND	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	ND	
1,2,4-Trichlorobenzene	1.5	10	ND	
Naphthalene	1.7	10	ND	
1,2,3-Trichlorobenzene	1.7	10	ND	
2-Butanone	2.3	10	ND	
Acetone	8.2	20	ND	
(S) Dibromofluoromethane			71.8	
(S) Toluene-d8			92.8	
(S) 4-Bromofluorobenzene			86.9	

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	5035GRO	<b>Prep Date:</b>	12/06/21	<b>Prep Batch:</b>	1137459
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/6/2021	<b>Analytical Batch:</b>	461948
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
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TPH as Gasoline	43	100	ND	
(S) 4-Bromofluorobenzene			81.1	



## MB Summary Report

Work Order:	2112042	Prep Method:	3510_TPH	Prep Date:	12/07/21	Prep Batch:	1137462
Matrix:	Water	Analytical Method:	SW8015B	Analyzed Date:	12/7/2021	Analytical Batch:	461985
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH as Diesel	0.037	0.10	0.0438		
TPH as Motor Oil	0.11	0.40	0.131		
Pentacosane (S)			103		



## MB Summary Report

Work Order:	2112042	Prep Method:	5035	Prep Date:	12/06/21	Prep Batch:	1137465
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	12/6/2021	Analytical Batch:	461955
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
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Dichlorodifluoromethane	1.2	10	ND	
Chloromethane	1.8	10	ND	
Vinyl Chloride	2.0	10	ND	
Bromomethane	2.7	10	ND	
Chloroethane	3.0	10	ND	
Trichlorofluoromethane	2.1	10	ND	
1,1-Dichloroethene	2.0	10	ND	
Freon 113	1.9	10	ND	
Methylene Chloride	7.1	10	ND	
trans-1,2-Dichloroethene	2.1	10	ND	
MTBE	2.3	10	ND	
TBA	12	50	ND	
Diisopropyl ether	2.3	10	ND	
1,1-Dichloroethane	2.2	10	ND	
Ethyl tert-Butyl ether	2.3	10	ND	
cis-1,2-Dichloroethene	2.2	10	ND	
2,2-Dichloropropane	1.9	10	ND	
Bromochloromethane	2.3	10	ND	
Chloroform	2.4	10	ND	
Carbon Tetrachloride	2.1	10	ND	
1,1,1-Trichloroethane	2.1	10	ND	
1,1-Dichloropropene	2.0	10	ND	
Benzene	2.2	10	ND	
TAME	2.3	10	ND	
1,2-Dichloroethane	2.3	10	ND	
Trichloroethylene	1.8	10	ND	
Dibromomethane	1.8	10	ND	
1,2-Dichloropropane	1.9	10	ND	
Bromodichloromethane	2.0	10	ND	
cis-1,3-Dichloropropene	1.6	10	ND	
Toluene	1.8	10	ND	
Tetrachloroethene	1.7	10	ND	
trans-1,3-Dichloropropene	1.6	10	ND	
1,1,2-Trichloroethane	1.8	10	ND	
Dibromochloromethane	1.9	10	ND	
1,3-Dichloropropane	1.8	10	ND	
1,2-Dibromoethane	1.8	10	ND	
Chlorobenzene	1.8	10	ND	
Ethylbenzene	1.7	10	ND	
1,1,1,2-Tetrachloroethane	1.9	10	ND	
m,p-Xylene	3.2	10	ND	
o-Xylene	1.7	10	ND	
Styrene	1.6	10	ND	
Bromoform	1.7	10	ND	
Isopropyl Benzene	1.6	10	ND	



## MB Summary Report

Work Order:	2112042	Prep Method:	5035	Prep Date:	12/06/21	Prep Batch:	1137465
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	12/6/2021	Analytical Batch:	461955
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
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n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	ND	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	ND	
1,2,4-Trimethylbenzene	1.4	10	ND	
sec-Butyl Benzene	1.6	10	ND	
p-Isopropyltoluene	1.5	10	ND	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	ND	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	ND	
1,2,4-Trichlorobenzene	1.5	10	2.7	
Naphthalene	1.7	10	4.9	
1,2,3-Trichlorobenzene	1.7	10	3.6	
2-Butanone	2.3	10	ND	
(S) Dibromofluoromethane			144	
(S) Toluene-d8			115	
(S) 4-Bromofluorobenzene			108	

Work Order:	2112042	Prep Method:	5035GRO	Prep Date:	12/06/21	Prep Batch:	1137467
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	12/6/2021	Analytical Batch:	461955
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
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TPH as Gasoline	43	100	ND	
(S) 4-Bromofluorobenzene			86.5	



## MB Summary Report

Work Order:	2112042	Prep Method:	5030VOC	Prep Date:	12/06/21	Prep Batch:	1137477
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	12/6/2021	Analytical Batch:	461968
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.26	0.50	ND		
Chloromethane	0.17	0.50	ND		
Vinyl Chloride	0.21	0.50	ND		
Bromomethane	0.21	0.50	ND		
Chloroethane	0.11	0.50	ND		
Trichlorofluoromethane	0.19	0.50	ND		
1,1-Dichloroethene	0.14	0.50	ND		
Freon 113	0.34	0.50	ND		
Methylene Chloride	0.13	1.0	ND		
trans-1,2-Dichloroethene	0.16	0.50	ND		
MTBE	0.077	0.50	ND		
tert-Butanol	2.9	5.0	ND		
DIPE	0.12	0.50	ND		
1,1-Dichloroethane	0.12	0.50	ND		
ETBE	0.064	0.50	ND		
cis-1,2-Dichloroethene	0.15	0.50	ND		
2,2-Dichloropropane	0.094	0.50	ND		
Bromochloromethane	0.15	0.50	ND		
Chloroform	0.12	0.50	ND		
Carbon Tetrachloride	0.16	0.50	ND		
1,1,1-Trichloroethane	0.16	0.50	ND		
1,1-Dichloropropene	0.19	0.50	ND		
Benzene	0.065	0.50	ND		
TAME	0.072	0.50	ND		
1,2-Dichloroethane	0.11	0.50	ND		
Trichloroethylene	0.15	0.50	ND		
Dibromomethane	0.11	0.50	ND		
1,2-Dichloropropane	0.089	0.50	ND		
Bromodichloromethane	0.076	0.50	ND		
cis-1,3-Dichloropropene	0.078	0.50	ND		
Toluene	0.14	0.50	ND		
Tetrachloroethylene	0.24	0.50	ND		
trans-1,3-Dichloropropene	0.22	0.50	ND		
1,1,2-Trichloroethane	0.076	0.50	ND		
Dibromochloromethane	0.18	0.50	ND		
1,3-Dichloropropane	0.22	0.50	ND		
1,2-Dibromoethane	0.079	0.50	ND		
Chlorobenzene	0.16	0.50	ND		
Ethylbenzene	0.20	0.50	ND		
1,1,1,2-Tetrachloroethane	0.087	0.50	ND		
m,p-Xylene	0.39	1.0	ND		
o-Xylene	0.15	0.50	ND		
Styrene	0.11	0.50	ND		
Bromoform	0.076	0.50	ND		
Isopropyl Benzene	0.22	0.50	ND		



## MB Summary Report

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	5030VOC	<b>Prep Date:</b>	12/06/21	<b>Prep Batch:</b>	1137477
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/6/2021	<b>Analytical Batch:</b>	461968
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
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n-Propylbenzene	0.30	0.50	ND	
Bromobenzene	0.15	0.50	ND	
1,1,2,2-Tetrachloroethane	0.079	0.50	ND	
2-Chlorotoluene	0.25	0.50	ND	
1,3,5-Trimethylbenzene	0.24	0.50	ND	
1,2,3-Trichloropropane	0.15	0.50	ND	
4-Chlorotoluene	0.22	0.50	ND	
tert-Butylbenzene	0.26	0.50	ND	
1,2,4-Trimethylbenzene	0.23	0.50	ND	
sec-Butyl Benzene	0.30	0.50	ND	
p-Isopropyltoluene	0.27	0.50	ND	
1,3-Dichlorobenzene	0.17	0.50	ND	
1,4-Dichlorobenzene	0.18	0.50	ND	
n-Butylbenzene	0.27	0.50	ND	
1,2-Dichlorobenzene	0.16	0.50	ND	
1,2-Dibromo-3-Chloropropane	0.76	2.0	ND	
Hexachlorobutadiene	0.62	2.0	ND	
1,2,4-Trichlorobenzene	0.93	2.0	ND	
Naphthalene	1.2	2.0	ND	
1,2,3-Trichlorobenzene	1.2	2.0	ND	
(S) Dibromofluoromethane		94.6		
(S) Toluene-d8		86.6		
(S) 4-Bromofluorobenzene		80.4		

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	5030GRO	<b>Prep Date:</b>	12/06/21	<b>Prep Batch:</b>	1137480
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/6/2021	<b>Analytical Batch:</b>	461968
<b>Units:</b>	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
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TPH(Gasoline)	29	50	ND	
(S) 4-Bromofluorobenzene			64.5	



## MB Summary Report

Work Order:	2112042	Prep Method:	6020S-P	Prep Date:	12/07/21	Prep Batch:	1137483
Matrix:	Soil	Analytical Method:	6020A	Analyzed Date:	12/7/2021	Analytical Batch:	461993
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Antimony	0.12	1.0	ND		
Arsenic	0.21	1.0	ND		
Barium	0.84	1.0	ND		
Beryllium	0.16	1.0	ND		
Cadmium	0.084	1.0	ND		
Chromium	0.097	1.0	ND		
Cobalt	0.21	1.0	ND		
Copper	0.17	2.5	1.0		
Lead	0.054	1.0	ND		
Molybdenum	0.13	1.0	ND		
Nickel	1.2	5.0	ND		
Selenium	0.035	2.5	ND		
Silver	0.098	1.0	ND		
Thallium	1.00	5.0	ND		
Vanadium	0.28	25	ND		
Zinc	0.70	2.5	ND		



## MB Summary Report

Work Order:	2112042	Prep Method:	5035	Prep Date:	12/07/21	Prep Batch:	1137497
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	12/7/2021	Analytical Batch:	461982
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
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Dichlorodifluoromethane	1.2	10	ND	
Chloromethane	1.8	10	ND	
Vinyl Chloride	2.0	10	ND	
Bromomethane	2.7	10	ND	
Chloroethane	3.0	10	ND	
Trichlorofluoromethane	2.1	10	ND	
1,1-Dichloroethene	2.0	10	ND	
Freon 113	1.9	10	ND	
Methylene Chloride	7.1	10	ND	
trans-1,2-Dichloroethene	2.1	10	ND	
MTBE	2.3	10	ND	
TBA	12	50	ND	
Diisopropyl ether	2.3	10	ND	
1,1-Dichloroethane	2.2	10	ND	
Ethyl tert-Butyl ether	2.3	10	ND	
cis-1,2-Dichloroethene	2.2	10	ND	
2,2-Dichloropropane	1.9	10	ND	
Bromochloromethane	2.3	10	ND	
Chloroform	2.4	10	ND	
Carbon Tetrachloride	2.1	10	ND	
1,1,1-Trichloroethane	2.1	10	ND	
1,1-Dichloropropene	2.0	10	ND	
Benzene	2.2	10	ND	
TAME	2.3	10	ND	
1,2-Dichloroethane	2.3	10	ND	
Trichloroethylene	1.8	10	ND	
Dibromomethane	1.8	10	ND	
1,2-Dichloropropane	1.9	10	ND	
Bromodichloromethane	2.0	10	ND	
cis-1,3-Dichloropropene	1.6	10	ND	
Toluene	1.8	10	ND	
Tetrachloroethene	1.7	10	ND	
trans-1,3-Dichloropropene	1.6	10	ND	
1,1,2-Trichloroethane	1.8	10	ND	
Dibromochloromethane	1.9	10	ND	
1,3-Dichloropropane	1.8	10	ND	
1,2-Dibromoethane	1.8	10	ND	
Chlorobenzene	1.8	10	ND	
Ethylbenzene	1.7	10	ND	
1,1,1,2-Tetrachloroethane	1.9	10	ND	
m,p-Xylene	3.2	10	ND	
o-Xylene	1.7	10	ND	
Styrene	1.6	10	ND	
Bromoform	1.7	10	ND	
Isopropyl Benzene	1.6	10	ND	



## MB Summary Report

Work Order:	2112042	Prep Method:	5035	Prep Date:	12/07/21	Prep Batch:	1137497
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	12/7/2021	Analytical Batch:	461982
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
n-Propylbenzene	1.6	10	ND		
Bromobenzene	1.8	10	ND		
1,1,2,2-Tetrachloroethane	1.9	10	ND		
2-Chlorotoluene	1.8	10	ND		
1,3,5-Trimethylbenzene	1.6	10	ND		
1,2,3-Trichloropropane	1.9	10	ND		
4-Chlorotoluene	1.6	10	ND		
tert-Butylbenzene	1.6	10	ND		
1,2,4-Trimethylbenzene	1.4	10	ND		
sec-Butyl Benzene	1.6	10	ND		
p-Isopropyltoluene	1.5	10	ND		
1,3-Dichlorobenzene	1.7	10	ND		
1,4-Dichlorobenzene	1.7	10	ND		
n-Butylbenzene	1.5	10	ND		
1,2-Dichlorobenzene	1.8	10	ND		
1,2-Dibromo-3-Chloropropane	1.8	10	ND		
Hexachlorobutadiene	1.4	10	ND		
1,2,4-Trichlorobenzene	1.5	10	2.6		
Naphthalene	1.7	10	4.7		
1,2,3-Trichlorobenzene	1.7	10	3.6		
2-Butanone	2.3	10	ND		
(S) Dibromofluoromethane			146		
(S) Toluene-d8			105		
(S) 4-Bromofluorobenzene			96.7		



## MB Summary Report

Work Order:	2112042	Prep Method:	5035	Prep Date:	12/07/21	Prep Batch:	1137497
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	12/7/2021	Analytical Batch:	461982
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	120	1000	ND		
Chloromethane	180	1000	ND		
Vinyl Chloride	200	1000	ND		
Bromomethane	270	1000	ND		
Chloroethane	300	1000	ND		
Trichlorofluoromethane	210	1000	ND		
1,1-Dichloroethene	200	1000	ND		
Freon 113	190	1000	ND		
Methylene Chloride	710	1000	ND		
trans-1,2-Dichloroethene	210	1000	ND		
MTBE	230	1000	ND		
TBA	1200	5000	ND		
Diisopropyl ether	230	1000	ND		
1,1-Dichloroethane	220	1000	ND		
Ethyl tert-Butyl ether	230	1000	ND		
cis-1,2-Dichloroethene	220	1000	ND		
2,2-Dichloropropane	190	1000	ND		
Bromochloromethane	230	1000	ND		
Chloroform	240	1000	ND		
Carbon Tetrachloride	210	1000	ND		
1,1,1-Trichloroethane	210	1000	ND		
1,1-Dichloropropene	200	1000	ND		
Benzene	220	1000	ND		
TAME	230	1000	ND		
1,2-Dichloroethane	230	1000	ND		
Trichloroethylene	180	1000	ND		
Dibromomethane	180	1000	ND		
1,2-Dichloropropane	190	1000	ND		
Bromodichloromethane	200	1000	ND		
cis-1,3-Dichloropropene	160	1000	ND		
Toluene	180	1000	ND		
Tetrachloroethene	170	1000	ND		
trans-1,3-Dichloropropene	160	1000	ND		
1,1,2-Trichloroethane	180	1000	ND		
Dibromochloromethane	190	1000	ND		
1,3-Dichloropropane	180	1000	ND		
1,2-Dibromoethane	180	1000	ND		
Chlorobenzene	180	1000	ND		
Ethylbenzene	170	1000	ND		
1,1,1,2-Tetrachloroethane	190	1000	ND		
m,p-Xylene	320	1000	ND		
o-Xylene	170	1000	ND		
Styrene	160	1000	ND		
Bromoform	170	1000	ND		
Isopropyl Benzene	160	1000	ND		



## MB Summary Report

Work Order:	2112042	Prep Method:	5035	Prep Date:	12/07/21	Prep Batch:	1137497
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	12/7/2021	Analytical Batch:	461982
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
n-Propylbenzene	160	1000	ND		

Bromobenzene	180	1000	ND
1,1,2,2-Tetrachloroethane	190	1000	ND
2-Chlorotoluene	180	1000	ND
1,3,5-Trimethylbenzene	160	1000	ND
1,2,3-Trichloropropane	190	1000	ND
4-Chlorotoluene	160	1000	ND
tert-Butylbenzene	160	1000	ND
1,2,4-Trimethylbenzene	140	1000	ND
sec-Butyl Benzene	160	1000	ND
p-Isopropyltoluene	150	1000	ND
1,3-Dichlorobenzene	170	1000	ND
1,4-Dichlorobenzene	170	1000	ND
n-Butylbenzene	150	1000	ND
1,2-Dichlorobenzene	180	1000	ND
1,2-Dibromo-3-Chloropropane	180	1000	ND
Hexachlorobutadiene	140	1000	ND
1,2,4-Trichlorobenzene	150	1000	250
Naphthalene	170	1000	470
1,2,3-Trichlorobenzene	170	1000	350
2-Butanone	230	1000	ND
(S) Dibromofluoromethane			137
(S) Toluene-d8			103
(S) 4-Bromofluorobenzene			93.0



## MB Summary Report

Work Order:	2112042	Prep Method:	5035	Prep Date:	12/07/21	Prep Batch:	1137504
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	12/7/2021	Analytical Batch:	461986
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	1.2	10	ND		
Chloromethane	1.8	10	ND		
Vinyl Chloride	2.0	10	ND		
Bromomethane	2.7	10	ND		
Chloroethane	3.0	10	ND		
Trichlorofluoromethane	2.1	10	ND		
1,1-Dichloroethene	2.0	10	ND		
Freon 113	1.9	10	ND		
Methylene Chloride	7.1	10	ND		
trans-1,2-Dichloroethene	2.1	10	ND		
MTBE	2.3	10	ND		
TBA	12	50	ND		
Diisopropyl ether	2.3	10	ND		
1,1-Dichloroethane	2.2	10	ND		
Ethyl tert-Butyl ether	2.3	10	ND		
cis-1,2-Dichloroethene	2.2	10	ND		
2,2-Dichloropropane	1.9	10	ND		
Bromochloromethane	2.3	10	ND		
Chloroform	2.4	10	ND		
Carbon Tetrachloride	2.1	10	ND		
1,1,1-Trichloroethane	2.1	10	ND		
1,1-Dichloropropene	2.0	10	ND		
Benzene	2.2	10	ND		
TAME	2.3	10	ND		
1,2-Dichloroethane	2.3	10	ND		
Trichloroethylene	1.8	10	ND		
Dibromomethane	1.8	10	ND		
1,2-Dichloropropane	1.9	10	ND		
Bromodichloromethane	2.0	10	ND		
cis-1,3-Dichloropropene	1.6	10	ND		
Toluene	1.8	10	ND		
Tetrachloroethene	1.7	10	ND		
trans-1,3-Dichloropropene	1.6	10	ND		
1,1,2-Trichloroethane	1.8	10	ND		
Dibromochloromethane	1.9	10	ND		
1,3-Dichloropropane	1.8	10	ND		
1,2-Dibromoethane	1.8	10	ND		
Chlorobenzene	1.8	10	ND		
Ethylbenzene	1.7	10	ND		
1,1,1,2-Tetrachloroethane	1.9	10	ND		
m,p-Xylene	3.2	10	ND		
o-Xylene	1.7	10	ND		
Styrene	1.6	10	ND		
Bromoform	1.7	10	ND		
Isopropyl Benzene	1.6	10	ND		



## MB Summary Report

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	12/07/21	<b>Prep Batch:</b>	1137504
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/7/2021	<b>Analytical Batch:</b>	461986
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
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n-Propylbenzene	1.6	10	ND	
Bromobenzene	1.8	10	ND	
1,1,2,2-Tetrachloroethane	1.9	10	ND	
2-Chlorotoluene	1.8	10	ND	
1,3,5-Trimethylbenzene	1.6	10	ND	
1,2,3-Trichloropropane	1.9	10	ND	
4-Chlorotoluene	1.6	10	ND	
tert-Butylbenzene	1.6	10	ND	
1,2,4-Trimethylbenzene	1.4	10	ND	
sec-Butyl Benzene	1.6	10	ND	
p-Isopropyltoluene	1.5	10	ND	
1,3-Dichlorobenzene	1.7	10	ND	
1,4-Dichlorobenzene	1.7	10	ND	
n-Butylbenzene	1.5	10	ND	
1,2-Dichlorobenzene	1.8	10	ND	
1,2-Dibromo-3-Chloropropane	1.8	10	ND	
Hexachlorobutadiene	1.4	10	ND	
1,2,4-Trichlorobenzene	1.5	10	ND	
Naphthalene	1.7	10	ND	
1,2,3-Trichlorobenzene	1.7	10	ND	
2-Butanone	2.3	10	ND	
MIBK	2.0	50	ND	
Hexachloroethane	5.0	10	ND	
1,4-Dioxane	100	200	ND	
2-Hexanone	5.0	20	ND	
Acetone	8.2	20	ND	
(S) Dibromofluoromethane			71.2	
(S) Toluene-d8			93.0	
(S) 4-Bromofluorobenzene			86.4	

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	5035GRO	<b>Prep Date:</b>	12/07/21	<b>Prep Batch:</b>	1137507
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/7/2021	<b>Analytical Batch:</b>	461986
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH as Gasoline	43	100	ND		
(S) 4-Bromofluorobenzene			86.6		



## MB Summary Report

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	5035GRO	<b>Prep Date:</b>	12/07/21	<b>Prep Batch:</b>	1137509
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/7/2021	<b>Analytical Batch:</b>	461982
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH as Gasoline (S) 4-Bromofluorobenzene	43	100	ND 57.3		

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	5035GRO	<b>Prep Date:</b>	12/07/21	<b>Prep Batch:</b>	1137509
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/7/2021	<b>Analytical Batch:</b>	461982
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH as Gasoline (S) 4-Bromofluorobenzene	4300	10000	ND 74.0		

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	7471BP	<b>Prep Date:</b>	12/07/21	<b>Prep Batch:</b>	1137514
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW7471B	<b>Analyzed Date:</b>	12/8/2021	<b>Analytical Batch:</b>	462021
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Mercury	0.083	0.50	ND		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

Work Order:	2112042	Prep Method:	3546_BNA	Prep Date:	12/03/21	Prep Batch:	1137399
Matrix:	Soil	Analytical Method:	SW8270C	Analyzed Date:	12/3/2021	Analytical Batch:	461897
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Phenol	43.8	288	ND	1600	82.2	80.1	3.08	40 - 100	30	
2-Chlorophenol	47.7	288	ND	1600	79.1	78.4	1.59	45 - 105	30	
Bis(2-chloroethyl)ether	14.6	144	ND	800	74.0	75.6	2.17	35 - 105	30	
N-nitroso-di-n-propylamine	13.2	144	ND	1600	87.3	84.2	3.64	40 - 115	30	
1,2,4-Trichlorobenzene	11.8	144	ND	800	74.9	76.3	1.82	45 - 110	30	
1,4-Dichlorobenzene	33.8	288	ND	1600	90.9	88.4	2.80	45 - 110	30	
Acenaphthene	10.7	144	ND	800	83.0	81.4	1.98	45 - 110	30	
4-Nitrophenol	54.7	720	ND	1600	98.3	95.9	2.58	15 - 140	30	
2,4-Dinitrotoluene	12.1	144	ND	800	94.3	93.4	0.933	50 - 115	30	
N-Methyl-2-Pyrrolidone (NMP)	12.0	144	ND	1600	81.7	82.7	0.760	25 - 120	30	
Pyrene	12.0	144		800	89.2	86.7	2.84	45 - 145	30	
2-Fluorophenol (S)				22200	86.2	83.9		25 - 121		
Phenol-d6 (S)				22200	89.8	85.2		24 - 113		
2,4,6-Tribromophenol (S)				22200	90.3	90.5		19 - 122		
2-Fluorobiphenyl (S)				11100	88.3	85.6		30 - 143		
Nitrobenzene-d5 (S)				11100	85.6	82.2		23 - 120		
p-Terphenyl-d14 (S)				11100	94.2	90.2		18 - 137		

Work Order:	2112042	Prep Method:	3546_PCB	Prep Date:	12/06/21	Prep Batch:	1137434
Matrix:	Soil	Analytical Method:	SW8082A	Analyzed Date:	12/6/2021	Analytical Batch:	461946
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Aroclor1016	53	100	ND	600	127	126	0.661	25 - 145	30	
Aroclor1260	36	100	ND	600	115	114	0.438	30 - 145	30	
TCMX (S)				0.10	107	106		48 - 125		
DCBP (S)				0.10	99.0	95.0		48 - 135		

Work Order:	2112042	Prep Method:	3546_PAHSIM	Prep Date:	12/06/21	Prep Batch:	1137435
Matrix:	Soil	Analytical Method:	SW8270C	Analyzed Date:	12/6/2021	Analytical Batch:	461945
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Acenaphthene	0.16	4.0	ND	200.0	74.5	80.8	8.36	45 - 125	30	
Pyrene	0.55	4.0	ND	200.0	86.3	86.7	0.000	45 - 125	30	
2-Fluorobiphenyl (S)				2778	85.3	93.6		45 - 125		
Acenaphthelene			ND	2778				30 - 125		



## LCS/LCSD Summary Report

Raw values are used in quality control assessment.

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	3546_OCP	<b>Prep Date:</b>	12/06/21	<b>Prep Batch:</b>	1137436
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8081B	<b>Analyzed Date:</b>	12/7/2021	<b>Analytical Batch:</b>	461969
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC (Lindane)	0.16	2.0	ND	40	95.5	94.4	1.05	25 - 135	30	
Heptachlor	0.11	2.0	ND	40	92.6	91.8	0.814	40 - 130	30	
Aldrin	0.20	2.0	ND	40	91.7	91.1	0.546	25 - 140	30	
Dieldrin	0.15	2.0	ND	40	89.8	90.2	0.556	60 - 130	30	
Endrin	0.19	2.0	ND	40	88.3	88.5	0.283	55 - 135	30	
4,4'-DDT	0.13	2.0	ND	40	92.5	94.1	1.61	45 - 140	30	
Tetrachloro-M-Xylene (S)				100	93.2	86.3		48 - 125		
Decachlorobiphenyl (S)				100	97.1	97.1		38 - 135		

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	3546_TPH	<b>Prep Date:</b>	12/07/21	<b>Prep Batch:</b>	1137438
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8015B	<b>Analyzed Date:</b>	12/7/2021	<b>Analytical Batch:</b>	461995
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.85	2.0	ND	25.0	64.4	68.9	6.90	52 - 115	30	
Pentacosane (S)				200	91.1	89.2		45 - 130		

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	12/06/21	<b>Prep Batch:</b>	1137458
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/6/2021	<b>Analytical Batch:</b>	461948
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	2.0	10	ND	50.0	75.2	72.3	4.07	53.7 - 139	30	
Benzene	2.2	10	ND	50.0	89.7	86.4	3.86	66.5 - 135	30	
Trichloroethylene	1.8	10	ND	50.0	103	101	2.16	57.5 - 150	30	
Toluene	1.8	10	ND	50.0	105	101	3.68	56.8 - 134	30	
Chlorobenzene	1.8	10	ND	50.0	105	99.5	5.09	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	79.4	80.3		59.8 - 148		
(S) Toluene-d8				50.0	110	105		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	95.5	90.5		55.8 - 141		



## LCS/LCSD Summary Report

Raw values are used in quality control assessment.

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	12/06/21	<b>Prep Batch:</b>	1137458
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/6/2021	<b>Analytical Batch:</b>	461948
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
MTBE	2.34	10.0		50.0	79.5	79.0	0.505	70 - 130	30	
Benzene	2.2	10		50.0	89.7	86.4	3.86	66.5 - 135	30	
Ethylbenzene	1.65	10.0		50.0	101	98.2	3.21	70 - 130	30	
Toluene	1.82	10		50.0	105	101	3.68	56.8 - 134	30	
m,p-Xylene	3.16	10.0		100	102	98.4	3.59	70 - 130	30	
o-Xylene	1.73	10.0		50.0	102	97.6	4.41	70 - 130	30	
(S) Dibromofluoromethane				50.0	79.4	80.3		59.8 - 148		
(S) Toluene-d8				50.0	110	105		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	95.5	90.5		55.8 - 141		

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	5035GRO	<b>Prep Date:</b>	12/06/21	<b>Prep Batch:</b>	1137459
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/6/2021	<b>Analytical Batch:</b>	461948
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	ND	1000	82.2	89.2	8.17	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	87.6	78.0		43.9 - 127		

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	3510_TPH	<b>Prep Date:</b>	12/07/21	<b>Prep Batch:</b>	1137462
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW8015B	<b>Analyzed Date:</b>	12/7/2021	<b>Analytical Batch:</b>	461985
<b>Units:</b>	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.037	0.10	0.0438	1.0	89.2	88.8	0.449	52 - 115	30	
Pentacosane (S)				200	101	98.5		59 - 129		

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	12/06/21	<b>Prep Batch:</b>	1137465
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/6/2021	<b>Analytical Batch:</b>	461955
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	2.0	10	ND	50.0	121	112	7.92	53.7 - 139	30	
Benzene	2.2	10	ND	50.0	135	127	6.25	66.5 - 135	30	
Trichloroethylene	1.8	10	ND	50.0	103	90.8	12.2	57.5 - 150	30	
Toluene	1.8	10	ND	50.0	112	103	8.94	56.8 - 134	30	
Chlorobenzene	1.8	10	ND	50.0	109	99.5	9.40	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	122	114		59.8 - 148		
(S) Toluene-d8				50.0	121	110		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	114	107		55.8 - 141		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

Work Order:	2112042	Prep Method:	5035GRO	Prep Date:	12/06/21	Prep Batch:	1137467
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	12/6/2021	Analytical Batch:	461955
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	ND	1000	118	80.3	38.0	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	105	81.0		43.9 - 127		

Work Order:	2112042	Prep Method:	5030VOC	Prep Date:	12/06/21	Prep Batch:	1137477
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	12/6/2021	Analytical Batch:	461968
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.14	0.50	ND	17.9	84.5	93.4	10.1	61.4 - 129	30	
Benzene	0.16	0.50	ND	17.9	90.7	100	9.97	66.9 - 140	30	
Trichloroethylene	0.15	0.50	ND	17.9	107	115	7.07	69.3 - 144	30	
Toluene	0.14	0.50	ND	17.9	108	122	12.1	76.6 - 123	30	
Chlorobenzene	0.16	0.50	ND	17.9	105	116	9.67	73.9 - 137	30	
(S) Dibromofluoromethane				17.9	102	111		61.2 - 131		
(S) Toluene-d8				17.9	111	120		75.1 - 127		
(S) 4-Bromofluorobenzene				17.9	85.3	100		64.1 - 120		

Work Order:	2112042	Prep Method:	5030GRO	Prep Date:	12/06/21	Prep Batch:	1137480
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	12/7/2021	Analytical Batch:	461968
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH(Gasoline)	29	50	ND	238	101	88.9	12.4	52.4 - 127	30	
(S) 4-Bromofluorobenzene				11.9	88.3	82.9		41.5 - 125		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

Work Order:	2112042	Prep Method:	6020S-P	Prep Date:	12/07/21	Prep Batch:	1137483
Matrix:	Soil	Analytical Method:	6020A	Analyzed Date:	12/7/2021	Analytical Batch:	461993
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Antimony	0.12	1.0	ND	25	93.4	91.2	2.17	80 - 120	30	
Arsenic	0.21	1.0	ND	25	92.4	89.6	3.08	80 - 120	30	
Barium	0.84	1.0	ND	25	93.2	91.4	2.17	80 - 120	30	
Beryllium	0.16	1.0	ND	25	105	103	2.31	80 - 120	30	
Cadmium	0.084	1.0	ND	25	97.9	95.2	2.90	80 - 120	30	
Chromium	0.097	1.0	ND	25	97.3	95.2	2.08	80 - 120	30	
Cobalt	0.21	1.0	ND	25	96.5	94.1	2.52	80 - 120	30	
Copper	0.17	2.5	1.0	25	94.2	91.2	3.45	80 - 120	30	
Lead	0.054	1.0	ND	25	99.7	96.2	3.27	80 - 120	30	
Molybdenum	0.13	1.0	ND	25	92.9	93.2	0.430	80 - 120	30	
Nickel	1.2	5.0	ND	25	91.3	88.6	3.12	80 - 120	30	
Selenium	0.035	2.5	ND	25	93.3	91.2	2.17	80 - 120	30	
Silver	0.098	1.0	ND	25	98.1	96.5	1.65	80 - 120	30	
Thallium	1.00	5.0	ND	25	98.6	98.8	0.000	80 - 120	30	
Vanadium	0.28	25	ND	25	97.1	94.8	2.50	80 - 120	30	
Zinc	0.70	2.5	ND	25	91.8	89.6	2.64	80 - 120	30	

Work Order:	2112042	Prep Method:	5035	Prep Date:	12/07/21	Prep Batch:	1137497
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	12/7/2021	Analytical Batch:	461982
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	2.0	10	ND	50.0	104	98.1	5.74	53.7 - 139	30	
Benzene	2.2	10	ND	50.0	120	115	3.92	66.5 - 135	30	
Trichloroethylene	1.8	10	ND	50.0	106	94.8	11.5	57.5 - 150	30	
Toluene	1.8	10	ND	50.0	108	96.8	10.8	56.8 - 134	30	
Chlorobenzene	1.8	10	ND	50.0	110	102	8.11	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	121	121		59.8 - 148		
(S) Toluene-d8				50.0	119	103		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	97.3	91.8		55.8 - 141		



## LCS/LCSD Summary Report

Raw values are used in quality control assessment.

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	12/07/21	<b>Prep Batch:</b>	1137504
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/7/2021	<b>Analytical Batch:</b>	461986
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	2.0	10	ND	50.0	81.8	80.2	1.98	53.7 - 139	30	
Benzene	2.2	10	ND	50.0	102	103	0.585	66.5 - 135	30	
Trichloroethylene	1.8	10	ND	50.0	112	110	2.52	57.5 - 150	30	
Toluene	1.8	10	ND	50.0	117	112	4.35	56.8 - 134	30	
Chlorobenzene	1.8	10	ND	50.0	118	115	2.58	57.4 - 134	30	
(S) Dibromofluoromethane				50.0	94.1	96.1		59.8 - 148		
(S) Toluene-d8				50.0	122	116		55.2 - 133		
(S) 4-Bromofluorobenzene				50.0	109	105		55.8 - 141		

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	5035GRO	<b>Prep Date:</b>	12/07/21	<b>Prep Batch:</b>	1137507
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/7/2021	<b>Analytical Batch:</b>	461986
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	ND	1000	96.0	80.4	17.7	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	88.5	61.1		43.9 - 127		

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	5035GRO	<b>Prep Date:</b>	12/07/21	<b>Prep Batch:</b>	1137509
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	12/8/2021	<b>Analytical Batch:</b>	461982
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	43	100	ND	1000	92.7	94.9	2.35	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	78.3	76.3		43.9 - 127		

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	7471BP	<b>Prep Date:</b>	12/07/21	<b>Prep Batch:</b>	1137514
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW7471B	<b>Analyzed Date:</b>	12/8/2021	<b>Analytical Batch:</b>	462021
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Mercury	0.047	0.50	ND	1.25	104	100	4.69	80 - 120	30	



## MS/MSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	3546_PAHSIM	<b>Prep Date:</b>	12/06/21	<b>Prep Batch:</b>	1137435
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8270C	<b>Analyzed Date:</b>	12/6/2021	<b>Analytical Batch:</b>	461945
<b>Spiked Sample:</b>	2112042-017A						
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Acenaphthene	1.62	39.6	ND	200.0	0.000	0.000	13.4	45 - 125	30	D
Pyrene	5.49	39.6	1100	200.0	0.000	0.000	1.94	45 - 125	30	D
2-Fluorobiphenyl (S)				2778	84.5	0.000	200	45 - 125		D
p-Terphenyl-d14 (S)				2778	0.000	0.000		30 - 125		D

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	3546_OCP	<b>Prep Date:</b>	12/06/21	<b>Prep Batch:</b>	1137436
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8081B	<b>Analyzed Date:</b>	12/7/2021	<b>Analytical Batch:</b>	461969
<b>Spiked Sample:</b>	2112042-015A						
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC (Lindane)	0.477	6.00	ND	40	71.4	77.1	7.87	25 - 135	30	
Heptachlor	0.315	6.00	ND	40	73.0	78.2	6.66	40 - 130	30	
Aldrin	0.585	6.00	ND	40	70.4	75.5	7.29	25 - 140	30	
Dieldrin	0.444	6.00	ND	40	67.8	72.8	7.04	60 - 130	30	
Endrin	0.564	6.00	ND	40	73.3	78.2	6.25	55 - 135	30	
4,4'-DDT	0.387	6.00	ND	40	71.2	75.8	6.23	45 - 140	30	
Tetrachloro-M-Xylene (S)				100	76.3	76.7		48 - 125		
Decachlorobiphenyl (S)				100	80.5	76.8		38 - 135		

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	3546_TPH	<b>Prep Date:</b>	12/07/21	<b>Prep Batch:</b>	1137438
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8015B	<b>Analyzed Date:</b>	12/7/2021	<b>Analytical Batch:</b>	461995
<b>Spiked Sample:</b>	2112042-015A						
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.850	2.00	ND	25.0	62.0	68.3	9.17	52 - 115	30	
Pentacosane (S)				200	80.5	80.9		45 - 130		



## MS/MSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	6020S-P	<b>Prep Date:</b>	12/07/21	<b>Prep Batch:</b>	1137483
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	6020A	<b>Analyzed Date:</b>	12/7/2021	<b>Analytical Batch:</b>	461993
<b>Spiked Sample:</b>	2112042-001A						
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Antimony	0.12	1.0	ND	25	65.2	65.9	0.604	30.7 - 130	33	
Arsenic	0.21	1.0	3.12	25	93.7	98.0	4.07	71.0 - 121	33	
Barium	0.84	1.0	76.2	25	126	158	7.14	70.2 - 130	33	S
Beryllium	0.16	1.0	ND	25	100	101	1.18	73.3 - 125	33	
Cadmium	0.084	1.0	ND	25	95.9	97.2	1.22	88.7 - 110	33	
Chromium	0.097	1.0	60.7	25	124	124	0.109	76.0 - 116	33	S
Cobalt	0.21	1.0	12.0	25	92.5	89.5	2.01	57.4 - 122	33	
Copper	0.17	2.5	24.8	25	97.1	112	7.07	74.8 - 119	33	
Lead	0.054	1.0	35.0	25	86.7	103	6.98	57.9 - 118	33	
Molybdenum	0.13	1.0	ND	25	90.0	89.4	0.881	62.9 - 123	33	
Nickel	1.2	5.0	102	25	0	0	6.69	61.5 - 122	33	NR
Selenium	0.035	2.5	ND	25	86.3	85.8	0.449	62.0 - 111	33	
Silver	0.098	1.0	ND	25	65.6	66.8	1.18	81.1 - 109	33	S
Thallium	1.00	5.0	ND	25	96.2	98.2	2.05	39.2 - 125	33	
Vanadium	0.28	25	ND	25	108	119	5.25	65.8 - 122	33	
Zinc	0.70	2.5	61.0	25	109	138	7.73	59.9 - 122	33	S

<b>Work Order:</b>	2112042	<b>Prep Method:</b>	7471BP	<b>Prep Date:</b>	12/07/21	<b>Prep Batch:</b>	1137514
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW7471B	<b>Analyzed Date:</b>	12/8/2021	<b>Analytical Batch:</b>	462021
<b>Spiked Sample:</b>	2112042-001A						
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Mercury	0.047	0.50	1.00	1.25	62.0	79.3	11.1	75 - 125	30	S



## Laboratory Qualifiers and Definitions

### DEFINITIONS:

<b>Accuracy/Bias (% Recovery)</b> - The closeness of agreement between an observed value and an accepted reference value.
<b>Blank (Method/Preparation Blank)</b> -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
<b>Duplicate</b> - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
<b>Laboratory Control Sample (LCS ad LCSD)</b> - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
<b>Matrix</b> - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
<b>Matrix Spike (MS/MSD)</b> - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
<b>Method Detection Limit (MDL)</b> - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
<b>Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ)</b> - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RRLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
<b>Precision (%RPD)</b> - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
<b>Surrogate (S) or (Surr)</b> - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
<b>Tentatively Identified Compound (TIC)</b> - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
<b>Units:</b> the unit of measure used to express the reported result - <b>mg/L</b> and <b>mg/Kg</b> (equivalent to PPM - parts per million in <b>liquid</b> and <b>solid</b> ), <b>ug/L</b> and <b>ug/Kg</b> (equivalent to PPB - parts per billion in <b>liquid</b> and <b>solid</b> ), <b>ug/m3</b> , <b>mg/m3</b> , <b>ppbv</b> and <b>ppmv</b> (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), <b>ug/Wipe</b> (concentration found on the surface of a single Wipe usually taken over a 100cm <sup>2</sup> surface)

### LABORATORY QUALIFIERS:

<b>B</b> - Indicates when the analyte is found in the associated method or preparation blank
<b>D</b> - Surrogate is not recoverable due to the necessary dilution of the sample
<b>E</b> - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
<b>H</b> - Indicates that the recommended holding time for the analyte or compound has been exceeded
<b>J</b> - Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather than quantitative
<b>NA</b> - Not Analyzed
<b>N/A</b> - Not Applicable
<b>ND</b> - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
<b>NR</b> - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
<b>R</b> - The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
<b>S</b> - Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
<b>X</b> -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.



## Sample Receipt Checklist

Client Name: AEI Consultants

Date and Time Received: 12/3/2021 6:00:00PM

Project Name:

Received By: hh

Work Order No.: 2112042

Physically Logged By: Lorna Imbat

Checklist Completed By: Lorna Imbat

Carrier Name: Client Drop Off

### Chain of Custody (COC) Information

Chain of custody present? Yes

Chain of custody signed when relinquished and received? Yes

Chain of custody agrees with sample labels? Yes

Custody seals intact on sample bottles? Not Present

### Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present

Shipping Container/Cooler In Good Condition? Yes

Samples in proper container/bottle? Yes

Samples containers intact? Yes

Sufficient sample volume for indicated test? Yes

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes

Container/Temp Blank temperature in compliance? No Temperature: 7.0 °C

Water-VOA vials have zero headspace?

Water-pH acceptable upon receipt? Yes

pH Checked by: Lorna Imbat pH Adjusted by: n/a

### Comments:



## Login Summary Report

<b>Client ID:</b>	TL5781	AEI Consultants	<b>QC Level:</b>	II
<b>Project Name:</b>			<b>TAT Requested:</b>	3 Day Std:3
<b>Project #:</b>	452498		<b>Date Received:</b>	12/3/2021
<b>Report Due Date:</b>	12/8/2021		<b>Time Received:</b>	6:00 pm
<b>Comments:</b>				
<b>Work Order # :</b>	<b>2112042</b>			
<b>WO Sample ID</b>	<b>Client Sample ID</b>	<b>Collection Date/Time</b>	<b>Matrix</b>	<b>Scheduled Disposal</b>
2112042-001A	SB-10-1	12/03/21 9:14	Soil	06/01/22
				Sub_Asb CARB435 A Yes Pest_S_8081OCP TPHDO_S_8015(Mod ) PCBs_S_8082A Hg_S_7471B Met_S_6020CAM17 PAHSIM_S_8270 C SVO_S_8270CFull
2112042-001B	SB-10-1	12/03/21 9:14	Soil	06/01/22
				EN_VOC_8260B VOC_S_GRO
2112042-002A	SB-10-3	12/03/21 9:16	Soil	06/01/22
				Hold Samples
2112042-003A	SB-10-5	12/03/21 9:18	Soil	06/01/22
				Hold Samples
2112042-004A	SB-10-8	12/03/21 9:20	Soil	06/01/22
				PAHSIM_S_8270 C Hg_S_7471B Met_S_6020CAM17
2112042-004B	SB-10-8	12/03/21 9:20	Soil	06/01/22
				Hold Samples
2112042-005A	SB-10-12	12/03/21 9:22	Soil	06/01/22
				TPHDO_S_8015(Mod ) VOC_S_8260B VOC_S_GRO
2112042-006A	SB-12-1	12/03/21 13:54	Soil	06/01/22
				PAHSIM_S_8270 C Pest_S_8081OCP TPHDO_S_8015(Mod ) Hg_S_7471B Met_S_6020CAM17
2112042-006B	SB-12-1	12/03/21 13:54	Soil	06/01/22
				VOC_S_GRO EN_VOC_8260B
2112042-007A	SB-12-3	12/03/21 13:56	Soil	06/01/22
				Hold Samples
2112042-008A	SB-12-8	12/03/21 13:08	Soil	06/01/22
				Met_S_6020CAM17



## Login Summary Report

<b>Client ID:</b>	TL5781	AEI Consultants			<b>QC Level:</b>	II		
<b>Project Name:</b>				<b>TAT Requested:</b>	3 Day Std:3			
<b>Project #:</b>	452498			<b>Date Received:</b>	12/3/2021			
<b>Report Due Date:</b>	12/8/2021			<b>Time Received:</b>	6:00 pm			
<b>Comments:</b>								
<b>Work Order # :</b>	<b>2112042</b>							
<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
2112042-008B	SB-12-8	12/03/21 13:08	Soil	06/01/22			TPHDO_S_8015(Mod ) Hg_S_7471B	
2112042-009A	SB-12-12	12/03/21 14:00	Soil	06/01/22			EN_VOC_8260B VOC_S_GRO	
2112042-010A	SB-13-1	12/03/21 11:00	Soil	06/01/22			Hold Samples	
2112042-010B	SB-13-1	12/03/21 11:00	Soil	06/01/22			PAHSIM_S_8270 C Pest_S_8081OCP TPHDO_S_8015(Mod ) Hg_S_7471B Met_S_6020CAM17	
2112042-011A	SB-13-3	12/03/21 11:02	Soil	06/01/22			EN_VOC_8260B VOC_S_GRO	
2112042-012A	SB-13-5	12/03/21 11:04	Soil	06/01/22			Hold Samples	
2112042-013A	SB-13-8	12/03/21 11:06	Soil	06/01/22			Met_S_6020CAM17 Hg_S_7471B	
2112042-014A	SB-13-12	12/03/21 11:08	Soil	06/01/22			VOC_S_8260B VOC_S_GRO TPHDO_S_8015(Mod )	
2112042-015A	SB-14-1	12/03/21 12:00	Soil	06/01/22			Hold Samples	
2112042-015B	SB-14-1	12/03/21 12:00	Soil	06/01/22			Sub_Asb CARB435 A Yes Pest_S_8081OCP TPHDO_S_8015(Mod ) PCBs_S_8082A Hg_S_7471B Met_S_6020CAM17 PAHSIM_S_8270 C SVO_S_8270CFull VOC_S_GRO	



## Login Summary Report

<b>Client ID:</b>	TL5781	AEI Consultants			<b>QC Level:</b>	II		
<b>Project Name:</b>				<b>TAT Requested:</b>	3 Day Std:3			
<b>Project # :</b>	452498			<b>Date Received:</b>	12/3/2021			
<b>Report Due Date:</b>	12/8/2021			<b>Time Received:</b>	6:00 pm			
<b>Comments:</b>								
<b>Work Order # :</b>	<b>2112042</b>							
<b>WO Sample ID</b>	<b>Client Sample ID</b>	<b>Collection Date/Time</b>	<b>Matrix</b>	<b>Scheduled Disposal</b>	<b>Sample On Hold</b>	<b>Test On Hold</b>	<b>Requested Tests</b>	<b>Subbed</b>
2112042-016A	SB-14-3	12/03/21 12:02	Soil	06/01/22			EN_VOC_8260B	
2112042-017A	SB-14-5	12/03/21 12:04	Soil	06/01/22			Hold Samples	
2112042-018A	SB-14-8	12/03/21 12:06	Soil	06/01/22			VOC_S_8260B VOC_S_GRO TPHDO_S_8015(Mod ) Hg_S_7471B Met_S_6020CAM17 PAHSIM_S_8270 C	
2112042-018B	SB-14-8	12/03/21 12:06	Soil	06/01/22			Hold Samples	
2112042-019A	SB-14-12	12/03/21 12:20	Soil	06/01/22			Hold Samples	
2112042-020A	SB-15-1	12/03/21 14:28	Soil	06/01/22			VOC_S_GRO TPHDO_S_8015(Mod ) VOC_S_8260B	
2112042-020B	SB-15-1	12/03/21 14:28	Soil	06/01/22			Met_S_6020CAM17 Hg_S_7471B	
2112042-021A	SB-15-3	12/03/21 14:30	Soil	06/01/22			Hold Samples	
2112042-022A	SB-15-8	12/03/21 14:32	Soil	06/01/22			Hold Samples	
2112042-023A	SB-15-12	12/03/21 14:34	Soil	06/01/22			VOC_S_GRO TPHDO_S_8015(Mod ) VOC_S_8260B	
2112042-024A	SB-10-W	12/03/21 14:15	Water	06/01/22			Hold Samples	
2112042-024B	SB-10-W	12/03/21 14:15	Water	06/01/22			TPHDO_W_8015B(M)	
2112042-025A	SB-13-W	12/03/21 13:45	Water	01/17/22			VOC_W_GRO VOC_W_8260B	
2112042-025B	SB-13-W	12/03/21 13:45	Water	01/17/22			TPHDO_W_8015B(M)	



## Login Summary Report

<b>Client ID:</b>	TL5781	AEI Consultants	<b>QC Level:</b>	II				
<b>Project Name:</b>			<b>TAT Requested:</b>	3 Day Std:3				
<b>Project #:</b>	452498		<b>Date Received:</b>	12/3/2021				
<b>Report Due Date:</b>	12/8/2021		<b>Time Received:</b>	6:00 pm				
<b>Comments:</b>								
<b>Work Order # :</b>	<b>2112042</b>							
<b>WO Sample ID</b>	<b>Client Sample ID</b>	<b>Collection Date/Time</b>	<b>Matrix</b>	<b>Scheduled Disposal</b>	<b>Sample On Hold</b>	<b>Test On Hold</b>	<b>Requested Tests</b>	<b>Subbed</b>
2112042-026A	SB-15-W	12/03/21 15:15	Water	01/17/22			VOC_W_GRO VOC_W_8260B	
2112042-026B	SB-15-W	12/03/21 15:15	Water	01/17/22			TPHDO_W_8015B(M)	
							VOC_W_GRO VOC_W_8260B	



483 Sinclair Frontage Road  
Milpitas, CA 95035  
Phone: 408.263.5258  
FAX: 408.263.8293  
www.torrentlab.com

## CHAIN OF CUSTODY

• NOTE: SHADeD AREAS ARE FOR TORRENT LAB USE ONLY.

LAB WORK ORDER NO

2112042

Company Name: AEI Consultants			<input type="checkbox"/>	<input checked="" type="checkbox"/> Env.	<input type="checkbox"/> Special	Project #: 452498	PO#:
Address: 2500 Camino Diablo						Project Name:	
City: Walnut Creek	State: CA	Zip Code: 95497				Comments: cc: rmissel@aeiconsultants.com	
Telephone: (949) 939-5523	Cell: (949) 939-5523					SAMPLER: Ryan Missel	
REPORT TO: Neill Butcher	BILL TO: AEI Consultants					EMAIL: nbutcher@aeiconsultants.com	

TURNAROUND TIME:

- 10 Work Days  4 Work Days  1 Work Day  
 7 Work Days  3 Work Days  Noon - Nxt Day  
 5 Work Days  2 Work Days  2-8 Hours

SAMPLE TYPE:

- Storm Water  Air  
 Waste Water  Wipe  
 Ground Water  Other  
 Soil  Product / Bulk

REPORT FORMAT:

- Level II - Std.  
 Excel - EDD  
 EDF  Std-EDD  
 QC Level III  
 QC Level IV

TPH multi-range 8015M

VOCs 8260B (w/ fuel oxygenates for water)

C/AM 17 Metals  
6020/7471

SVOCs 8270C

PAHs 8270C SIM

PCBs 8094+

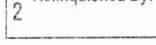
OCPs 8892

Asbestos CARB 435

Lead

ANALYSIS REQUESTED

LAB ID	CANISTER I.D.	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	REMARKS
-001A	SB-10-1	12/13/21/914		Soil	2		X X X X X X X X
-002A	SB-10-3	12/13/21/916			1	liver	X
-003A	SB-10-5	12/13/21/918			1		X
-004A	SB-10-8	12/13/21/920			2		X X
-005A	SB-10-12	12/13/21/922			1	liver	X X
-006A	SB-12-1	12/13/21/1354			2		X X X X X X
-007A	SB-12-3	12/13/21/1356			1	liver	X
-008A	SB-12-40	12/13/21/1358			2		X X X
-009A	SB-12-12	12/13/21/1400			1	liver	X
-010A	SB-13-1	12/13/21/1100			2		X X X X X X

1 Relinquished By:  Print: Ryan Missel	Date: 12/3/2021	Time: 10:00	Received By:  Print: Helenely	Date: 12/3/21	Time: 10:00
2 Relinquished By:  Print: _____	Date: _____	Time: _____	Received By:  Print: _____	Date: _____	Time: _____

Were Samples Received in Good Condition?  Yes  No Samples on Ice?  Yes  No Method of Shipment  DHL Sample seals intact?  Yes  No  N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Log In By: \_\_\_\_\_ Date: \_\_\_\_\_ Labeled By: \_\_\_\_\_ Date: \_\_\_\_\_

Temp 7 #2 °C

Page 1 of Rev. 3



483 Sinclair Frontage Road  
Milpitas, CA 95035  
Phone: 408.263.5258  
FAX: 408.263.8293  
www.torrentlab.com

## CHAIN OF CUSTODY

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY.

LAB WORK ORDER NO

2112042

Company Name: AEI Consultants		<input type="checkbox"/>	<input checked="" type="checkbox"/> Env.	<input type="checkbox"/> Special	Project #: 452498	PO#:
Address: 2500 Camino Diablo					Project Name:	
City: Walnut Creek	State: CA	Zip Code: 95497			Comments: cc: rmissel@aeiconsultants.com	
Telephone: (949) 939-5523	Cell: (949) 939-5523				SAMPLER: Ryan Missel	
REPORT TO: Neill Butcher	BILL TO: AEI Consultants					EMAIL: nbutter@aeiconsultants.com

TURNAROUND TIME:

- 10 Work Days  4 Work Days  1 Work Day  
 7 Work Days  3 Work Days  Noon - Nxt Day  
 5 Work Days  2 Work Days  2-8 Hours

SAMPLE TYPE:

- Storm Water  Air  
 Waste Water  Wipe  
 Ground Water  Other  
 Soil  Product / Bulk

REPORT FORMAT:

- Level II - Std.  
 Excel - EDD  
 EDF  Std.-EDD  
 QC Level III  
 QC Level IV

TPH multi-range 8015M

VOCs 8260B (w/ fuel oxygenates for water)

CAM 17 Metals  
6020/7471

SVOCs 8270C

PAHs 8270C SIM

PCBs 8094+

OCPs 8892

Asbestos CARB 435

ANALYSIS REQUESTED

LAB ID	CANISTER I.D.	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	REMARKS
-011A	58-13-3	12/3/21/110X	A501		1	line	X
-012A	58-13-5	12/3/21/1104			1		X
-013A	58-13-8	12/3/21/1106			1		XX
-014A	58-13-12	12/3/21/1108			1		
-015A	58-14-1	12/3/21/1200		2		XX X X X X X X X X	
-016A	58-14-3	12/3/21/1202		1	line		X
-017A	58-14-5	12/3/21/1204		1	1	XX X X X	
-018A	58-14-8	12/3/21/1206		2			X
-019A	58-14-12	12/3/21/1208		1	line	XX	
-020A	58-15-1	12/3/21/1400		2		X	

1 Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:
1	Ryan Missel	12/3/2021	1800			12/3/21	1800

2 Relinquished By: Print: Date: Time: Received By: Print: Date: Time: Sample seals intact?  Yes  No  N/A

Were Samples Received in Good Condition?  Yes  No Samples on Ice?  Yes  No Method of Shipment

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Log In By: \_\_\_\_\_ Date: \_\_\_\_\_ Labeled By: \_\_\_\_\_ Date: \_\_\_\_\_

Temp 7 °C

Page 1 of 3 Rev. 3



483 Sinclair Frontage Road  
Milpitas, CA 95035  
Phone: 408.263.5258  
FAX: 408.263.8293  
www.torrentlab.com

## CHAIN OF CUSTODY

• NOTE: SHADeD AREAS ARE FOR TORRENT LAB USE ONLY.

LAB WORK ORDER NO

2112042

Company Name: AEI Consultants		<input type="checkbox"/>	<input checked="" type="checkbox"/> Env. <input type="checkbox"/> Special	Project #: 452498	PO#:
Address: 2500 Camino Diablo			Project Name:		
City: Walnut Creek	State: CA	Zip Code: 95497	Comments: cc: rmissel@aeiconsultants.com		
Telephone: (949) 939-5523	Cell: (949) 939-5523		SAMPLER: Ryan Missel		
REPORT TO: Neill Butcher	BILL TO: AEI Consultants		EMAIL: nbutcher@aeiconsultants.com		

TURNAROUND TIME:

- 10 Work Days  4 Work Days  1 Work Day  
 7 Work Days  3 Work Days  Noon - Nxt Day  
 5 Work Days  2 Work Days  2 - 8 Hours

SAMPLE TYPE:

- Storm Water  Air  
 Waste Water  Wipe  
 Ground Water  Other  
 Soil  Product / Bulk

REPORT FORMAT:

- Level II - Std.  
 Excel - EDD  
 EDF  Std.-EDD  
 QC Level III  
 QC Level IV

TPH multi-range 8015M

VOCs 8260B (w/ fuel oxygenates for water)

CAM17 Metals  
6020/7471

SVOCs 8270C

PAHs 8270C SIM

PCBs 8081

OCPs 8082

Asbestos CARB 435

101d

ANALYSIS REQUESTED

LAB ID	CANISTER I.D.	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	REMARKS
-021A	58-15-3	12/13/21 / 1430	501	1	1	env	X
-022A	58-15-8	12/13/21 / 1432		1	1	X X	
-023A	58-15-12	12/13/21 / 1434		1	1		X
-024A	58-10-W	12/13/21 / 1415	GW	4	various	X X	
w/o sample	58-12-W	12/13/21 / 1620		1	1	X X	
-025A	58-13-W	12/13/21 / 1545		1	1	X X	
-026	58-15-W	12/13/21 / 1515		1	1	X X	

1 Relinquished By:	Print: Ryan Missel	Date: 12/3/2021	Time: 1800	Received By:	Print: <i>Ryan Missel</i>	Date: 12/3/21	Time: 1800
2 Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition?  Yes  NO Samples on Ice?  Yes  NO Method of Shipment *26* Sample seals intact?  Yes  NO  N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Log In By: \_\_\_\_\_ Date: \_\_\_\_\_ Labeled By: \_\_\_\_\_ Date: \_\_\_\_\_

Temp *7* °C

Page *3* of *3* Rev. 3



# EMSL Analytical, Inc.

464 McCormick Street San Leandro, CA 94577  
Phone/Fax: (510) 895-3675 / (510) 895-3680  
<http://www.EMSL.com> / [sanleandrolab@emsl.com](mailto:sanleandrolab@emsl.com)

EMSL Order: 092119697  
Customer ID: TORR80  
Customer PO: 2112042  
Project ID:

Attention: Kathie Evans  
Torrent Laboratory, Inc.  
483 Sinclair Frontage Rd.  
Milpitas, CA 95035

Phone: (408) 263-5258  
Fax: (408) 263-8293  
Received: 12/08/2021 11:00 AM  
Analysis Date: 12/15/2021  
Collected: 12/03/2021

Project: 2112042

## Test Report: PLM Analysis of Bulk Samples for Asbestos via EPA 600/R-93/116 Method with CARB 435 Prep (Milling) Level A for 0.25% Target Analytical Sensitivity

Sample	Description	Appearance	% Fibrous	Non-Asbestos	Asbestos
					% Type
2112042-001A 092119697-0001		Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2112042-015A 092119697-0002		Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Kevin Lares (2)

Cecilia Yu, Laboratory Manager  
or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. EMSL suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM.

Samples analyzed by EMSL Analytical, Inc San Leandro, CA

Initial report from: 12/15/2021 08:55:55

ASB\_PLMPC\_0006\_0003 Printed 12/15/2021 8:56:03AM

Page 1 of 1

December 09, 2021

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc**AEI Consultants - CA**

Sample Delivery Group: L1438492

Samples Received: 12/06/2021

Project Number: 452498

Description:

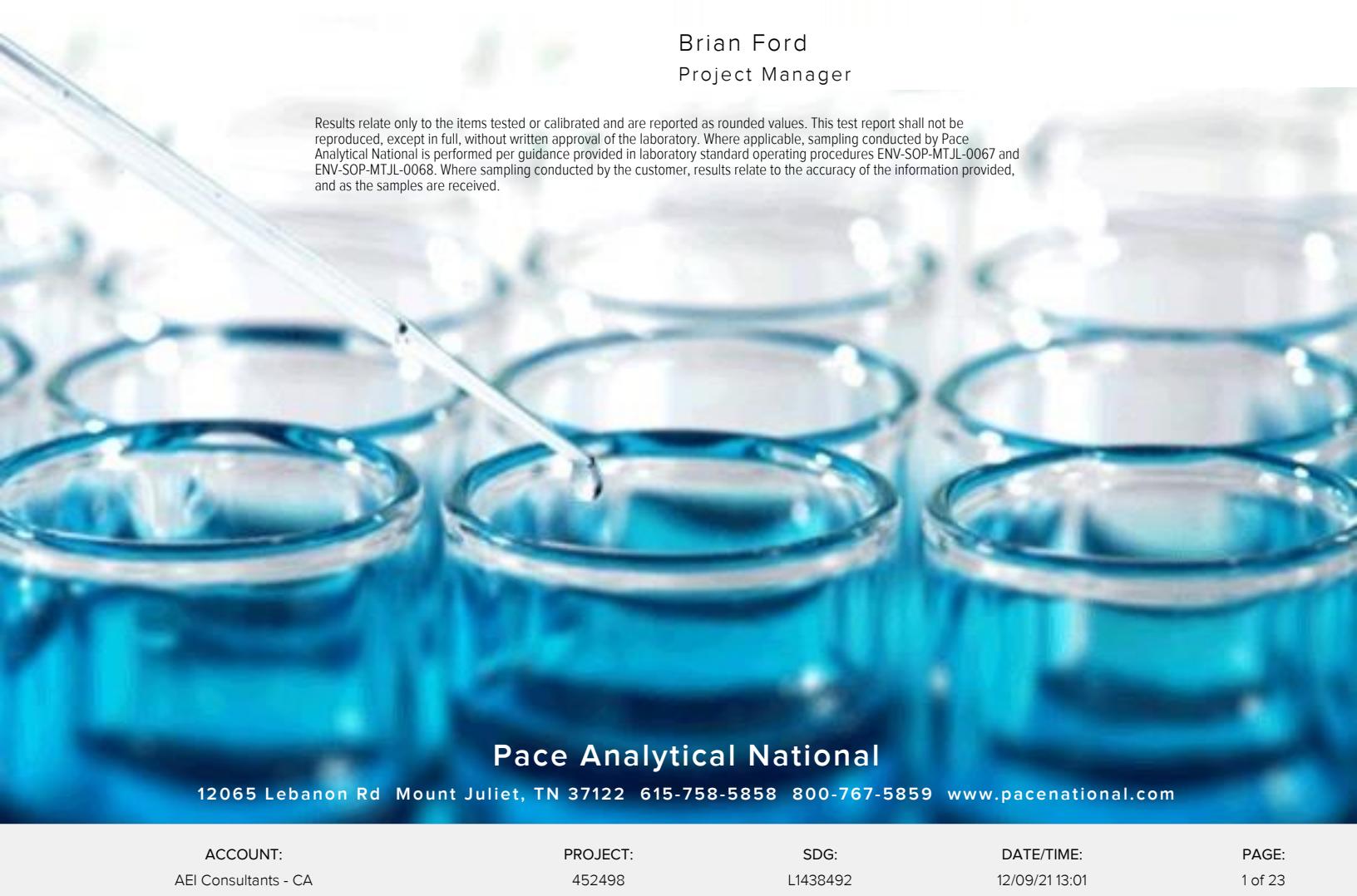
Report To: Neill Butcher  
2500 Camino Diablo  
Walnut Creek, CA 94597

Entire Report Reviewed By:



Brian Ford  
Project Manager

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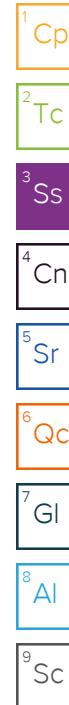
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# SAMPLE SUMMARY

<b>SB-10 L1438492-01 Air</b>			Collected by Ryan Missel	Collected date/time 12/03/21 16:23	Received date/time 12/06/21 10:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1785356	1	12/07/21 18:48	12/07/21 18:48	FKG	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1785246	1	12/07/21 10:55	12/07/21 10:55	DBB	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1785249	1	12/08/21 11:21	12/08/21 11:21	DBB	Mt. Juliet, TN
<b>SB-13 L1438492-02 Air</b>			Collected by Ryan Missel	Collected date/time 12/03/21 16:13	Received date/time 12/06/21 10:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1785356	1	12/07/21 19:30	12/07/21 19:30	FKG	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1785246	1	12/07/21 11:07	12/07/21 11:07	DBB	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1785249	1	12/08/21 11:28	12/08/21 11:28	DBB	Mt. Juliet, TN
<b>SB-12 L1438492-03 Air</b>			Collected by Ryan Missel	Collected date/time 12/03/21 15:45	Received date/time 12/06/21 10:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1785356	1	12/07/21 20:53	12/07/21 20:53	FKG	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1785395	1	12/07/21 16:09	12/07/21 16:09	DBB	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1785249	1	12/08/21 11:44	12/08/21 11:44	DBB	Mt. Juliet, TN
<b>SB-14 L1438492-04 Air</b>			Collected by Ryan Missel	Collected date/time 12/03/21 15:09	Received date/time 12/06/21 10:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1785356	1	12/07/21 20:11	12/07/21 20:11	FKG	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1785246	1	12/07/21 11:16	12/07/21 11:16	DBB	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1785249	1	12/08/21 11:52	12/08/21 11:52	DBB	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1786073	2	12/08/21 14:46	12/08/21 14:46	DBB	Mt. Juliet, TN



# CASE NARRATIVE

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

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	20.0	47.5	1	<a href="#">WG1785356</a>	<sup>1</sup> Cp
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND	1	<a href="#">WG1785356</a>	<sup>2</sup> Tc
Benzene	71-43-2	78.10	0.200	0.639	0.340	1.09	1	<a href="#">WG1785356</a>	<sup>3</sup> Ss
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND	1	<a href="#">WG1785356</a>	<sup>4</sup> Cn
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND	1	<a href="#">WG1785356</a>	<sup>5</sup> Sr
Bromoform	75-25-2	253	0.600	6.21	ND	ND	1	<a href="#">WG1785356</a>	<sup>6</sup> Qc
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND	1	<a href="#">WG1785356</a>	<sup>7</sup> Gl
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND	1	<a href="#">WG1785356</a>	<sup>8</sup> Al
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.784	2.44	1	<a href="#">WG1785356</a>	<sup>9</sup> Sc
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND	1	<a href="#">WG1785356</a>	
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND	1	<a href="#">WG1785356</a>	
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND	1	<a href="#">WG1785356</a>	
Chloroform	67-66-3	119	0.200	0.973	ND	ND	1	<a href="#">WG1785356</a>	
Chloromethane	74-87-3	50.50	0.200	0.413	0.638	1.32	1	<a href="#">WG1785356</a>	
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND	1	<a href="#">WG1785356</a>	
Cyclohexane	110-82-7	84.20	0.200	0.689	0.652	2.25	1	<a href="#">WG1785356</a>	
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND	1	<a href="#">WG1785356</a>	
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND	1	<a href="#">WG1785356</a>	
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND	1	<a href="#">WG1785356</a>	
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND	1	<a href="#">WG1785356</a>	
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND	1	<a href="#">WG1785356</a>	
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND	1	<a href="#">WG1785356</a>	
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND	1	<a href="#">WG1785356</a>	
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND	1	<a href="#">WG1785356</a>	
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND	1	<a href="#">WG1785356</a>	
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND	1	<a href="#">WG1785356</a>	
Ethanol	64-17-5	46.10	1.25	2.36	8.84	16.7	1	<a href="#">WG1785356</a>	
Ethylbenzene	100-41-4	106	0.200	0.867	0.438	1.90	1	<a href="#">WG1785356</a>	
4-Ethyltoluene	622-96-8	120	0.200	0.982	1.58	7.75	1	<a href="#">WG1785356</a>	
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.276	1.55	1	<a href="#">WG1785356</a>	
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.383	1.89	1	<a href="#">WG1785356</a>	
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND	1	<a href="#">WG1785356</a>	
Heptane	142-82-5	100	0.200	0.818	0.276	1.13	1	<a href="#">WG1785356</a>	
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND	1	<a href="#">WG1785356</a>	
n-Hexane	110-54-3	86.20	0.630	2.22	29.5	104	1	<a href="#">WG1785356</a>	
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND	1	<a href="#">WG1785356</a>	
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.295	1.02	1	<a href="#">WG1785356</a>	
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND	1	<a href="#">WG1785356</a>	
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	3.40	10.0	1	<a href="#">WG1785356</a>	
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND	1	<a href="#">WG1785356</a>	
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND	1	<a href="#">WG1785356</a>	
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND	1	<a href="#">WG1785356</a>	
Naphthalene	91-20-3	128	0.630	3.30	ND	ND	1	<a href="#">WG1785356</a>	
2-Propanol	67-63-0	60.10	1.25	3.07	7.02	17.3	1	<a href="#">WG1785356</a>	
Propene	115-07-1	42.10	1.25	2.15	ND	ND	1	<a href="#">WG1785356</a>	
Styrene	100-42-5	104	0.200	0.851	ND	ND	1	<a href="#">WG1785356</a>	
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND	1	<a href="#">WG1785356</a>	
Tetrachloroethylene	127-18-4	166	0.200	1.36	5.57	37.8	1	<a href="#">WG1785356</a>	
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND	1	<a href="#">WG1785356</a>	
Toluene	108-88-3	92.10	0.500	1.88	3.01	11.3	1	<a href="#">WG1785356</a>	
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND	1	<a href="#">WG1785356</a>	

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	<a href="#">WG1785356</a>
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	<a href="#">WG1785356</a>
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	<a href="#">WG1785356</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	2.31	11.3		1	<a href="#">WG1785356</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.629	3.09		1	<a href="#">WG1785356</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	0.531	2.48		1	<a href="#">WG1785356</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1785356</a>
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	<a href="#">WG1785356</a>
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	<a href="#">WG1785356</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	3.15	13.7		1	<a href="#">WG1785356</a>
o-Xylene	95-47-6	106	0.200	0.867	1.17	5.07		1	<a href="#">WG1785356</a>
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	12.3	33.2		1	<a href="#">WG1785356</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.6				<a href="#">WG1785356</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			%	%			
Helium	7440-59-7		0.100	ND		1	<a href="#">WG1785246</a>

## Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			%	%			
Oxygen	7782-44-7	32	5.00	21.5		1	<a href="#">WG1785249</a>
Carbon Dioxide	124-38-9	44.01	0.500	ND		1	<a href="#">WG1785249</a>
Methane	74-82-8	16	0.400	ND		1	<a href="#">WG1785249</a>

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	18.3	43.5	1	<a href="#">WG1785356</a>	<sup>1</sup> Cp
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND	1	<a href="#">WG1785356</a>	<sup>2</sup> Tc
Benzene	71-43-2	78.10	0.200	0.639	2.20	7.03	1	<a href="#">WG1785356</a>	<sup>3</sup> Ss
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND	1	<a href="#">WG1785356</a>	<sup>4</sup> Cn
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND	1	<a href="#">WG1785356</a>	<sup>5</sup> Sr
Bromoform	75-25-2	253	0.600	6.21	ND	ND	1	<a href="#">WG1785356</a>	<sup>6</sup> Qc
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND	1	<a href="#">WG1785356</a>	<sup>7</sup> Gl
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND	1	<a href="#">WG1785356</a>	<sup>8</sup> Al
Carbon disulfide	75-15-0	76.10	0.200	0.622	8.27	25.7	1	<a href="#">WG1785356</a>	<sup>9</sup> Sc
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND	1	<a href="#">WG1785356</a>	
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND	1	<a href="#">WG1785356</a>	
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND	1	<a href="#">WG1785356</a>	
Chloroform	67-66-3	119	0.200	0.973	ND	ND	1	<a href="#">WG1785356</a>	
Chloromethane	74-87-3	50.50	0.200	0.413	0.721	1.49	1	<a href="#">WG1785356</a>	
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND	1	<a href="#">WG1785356</a>	
Cyclohexane	110-82-7	84.20	0.200	0.689	2.45	8.44	1	<a href="#">WG1785356</a>	
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND	1	<a href="#">WG1785356</a>	
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND	1	<a href="#">WG1785356</a>	
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND	1	<a href="#">WG1785356</a>	
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND	1	<a href="#">WG1785356</a>	
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND	1	<a href="#">WG1785356</a>	
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND	1	<a href="#">WG1785356</a>	
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND	1	<a href="#">WG1785356</a>	
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND	1	<a href="#">WG1785356</a>	
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND	1	<a href="#">WG1785356</a>	
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND	1	<a href="#">WG1785356</a>	
Ethanol	64-17-5	46.10	1.25	2.36	5.83	11.0	1	<a href="#">WG1785356</a>	
Ethylbenzene	100-41-4	106	0.200	0.867	8.02	34.8	1	<a href="#">WG1785356</a>	
4-Ethyltoluene	622-96-8	120	0.200	0.982	5.44	26.7	1	<a href="#">WG1785356</a>	
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.309	1.74	1	<a href="#">WG1785356</a>	
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.328	1.62	1	<a href="#">WG1785356</a>	
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND	1	<a href="#">WG1785356</a>	
Heptane	142-82-5	100	0.200	0.818	3.33	13.6	1	<a href="#">WG1785356</a>	
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND	1	<a href="#">WG1785356</a>	
n-Hexane	110-54-3	86.20	0.630	2.22	4.40	15.5	1	<a href="#">WG1785356</a>	
Isopropylbenzene	98-82-8	120.20	0.200	0.983	1.77	8.70	1	<a href="#">WG1785356</a>	
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.293	1.02	1	<a href="#">WG1785356</a>	
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND	1	<a href="#">WG1785356</a>	
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	12.0	35.4	1	<a href="#">WG1785356</a>	
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND	1	<a href="#">WG1785356</a>	
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND	1	<a href="#">WG1785356</a>	
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND	1	<a href="#">WG1785356</a>	
Naphthalene	91-20-3	128	0.630	3.30	ND	ND	1	<a href="#">WG1785356</a>	
2-Propanol	67-63-0	60.10	1.25	3.07	2.99	7.35	1	<a href="#">WG1785356</a>	
Propene	115-07-1	42.10	1.25	2.15	ND	ND	1	<a href="#">WG1785356</a>	
Styrene	100-42-5	104	0.200	0.851	ND	ND	1	<a href="#">WG1785356</a>	
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND	1	<a href="#">WG1785356</a>	
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND	1	<a href="#">WG1785356</a>	
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND	1	<a href="#">WG1785356</a>	
Toluene	108-88-3	92.10	0.500	1.88	29.9	113	1	<a href="#">WG1785356</a>	
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND	1	<a href="#">WG1785356</a>	

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	<a href="#">WG1785356</a>
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	<a href="#">WG1785356</a>
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	<a href="#">WG1785356</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	5.40	26.5		1	<a href="#">WG1785356</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	2.20	10.8		1	<a href="#">WG1785356</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	1.57	7.33		1	<a href="#">WG1785356</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1785356</a>
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	<a href="#">WG1785356</a>
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	<a href="#">WG1785356</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	32.2	140		1	<a href="#">WG1785356</a>
o-Xylene	95-47-6	106	0.200	0.867	11.7	50.7		1	<a href="#">WG1785356</a>
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	51.2	138		1	<a href="#">WG1785356</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.0				<a href="#">WG1785356</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			%	%			
Helium	7440-59-7		0.100	ND		1	<a href="#">WG1785246</a>

## Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			%	%			
Oxygen	7782-44-7	32	5.00	18.2		1	<a href="#">WG1785249</a>
Carbon Dioxide	124-38-9	44.01	0.500	2.39		1	<a href="#">WG1785249</a>
Methane	74-82-8	16	0.400	ND		1	<a href="#">WG1785249</a>

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	19.3	45.9	1	<a href="#">WG1785356</a>	<sup>1</sup> Cp
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND	1	<a href="#">WG1785356</a>	<sup>2</sup> Tc
Benzene	71-43-2	78.10	0.200	0.639	1.15	3.67	1	<a href="#">WG1785356</a>	<sup>3</sup> Ss
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND	1	<a href="#">WG1785356</a>	<sup>4</sup> Cn
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND	1	<a href="#">WG1785356</a>	<sup>5</sup> Sr
Bromoform	75-25-2	253	0.600	6.21	ND	ND	1	<a href="#">WG1785356</a>	<sup>6</sup> Qc
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND	1	<a href="#">WG1785356</a>	<sup>7</sup> Gl
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND	1	<a href="#">WG1785356</a>	<sup>8</sup> Al
Carbon disulfide	75-15-0	76.10	0.200	0.622	11.2	34.9	1	<a href="#">WG1785356</a>	<sup>9</sup> Sc
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND	1	<a href="#">WG1785356</a>	
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND	1	<a href="#">WG1785356</a>	
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND	1	<a href="#">WG1785356</a>	
Chloroform	67-66-3	119	0.200	0.973	ND	ND	1	<a href="#">WG1785356</a>	
Chloromethane	74-87-3	50.50	0.200	0.413	3.16	6.53	1	<a href="#">WG1785356</a>	
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND	1	<a href="#">WG1785356</a>	
Cyclohexane	110-82-7	84.20	0.200	0.689	2.14	7.37	1	<a href="#">WG1785356</a>	
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND	1	<a href="#">WG1785356</a>	
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND	1	<a href="#">WG1785356</a>	
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND	1	<a href="#">WG1785356</a>	
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND	1	<a href="#">WG1785356</a>	
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND	1	<a href="#">WG1785356</a>	
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND	1	<a href="#">WG1785356</a>	
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND	1	<a href="#">WG1785356</a>	
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND	1	<a href="#">WG1785356</a>	
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND	1	<a href="#">WG1785356</a>	
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.359	1.29	1	<a href="#">WG1785356</a>	
Ethanol	64-17-5	46.10	1.25	2.36	7.00	13.2	1	<a href="#">WG1785356</a>	
Ethylbenzene	100-41-4	106	0.200	0.867	1.29	5.59	1	<a href="#">WG1785356</a>	
4-Ethyltoluene	622-96-8	120	0.200	0.982	3.69	18.1	1	<a href="#">WG1785356</a>	
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.503	2.83	1	<a href="#">WG1785356</a>	
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.375	1.85	1	<a href="#">WG1785356</a>	
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND	1	<a href="#">WG1785356</a>	
Heptane	142-82-5	100	0.200	0.818	0.464	1.90	1	<a href="#">WG1785356</a>	
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND	1	<a href="#">WG1785356</a>	
n-Hexane	110-54-3	86.20	0.630	2.22	2.60	9.17	1	<a href="#">WG1785356</a>	
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND	1	<a href="#">WG1785356</a>	
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.519	1.80	1	<a href="#">WG1785356</a>	
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND	1	<a href="#">WG1785356</a>	
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	4.44	13.1	1	<a href="#">WG1785356</a>	
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	1.25	5.12	1	<a href="#">WG1785356</a>	
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND	1	<a href="#">WG1785356</a>	
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND	1	<a href="#">WG1785356</a>	
Naphthalene	91-20-3	128	0.630	3.30	9.18	48.1	1	<a href="#">WG1785356</a>	
2-Propanol	67-63-0	60.10	1.25	3.07	9.36	23.0	1	<a href="#">WG1785356</a>	
Propene	115-07-1	42.10	1.25	2.15	29.4	50.6	1	<a href="#">WG1785356</a>	
Styrene	100-42-5	104	0.200	0.851	ND	ND	1	<a href="#">WG1785356</a>	
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND	1	<a href="#">WG1785356</a>	
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.406	2.76	1	<a href="#">WG1785356</a>	
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND	1	<a href="#">WG1785356</a>	
Toluene	108-88-3	92.10	0.500	1.88	2.40	9.04	1	<a href="#">WG1785356</a>	
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND	1	<a href="#">WG1785356</a>	

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	<a href="#">WG1785356</a>
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	<a href="#">WG1785356</a>
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	<a href="#">WG1785356</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	7.96	39.1		1	<a href="#">WG1785356</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	1.09	5.35		1	<a href="#">WG1785356</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	0.686	3.20		1	<a href="#">WG1785356</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1785356</a>
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	<a href="#">WG1785356</a>
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	<a href="#">WG1785356</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	2.91	12.6		1	<a href="#">WG1785356</a>
o-Xylene	95-47-6	106	0.200	0.867	1.39	6.03		1	<a href="#">WG1785356</a>
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	ND	ND		1	<a href="#">WG1785356</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				<a href="#">WG1785356</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			%	%			
Helium	7440-59-7		0.100	ND		1	<a href="#">WG1785395</a>

## Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			%	%			
Oxygen	7782-44-7	32	5.00	18.6		1	<a href="#">WG1785249</a>
Carbon Dioxide	124-38-9	44.01	0.500	ND		1	<a href="#">WG1785249</a>
Methane	74-82-8	16	0.400	ND		1	<a href="#">WG1785249</a>

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	21.4	50.9	1	<a href="#">WG1785356</a>	<sup>1</sup> Cp
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND	1	<a href="#">WG1785356</a>	<sup>2</sup> Tc
Benzene	71-43-2	78.10	0.200	0.639	1.06	3.39	1	<a href="#">WG1785356</a>	<sup>3</sup> Ss
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND	1	<a href="#">WG1785356</a>	<sup>4</sup> Cn
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND	1	<a href="#">WG1785356</a>	<sup>5</sup> Sr
Bromoform	75-25-2	253	0.600	6.21	ND	ND	1	<a href="#">WG1785356</a>	<sup>6</sup> Qc
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND	1	<a href="#">WG1785356</a>	<sup>7</sup> Gl
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND	1	<a href="#">WG1785356</a>	<sup>8</sup> Al
Carbon disulfide	75-15-0	76.10	0.200	0.622	15.4	47.9	1	<a href="#">WG1785356</a>	<sup>9</sup> Sc
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND	1	<a href="#">WG1785356</a>	
Chlorobenzene	108-90-7	113	0.200	0.924	5.32	24.6	1	<a href="#">WG1785356</a>	
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND	1	<a href="#">WG1785356</a>	
Chloroform	67-66-3	119	0.200	0.973	ND	ND	1	<a href="#">WG1785356</a>	
Chloromethane	74-87-3	50.50	0.200	0.413	0.571	1.18	1	<a href="#">WG1785356</a>	
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND	1	<a href="#">WG1785356</a>	
Cyclohexane	110-82-7	84.20	0.200	0.689	9.63	33.2	1	<a href="#">WG1785356</a>	
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND	1	<a href="#">WG1785356</a>	
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND	1	<a href="#">WG1785356</a>	
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND	1	<a href="#">WG1785356</a>	
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND	1	<a href="#">WG1785356</a>	
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND	1	<a href="#">WG1785356</a>	
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	0.359	1.42	1	<a href="#">WG1785356</a>	
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND	1	<a href="#">WG1785356</a>	
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND	1	<a href="#">WG1785356</a>	
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND	1	<a href="#">WG1785356</a>	
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND	1	<a href="#">WG1785356</a>	
Ethanol	64-17-5	46.10	1.25	2.36	14.9	28.1	1	<a href="#">WG1785356</a>	
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND	1	<a href="#">WG1785356</a>	
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.306	1.50	1	<a href="#">WG1785356</a>	
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND	1	<a href="#">WG1785356</a>	
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	ND	ND	1	<a href="#">WG1785356</a>	
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND	1	<a href="#">WG1785356</a>	
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND	1	<a href="#">WG1785356</a>	
Heptane	142-82-5	100	0.200	0.818	4.53	18.5	1	<a href="#">WG1785356</a>	
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND	1	<a href="#">WG1785356</a>	
n-Hexane	110-54-3	86.20	0.630	2.22	24.6	86.7	1	<a href="#">WG1785356</a>	
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND	1	<a href="#">WG1785356</a>	
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND	1	<a href="#">WG1785356</a>	
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND	1	<a href="#">WG1785356</a>	
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	6.43	19.0	1	<a href="#">WG1785356</a>	
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND	1	<a href="#">WG1785356</a>	
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND	1	<a href="#">WG1785356</a>	
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND	1	<a href="#">WG1785356</a>	
Naphthalene	91-20-3	128	0.630	3.30	ND	ND	1	<a href="#">WG1785356</a>	
2-Propanol	67-63-0	60.10	1.25	3.07	6.26	15.4	1	<a href="#">WG1785356</a>	
Propene	115-07-1	42.10	1.25	2.15	ND	ND	1	<a href="#">WG1785356</a>	
Styrene	100-42-5	104	0.200	0.851	ND	ND	1	<a href="#">WG1785356</a>	
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND	1	<a href="#">WG1785356</a>	
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.802	5.45	1	<a href="#">WG1785356</a>	
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND	1	<a href="#">WG1785356</a>	
Toluene	108-88-3	92.10	0.500	1.88	5.18	19.5	1	<a href="#">WG1785356</a>	
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND	1	<a href="#">WG1785356</a>	

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	<a href="#">WG1785356</a>
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	<a href="#">WG1785356</a>
Trichloroethylene	79-01-6	131	0.200	1.07	2.42	13.0		1	<a href="#">WG1785356</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.455	2.23		1	<a href="#">WG1785356</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1785356</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	2.95	13.8		1	<a href="#">WG1785356</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1785356</a>
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	<a href="#">WG1785356</a>
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	<a href="#">WG1785356</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	1.15	4.99		1	<a href="#">WG1785356</a>
o-Xylene	95-47-6	106	0.200	0.867	0.689	2.99		1	<a href="#">WG1785356</a>
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	37.3	101		1	<a href="#">WG1785356</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		116				<a href="#">WG1785356</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			%	%			
Helium	7440-59-7		0.100	ND		1	<a href="#">WG1785246</a>

## Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			%	%			
Oxygen	7782-44-7	32	5.00	7.58		1	<a href="#">WG1785249</a>
Carbon Dioxide	124-38-9	44.01	0.500	4.88		1	<a href="#">WG1785249</a>
Methane	74-82-8	16	0.800	4.40		2	<a href="#">WG1786073</a>

## QUALITY CONTROL SUMMARY

L1438492-01,02,03,04

## Method Blank (MB)

(MB) R3738282-3 12/07/21 10:37

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	1 Cp
Acetone	U		0.584	1.25	
Allyl Chloride	U		0.114	0.200	
Benzene	U		0.0715	0.200	
Benzyl Chloride	U		0.0598	0.200	
Bromodichloromethane	U		0.0702	0.200	
Bromoform	U		0.0732	0.600	
Bromomethane	U		0.0982	0.200	
1,3-Butadiene	U		0.104	2.00	
Carbon disulfide	U		0.102	0.200	
Carbon tetrachloride	U		0.0732	0.200	
Chlorobenzene	U		0.0832	0.200	
Chloroethane	U		0.0996	0.200	
Chloroform	U		0.0717	0.200	
Chloromethane	U		0.103	0.200	
2-Chlorotoluene	U		0.0828	0.200	
Cyclohexane	U		0.0753	0.200	
Dibromochloromethane	U		0.0727	0.200	
1,2-Dibromoethane	U		0.0721	0.200	
1,2-Dichlorobenzene	U		0.128	0.200	
1,3-Dichlorobenzene	U		0.182	0.200	
1,4-Dichlorobenzene	U		0.0557	0.200	
1,2-Dichloroethane	U		0.0700	0.200	
1,1-Dichloroethane	U		0.0723	0.200	
1,1-Dichloroethene	U		0.0762	0.200	
cis-1,2-Dichloroethene	U		0.0784	0.200	
trans-1,2-Dichloroethene	U		0.0673	0.200	
1,2-Dichloropropane	U		0.0760	0.200	
cis-1,3-Dichloropropene	U		0.0689	0.200	
trans-1,3-Dichloropropene	U		0.0728	0.200	
1,4-Dioxane	U		0.0833	0.200	
Ethylbenzene	U		0.0835	0.200	
4-Ethyltoluene	U		0.0783	0.200	
Trichlorofluoromethane	U		0.0819	0.200	
Dichlorodifluoromethane	U		0.137	0.200	
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200	
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200	
Heptane	U		0.104	0.200	
Hexachloro-1,3-butadiene	U		0.105	0.630	
n-Hexane	U		0.206	0.630	
Isopropylbenzene	U		0.0777	0.200	

## QUALITY CONTROL SUMMARY

[L1438492-01,02,03,04](#)

## Method Blank (MB)

(MB) R3738282-3 12/07/21 10:37

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv								
Methylene Chloride	U		0.0979	0.200								
Methyl Butyl Ketone	U		0.133	1.25								
2-Butanone (MEK)	U		0.0814	1.25								
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25								
Methyl Methacrylate	U		0.0876	0.200								
MTBE	U		0.0647	0.200								
Naphthalene	U		0.350	0.630								
2-Propanol	U		0.264	1.25								
Propene	0.163	J	0.0932	1.25								
Styrene	U		0.0788	0.200								
1,1,2,2-Tetrachloroethane	U		0.0743	0.200								
Tetrachloroethylene	U		0.0814	0.200								
Tetrahydrofuran	U		0.0734	0.200								
Toluene	U		0.0870	0.500								
1,2,4-Trichlorobenzene	U		0.148	0.630								
1,1,1-Trichloroethane	U		0.0736	0.200								
1,1,2-Trichloroethane	U		0.0775	0.200								
Trichloroethylene	U		0.0680	0.200								
1,2,4-Trimethylbenzene	U		0.0764	0.200								
1,3,5-Trimethylbenzene	U		0.0779	0.200								
2,2,4-Trimethylpentane	U		0.133	0.200								
Vinyl chloride	U		0.0949	0.200								
Vinyl Bromide	U		0.0852	0.200								
Vinyl acetate	U		0.116	0.200								
m&p-Xylene	U		0.135	0.400								
o-Xylene	U		0.0828	0.200								
Ethanol	U		0.265	1.25								
1,1-Difluoroethane	U		0.129	1.00								
(S) 1,4-Bromofluorobenzene	96.4			60.0-140								

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

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

(LCS) R3738282-1 12/07/21 09:15 • (LCSD) R3738282-2 12/07/21 09:57

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
Ethanol	3.75	4.00	3.99	107	106	55.0-148			0.250	25
Propene	3.75	4.16	3.97	111	106	64.0-144			4.67	25
Dichlorodifluoromethane	3.75	3.87	3.86	103	103	64.0-139			0.259	25
1,2-Dichlorotetrafluoroethane	3.75	3.98	3.98	106	106	70.0-130			0.000	25

## QUALITY CONTROL SUMMARY

[L1438492-01,02,03,04](#)

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

(LCS) R3738282-1 12/07/21 09:15 • (LCSD) R3738282-2 12/07/21 09:57

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Chloromethane	3.75	3.87	3.88	103	103	70.0-130			0.258	25
Vinyl chloride	3.75	3.91	4.00	104	107	70.0-130			2.28	25
1,3-Butadiene	3.75	3.86	3.97	103	106	70.0-130			2.81	25
Bromomethane	3.75	3.81	3.84	102	102	70.0-130			0.784	25
Chloroethane	3.75	3.80	3.78	101	101	70.0-130			0.528	25
Trichlorofluoromethane	3.75	3.96	3.93	106	105	70.0-130			0.760	25
1,1,2-Trichlorotrifluoroethane	3.75	3.98	3.96	106	106	70.0-130			0.504	25
1,1-Dichloroethene	3.75	3.94	3.94	105	105	70.0-130			0.000	25
1,1-Dichloroethane	3.75	3.91	3.93	104	105	70.0-130			0.510	25
Acetone	3.75	4.11	3.97	110	106	70.0-130			3.47	25
2-Propanol	3.75	3.96	3.92	106	105	70.0-139			1.02	25
Carbon disulfide	3.75	3.91	4.31	104	115	70.0-130			9.73	25
Methylene Chloride	3.75	3.93	3.84	105	102	70.0-130			2.32	25
MTBE	3.75	3.93	3.84	105	102	70.0-130			2.32	25
trans-1,2-Dichloroethene	3.75	4.01	3.96	107	106	70.0-130			1.25	25
n-Hexane	3.75	3.95	3.91	105	104	70.0-130			1.02	25
Vinyl acetate	3.75	3.93	3.90	105	104	70.0-130			0.766	25
Methyl Ethyl Ketone	3.75	3.98	3.92	106	105	70.0-130			1.52	25
cis-1,2-Dichloroethene	3.75	3.95	3.92	105	105	70.0-130			0.762	25
Chloroform	3.75	3.99	3.90	106	104	70.0-130			2.28	25
Cyclohexane	3.75	3.85	3.89	103	104	70.0-130			1.03	25
1,1,1-Trichloroethane	3.75	3.91	3.92	104	105	70.0-130			0.255	25
Carbon tetrachloride	3.75	3.87	3.80	103	101	70.0-130			1.83	25
Benzene	3.75	3.88	3.95	103	105	70.0-130			1.79	25
1,2-Dichloroethane	3.75	3.96	4.02	106	107	70.0-130			1.50	25
Heptane	3.75	3.81	3.85	102	103	70.0-130			1.04	25
Trichloroethylene	3.75	3.95	3.93	105	105	70.0-130			0.508	25
1,2-Dichloropropane	3.75	3.85	3.78	103	101	70.0-130			1.83	25
1,4-Dioxane	3.75	3.90	3.89	104	104	70.0-140			0.257	25
Bromodichloromethane	3.75	3.97	3.94	106	105	70.0-130			0.759	25
cis-1,3-Dichloropropene	3.75	3.87	3.96	103	106	70.0-130			2.30	25
4-Methyl-2-pentanone (MIBK)	3.75	3.94	3.96	105	106	70.0-139			0.506	25
Toluene	3.75	3.93	3.92	105	105	70.0-130			0.255	25
trans-1,3-Dichloropropene	3.75	3.97	3.99	106	106	70.0-130			0.503	25
1,1,2-Trichloroethane	3.75	3.94	3.95	105	105	70.0-130			0.253	25
Tetrachloroethylene	3.75	3.93	3.94	105	105	70.0-130			0.254	25
Methyl Butyl Ketone	3.75	3.92	3.98	105	106	70.0-149			1.52	25
Dibromochloromethane	3.75	3.98	4.00	106	107	70.0-130			0.501	25
1,2-Dibromoethane	3.75	3.96	3.98	106	106	70.0-130			0.504	25
Chlorobenzene	3.75	3.85	3.93	103	105	70.0-130			2.06	25

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

## QUALITY CONTROL SUMMARY

[L1438492-01,02,03,04](#)

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

(LCS) R3738282-1 12/07/21 09:15 • (LCSD) R3738282-2 12/07/21 09:57

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Ethylbenzene	3.75	3.88	3.93	103	105	70.0-130			1.28	25
m&p-Xylene	7.50	7.65	7.81	102	104	70.0-130			2.07	25
o-Xylene	3.75	3.84	3.92	102	105	70.0-130			2.06	25
Styrene	3.75	3.93	3.99	105	106	70.0-130			1.52	25
Bromoform	3.75	3.91	3.97	104	106	70.0-130			1.52	25
1,1,2,2-Tetrachloroethane	3.75	3.86	3.89	103	104	70.0-130			0.774	25
4-Ethyltoluene	3.75	3.80	3.88	101	103	70.0-130			2.08	25
1,3,5-Trimethylbenzene	3.75	3.80	3.85	101	103	70.0-130			1.31	25
1,2,4-Trimethylbenzene	3.75	3.84	3.86	102	103	70.0-130			0.519	25
1,3-Dichlorobenzene	3.75	3.82	3.89	102	104	70.0-130			1.82	25
1,4-Dichlorobenzene	3.75	3.75	3.87	100	103	70.0-130			3.15	25
Benzyl Chloride	3.75	3.91	4.00	104	107	70.0-152			2.28	25
1,2-Dichlorobenzene	3.75	3.79	3.85	101	103	70.0-130			1.57	25
1,2,4-Trichlorobenzene	3.75	3.95	4.05	105	108	70.0-160			2.50	25
Hexachloro-1,3-butadiene	3.75	3.93	4.06	105	108	70.0-151			3.25	25
Naphthalene	3.75	3.86	3.92	103	105	70.0-159			1.54	25
Allyl Chloride	3.75	3.52	4.03	93.9	107	70.0-130			13.5	25
2-Chlorotoluene	3.75	3.77	3.90	101	104	70.0-130			3.39	25
Methyl Methacrylate	3.75	4.02	3.99	107	106	70.0-130			0.749	25
Tetrahydrofuran	3.75	3.97	3.89	106	104	70.0-137			2.04	25
2,2,4-Trimethylpentane	3.75	3.94	3.88	105	103	70.0-130			1.53	25
Vinyl Bromide	3.75	3.93	3.89	105	104	70.0-130			1.02	25
Isopropylbenzene	3.75	3.79	3.80	101	101	70.0-130			0.264	25
1,1-Difluoroethane	3.75	3.79	3.90	101	104	70.0-130			2.86	25
(S) 1,4-Bromofluorobenzene			97.8	97.5	60.0-140					

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

WG1785246

Organic Compounds (GC) by Method ASTM 1946

## QUALITY CONTROL SUMMARY

[L1438492-01,02,04](#)

## Method Blank (MB)

(MB) R3737877-3 12/07/21 09:20

Analyte	MB Result %	<u>MB Qualifier</u>	MB MDL %	MB RDL %
Helium	U		0.0259	0.100

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

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

(LCS) R3737877-1 12/07/21 09:04 • (LCSD) R3737877-2 12/07/21 09:13

Analyte	Spike Amount %	LCS Result %	LCSD Result %	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Helium	2.50	2.61	2.54	104	102	70.0-130			2.72	25

WG1785395

Organic Compounds (GC) by Method ASTM 1946

## QUALITY CONTROL SUMMARY

[L1438492-03](#)

## Method Blank (MB)

(MB) R3738104-3 12/07/21 12:29

Analyte	MB Result %	<u>MB Qualifier</u>	MB MDL %	MB RDL %
Helium	U		0.0259	0.100

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

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

(LCS) R3738104-1 12/07/21 12:21 • (LCSD) R3738104-2 12/07/21 12:25

Analyte	Spike Amount %	LCS Result %	LCSD Result %	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Helium	2.50	2.52	2.58	101	103	70.0-130			2.35	25

WG1785249

Organic Compounds (GC) by Method D1946

## QUALITY CONTROL SUMMARY

[L1438492-01,02,03,04](#)

## Method Blank (MB)

(MB) R3738385-3 12/08/21 10:00

Analyst	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	%		%	%
Oxygen	0.310		0.225	5.00
Carbon Dioxide	U		0.121	0.500
Methane	U		0.0584	0.400

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

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

(LCS) R3738385-1 12/08/21 09:28 • (LCSD) R3738385-2 12/08/21 09:43

Analyst	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
	%	%	%	%	%	%			%	%
Oxygen	20.0	19.4	18.9	97.0	94.5	70.0-130			2.61	20
Carbon Dioxide	2.50	2.50	2.45	100	98.0	70.0-130			2.02	20
Methane	2.00	2.32	2.27	116	114	70.0-130			2.18	20

WG1786073

Organic Compounds (GC) by Method D1946

## QUALITY CONTROL SUMMARY

[L1438492-04](#)

## Method Blank (MB)

(MB) R3738549-3 12/08/21 13:04

Analyte	MB Result %	<u>MB Qualifier</u>	MB MDL %	MB RDL %
Methane	U		0.0584	0.400

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

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

(LCS) R3738549-1 12/08/21 12:49 • (LCSD) R3738549-2 12/08/21 12:55

Analyte	Spike Amount %	LCS Result %	LCSD Result %	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Methane	2.00	2.14	2.36	107	118	70.0-130			9.78	20

# GLOSSARY OF TERMS

## 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.

**Results Disclaimer -** Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

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

# ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

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

\* 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 Analytical.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

