

Attachment 9. Phase II Environmental Site Assessment



AEI Consultants

January 15, 2021

PHASE II SUBSURFACE INVESTIGATION

Property Identification:

493 Eastmoor Avenue
Daly City, California 94015

AEI Project No. 430044

Prepared for:

Mr. Kyle Zaylor
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January 15, 2021

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Eastmoor Multifamily, LP
470 South Market Street
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Subject: Phase II Subsurface Investigation
493 Eastmoor Avenue
Daly City, California 94015
AEI Project No. 430044

Dear Mr. Zaylor:

AEI Consultants (AEI) is pleased to provide this report which describes the activities and results of the subsurface investigation recently performed at 943 Eastmoor Avenue in Daly City, California ("the Site"). This investigation was performed in general accordance with the authorized scope of services outlined in AEI's proposal dated September 9, 2020 (AEI Proposal Number 61045 – Revision A).

The Site is currently going through the entitlement and planning process for development with a high-density residential complex, over at-grade parking, stepped partially with the Site topography. Prior to building construction, limited soil excavation is necessary. The purpose of this investigation is to evaluate the residual contamination at the Site from former gasoline station operations and releases. As required by the 2009 Case Closure from San Mateo County Health Department Groundwater Protection Program (GPP) and recent development conditions of approval, the construction project will require review by GPP (or an equivalent agency) of current environmental conditions.

Information regarding the Site description, background, scope of work, findings, conclusions, and recommendations are provided in the following sections.

1.0 SITE DESCRIPTION

The Site is located at 493 Eastmoor Avenue in Daly City, California. The Site comprises approximately 0.446 acres of vacant land (AEI, 2020). Although no structures currently occupy the Site, much of the Site is covered by asphalt-paved parking areas and associated landscaping. The Site is located in a commercial and residential area of Daly City, California.

The site is underlain by marine and continental Pleistocene deposits approximately 200 feet thick consisting of loose or friable, well-sorted, fine to medium-grained sand with subordinate gravel, sandy silt, and clay, underlain by bedrock. According to a subsurface investigation performed at the Site, soil types encountered during drilling activities consisted of sands, silty sands, clayey

sands, and silts to a depth of approximately 109.5 feet below ground surface (bgs). Refer to Section 4.1 below for additional information on the Site geology. Groundwater is greater than 109.5 feet bgs and is inferred for flow to the northeast, based on topographic interpretation.

2.0 BACKGROUND

The Site was previously occupied by a Shell-branded gasoline service station, which occupied the subject property from circa 1960 to 2002. A release of gasoline from an underground storage tank (UST) was discovered at the Site on September 6, 2001, which impacted Site soils. During September and October 2003, approximately 1,224 cubic yards of contaminated soils were excavated from the site and transported offsite for disposal. On September 25, 2003, three 10,000-gallon gasoline single-walled fiberglass USTs and associated piping were removed from the Site. The three gasoline USTs were located near the west boundary of the subject property, as indicated in Figure 2. On November 5, 2004, an additional 1,000-gallon UST that had been filled with concrete was removed from the Site.

The installation of a soil vapor extraction (SVE) system consisting of seven vapor extraction wells was completed on January 14, 2005. The SVE system operated from March 24, 2005 to December 27, 2006. An estimated 4,733 pounds of total petroleum hydrocarbons as gasoline (TPH-g), 128 pounds of benzene, and 2.69 pounds of methyl-tert-butyl ether (MTBE) were removed during the approximately 8,000 operational hours of the SVE system. Following the completion of site remediation, soil samples were collected at the site on September 9, 2007. On November 10, 2009, the San Mateo County Local Oversight Program (SMCLOP) issued a case closure letter (Case No. 220059) to Shell Oil Products US, which confirmed the completion of site investigation and corrective action at the Site and that no further action regarding the petroleum release(s) was required. However, the closure was conditional in that any proposed change in land use or proposed soil removal activity at or in close proximity to the Site had to be submitted to the San Mateo County Groundwater Protection Program for review to ensure continued protection of human health and the environment during excavation and construction or during planned reuse.

According to the *Preliminary Environmental Soil Screening* report prepared by Earth Systems Pacific (ESP) on September 4, 2015, a follow-up investigation was performed at the Site in order to analyze the soil for possible gasoline residuals and metals. Four borings were advanced at the Site. ESP reported low gasoline, VOC, and metals concentrations.

In anticipation of the planned development, and specifically to evaluate current conditions of soils anticipated to be disturbed and of soil gas beneath the planned structure, AEI was requested to perform a focused subsurface investigation of the property. The data will support the required regulatory review of the Site, including to determine appropriate soil handling procedures, ensure worker protections, and to evaluate the potential for vapor intrusion. Select figures from the development plan set have been included for reference in Appendix A.

3.0 INVESTIGATION EFFORTS

This investigation focused on assessing residual concentrations of petroleum hydrocarbon-related constituents in soil and soil gas to evaluate whether potentially significant concentrations of these chemicals remain at the Site, given the expected construction activities and reuse. The scope of work included advancing seven soil borings that were converted to seven temporary soil gas

probes at locations across the Site to collect soil and soil gas samples for chemical analysis. The locations of the borings and 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

No drilling permit was required for the scope of this work. Prior to field work activities, proposed locations were marked on the ground surface with white paint, where appropriate. Upon marking, Underground Services Alert (USA) was contacted, who, in turn, 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 Surveys, Inc. 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 Boring Advancement and Soil Sample Collection

On November 19, 2020, seven soil borings, SB-1 through SB-7 were advanced at the locations shown on Figure 2. AEI contracted a State of California-licensed drilling company, Environmental Control Associates of Aptos, California to advance the soil borings using a direct push, truck mounted drill rig. The locations of the borings were chosen in part based on current Site structures and utility clearance. Additionally, boring locations and depths were selected based on initial review of development conceptual layout, prior remediation efforts, and gas station layout.

3.3.1 Soil Sampling

Soil core from each of the soil borings was continuously collected and evaluated for the purposes of lithologic logging, headspace testing, and sample collection for potential laboratory analyses.

Soil samples from the borings SB-1 through SB-7 were obtained using a single-walled coring system approximately 2.25 inch 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. Soil borings SB-1 through SB-5 were advanced to a total depth of 5.5 feet bgs. Soil boring SB-6 was advanced to a total depth of 7.0 feet bgs and soil boring SB-7 was advanced to a total depth of 9.5 feet bgs. 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 also were visually inspected for the potential presence of impacted soils. Soil samples collected for potential laboratory analysis were placed into clean, laboratory supplied jars, including 4-ounce glass jars and methanol-preserved, 40-milliter (ml) glass vial using a disposable Terra Core™ sampler.

Recovered soils were described on detailed boring logs in general conformance with the United Soil Classification System (USCS). The boring logs for each boring are presented in Appendix B. Upon collection, each sample was labeled with the project name, project number, boring number, sample depth, and sampling date/time of sampling. After labeling, each sample was entered onto chain-of-custody documentation for transportation to a State of California-certified laboratory for potential analyses and were placed into an insulated, chilled ice chest containing ice. Chain-of-custody documentation was completed and accompanied the soil samples to the analytical laboratory, a copy of which is included in Appendix C.

3.3.2 Headspace Testing

Headspace testing was performed with a photo-ionization detector (PID) equipped with an electrodeless 10.6 eV ultraviolet lamp or equivalent for detecting the presence of total volatile organic compounds (VOCs) in 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 B.

3.4 Soil Gas Probe Installation

On November 19, 2020, seven temporary soil gas probes, SV-1 through SV-7 were installed in soil borings SB-1 through SB-7. The temporary soil gas sampling probes were installed in general accordance with the guidelines presented in the *Advisory – Active Soil Gas Investigations* dated July 2015 prepared by the California Department of Toxic Substances Control (DTSC), et al. The probes were constructed using 0.25-inch diameter Teflon™ tubing connected to a one-inch plastic probe tip. The probe tip was placed in the middle of an annular filter pack composed of Lonestar No. 3/12 sand placed between approximately 4.5 and 5.5 feet bgs in borings SB-1 through SB-5, between approximately 6.0 and 7.0 feet bgs in boring SB-6 and between approximately 8.5 and 9.5 feet in boring SB-7. The probe was then sealed with a one-foot layer of dry granular bentonite followed by hydrated granular bentonite to grade. Dry granular bentonite was then placed above the sand pack and extended upward to the ground surface. Water was added at the surface to hydrate the upper portion of the granular bentonite to ensure proper sealing during sampling activities.

3.4.1 Soil Gas Sample Collection

Due to laboratory equipment issues, soil vapor sampling was postponed until December 8, 2020 when, prior to sampling, a shut-in test was performed to check for leaks in the above-ground sampling manifold. The shut-in test was performed by exerting a vacuum on the sealed above-ground manifold with a syringe for one minute or longer. If an observable loss of vacuum occurred, the fittings were adjusted until the vacuum in the sample train did not noticeably dissipate. Fittings used for the soil gas sampling train consisted of Swagelok® type fittings.

Following the shut-in test and purging, a soil gas sample was collected from the soil gas sampling points. A leak check was performed at each location by introducing and maintaining helium in the ambient air within a plastic shroud placed around the sample apparatus for the duration of the sample collection. The soil gas sample was collected using a laboratory-provided sampling



manifold (sampling train) with an average flow rate of 200 milliliters per minute, into a one-liter canister. Initial and final readings on the vacuum gauge were recorded at the beginning and end of sampling to confirm sample collection. Additionally, the initial and final readings were recorded using a separate laboratory-calibrated gauge, prior to connecting the one-liner canister to the sampling manifold. Sampling was completed with a slight vacuum of approximately -5 inches of mercury remaining in the canisters. Upon sample retrieval, the canisters were 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 vacuums. Chain-of-custody documentation was prepared and accompanied the samples to the analytical laboratory. Copies of this documentation may be found in Appendix C, and copies of field forms associated with the soil gas sampling have been provided in Appendix D.

Following the completion of sampling, the sampling tubing was removed, and the point was backfilled with concrete at the ground surface to match surrounding conditions.

3.5 Decontamination Procedures and Investigation-Derived Waste

AEI personnel wore disposable Nitrile gloves during sample collection and changed gloves prior to and between each sample collection. Down-hole equipment including sampling tubes, samplers, and hand tools were decontaminated prior to drilling each boring and/or were dedicated to a single boring.

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

3.6 Laboratory Analyses

Soil samples were labeled and placed into a cooler with ice following sampling and transferred under appropriate chain-of-custody documentation to Pace Analytical, Inc. of Mount Juliet, Tennessee. The soil samples were analyzed for the following:

- Total petroleum hydrocarbons (TPH) multi-range by US EPA Testing Method 8015M;
- Volatile organic compounds (VOCs) by US EPA Testing Method 8260B;
- Semi-volatile organic compounds (SVOCs) by US EPA Testing Method 8270;
- California Assessment Manual (CAM) 17 metals by US EPA Testing Method 6010.

The seven soil gas samples were labeled and transferred under appropriate chain-of-custody documentation to Pace Analytical, Inc. of Mount Juliet, Tennessee. The soil gas samples were analyzed for the following:

- VOCs using US EPA Test Method TO-15;
- Fixed gases oxygen and carbon dioxide using US EPA Testing Method ASTM D 1946-90;
- Helium as a leak check using US EPA Testing Method ASTM D 1946-90.

Chain-of-custody documentation and the certified analytical reports are provided in Appendix C.

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 residential and construction worker land use scenarios. 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 gas at concentrations below the corresponding ESL may be assumed to not pose a significant threat to human health and the environment. Additional evaluation may be necessary at sites where a chemical is present at concentrations above the corresponding ESL.

The findings of this investigation are summarized below.

4.1 Subsurface Conditions

Subsurface conditions observed during the drilling activities of borings SB-1 through SB-7 indicated that soils underlying the Site consist primarily of sandy gravel, sand, silty sand to a total depth of 9.5 feet bgs, a total depth of this investigation. Visual and olfactory evidence (i.e., soil discoloration, sheen, or odor) of potentially impacted soils were not observed during drilling activities. An apparent hydrocarbon odor was evident in soil boring SB-7 from 5.0 feet to 9.5 feet bgs.

4.2 Soil Sample Analytical Results

Tables 1, 2, and 3 present a summary of the soil sample analytical results. The results can be further summarized as follows:

- TPH-g was detected in two of the seven samples collected and analyzed, observed at concentrations of 1.03 and 1.06 milligrams per kilogram (mg/kg). The detected concentrations are below the residential and construction worker ESLs for TPH-g.
- TPH in the diesel range (TPH-d) was detected in five of the seven samples collected and analyzed, observed at concentrations ranging from 1.41 to 167 mg/kg. The detected concentrations are below the residential and construction worker ESLs for TPH-d.
- TPH in motor oil range (TPH-mo) was detected in six of the seven samples collected and analyzed, observed at concentrations ranging from 4.33 to 1,780 mg/kg. The detected concentrations are below the residential and construction worker ESLs for TPH-mo.
- Benzene, toluene, ethylbenzene, and xylenes, collectively known as the “BTEX compounds” were not detected above their respective residential and construction worker ESLs or above the laboratory reported detection limits in the seven samples collected and analyzed.
- No other VOCs were detected above their respective residential or construction worker ESLs, or above the laboratory reported detection limits, in the seven samples collected and analyzed, as shown on Table 1.
- Arsenic was detected in seven samples collected and analyzed, observed at concentrations ranging from 1.86 to 19.6 mg/kg. The detected concentrations exceed the residential and construction worker ESLs for arsenic. The concentration of 19.6 mg/kg at boring SB-1 also slightly exceeds estimated maximum background concentration of 11 mg/kg (Duvergé, 2011).
- Benzo(a)pyrene was detected in one of the seven samples collected and analyzed, observed at a concentration of 0.16 mg/kg. The detected concentration slightly exceeds the residential

ESL for benzo(a)pyrene of 0.11 mg/kg, but was below the construction worker ESL of 10 mg/kg.

- Other SVOCs were observed in the seven samples collected and analyzed at concentrations below their respective residential and construction worker ESLs, where available.

4.3 Soil Gas Sample Analytical Results

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

- Benzene was detected in three of the seven samples collected and analyzed, observed at concentrations ranging from 0.747 to 626 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The maximum detected concentration in sample SV-7 exceeds the residential ESL for benzene of $3.2 \mu\text{g}/\text{m}^3$.
- Ethylbenzene was detected two of the seven samples collected and analyzed, observed at concentrations of 1.17 and $38.2 \mu\text{g}/\text{m}^3$ in samples SV-2 and SV-7, respectively. The maximum detected concentration slightly exceeds the residential ESL for ethylbenzene of $37 \mu\text{g}/\text{m}^3$.
- Trichloroethylene (TCE) was detected in one of the seven samples collected and analyzed, observed at a concentration of $64.8 \mu\text{g}/\text{m}^3$ in sample SV-5. The detected concentration exceeds the residential ESL for TCE of $16 \mu\text{g}/\text{m}^3$.
- No other VOCs were detected above their respective residential ESLs or above the laboratory reporting limits in the three samples collected and analyzed, as shown on Table 4.
- Helium, used for leak detection, was not detected at a detection limit of 0.1% in the samples collected and analyzed. Based on measured sampling shroud helium concentrations ranging from 21.5% to 34.8%, concentrations of helium in the samples did not exceed the Advisory allowable 5% of the shroud concentration and are deemed valid.
- Oxygen was observed at concentrations ranging from 12.3% to 22%, indicating that aerobic conditions exist in the subsurface at the Site. Carbon dioxide was observed at concentrations ranging from 0.718% to 7.98%, with a maximum concentration of carbon dioxide observed in sample SV-7, collected at 9 feet bgs. The relatively elevated concentration of carbon dioxide suggests that petroleum hydrocarbon degradation is occurring at the Site.

5.0 SUMMARY AND CONCLUSIONS

AEI has performed a Phase II investigation at the Site as described above. The purpose of this investigation was to evaluate the residual impacts from former gas station at the Site. Seven exploratory soil borings were advanced and then converted to soil gas probes at the Site to collect soil and soil gas samples for analysis. The results of this investigation were compared to residential and construction worker ESLs.

The investigation results can be summarized as follows:

- TPH and VOCs in soil were either detected below the respective residential ESLs, where available, or were not detected at the laboratory reported detection limits in the samples collected and analyzed.

- The concentration of arsenic in the soil sample from boring SB-1 at 2.5 feet bgs slightly exceeds the estimated maximum background concentration and exceeds the residential and construction worker ESLs. This anomalous result may be due to natural variation.
- Benzo(a)pyrene was detected in one soil sample (boring SB-6) at 2.5 feet bgs, which slightly exceeds the residential ESL but was below the construction worker ESL.
- Benzene and ethylbenzene were detected at concentrations exceeding their respective residential ESLs at 9 feet bgs in boring SV-7. It appears that biodegradation of petroleum hydrocarbons is occurring on the Site and that attenuation of these volatile compounds may be expected at shallower depths.
- TCE was detected at a concentration exceeding the residential ESL for TCE at 5 feet bgs in boring SV-6. This detection of TCE is not known to be associated with an on-Site source.

Given the expected development of the Site with essentially complete surface soil coverage, the arsenic and benzo(a)pyrene concentrations are not expected to represent long-term exposure risk. AEI recommends preparation of Site Management Plan (SMP, aka a "Risk Management Plan") to address the potential risk associated with the residual contamination both during construction and post-construction residential reuse. While the at-grade garage is expected to provide significant additional vapor intrusion attenuation, the SMP should include a detailed evaluation of the vapor pathway.

AEI recommends the submittal of this report to the GPP for discussion per the case closure requirements prior to commencing construction activities.

6.0 REFERENCES

- AEI Consultants, 2020. *Phase I Environmental Site Assessment, 493 Eastmoor Avenue, Daly City, California*. Project No. 418720. February 25.
- Bradford, G.R., et. al. 1996. *Background Concentrations of Trace and Major Elements in California Soils*. March.
- California Department of Toxic Substances Control, California Environmental Protection Agency, and Los Angeles and San Francisco Bay Regional Water Quality Control Boards, 2015. *Advisory, Active Soil Gas Investigations*. July.
- California Department of Toxic Substances Control, et al., 2011. *Final: Vapor Intrusion Guidance*. October.
- Conestoga-Rovers & Associates, 2009. *Well Destruction Work Plan, Former Shell Service Station, 493 Eastmoor Avenue, Daly City, California*. August 21.
- Duvergé, D.J., 2011. *Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region*, San Francisco State University, MS Thesis. December.
- Earth Systems Pacific, 2015. *Preliminary Environmental Soil Screening, 493 Eastmoor Drive, Daly City, California*. September 4.

San Francisco Bay Regional Water Quality Control Board (RWQCB), 2019, *Environmental Screening Levels*, dated July 2019, revision 2.

San Mateo County Health System, 2009. *Case Closure at 493 Eastmoor Avenue, Daly City, California*. Case No. 220059. November 10.

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 Eastmoor Multifamily, LP. All reports, both verbal and written, whether in draft or final, are for the benefit of Eastmoor Multifamily, LP. 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 Eastmoor Multifamily, LP. 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.

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,

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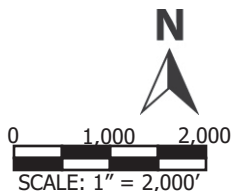


FIGURES



LEGEND

Map: San Francisco South
 Date: 2018
 Source: USGS

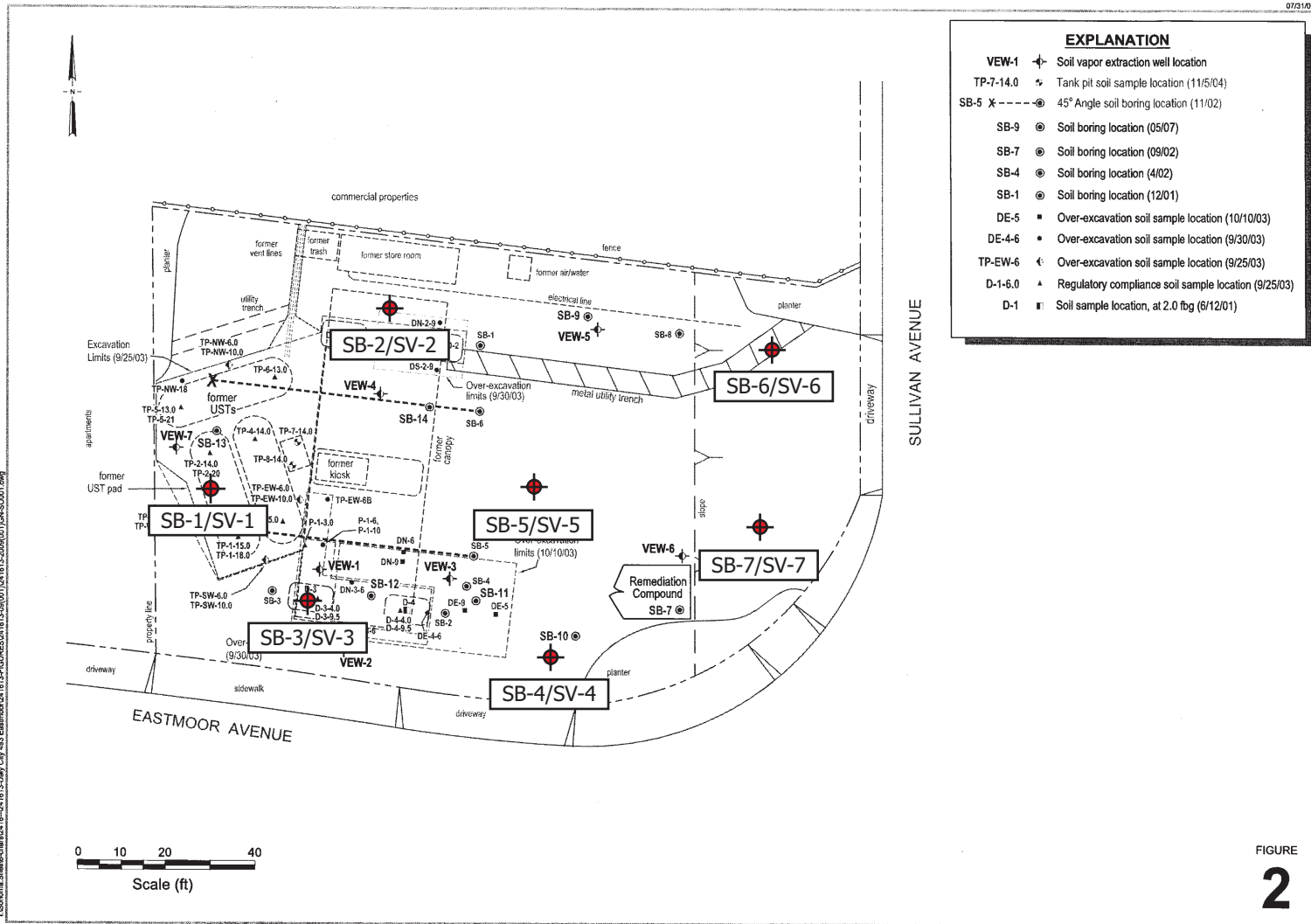


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SITE LOCATION MAP

493 Eastmoor Avenue
 Daly City, California

FIGURE 1
 Project No. 430044



Site Plan



Former Shell Service Station
493 Eastmoor Avenue
Daly City, California

FIGURE
2

LEGEND

Soil and Soil Vapor Sampling Location (11/2020)

Base Map Source: Conestoga-Rovers & Associates (2009)

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SITE MAP

493 EASTMOOR AVENUE
DALY CITY, CALIFORNIA

FIGURE 2
Project No. 430044

TABLES

TABLE 1: SOIL SAMPLE DATA SUMMARY - TPHs and VOCs
493 Eastmoor Avenue
Daly City, California

Location ID	Date	Depth (feet bgs)	TPH-q (mg/kg)	TPH-d (mg/kg)	TPH-mo (C22-C32) (mg/kg)	TPH-mo (C32-C40) (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Naphthalene (mg/kg)	n-Propyl Benzene (mg/kg)	1,2,4-Trimethylbenzene (mg/kg)	1,2,3-Trimethylbenzene (mg/kg)	1,3,5-Trimethylbenzene (mg/kg)	Remaining VOCs (mg/kg)
SB-1	11/19/2020	2.5	<2.90	1.72 J	13.6	16.6	<0.00116	<0.00581	<0.00290	0.00348 J	0.00692 J	<0.00581	<0.00581	<0.00581	<0.00581	<RDL
SB-2	11/19/2020	2.5	<3.01	1.41 J	14.1	13.9	<0.00120	<0.00602	<0.00301	<0.00783	<0.0151	<0.00602	<0.00602	<0.00602	<0.00602	<RDL
SB-3	11/19/2020	2.5	1.06 B J	16.6 J	225	152	<0.00119	<0.00595	0.000981 J	0.00797	<0.0149	<0.00595	0.0049 J	0.00338 J	0.00369 J	<RDL
SB-4	11/19/2020	2.5	<2.78	<4.22	4.76	4.33	0.00285	0.00178 J	<0.00278	0.00281 J	<0.0139	<0.00557	<0.00557	<0.00557	<0.00557	<RDL
SB-5	11/19/2020	2.5	<2.79	<4.22	<4.22	<4.22	<0.00112	<0.00559	<0.00279	<0.00727	<0.0140	<0.00559	<0.00559	<0.00559	<0.00559	<RDL
SB-6	11/19/2020	2.5	1.03 B J	167 J	1780	1170	<0.00107	<0.00534	<0.00267	<0.00694	<0.0134	<0.00534	<0.00534	<0.00534	<0.00534	<RDL
SB-7	11/19/2020	7	<3.54	9.38 J	42.9	58.7	0.00259	<0.00708	0.00607	0.00214 J	0.0166 J	0.00263 J	<0.00708	0.00804	<0.00708	<RDL
Comparison Values:																
ESL Direct Contact - R			430	260	12,000	12,000	0.33	1,100	5.9	580	3.8	--	--	--	--	Various
ESL Direct Contact - CW			1,800	1,100	54,000	54,000	33	4,700	540	2,400						Various

Notes:

- mg/kg milligrams per kilogram
- <RDL less than the reported detection limit
- bgs below ground surface
- TPH-q Total Petroleum Hydrocarbons as Gasoline
- TPH-d Carbon range C12-C22 typically associated with total petroleum hydrocarbons as diesel
- TPH-mo Carbon range C22-C40 typically associated with total petroleum hydrocarbons as motor oil
- No established regulatory screening level
- B The same analyte is found in the associated blank
- J The identification of the analyte is acceptable; the reported value is an estimate

Comparison Values:

ESL Direct Contact: Environmental Screening Levels (ESLs) for Direct Exposure for Human Health under Residential (R) and Construction Worker (CW) Exposure Scenarios from August 2019 (Rev. 2) ESL Summary Tables, prepared by the San Francisco Bay Regional Water Quality Control Board

TABLE 2: SOIL SAMPLE DATA SUMMARY - METALS
493 Eastmoor Avenue
Daly 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)
SB-1	11/19/2020	2.5	2.65	19.6	81.2	1.47	<0.538	35.5	22.3	16.2	6.18	0.041 J	0.776 B	47.7	1.48 J	<1.08	<2.15	57.2	55.4
SB-2	11/19/2020	2.5	0.876 J	2.95	73.2	0.41	<0.549	49.9	9.33	11	8.36	<0.0439	0.378 J	30.1	1.2 J	<1.10	<2.20	51	32.4
SB-3	11/19/2020	2.5	1.33 J	3.29	82.2	0.353	<0.547	73.5	9.51	11.2	6.45	0.024 J	0.224 J	42.6	1.5 J	<1.09	<2.19	60.5	35.3
SB-4	11/19/2020	2.5	0.772 J	0.674 J	24.9	0.275	<0.528	28.7	3.69	3.11	2.03	<0.0422	<0.528	20.2	0.836 J	<1.06	<2.11	32.9	14.8
SB-5	11/19/2020	2.5	<2.11	2.19 B	25.2	0.273	0.051 J	26.7	3.39	2.87	1.33	<0.0422	0.166 B J	18.6	<2.11	<1.06	<2.11	30.1	14.8
SB-6	11/19/2020	2.5	0.931 J	2.33 B	55.7	0.338	0.134 J	34.9	8.03	13.1	18.1	0.0234 J	1.04 B	27.4	<2.06	<1.03	<2.06	52.5	38.9
SB-7	11/19/2020	7	1.33 J	1.86 B J	60.9	0.358	<0.588	67.9	10.8	13.1	12.3	<0.0470	0.468 B J	53	1.28 J	<1.18	<2.35	56.5	42.1
Comparison Values:																			
ESL Direct Contact - R			11	0.067 ¹	15,000	16	78	--	23	3,100	80	13	390	820	390	390	0.78	390	23,000
ESL Direct Contact - CW			50	0.98 ¹	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
 <RDL less than the reported detection limit
 bgs Below ground surface
 -- not established
¹

Arsenic concentrations from Establishing Background Arsenic in Soil of the San Francisco Bay Region, December 2011 study indicate background levels of arsenic in California Bay Area soil typically range between 1.2 and 22 mg/kg.

Sb	Antimony	As	Arsenic	Ba	Barium
Be	Beryllium	Cd	Cadmium	Cr	Total Chromium
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 Contact: Environmental Screening Levels (ESLs) for Direct Exposure for Human Health under Residential (R) and Construction Worker (CW) Exposure Scenarios from August 2019 (Rev. 2) ESL Summary Tables, prepared by the San Francisco Bay Regional Water Quality Control Board.

Max. Background: Typical background concentrations provided here are based on "Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region" by Duverqé, 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. prepared by the San Francisco Bay Regional Water Quality Control Board

TABLE 3: SOIL SAMPLE DATA SUMMARY - SVOCs
493 Eastmoor Avenue
Daly City, California

Location ID	Date	Depth (feet bgs)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a) anthracene (mg/kg)	Benzo(b) fluoranthene (mg/kg)	Benzo(k) fluoranthene (mg/kg)
SB-1	11/19/2020	2.5	0.0185 J	<0.0358	<0.0358	<0.0358	<0.0358
SB-2	11/19/2020	2.5	0.0114 J	<0.0366	<0.0366	<0.0366	<0.0366
SB-3	11/19/2020	2.5	0.039	0.00704 J	<0.0364	0.00812 J	<0.0364
SB-4	11/19/2020	2.5	<0.0351	<0.0351	<0.0351	<0.0351	<0.0351
SB-5	11/19/2020	2.5	0.0194 J	<0.0352	<0.0352	<0.0352	<0.0352
SB-6	11/19/2020	2.5	<0.343	<0.343	0.134 J	0.259 J	0.0797 J
SB-7	11/19/2020	7	0.0152 J	<0.0391	<0.0391	<0.0391	<0.0391
Comparison Values:							
ESL Direct Contact - R			3,600	18,000	1.1	1.1	11
ESL Direct Contact - CW			10,000	230,000	110	110	910

Notes:

- mg/kg milligrams per kilogram
- <RDL less than the reported detection limit
- bgs below ground surface
- SVOCs Semi Volatile Organic Compounds
- Bold** Result exceeds a regulatory screening level
- No established regulatory screening level

Comparison Values:

San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) Direct Exposure Human Health (DEHH) Risk Levels for Residential (R) and Construction Worker (CW) Shallow Soil Exposure risks (RWQCB, August 2019)

TABLE 3: SOIL SAMPLE DATA SUMMARY - SVOCs
493 Eastmoor Avenue
Daly City, California

Location ID	Date	Depth (feet bgs)	Benzo(g,h,i) perylene (mg/kg)	Benzo(a) pyrene (mg/kg)	Chrysene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)	Remaining SVOCs (mg/kg)
SB-1	11/19/2020	2.5	<0.0358	<0.0358	<0.0358	0.00983 J	0.011 J	0.293	0.0305 J	0.00765 J	<RDL
SB-2	11/19/2020	2.5	<0.0366	<0.0366	<0.0366	<0.0366	<0.0366	0.198	<0.0366	<0.0366	<RDL
SB-3	11/19/2020	2.5	0.00667 J	<0.0364	<0.0364	0.0122 J	0.0177 J	0.577	0.0255 J	0.008 J	<RDL
SB-4	11/19/2020	2.5	<0.0351	<0.0351	<0.0351	<0.0351	<0.0351	0.0624	<0.0351	<0.0351	<RDL
SB-5	11/19/2020	2.5	<0.0352	<0.0352	<0.0352	<0.0352	0.00787 J	0.331	0.00736 J	<0.0352	<RDL
SB-6	11/19/2020	2.5	0.0793 J	0.16 J	0.154 J	0.457	<0.343	0.171 J	0.247 J	0.385	<RDL
SB-7	11/19/2020	7	<0.0391	<0.0391	<0.0391	<0.0391	0.00674 J	0.225	0.012 J	<0.0391	<RDL
Comparison Values:											
ESL Direct Contact - R			--	0.11	110	2,400	2,400	3.8	--	1,800	Various
ESL Direct Contact - CW			--	10	9,100	6,700	6,700	400.0	--	5,000	Various

Notes:

- mg/kg milligrams per kilogram
- <RDL less than the reported detection limit
- bgs below ground surface
- SVOCs Semi Volatile Organic Compounds
- Bold** Result exceeds a regulatory screening level
- No established regulatory screening level

Comparison Values:

San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) Direct Exposure Human Health (DEHH) Risk Levels for Residential (R) and Construction Worker (CW) Shallow Soil Exposure risks (RWQCB, August 2019)

TABLE 4: SOIL VAPOR SAMPLE DATA SUMMARY
493 Eastmoor Avenue, Daly City, California

Location ID	Date	Depth (feet bgs)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene (µg/m ³)	m&p-Xylene (µg/m ³)	o-Xylene (µg/m ³)	PCE (µg/m ³)	TCE (µg/m ³)	Acetone (µg/m ³)	Carbon Disulfide (µg/m ³)	Chloromethane (µg/m ³)	Cyclohexane (µg/m ³)
SV-1	12/8/2020	5	<0.639	<1.88	<0.867	<1.73	<0.867	<1.36	<1.07	3.78	2.85	<0.413	<0.689
SV-2	12/8/2020	5	<0.639	6.29	1.17	6.29	2.74	6.25	<1.07	106	<0.622	<0.413	<0.689
SV-3	12/8/2020	5	0.747	2.8	<0.867	<1.73	<0.867	<1.36	<1.07	14.2	5.73	0.686	0.919
SV-4	12/8/2020	5	1.65	<1.88	<0.867	<1.73	<0.867	<1.36	<1.07	9.98	9.34	1.08	2.64
SV-5	12/8/2020	5	<0.639	<1.88	<0.867	<1.73	<0.867	5.01	64.8	17.8	<0.622	7.21	0.851
SV-6	12/8/2020	6.5	<0.639	<1.88	<0.867	<1.73	<0.867	2.55	<1.07	13.1	0.691	1.07	<0.689
SV-7	12/8/2020	9	626	27	38.2	141	58.5	1.93	<1.07	35.4	<0.622	<0.413	1,080
Comparison Values: ESL-Vapor Intrusion-R:			3.2	10,000	37	3,500		15	16	1,100,000	--	3,100	--

Notes:

- µg/m³ Micrograms per cubic meter
- <RDL Less than the laboratory reporting limit
- bgs Below ground surface
- Not established
- B The same analyte is found in the associated blank.
- E The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
- MEK Methyl ethyl ketone
- MTBE Methyl Tertiary Butyl Ether
- PCE Tetrachloroethene
- TCE Trichloroethene
- VOCs Volatile organic compounds

Comparison Values:

ESL-Vapor Intrusion: Subslab/Soil Gas Vapor Intrusion Human Health Risk Levels for the Residential (R) Use Exposure Scenario; Environmental Screening Levels (ESLs) from July 2019 (Revision 2) ESL Summary Tables, prepared by the San Francisco Bay Regional Water Quality Control Board

TABLE 4: SOIL VAPOR SAMPLE DATA SUMMARY
493 Eastmoor Avenue, Daly City, California

Location ID	Date	Depth (feet bgs)	1,4-Dichlorobenzene (µg/m ³)	cis-1,2-Dichloroethene (µg/m ³)	1,4-Dioxane (µg/m ³)	Ethanol (µg/m ³)	4-Ethyltoluene (µg/m ³)	Trichlorofluoromethane (µg/m ³)	Dichlorodifluoromethane (µg/m ³)	Heptane (µg/m ³)	n-Hexane (µg/m ³)	Methylene Chloride (µg/m ³)
SV-1	12/8/2020	5	<1.20	<0.793	<0.721	23	<0.982	2.18	<0.989	<0.818	<2.22	<0.694
SV-2	12/8/2020	5	<1.20	<0.793	0.926	601 E	1.82	1.36	2.73	<0.818	<2.22	0.788
SV-3	12/8/2020	5	<1.20	<0.793	<0.721	100	<0.982	1.38	2.74	<0.818	<2.22	2.77
SV-4	12/8/2020	5	<1.20	<0.793	<0.721	22.8	<0.982	<1.12	2.40	<0.818	<2.22	<0.694
SV-5	12/8/2020	5	<1.20	3.17	2.75	53.9	<0.982	1.38	2.79	<0.818	<2.22	1.38
SV-6	12/8/2020	6.5	<1.20	<0.793	<0.721	64.5	<0.982	<1.12	2.28	<0.818	<2.22	1.31
SV-7	12/8/2020	9	4.84	<0.793	<0.721	81.5	6.04	<1.12	1.00	337	1,030	<0.694
Comparison Values: ESL-Vapor Intrusion-R:			--	280	12	--	--	--	--	--	--	34

Notes:

Micrograms per cubic meter

Less than the laboratory reporting limit

Below ground surface

Not established

The same analyte is found in the associated blank.

The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

Methyl ethyl ketone

Methyl Tertiary Butyl Ether

Tetrachloroethene

Trichloroethene

Volatile organic compounds

Comparison Values:

ESL-Vapor Intrusion: Subslab/Soil Gas Vapor Intrusion Human Health Risk Levels for the Residential (R) Use Exposure Scenario; Environmental Screening Levels (ESLs) from July 2019 (Revision 2) ESL Summary Tables, prepared by the San Francisco Bay Regional Water Quality Control Board

TABLE 4: SOIL VAPOR SAMPLE DATA SUMMARY
493 Eastmoor Avenue, Daly City, California

Location ID	Date	Depth (feet bgs)	2-Butanone (MEK) (µg/m ³)	MTBE (µg/m ³)	2-Propanol (µg/m ³)	Propene (µg/m ³)	Tetra-hydrofuran (µg/m ³)	1,1,1-Trichloroethane (µg/m ³)	1,2,4-Trimethylbenzene (µg/m ³)	1,3,5-Trimethylbenzene (µg/m ³)	2,2,4-Trimethylpentane (µg/m ³)
SV-1	12/8/2020	5	<3.69	<0.721	6.22	<0.689	<0.590	<1.09	<0.982	<0.982	<0.934
SV-2	12/8/2020	5	26.5	0.771	73.5	<0.689	2.49	<1.09	3.56	1.48	1.97
SV-3	12/8/2020	5	<3.69	<0.721	8.04	<0.689	1.06	<1.09	<0.982	<0.982	<0.934
SV-4	12/8/2020	5	<3.69	<0.721	6.34	3.94	<0.590	<1.09	<0.982	<0.982	<0.934
SV-5	12/8/2020	5	<3.69	<0.721	8.6	1.1 B	1.93	1.32	<0.982	<0.982	<0.934
SV-6	12/8/2020	6.5	<3.69	<0.721	8.68	<0.689	<0.590	<1.09	<0.982	<0.982	<0.934
SV-7	12/8/2020	9	<3.69	<0.721	4.08	<0.689	<0.590	<1.09	4.12	3.31	5,560
Comparison Values: ESL-Vapor Intrusion-R:			170,000	360	--	--	--	--	--	--	--

Notes:

- µg/m³ Micrograms per cubic meter
- <RDL Less than the laboratory reporting limit
- bgs Below ground surface
- Not established
- B The same analyte is found in the associated blank.
- E The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
- MEK Methyl ethyl ketone
- MTBE Methyl Tertiary Butyl Ether
- PCE Tetrachloroethene
- TCE Trichloroethene
- VOCs Volatile organic compounds

Comparison Values:

ESL-Vapor Intrusion: Subslab/Soil Gas Vapor Intrusion Human Health Risk Levels for the Residential (R) Use Exposure Scenario; Environmental Screening Levels (ESLs) from July 2019 (Revision 2) ESL Summary Tables, prepared by the San Francisco Bay Regional Water Quality Control Board

TABLE 4: SOIL VAPOR SAMPLE DATA SUMMARY
493 Eastmoor Avenue, Daly City, California

Location ID	Date	Depth (feet bgs)	1,1-Difluoroethane (µg/m ³)	Remaining VOCs (µg/m ³)	Oxygen (%)	Carbon Dioxide (%)	Helium Detected in Sample (%)	Field Helium Shroud (%)	Maximum Allowable Helium Detection in Sample (%)
SV-1	12/8/2020	5	<2.70	<RDL	20.9	<0.500	<0.100	26.2	1.31%
SV-2	12/8/2020	5	4.65	<RDL	21.9	<0.500	<0.100	21.5	1.08%
SV-3	12/8/2020	5	42.4	<RDL	19.7	1.26	<0.100	30.1	1.51%
SV-4	12/8/2020	5	2.86 B	<RDL	21.2	0.718	<0.100	34.8	1.74%
SV-5	12/8/2020	5	14.2	<RDL	22.0	<0.500	<0.100	27.7	1.39%
SV-6	12/8/2020	6.5	9.02	<RDL	18.3	2.98	<0.100	24.4	1.22%
SV-7	12/8/2020	9	19.1	<RDL	12.3	7.98	<0.100	32.1	1.61%
Comparison Values: ESL-Vapor Intrusion-R:			--	Various	--	--	--	--	--

Notes:

- µg/m³ Micrograms per cubic meter
- <RDL Less than the laboratory reporting limit
- bgs Below ground surface
- Not established
- B The same analyte is found in the associated blank.
- E The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
- MEK Methyl ethyl ketone
- MTBE Methyl Tertiary Butyl Ether
- PCE Tetrachloroethene
- TCE Trichloroethene
- VOCs Volatile organic compounds

Comparison Values:

ESL-Vapor Intrusion: Subslab/Soil Gas Vapor Intrusion Human Health Risk Levels for the Residential (R) Use Exposure Scenario; Environmental Screening Levels (ESLs) from July 2019 (Revision 2) ESL Summary Tables, prepared by the San Francisco Bay Regional Water Quality Control Board

APPENDIX A
SELECT PLAN SET FIGURES



EASTMOOR RESIDENTIAL DEVELOPMENT

493 EASTMOOR AVENUE
Daly City - California

JMH WEISS, INC.
Civil Engineering ~ Surveying ~ Land Planning

1731 Technology Drive, Suite 880
San Jose, CA 95110

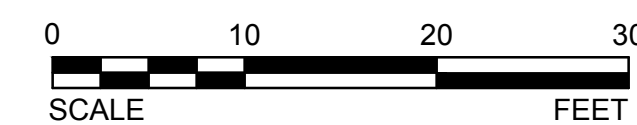
t 408.790.4982
www.jmhweiss.com

Date: 10/28/2019
Scale: AS NOTED
Revisions:

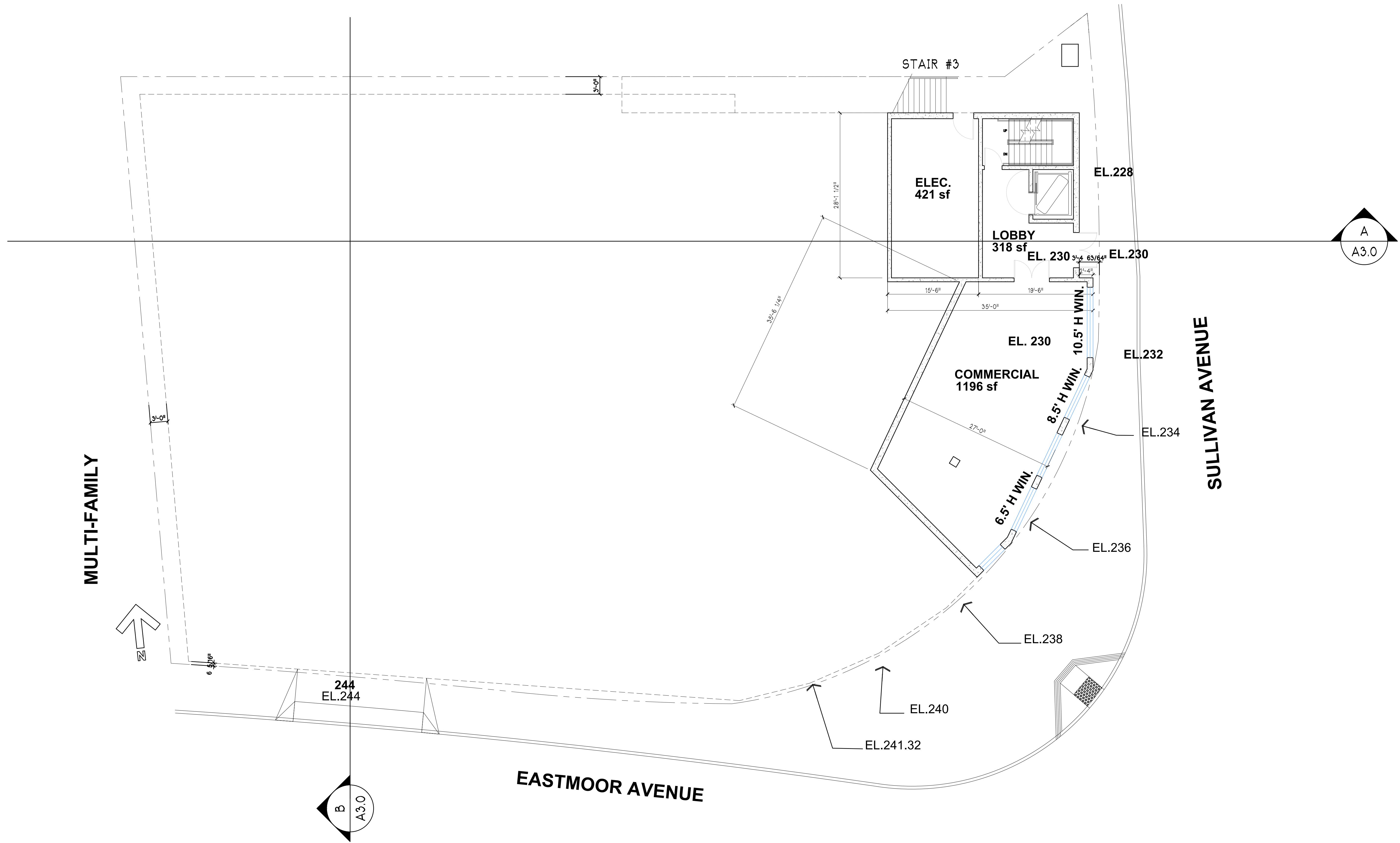
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EXISTING CONDITIONS
Sheet No:
C1.0

LPMD
Architects

1288 Kifer Road, Suite 206
Sunnyvale, CA 94086
Telephone : 408-992-0280
Fax : 408-992-0281



MULTI-FAMILY



1 1ST FLOOR PLAN / ARCHITECTURE SITE PLAN
1/8" = 1'-0"

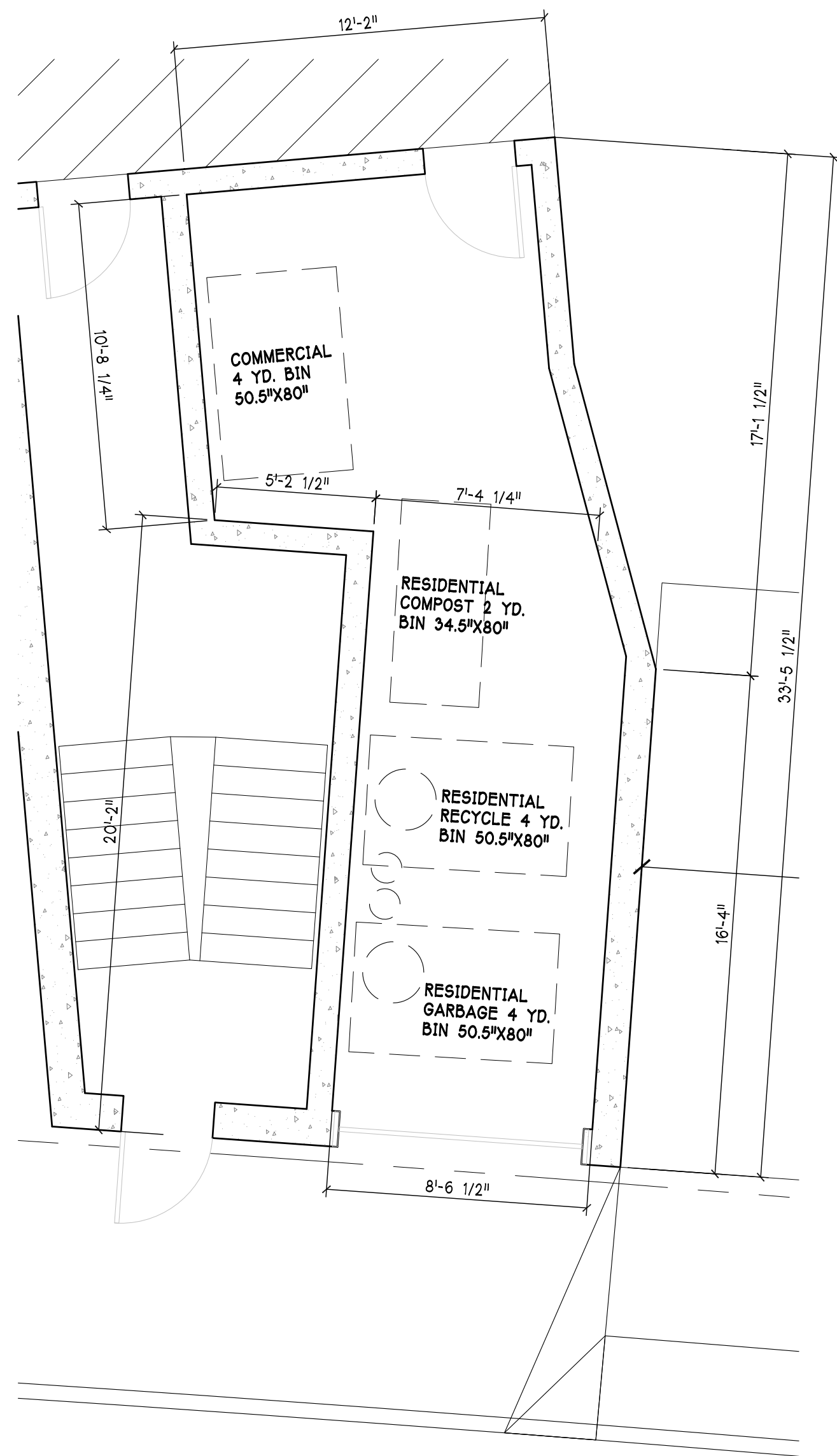


EASTMOOR
RESIDENTIAL DEVELOPMENT
493 EASTMOOR AVENUE
Daly City - California

Date:	Drawing Title:
Scale:	FIRST FLOOR PLAN
Revisions:	Sheet No. A21



MULTI-FAMILY



2 ENLARGED TRASH ROOM PLAN
1/4" = 1'-0"

RECYCLING & GARBAGE CALCULATIONS&PLAN:

EACH RESIDENTIAL UNIT TYPICALLY CONSUME 0.16YD GARBAGE/WEEK AND 0.16YD RECYCLING/WEEK.

72 UNITS = 12 YDS/WK OF GARBAGE AND 12YDS/WK OF RECYCLING

(1) 4YD BIN IS PROVIDED FOR GARBAGE

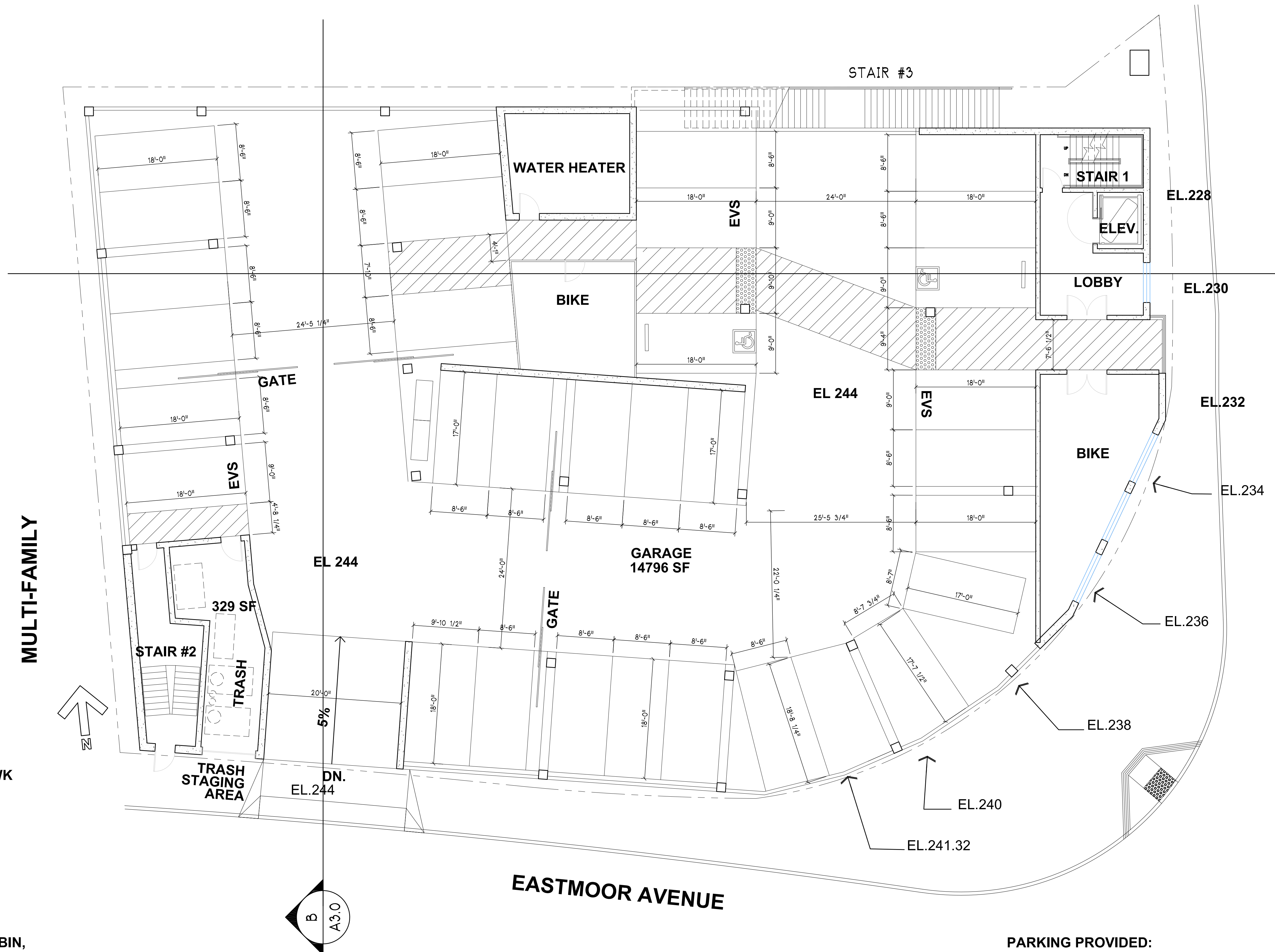
(1) 4YD BIN IS PROVIDED FOR RECYCLING

THEREFORE, THERE SHALL BE (3) PICK-UPS PER WEEK

RESIDENTS SHALL ALSO HAVE (1) 2YD COMPOST BIN, TO BE PICKED UP ONCE PER WEEK

COMMERCIAL/OFFICE SPACES SHALL HAVE (1) 4YD BIN, TO BE PICKED UP ONCE PER WEEK.

MULTI-FAMILY



1 2ND FLOOR PLAN / ARCHITECTURE SITE PLAN
1/8" = 1'-0"

PARKING PROVIDED:

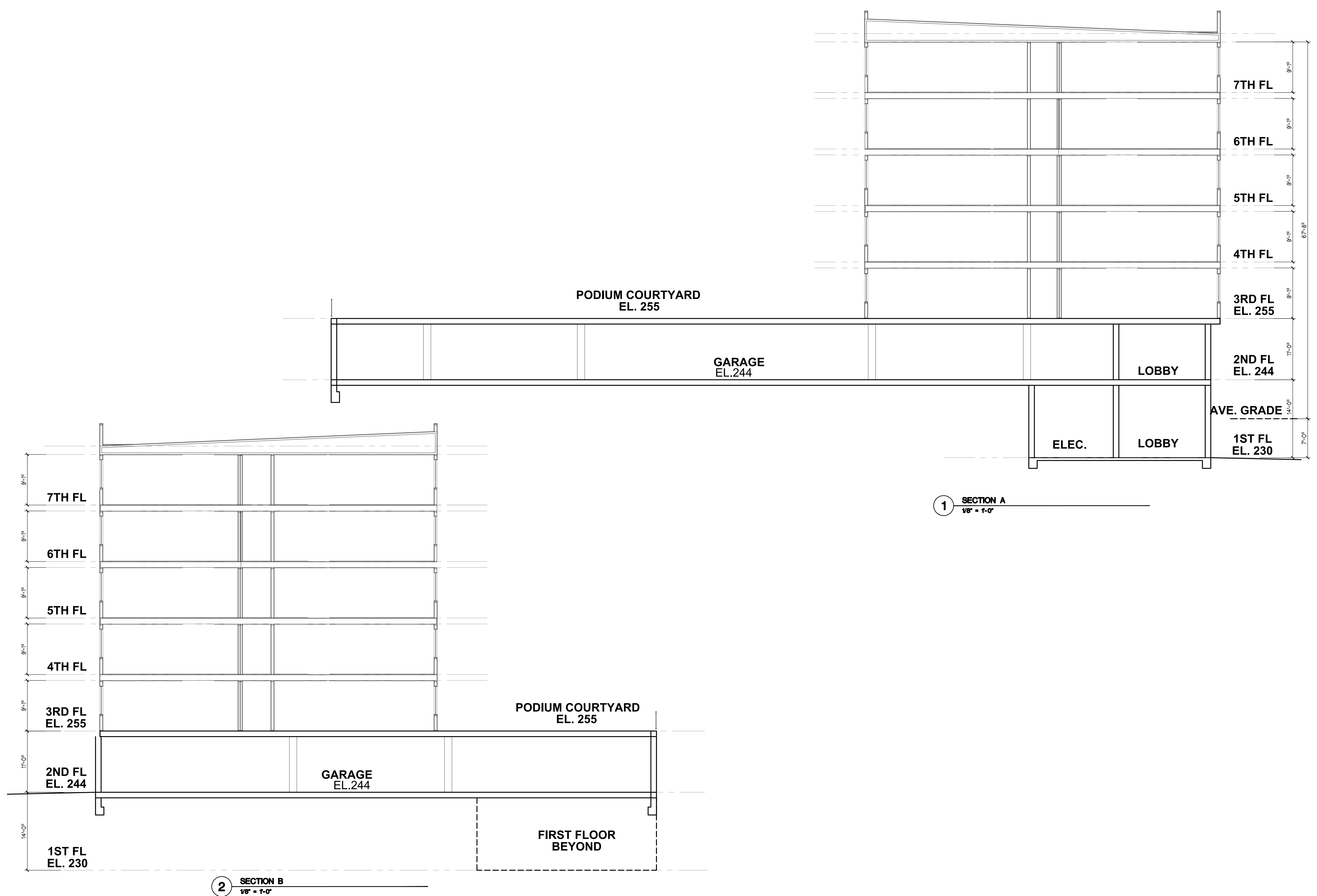
	2ND FL
STANDARD	30
ADA	2 (2 VAN)
	32



EASTMOOR
RESIDENTIAL DEVELOPMENT
493 EASTMOOR AVENUE
Daly City - California

Date:	Drawing Title:
Scale:	2ND FLOOR PLAN
Revisions:	Sheet No. A22





APPENDIX B
SOIL BORING LOGS



CLIENT Eastmoor Family, LP
PROJECT NUMBER 430044
DATE STARTED 11/19/20 **COMPLETED** 11/19/20
DRILLING CONTRACTOR ECA
DRILLING METHOD Direct Push
LOGGED BY N. Budimirovic **CHECKED BY** J. Smith
NOTES _____

PROJECT NAME Limited Phase II Subsurface Investigation
PROJECT LOCATION 493 Eastmoor Avenue, Daly City, CA
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
GROUND WATER LEVELS:
AT TIME OF DRILLING --- No groundwater encountered
AT END OF DRILLING ---
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0						
0.5					TOPSOIL	
1.0					SANDY GRAVEL (GPS) black (10YR 2/1), loose, dry, coarse grained gravel, fine grained sand, no odor (FILL)	
4.8	SB-1-2.5		4.8		SILTY SAND (SM) yellowish brown (10YR 5/6), loose, moist, fine grained sand, no odor	
5.9	SB-1-5.5		5.9			

Bottom of borehole at 5.5 feet.



CLIENT Eastmoor Family, LP **PROJECT NAME** Limited Phase II Subsurface Investigation
PROJECT NUMBER 430044 **PROJECT LOCATION** 493 Eastmoor Avenue, Daly City, CA
DATE STARTED 11/19/20 **COMPLETED** 11/19/20 **GROUND ELEVATION** _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR ECA **GROUND WATER LEVELS:**
DRILLING METHOD Direct Push **AT TIME OF DRILLING** --- No groundwater encountered
LOGGED BY N. Budimirovic **CHECKED BY** J. Smith **AT END OF DRILLING** ---
NOTES _____ **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0						
0.5					SAND (SP) yellowish brown (10YR 5/6), loose, moist, fine grained sand, no odor	
	SB-2-2.5		13.3			
5						
	SB-2-5.5		21.4			

Bottom of borehole at 5.5 feet.



CLIENT Eastmoor Family, LP
PROJECT NUMBER 430044
DATE STARTED 11/19/20 **COMPLETED** 11/19/20
DRILLING CONTRACTOR ECA
DRILLING METHOD Direct Push
LOGGED BY N. Budimirovic **CHECKED BY** J. Smith
NOTES _____

PROJECT NAME Limited Phase II Subsurface Investigation
PROJECT LOCATION 493 Eastmoor Avenue, Daly City, CA
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
GROUND WATER LEVELS:
AT TIME OF DRILLING --- No groundwater encountered
AT END OF DRILLING ---
AFTER DRILLING ---


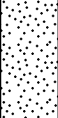
DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0						
0.5					TOPSOIL	
1.0					GRAVELLY SAND (SPG) black (10YR 2/1), loose, dry, coarse grained gravel, fine grained sand, no odor	
4.0	SB-3-2.5		4.0		SILTY SAND (SM) very dark grayish brown (10YR 3/2), loose, moist, fine grained sand, no odor	
5.5	SB-3-5.5		6.2			

Bottom of borehole at 5.5 feet.



CLIENT Eastmoor Family, LP
PROJECT NUMBER 430044
DATE STARTED 11/19/20 **COMPLETED** 11/19/20
DRILLING CONTRACTOR ECA
DRILLING METHOD Direct Push
LOGGED BY N. Budimirovic **CHECKED BY** J. Smith
NOTES _____

PROJECT NAME Limited Phase II Subsurface Investigation
PROJECT LOCATION 493 Eastmoor Avenue, Daly City, CA
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
GROUND WATER LEVELS:
AT TIME OF DRILLING --- No groundwater encountered
AT END OF DRILLING ---
AFTER DRILLING ---



DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0						
	SB-4-2.5		3.9		0.5 TOPSOIL SAND (SP) yellowish brown (10YR 5/6), loose, moist, fine grained sand, no odor	
5	SB-4-5.5		7.1		At 3 feet bgs color grades to dark yellowish brown (10YR 3/6)	

Bottom of borehole at 5.5 feet.



CLIENT Eastmoor Family, LP
PROJECT NUMBER 430044
DATE STARTED 11/19/20 **COMPLETED** 11/19/20
DRILLING CONTRACTOR ECA
DRILLING METHOD Direct Push
LOGGED BY N. Budimirovic **CHECKED BY** J. Smith
NOTES _____

PROJECT NAME Limited Phase II Subsurface Investigation
PROJECT LOCATION 493 Eastmoor Avenue, Daly City, CA
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
GROUND WATER LEVELS:
AT TIME OF DRILLING --- No groundwater encountered
AT END OF DRILLING ---
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0						
0.5					ASPHALT	
1.0					SANDY GRAVEL (GPS) black (10YR 2/1), loose, dry, fine grained sand, coarse grained gravel, no odor	
5	SB-5-2.5		9.6		SAND (SP) brownish yellow (10YR 6/6), loose, moist, fine grained sand, no odor	
5.5	SB-5-5.5		14.1			

Bottom of borehole at 5.5 feet.



CLIENT Eastmoor Family, LP
PROJECT NUMBER 430044
DATE STARTED 11/19/20 **COMPLETED** 11/19/20
DRILLING CONTRACTOR ECA
DRILLING METHOD Direct Push
LOGGED BY N. Budimirovic **CHECKED BY** J. Smith
NOTES _____

PROJECT NAME Limited Phase II Subsurface Investigation
PROJECT LOCATION 493 Eastmoor Avenue, Daly City, CA
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
GROUND WATER LEVELS:
AT TIME OF DRILLING --- No groundwater encountered
AT END OF DRILLING ---
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0						
					0.5 VEGETATION	
	SB-6-2.5		6.4		SAND (SP) yellowish brown (10YR 5/6), loose, moist, fine grained sand, no odor	
5						
	SB-6-5		7.1		5.0 SILTY SAND (SM) yellowish brown (10YR 5/6), loose, moist, fine grained sand, no odor	
	SB-6-7		8.3		7.0	

Bottom of borehole at 7.0 feet.

AEI BORING - GINT STD US LAB.GDT - 12/15/20 12:03 - C:\USERS\NBUDIMIROVIC\DESKTOP\DALY CITY BORING LOGS.GPJ



CLIENT Eastmoor Family, LP
PROJECT NUMBER 430044
DATE STARTED 11/19/20 **COMPLETED** 11/19/20
DRILLING CONTRACTOR ECA
DRILLING METHOD Direct Push
LOGGED BY N. Budimirovic **CHECKED BY** J. Smith
NOTES _____

PROJECT NAME Limited Phase II Subsurface Investigation
PROJECT LOCATION 493 Eastmoor Avenue, Daly City, CA
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
GROUND WATER LEVELS:
AT TIME OF DRILLING --- No groundwater encountered
AT END OF DRILLING ---
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0						
0.5					ASPHALT	
5	SB-7-3.5		18.2		SAND (SP) yellowish brown (10YR 5/6), loose, moist, fine grained sand, no odor	
	SB-7-7		29.7		SILTY SAND (SM) yellowish brown (10YR 5/6), loose, moist, fine grained sand, apparent hydrocarbon odor From 6.5 feet to 7.5 feet bgs color grades to greenish black (GLEY1 2.5/5G_R) From 7.5 feet to 9 feet bgs color grades to black (10YR 2/1)	
	SB-7-9.5		16.9		From 9 feet to 9.5 feet bgs color grades to greenish black (GLEY1 2.5/5G_R)	

Bottom of borehole at 9.5 feet.

AEI BORING - GINT STD US LAB.GDT - 12/15/20 12:03 - C:\USERS\NBUDIMIROVIC\DESKTOP\DALY CITY BORING LOGS.GPJ

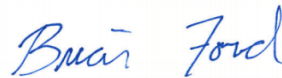
APPENDIX C
LABORATORY ANALYTICAL REPORTS

AEI Consultants - CA

Sample Delivery Group: L1289379
Samples Received: 11/20/2020
Project Number: 430044
Description: Eastmoor Avenue

Report To: Natasha Budimirovic
2500 Camino Diablo
Walnut Creek, CA 94597










Entire Report Reviewed By:



Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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Cn: Case Narrative	5	
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SB-3-2.5 L1289379-03	14	
SB-4-2.5 L1289379-04	18	
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SAMPLE SUMMARY

SB-1-2.5 L1289379-01 Solid

Collected by
Natasha Budimirovic

Collected date/time
11/19/20 09:21

Received date/time
11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1584115	1	12/01/20 08:35	12/01/20 08:45	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1584540	1	12/01/20 09:07	12/02/20 08:13	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1583319	1	11/29/20 12:57	11/30/20 23:57	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1584921	25	11/19/20 09:21	12/02/20 21:22	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1584153	1	11/19/20 09:21	12/01/20 21:11	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1583815	1	11/30/20 07:52	12/01/20 09:19	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1583806	1	12/01/20 08:28	12/01/20 23:33	JNJ	Mt. Juliet, TN

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SB-2-2.5 L1289379-02 Solid

Collected by
Natasha Budimirovic

Collected date/time
11/19/20 11:28

Received date/time
11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1584115	1	12/01/20 08:35	12/01/20 08:45	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1583991	1	11/30/20 08:19	12/01/20 08:46	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1583760	1	11/29/20 13:03	12/01/20 08:39	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1584921	25	11/19/20 11:28	12/03/20 00:44	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1584153	1	11/19/20 11:28	12/01/20 21:30	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1583815	1	11/30/20 07:52	12/01/20 09:34	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1583806	1	12/01/20 08:28	12/02/20 00:13	JNJ	Mt. Juliet, TN

SB-3-2.5 L1289379-03 Solid

Collected by
Natasha Budimirovic

Collected date/time
11/19/20 09:36

Received date/time
11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1584115	1	12/01/20 08:35	12/01/20 08:45	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1583991	1	11/30/20 08:19	12/01/20 08:49	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1583760	1	11/29/20 13:03	12/01/20 08:41	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1584921	25	11/19/20 09:36	12/03/20 01:07	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1584153	1	11/19/20 09:36	12/01/20 21:49	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1583815	10	11/30/20 07:52	12/01/20 12:25	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1583806	1	12/01/20 08:28	12/02/20 00:53	JNJ	Mt. Juliet, TN

SB-4-2.5 L1289379-04 Solid

Collected by
Natasha Budimirovic

Collected date/time
11/19/20 09:48

Received date/time
11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1584115	1	12/01/20 08:35	12/01/20 08:45	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1583991	1	11/30/20 08:19	12/01/20 08:51	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1583760	1	11/29/20 13:03	12/01/20 08:44	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1584921	25	11/19/20 09:48	12/03/20 01:30	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1584153	1	11/19/20 09:48	12/01/20 22:08	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1583815	1	11/30/20 07:52	12/01/20 09:05	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1583806	1	12/01/20 08:28	12/01/20 23:13	JNJ	Mt. Juliet, TN

SB-5-2.5 L1289379-05 Solid

Collected by
Natasha Budimirovic

Collected date/time
11/19/20 10:13

Received date/time
11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1584117	1	12/01/20 08:21	12/01/20 08:31	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1583991	1	11/30/20 08:19	12/01/20 09:02	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1583319	1	11/29/20 12:57	11/30/20 23:59	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1585567	25	11/19/20 10:13	12/03/20 08:13	TPR	Mt. Juliet, TN

SAMPLE SUMMARY



SB-5-2.5 L1289379-05 Solid

Collected by Collected date/time Received date/time
 Natasha Budimirovic 11/19/20 10:13 11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1584153	1	11/19/20 10:13	12/01/20 22:27	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1583815	1	11/30/20 07:52	11/30/20 22:36	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1583806	1	12/01/20 08:28	12/01/20 19:32	JNJ	Mt. Juliet, TN

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SB-6-2.5 L1289379-06 Solid

Collected by Collected date/time Received date/time
 Natasha Budimirovic 11/19/20 11:12 11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1584117	1	12/01/20 08:21	12/01/20 08:31	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1583991	1	11/30/20 08:19	12/01/20 09:05	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1583319	1	11/29/20 12:57	12/01/20 00:02	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1585567	25	11/19/20 11:12	12/03/20 08:36	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1584153	1	11/19/20 11:12	12/01/20 22:46	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1585052	200	12/02/20 06:33	12/03/20 17:39	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1583806	10	12/01/20 08:28	12/02/20 02:13	JNJ	Mt. Juliet, TN

SB-7-7 L1289379-07 Solid

Collected by Collected date/time Received date/time
 Natasha Budimirovic 11/19/20 10:34 11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1584117	1	12/01/20 08:21	12/01/20 08:31	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1583991	1	11/30/20 08:19	12/01/20 09:07	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1583319	1	11/29/20 12:57	12/01/20 00:05	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1585567	25	11/19/20 10:34	12/03/20 08:59	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1584153	1	11/19/20 10:34	12/01/20 23:05	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1585052	5	12/02/20 06:33	12/02/20 21:28	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1583806	1	12/01/20 08:28	12/01/20 23:53	JNJ	Mt. Juliet, TN



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

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



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.9		1	12/01/2020 08:45	WG1584115

1 Cp

2 Tc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0410	J	0.0194	0.0431	1	12/02/2020 08:13	WG1584540

3 Ss

4 Cn

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	2.65		0.586	2.15	1	11/30/2020 23:57	WG1583319
Arsenic	19.6		0.558	2.15	1	11/30/2020 23:57	WG1583319
Barium	81.2		0.0917	0.538	1	11/30/2020 23:57	WG1583319
Beryllium	1.47		0.0339	0.215	1	11/30/2020 23:57	WG1583319
Cadmium	U		0.0507	0.538	1	11/30/2020 23:57	WG1583319
Chromium	35.5		0.143	1.08	1	11/30/2020 23:57	WG1583319
Cobalt	22.3		0.0873	1.08	1	11/30/2020 23:57	WG1583319
Copper	16.2		0.431	2.15	1	11/30/2020 23:57	WG1583319
Lead	6.18		0.224	0.538	1	11/30/2020 23:57	WG1583319
Molybdenum	0.776	B	0.117	0.538	1	11/30/2020 23:57	WG1583319
Nickel	47.7		0.142	2.15	1	11/30/2020 23:57	WG1583319
Selenium	1.48	J	0.822	2.15	1	11/30/2020 23:57	WG1583319
Silver	U		0.137	1.08	1	11/30/2020 23:57	WG1583319
Thallium	U		0.424	2.15	1	11/30/2020 23:57	WG1583319
Vanadium	57.2		0.545	2.15	1	11/30/2020 23:57	WG1583319
Zinc	55.4		0.896	5.38	1	11/30/2020 23:57	WG1583319

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	U		0.964	2.90	25	12/02/2020 21:22	WG1584921
(S) a,a,a-Trifluorotoluene(FID)	96.1			77.0-120		12/02/2020 21:22	WG1584921

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0424	0.0581	1	12/01/2020 21:11	WG1584153
Acrylonitrile	U		0.00419	0.0145	1	12/01/2020 21:11	WG1584153
Benzene	U		0.000542	0.00116	1	12/01/2020 21:11	WG1584153
Bromobenzene	U		0.00105	0.0145	1	12/01/2020 21:11	WG1584153
Bromodichloromethane	U		0.000842	0.00290	1	12/01/2020 21:11	WG1584153
Bromoform	U	J4	0.00136	0.0290	1	12/01/2020 21:11	WG1584153
Bromomethane	U		0.00229	0.0145	1	12/01/2020 21:11	WG1584153
n-Butylbenzene	U		0.00610	0.0145	1	12/01/2020 21:11	WG1584153
sec-Butylbenzene	U		0.00334	0.0145	1	12/01/2020 21:11	WG1584153
tert-Butylbenzene	U		0.00226	0.00581	1	12/01/2020 21:11	WG1584153
Carbon tetrachloride	U		0.00104	0.00581	1	12/01/2020 21:11	WG1584153
Chlorobenzene	U		0.000244	0.00290	1	12/01/2020 21:11	WG1584153
Chlorodibromomethane	U	J4	0.000711	0.00290	1	12/01/2020 21:11	WG1584153
Chloroethane	U		0.00197	0.00581	1	12/01/2020 21:11	WG1584153
Chloroform	U		0.00120	0.00290	1	12/01/2020 21:11	WG1584153
Chloromethane	U		0.00505	0.0145	1	12/01/2020 21:11	WG1584153
2-Chlorotoluene	U		0.00100	0.00290	1	12/01/2020 21:11	WG1584153
4-Chlorotoluene	U		0.000523	0.00581	1	12/01/2020 21:11	WG1584153



Collected date/time: 11/19/20 09:21

L1289379

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00453	0.0290	1	12/01/2020 21:11	WG1584153
1,2-Dibromoethane	U		0.000753	0.00290	1	12/01/2020 21:11	WG1584153
Dibromomethane	U		0.000871	0.00581	1	12/01/2020 21:11	WG1584153
1,2-Dichlorobenzene	U		0.000494	0.00581	1	12/01/2020 21:11	WG1584153
1,3-Dichlorobenzene	U		0.000697	0.00581	1	12/01/2020 21:11	WG1584153
1,4-Dichlorobenzene	U		0.000813	0.00581	1	12/01/2020 21:11	WG1584153
Dichlorodifluoromethane	U		0.00187	0.00290	1	12/01/2020 21:11	WG1584153
1,1-Dichloroethane	U		0.000570	0.00290	1	12/01/2020 21:11	WG1584153
1,2-Dichloroethane	U		0.000754	0.00290	1	12/01/2020 21:11	WG1584153
1,1-Dichloroethene	U		0.000704	0.00290	1	12/01/2020 21:11	WG1584153
cis-1,2-Dichloroethene	U		0.000852	0.00290	1	12/01/2020 21:11	WG1584153
trans-1,2-Dichloroethene	U		0.00121	0.00581	1	12/01/2020 21:11	WG1584153
1,2-Dichloropropane	U		0.00165	0.00581	1	12/01/2020 21:11	WG1584153
1,1-Dichloropropene	U		0.000940	0.00290	1	12/01/2020 21:11	WG1584153
1,3-Dichloropropane	U		0.000582	0.00581	1	12/01/2020 21:11	WG1584153
cis-1,3-Dichloropropene	U		0.000879	0.00290	1	12/01/2020 21:11	WG1584153
trans-1,3-Dichloropropene	U		0.00132	0.00581	1	12/01/2020 21:11	WG1584153
2,2-Dichloropropane	U	J4	0.00160	0.00290	1	12/01/2020 21:11	WG1584153
Di-isopropyl ether	U		0.000476	0.00116	1	12/01/2020 21:11	WG1584153
Ethylbenzene	U		0.000856	0.00290	1	12/01/2020 21:11	WG1584153
Hexachloro-1,3-butadiene	U		0.00697	0.0290	1	12/01/2020 21:11	WG1584153
Isopropylbenzene	U		0.000494	0.00290	1	12/01/2020 21:11	WG1584153
p-Isopropyltoluene	U		0.00296	0.00581	1	12/01/2020 21:11	WG1584153
2-Butanone (MEK)	U		0.0737	0.116	1	12/01/2020 21:11	WG1584153
Methylene Chloride	U		0.00771	0.0290	1	12/01/2020 21:11	WG1584153
4-Methyl-2-pentanone (MIBK)	U		0.00265	0.0290	1	12/01/2020 21:11	WG1584153
Methyl tert-butyl ether	U	J4	0.000406	0.00116	1	12/01/2020 21:11	WG1584153
Naphthalene	0.00692	J	0.00567	0.0145	1	12/01/2020 21:11	WG1584153
n-Propylbenzene	U		0.00110	0.00581	1	12/01/2020 21:11	WG1584153
Styrene	U		0.000266	0.0145	1	12/01/2020 21:11	WG1584153
1,1,1,2-Tetrachloroethane	U		0.00110	0.00290	1	12/01/2020 21:11	WG1584153
1,1,2,2-Tetrachloroethane	U		0.000807	0.00290	1	12/01/2020 21:11	WG1584153
1,1,2-Trichlorotrifluoroethane	U		0.000876	0.00290	1	12/01/2020 21:11	WG1584153
Tetrachloroethene	U		0.00104	0.00290	1	12/01/2020 21:11	WG1584153
Toluene	U		0.00151	0.00581	1	12/01/2020 21:11	WG1584153
1,2,3-Trichlorobenzene	U		0.00851	0.0145	1	12/01/2020 21:11	WG1584153
1,2,4-Trichlorobenzene	U		0.00511	0.0145	1	12/01/2020 21:11	WG1584153
1,1,1-Trichloroethane	U		0.00107	0.00290	1	12/01/2020 21:11	WG1584153
1,1,2-Trichloroethane	U		0.000693	0.00290	1	12/01/2020 21:11	WG1584153
Trichloroethene	U		0.000678	0.00116	1	12/01/2020 21:11	WG1584153
Trichlorofluoromethane	U		0.000960	0.00290	1	12/01/2020 21:11	WG1584153
1,2,3-Trichloropropane	U		0.00188	0.0145	1	12/01/2020 21:11	WG1584153
1,2,4-Trimethylbenzene	U		0.00183	0.00581	1	12/01/2020 21:11	WG1584153
1,2,3-Trimethylbenzene	U		0.00183	0.00581	1	12/01/2020 21:11	WG1584153
1,3,5-Trimethylbenzene	U		0.00232	0.00581	1	12/01/2020 21:11	WG1584153
Vinyl chloride	U		0.00135	0.00290	1	12/01/2020 21:11	WG1584153
Xylenes, Total	0.00348	J	0.00102	0.00755	1	12/01/2020 21:11	WG1584153
(S) Toluene-d8	104			75.0-131		12/01/2020 21:11	WG1584153
(S) 4-Bromofluorobenzene	98.9			67.0-138		12/01/2020 21:11	WG1584153
(S) 1,2-Dichloroethane-d4	97.6			70.0-130		12/01/2020 21:11	WG1584153

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/19/20 09:21

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Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	1.72	J	0.789	4.31	1	12/01/2020 09:19	WG1583815
C22-C32 Hydrocarbons	13.6		1.43	4.31	1	12/01/2020 09:19	WG1583815
C32-C40 Hydrocarbons	16.6		1.43	4.31	1	12/01/2020 09:19	WG1583815
(S) o-Terphenyl	67.4			18.0-148		12/01/2020 09:19	WG1583815

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

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	0.0185	J	0.00580	0.0358	1	12/01/2020 23:33	WG1583806
Acenaphthylene	U		0.00505	0.0358	1	12/01/2020 23:33	WG1583806
Anthracene	U		0.00638	0.0358	1	12/01/2020 23:33	WG1583806
Benzo(a)anthracene	U		0.00632	0.0358	1	12/01/2020 23:33	WG1583806
Benzo(b)fluoranthene	U		0.00668	0.0358	1	12/01/2020 23:33	WG1583806
Benzo(k)fluoranthene	U		0.00637	0.0358	1	12/01/2020 23:33	WG1583806
Benzo(g,h,i)perylene	U		0.00656	0.0358	1	12/01/2020 23:33	WG1583806
Benzo(a)pyrene	U		0.00666	0.0358	1	12/01/2020 23:33	WG1583806
Bis(2-chloroethoxy)methane	U		0.0108	0.358	1	12/01/2020 23:33	WG1583806
Bis(2-chloroethyl)ether	U		0.0118	0.358	1	12/01/2020 23:33	WG1583806
2,2-Oxybis(1-Chloropropane)	U		0.0155	0.358	1	12/01/2020 23:33	WG1583806
4-Bromophenyl-phenylether	U		0.0126	0.358	1	12/01/2020 23:33	WG1583806
2-Chloronaphthalene	U		0.00630	0.0358	1	12/01/2020 23:33	WG1583806
4-Chlorophenyl-phenylether	U		0.0125	0.358	1	12/01/2020 23:33	WG1583806
Chrysene	U		0.00713	0.0358	1	12/01/2020 23:33	WG1583806
Dibenz(a,h)anthracene	U		0.00994	0.0358	1	12/01/2020 23:33	WG1583806
3,3-Dichlorobenzidine	U		0.0132	0.358	1	12/01/2020 23:33	WG1583806
2,4-Dinitrotoluene	U		0.0103	0.358	1	12/01/2020 23:33	WG1583806
2,6-Dinitrotoluene	U		0.0117	0.358	1	12/01/2020 23:33	WG1583806
Fluoranthene	0.00983	J	0.00647	0.0358	1	12/01/2020 23:33	WG1583806
Fluorene	0.0110	J	0.00583	0.0358	1	12/01/2020 23:33	WG1583806
Hexachlorobenzene	U		0.0127	0.358	1	12/01/2020 23:33	WG1583806
Hexachloro-1,3-butadiene	U		0.0121	0.358	1	12/01/2020 23:33	WG1583806
Hexachlorocyclopentadiene	U		0.0188	0.358	1	12/01/2020 23:33	WG1583806
Hexachloroethane	U		0.0141	0.358	1	12/01/2020 23:33	WG1583806
Indeno(1,2,3-cd)pyrene	U		0.0101	0.0358	1	12/01/2020 23:33	WG1583806
Isophorone	U		0.0110	0.358	1	12/01/2020 23:33	WG1583806
Naphthalene	0.293		0.00900	0.0358	1	12/01/2020 23:33	WG1583806
Nitrobenzene	U		0.0125	0.358	1	12/01/2020 23:33	WG1583806
n-Nitrosodimethylamine	U		0.0532	0.358	1	12/01/2020 23:33	WG1583806
n-Nitrosodiphenylamine	U		0.0271	0.358	1	12/01/2020 23:33	WG1583806
n-Nitrosodi-n-propylamine	U		0.0119	0.358	1	12/01/2020 23:33	WG1583806
Phenanthrene	0.0305	J	0.00712	0.0358	1	12/01/2020 23:33	WG1583806
Pyridine	U		0.0237	0.358	1	12/01/2020 23:33	WG1583806
Benzylbutyl phthalate	U		0.0112	0.358	1	12/01/2020 23:33	WG1583806
Bis(2-ethylhexyl)phthalate	U		0.0454	0.358	1	12/01/2020 23:33	WG1583806
Di-n-butyl phthalate	U		0.0123	0.358	1	12/01/2020 23:33	WG1583806
Diethyl phthalate	U		0.0118	0.358	1	12/01/2020 23:33	WG1583806
Dimethyl phthalate	U		0.0760	0.358	1	12/01/2020 23:33	WG1583806
Di-n-octyl phthalate	U		0.0242	0.358	1	12/01/2020 23:33	WG1583806
Pyrene	0.00765	J	0.00698	0.0358	1	12/01/2020 23:33	WG1583806
1,2,4-Trichlorobenzene	U		0.0112	0.358	1	12/01/2020 23:33	WG1583806
4-Chloro-3-methylphenol	U		0.0116	0.358	1	12/01/2020 23:33	WG1583806
2-Chlorophenol	U		0.0118	0.358	1	12/01/2020 23:33	WG1583806
2,4-Dichlorophenol	U		0.0104	0.358	1	12/01/2020 23:33	WG1583806
2,4-Dimethylphenol	U		0.00936	0.358	1	12/01/2020 23:33	WG1583806
4,6-Dinitro-2-methylphenol	U		0.0813	0.358	1	12/01/2020 23:33	WG1583806
2,4-Dinitrophenol	U		0.0839	0.358	1	12/01/2020 23:33	WG1583806



Collected date/time: 11/19/20 09:21

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Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2-Methylphenol	U		0.0108	0.358	1	12/01/2020 23:33	WG1583806
3&4-Methyl Phenol	U		0.0112	0.358	1	12/01/2020 23:33	WG1583806
2-Nitrophenol	U		0.0128	0.358	1	12/01/2020 23:33	WG1583806
4-Nitrophenol	U		0.0112	0.358	1	12/01/2020 23:33	WG1583806
Pentachlorophenol	U		0.00964	0.358	1	12/01/2020 23:33	WG1583806
Phenol	U		0.0144	0.358	1	12/01/2020 23:33	WG1583806
2,4,6-Trichlorophenol	U		0.0115	0.358	1	12/01/2020 23:33	WG1583806
2,4,5-Trichlorophenol	U		0.0122	0.358	1	12/01/2020 23:33	WG1583806
(S) 2-Fluorophenol	80.4			12.0-120		12/01/2020 23:33	WG1583806
(S) Phenol-d5	75.5			10.0-120		12/01/2020 23:33	WG1583806
(S) Nitrobenzene-d5	55.3			10.0-122		12/01/2020 23:33	WG1583806
(S) 2-Fluorobiphenyl	72.3			15.0-120		12/01/2020 23:33	WG1583806
(S) 2,4,6-Tribromophenol	99.1			10.0-127		12/01/2020 23:33	WG1583806
(S) p-Terphenyl-d14	74.5			10.0-120		12/01/2020 23:33	WG1583806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
Total Solids	91.1		1	12/01/2020 08:45	WG1584115

1 Cp

2 Tc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Mercury	U		0.0198	0.0439	1	12/01/2020 08:46	WG1583991

3 Ss

4 Cn

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Antimony	0.876	J	0.597	2.20	1	12/01/2020 08:39	WG1583760
Arsenic	2.95		0.569	2.20	1	12/01/2020 08:39	WG1583760
Barium	73.2		0.0935	0.549	1	12/01/2020 08:39	WG1583760
Beryllium	0.410		0.0346	0.220	1	12/01/2020 08:39	WG1583760
Cadmium	U		0.0517	0.549	1	12/01/2020 08:39	WG1583760
Chromium	49.9		0.146	1.10	1	12/01/2020 08:39	WG1583760
Cobalt	9.33		0.0890	1.10	1	12/01/2020 08:39	WG1583760
Copper	11.0		0.439	2.20	1	12/01/2020 08:39	WG1583760
Lead	8.36		0.228	0.549	1	12/01/2020 08:39	WG1583760
Molybdenum	0.378	J	0.120	0.549	1	12/01/2020 08:39	WG1583760
Nickel	30.1		0.145	2.20	1	12/01/2020 08:39	WG1583760
Selenium	1.20	J	0.839	2.20	1	12/01/2020 08:39	WG1583760
Silver	U		0.139	1.10	1	12/01/2020 08:39	WG1583760
Thallium	U		0.433	2.20	1	12/01/2020 08:39	WG1583760
Vanadium	51.0		0.556	2.20	1	12/01/2020 08:39	WG1583760
Zinc	32.4		0.914	5.49	1	12/01/2020 08:39	WG1583760

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
TPHG C5 - C12	U		1.00	3.01	25	12/03/2020 00:44	WG1584921
(S) a,a,a-Trifluorotoluene(FID)	95.7			77.0-120		12/03/2020 00:44	WG1584921

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
Acetone	U		0.0440	0.0602	1	12/01/2020 21:30	WG1584153
Acrylonitrile	U		0.00435	0.0151	1	12/01/2020 21:30	WG1584153
Benzene	U		0.000563	0.00120	1	12/01/2020 21:30	WG1584153
Bromobenzene	U		0.00108	0.0151	1	12/01/2020 21:30	WG1584153
Bromodichloromethane	U		0.000874	0.00301	1	12/01/2020 21:30	WG1584153
Bromoform	U	J4	0.00141	0.0301	1	12/01/2020 21:30	WG1584153
Bromomethane	U		0.00237	0.0151	1	12/01/2020 21:30	WG1584153
n-Butylbenzene	U		0.00633	0.0151	1	12/01/2020 21:30	WG1584153
sec-Butylbenzene	U		0.00347	0.0151	1	12/01/2020 21:30	WG1584153
tert-Butylbenzene	U		0.00235	0.00602	1	12/01/2020 21:30	WG1584153
Carbon tetrachloride	U		0.00108	0.00602	1	12/01/2020 21:30	WG1584153
Chlorobenzene	U		0.000253	0.00301	1	12/01/2020 21:30	WG1584153
Chlorodibromomethane	U	J4	0.000737	0.00301	1	12/01/2020 21:30	WG1584153
Chloroethane	U		0.00205	0.00602	1	12/01/2020 21:30	WG1584153
Chloroform	U		0.00124	0.00301	1	12/01/2020 21:30	WG1584153
Chloromethane	U		0.00524	0.0151	1	12/01/2020 21:30	WG1584153
2-Chlorotoluene	U		0.00104	0.00301	1	12/01/2020 21:30	WG1584153
4-Chlorotoluene	U		0.000542	0.00602	1	12/01/2020 21:30	WG1584153



Collected date/time: 11/19/20 11:28

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00470	0.0301	1	12/01/2020 21:30	WG1584153
1,2-Dibromoethane	U		0.000781	0.00301	1	12/01/2020 21:30	WG1584153
Dibromomethane	U		0.000904	0.00602	1	12/01/2020 21:30	WG1584153
1,2-Dichlorobenzene	U		0.000512	0.00602	1	12/01/2020 21:30	WG1584153
1,3-Dichlorobenzene	U		0.000723	0.00602	1	12/01/2020 21:30	WG1584153
1,4-Dichlorobenzene	U		0.000843	0.00602	1	12/01/2020 21:30	WG1584153
Dichlorodifluoromethane	U		0.00194	0.00301	1	12/01/2020 21:30	WG1584153
1,1-Dichloroethane	U		0.000592	0.00301	1	12/01/2020 21:30	WG1584153
1,2-Dichloroethane	U		0.000782	0.00301	1	12/01/2020 21:30	WG1584153
1,1-Dichloroethene	U		0.000730	0.00301	1	12/01/2020 21:30	WG1584153
cis-1,2-Dichloroethene	U		0.000884	0.00301	1	12/01/2020 21:30	WG1584153
trans-1,2-Dichloroethene	U		0.00125	0.00602	1	12/01/2020 21:30	WG1584153
1,2-Dichloropropane	U		0.00171	0.00602	1	12/01/2020 21:30	WG1584153
1,1-Dichloropropene	U		0.000975	0.00301	1	12/01/2020 21:30	WG1584153
1,3-Dichloropropane	U		0.000604	0.00602	1	12/01/2020 21:30	WG1584153
cis-1,3-Dichloropropene	U		0.000912	0.00301	1	12/01/2020 21:30	WG1584153
trans-1,3-Dichloropropene	U		0.00137	0.00602	1	12/01/2020 21:30	WG1584153
2,2-Dichloropropane	U	J4	0.00166	0.00301	1	12/01/2020 21:30	WG1584153
Di-isopropyl ether	U		0.000494	0.00120	1	12/01/2020 21:30	WG1584153
Ethylbenzene	U		0.000888	0.00301	1	12/01/2020 21:30	WG1584153
Hexachloro-1,3-butadiene	U		0.00723	0.0301	1	12/01/2020 21:30	WG1584153
Isopropylbenzene	U		0.000512	0.00301	1	12/01/2020 21:30	WG1584153
p-Isopropyltoluene	U		0.00307	0.00602	1	12/01/2020 21:30	WG1584153
2-Butanone (MEK)	U		0.0765	0.120	1	12/01/2020 21:30	WG1584153
Methylene Chloride	U		0.00800	0.0301	1	12/01/2020 21:30	WG1584153
4-Methyl-2-pentanone (MIBK)	U		0.00275	0.0301	1	12/01/2020 21:30	WG1584153
Methyl tert-butyl ether	U	J4	0.000422	0.00120	1	12/01/2020 21:30	WG1584153
Naphthalene	U		0.00588	0.0151	1	12/01/2020 21:30	WG1584153
n-Propylbenzene	U		0.00114	0.00602	1	12/01/2020 21:30	WG1584153
Styrene	U		0.000276	0.0151	1	12/01/2020 21:30	WG1584153
1,1,1,2-Tetrachloroethane	U		0.00114	0.00301	1	12/01/2020 21:30	WG1584153
1,1,2,2-Tetrachloroethane	U		0.000837	0.00301	1	12/01/2020 21:30	WG1584153
1,1,2-Trichlorotrifluoroethane	U		0.000909	0.00301	1	12/01/2020 21:30	WG1584153
Tetrachloroethene	U		0.00108	0.00301	1	12/01/2020 21:30	WG1584153
Toluene	U		0.00157	0.00602	1	12/01/2020 21:30	WG1584153
1,2,3-Trichlorobenzene	U		0.00883	0.0151	1	12/01/2020 21:30	WG1584153
1,2,4-Trichlorobenzene	U		0.00530	0.0151	1	12/01/2020 21:30	WG1584153
1,1,1-Trichloroethane	U		0.00111	0.00301	1	12/01/2020 21:30	WG1584153
1,1,2-Trichloroethane	U		0.000719	0.00301	1	12/01/2020 21:30	WG1584153
Trichloroethene	U		0.000704	0.00120	1	12/01/2020 21:30	WG1584153
Trichlorofluoromethane	U		0.000996	0.00301	1	12/01/2020 21:30	WG1584153
1,2,3-Trichloropropane	U		0.00195	0.0151	1	12/01/2020 21:30	WG1584153
1,2,4-Trimethylbenzene	U		0.00190	0.00602	1	12/01/2020 21:30	WG1584153
1,2,3-Trimethylbenzene	U		0.00190	0.00602	1	12/01/2020 21:30	WG1584153
1,3,5-Trimethylbenzene	U		0.00241	0.00602	1	12/01/2020 21:30	WG1584153
Vinyl chloride	U		0.00140	0.00301	1	12/01/2020 21:30	WG1584153
Xylenes, Total	U		0.00106	0.00783	1	12/01/2020 21:30	WG1584153
(S) Toluene-d8	104			75.0-131		12/01/2020 21:30	WG1584153
(S) 4-Bromofluorobenzene	101			67.0-138		12/01/2020 21:30	WG1584153
(S) 1,2-Dichloroethane-d4	99.9			70.0-130		12/01/2020 21:30	WG1584153

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	1.41	J	0.805	4.39	1	12/01/2020 09:34	WG1583815
C22-C32 Hydrocarbons	14.1		1.46	4.39	1	12/01/2020 09:34	WG1583815
C32-C40 Hydrocarbons	13.9		1.46	4.39	1	12/01/2020 09:34	WG1583815
(S) o-Terphenyl	63.3			18.0-148		12/01/2020 09:34	WG1583815

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

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	0.0114	J	0.00592	0.0366	1	12/02/2020 00:13	WG1583806
Acenaphthylene	U		0.00515	0.0366	1	12/02/2020 00:13	WG1583806
Anthracene	U		0.00651	0.0366	1	12/02/2020 00:13	WG1583806
Benzo(a)anthracene	U		0.00645	0.0366	1	12/02/2020 00:13	WG1583806
Benzo(b)fluoranthene	U		0.00682	0.0366	1	12/02/2020 00:13	WG1583806
Benzo(k)fluoranthene	U		0.00650	0.0366	1	12/02/2020 00:13	WG1583806
Benzo(g,h,i)perylene	U		0.00669	0.0366	1	12/02/2020 00:13	WG1583806
Benzo(a)pyrene	U		0.00680	0.0366	1	12/02/2020 00:13	WG1583806
Bis(2-chloroethoxy)methane	U		0.0110	0.366	1	12/02/2020 00:13	WG1583806
Bis(2-chloroethyl)ether	U		0.0121	0.366	1	12/02/2020 00:13	WG1583806
2,2-Oxybis(1-Chloropropane)	U		0.0158	0.366	1	12/02/2020 00:13	WG1583806
4-Bromophenyl-phenylether	U		0.0128	0.366	1	12/02/2020 00:13	WG1583806
2-Chloronaphthalene	U		0.00642	0.0366	1	12/02/2020 00:13	WG1583806
4-Chlorophenyl-phenylether	U		0.0127	0.366	1	12/02/2020 00:13	WG1583806
Chrysene	U		0.00727	0.0366	1	12/02/2020 00:13	WG1583806
Dibenz(a,h)anthracene	U		0.0101	0.0366	1	12/02/2020 00:13	WG1583806
3,3-Dichlorobenzidine	U		0.0135	0.366	1	12/02/2020 00:13	WG1583806
2,4-Dinitrotoluene	U		0.0105	0.366	1	12/02/2020 00:13	WG1583806
2,6-Dinitrotoluene	U		0.0120	0.366	1	12/02/2020 00:13	WG1583806
Fluoranthene	U		0.00660	0.0366	1	12/02/2020 00:13	WG1583806
Fluorene	U		0.00595	0.0366	1	12/02/2020 00:13	WG1583806
Hexachlorobenzene	U		0.0130	0.366	1	12/02/2020 00:13	WG1583806
Hexachloro-1,3-butadiene	U		0.0123	0.366	1	12/02/2020 00:13	WG1583806
Hexachlorocyclopentadiene	U		0.0192	0.366	1	12/02/2020 00:13	WG1583806
Hexachloroethane	U		0.0144	0.366	1	12/02/2020 00:13	WG1583806
Indeno(1,2,3-cd)pyrene	U		0.0103	0.0366	1	12/02/2020 00:13	WG1583806
Isophorone	U		0.0112	0.366	1	12/02/2020 00:13	WG1583806
Naphthalene	0.198		0.00918	0.0366	1	12/02/2020 00:13	WG1583806
Nitrobenzene	U		0.0127	0.366	1	12/02/2020 00:13	WG1583806
n-Nitrosodimethylamine	U		0.0542	0.366	1	12/02/2020 00:13	WG1583806
n-Nitrosodiphenylamine	U		0.0277	0.366	1	12/02/2020 00:13	WG1583806
n-Nitrosodi-n-propylamine	U		0.0122	0.366	1	12/02/2020 00:13	WG1583806
Phenanthrene	U		0.00726	0.0366	1	12/02/2020 00:13	WG1583806
Pyridine	U		0.0242	0.366	1	12/02/2020 00:13	WG1583806
Benzylbutyl phthalate	U		0.0114	0.366	1	12/02/2020 00:13	WG1583806
Bis(2-ethylhexyl)phthalate	U		0.0463	0.366	1	12/02/2020 00:13	WG1583806
Di-n-butyl phthalate	U		0.0125	0.366	1	12/02/2020 00:13	WG1583806
Diethyl phthalate	U		0.0121	0.366	1	12/02/2020 00:13	WG1583806
Dimethyl phthalate	U		0.0775	0.366	1	12/02/2020 00:13	WG1583806
Di-n-octyl phthalate	U		0.0247	0.366	1	12/02/2020 00:13	WG1583806
Pyrene	U		0.00711	0.0366	1	12/02/2020 00:13	WG1583806
1,2,4-Trichlorobenzene	U		0.0114	0.366	1	12/02/2020 00:13	WG1583806
4-Chloro-3-methylphenol	U		0.0119	0.366	1	12/02/2020 00:13	WG1583806
2-Chlorophenol	U		0.0121	0.366	1	12/02/2020 00:13	WG1583806
2,4-Dichlorophenol	U		0.0107	0.366	1	12/02/2020 00:13	WG1583806
2,4-Dimethylphenol	U		0.00955	0.366	1	12/02/2020 00:13	WG1583806
4,6-Dinitro-2-methylphenol	U		0.0829	0.366	1	12/02/2020 00:13	WG1583806
2,4-Dinitrophenol	U		0.0855	0.366	1	12/02/2020 00:13	WG1583806



Collected date/time: 11/19/20 11:28

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Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2-Methylphenol	U		0.0110	0.366	1	12/02/2020 00:13	WG1583806
3&4-Methyl Phenol	U		0.0114	0.366	1	12/02/2020 00:13	WG1583806
2-Nitrophenol	U		0.0131	0.366	1	12/02/2020 00:13	WG1583806
4-Nitrophenol	U		0.0114	0.366	1	12/02/2020 00:13	WG1583806
Pentachlorophenol	U		0.00984	0.366	1	12/02/2020 00:13	WG1583806
Phenol	U		0.0147	0.366	1	12/02/2020 00:13	WG1583806
2,4,6-Trichlorophenol	U		0.0117	0.366	1	12/02/2020 00:13	WG1583806
2,4,5-Trichlorophenol	U		0.0124	0.366	1	12/02/2020 00:13	WG1583806
(S) 2-Fluorophenol	86.1			12.0-120		12/02/2020 00:13	WG1583806
(S) Phenol-d5	81.1			10.0-120		12/02/2020 00:13	WG1583806
(S) Nitrobenzene-d5	61.9			10.0-122		12/02/2020 00:13	WG1583806
(S) 2-Fluorobiphenyl	77.6			15.0-120		12/02/2020 00:13	WG1583806
(S) 2,4,6-Tribromophenol	106			10.0-127		12/02/2020 00:13	WG1583806
(S) p-Terphenyl-d14	78.5			10.0-120		12/02/2020 00:13	WG1583806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.5		1	12/01/2020 08:45	WG1584115

1 Cp

2 Tc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0240	J	0.0197	0.0437	1	12/01/2020 08:49	WG1583991

3 Ss

4 Cn

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	1.33	J	0.595	2.19	1	12/01/2020 08:41	WG1583760
Arsenic	3.29		0.566	2.19	1	12/01/2020 08:41	WG1583760
Barium	82.2		0.0932	0.547	1	12/01/2020 08:41	WG1583760
Beryllium	0.353		0.0344	0.219	1	12/01/2020 08:41	WG1583760
Cadmium	U		0.0515	0.547	1	12/01/2020 08:41	WG1583760
Chromium	73.5		0.145	1.09	1	12/01/2020 08:41	WG1583760
Cobalt	9.51		0.0887	1.09	1	12/01/2020 08:41	WG1583760
Copper	11.2		0.437	2.19	1	12/01/2020 08:41	WG1583760
Lead	6.45		0.227	0.547	1	12/01/2020 08:41	WG1583760
Molybdenum	0.224	J	0.119	0.547	1	12/01/2020 08:41	WG1583760
Nickel	42.6		0.144	2.19	1	12/01/2020 08:41	WG1583760
Selenium	1.50	J	0.835	2.19	1	12/01/2020 08:41	WG1583760
Silver	U		0.139	1.09	1	12/01/2020 08:41	WG1583760
Thallium	U		0.431	2.19	1	12/01/2020 08:41	WG1583760
Vanadium	60.5		0.553	2.19	1	12/01/2020 08:41	WG1583760
Zinc	35.3		0.910	5.47	1	12/01/2020 08:41	WG1583760

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	1.06	B J	0.987	2.97	25	12/03/2020 01:07	WG1584921
(S) a,a,a-Trifluorotoluene(FID)	95.7			77.0-120		12/03/2020 01:07	WG1584921

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0434	0.0595	1	12/01/2020 21:49	WG1584153
Acrylonitrile	U		0.00429	0.0149	1	12/01/2020 21:49	WG1584153
Benzene	U		0.000556	0.00119	1	12/01/2020 21:49	WG1584153
Bromobenzene	U		0.00107	0.0149	1	12/01/2020 21:49	WG1584153
Bromodichloromethane	U		0.000862	0.00297	1	12/01/2020 21:49	WG1584153
Bromoform	U	J4	0.00139	0.0297	1	12/01/2020 21:49	WG1584153
Bromomethane	U		0.00234	0.0149	1	12/01/2020 21:49	WG1584153
n-Butylbenzene	U		0.00625	0.0149	1	12/01/2020 21:49	WG1584153
sec-Butylbenzene	U		0.00343	0.0149	1	12/01/2020 21:49	WG1584153
tert-Butylbenzene	U		0.00232	0.00595	1	12/01/2020 21:49	WG1584153
Carbon tetrachloride	U		0.00107	0.00595	1	12/01/2020 21:49	WG1584153
Chlorobenzene	U		0.000250	0.00297	1	12/01/2020 21:49	WG1584153
Chlorodibromomethane	U	J4	0.000728	0.00297	1	12/01/2020 21:49	WG1584153
Chloroethane	U		0.00202	0.00595	1	12/01/2020 21:49	WG1584153
Chloroform	U		0.00123	0.00297	1	12/01/2020 21:49	WG1584153
Chloromethane	U		0.00517	0.0149	1	12/01/2020 21:49	WG1584153
2-Chlorotoluene	U		0.00103	0.00297	1	12/01/2020 21:49	WG1584153
4-Chlorotoluene	U		0.000535	0.00595	1	12/01/2020 21:49	WG1584153



Collected date/time: 11/19/20 09:36

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00464	0.0297	1	12/01/2020 21:49	WG1584153
1,2-Dibromoethane	U		0.000771	0.00297	1	12/01/2020 21:49	WG1584153
Dibromomethane	U		0.000892	0.00595	1	12/01/2020 21:49	WG1584153
1,2-Dichlorobenzene	U		0.000506	0.00595	1	12/01/2020 21:49	WG1584153
1,3-Dichlorobenzene	U		0.000714	0.00595	1	12/01/2020 21:49	WG1584153
1,4-Dichlorobenzene	U		0.000833	0.00595	1	12/01/2020 21:49	WG1584153
Dichlorodifluoromethane	U		0.00192	0.00297	1	12/01/2020 21:49	WG1584153
1,1-Dichloroethane	U		0.000584	0.00297	1	12/01/2020 21:49	WG1584153
1,2-Dichloroethane	U		0.000772	0.00297	1	12/01/2020 21:49	WG1584153
1,1-Dichloroethene	U		0.000721	0.00297	1	12/01/2020 21:49	WG1584153
cis-1,2-Dichloroethene	U		0.000873	0.00297	1	12/01/2020 21:49	WG1584153
trans-1,2-Dichloroethene	U		0.00124	0.00595	1	12/01/2020 21:49	WG1584153
1,2-Dichloropropane	U		0.00169	0.00595	1	12/01/2020 21:49	WG1584153
1,1-Dichloropropene	U		0.000962	0.00297	1	12/01/2020 21:49	WG1584153
1,3-Dichloropropane	U		0.000596	0.00595	1	12/01/2020 21:49	WG1584153
cis-1,3-Dichloropropene	U		0.000901	0.00297	1	12/01/2020 21:49	WG1584153
trans-1,3-Dichloropropene	U		0.00136	0.00595	1	12/01/2020 21:49	WG1584153
2,2-Dichloropropane	U	J4	0.00164	0.00297	1	12/01/2020 21:49	WG1584153
Di-isopropyl ether	U		0.000488	0.00119	1	12/01/2020 21:49	WG1584153
Ethylbenzene	0.000981	J	0.000877	0.00297	1	12/01/2020 21:49	WG1584153
Hexachloro-1,3-butadiene	U		0.00714	0.0297	1	12/01/2020 21:49	WG1584153
Isopropylbenzene	U		0.000506	0.00297	1	12/01/2020 21:49	WG1584153
p-Isopropyltoluene	U		0.00303	0.00595	1	12/01/2020 21:49	WG1584153
2-Butanone (MEK)	U		0.0755	0.119	1	12/01/2020 21:49	WG1584153
Methylene Chloride	U		0.00790	0.0297	1	12/01/2020 21:49	WG1584153
4-Methyl-2-pentanone (MIBK)	U		0.00271	0.0297	1	12/01/2020 21:49	WG1584153
Methyl tert-butyl ether	U	J4	0.000416	0.00119	1	12/01/2020 21:49	WG1584153
Naphthalene	U		0.00581	0.0149	1	12/01/2020 21:49	WG1584153
n-Propylbenzene	U		0.00113	0.00595	1	12/01/2020 21:49	WG1584153
Styrene	U		0.000272	0.0149	1	12/01/2020 21:49	WG1584153
1,1,1,2-Tetrachloroethane	U		0.00113	0.00297	1	12/01/2020 21:49	WG1584153
1,1,2,2-Tetrachloroethane	U		0.000827	0.00297	1	12/01/2020 21:49	WG1584153
1,1,2-Trichlorotrifluoroethane	U		0.000897	0.00297	1	12/01/2020 21:49	WG1584153
Tetrachloroethene	U		0.00107	0.00297	1	12/01/2020 21:49	WG1584153
Toluene	U		0.00155	0.00595	1	12/01/2020 21:49	WG1584153
1,2,3-Trichlorobenzene	U		0.00872	0.0149	1	12/01/2020 21:49	WG1584153
1,2,4-Trichlorobenzene	U		0.00523	0.0149	1	12/01/2020 21:49	WG1584153
1,1,1-Trichloroethane	U		0.00110	0.00297	1	12/01/2020 21:49	WG1584153
1,1,2-Trichloroethane	U		0.000710	0.00297	1	12/01/2020 21:49	WG1584153
Trichloroethene	U		0.000695	0.00119	1	12/01/2020 21:49	WG1584153
Trichlorofluoromethane	U		0.000984	0.00297	1	12/01/2020 21:49	WG1584153
1,2,3-Trichloropropane	U		0.00193	0.0149	1	12/01/2020 21:49	WG1584153
1,2,4-Trimethylbenzene	0.00490	J	0.00188	0.00595	1	12/01/2020 21:49	WG1584153
1,2,3-Trimethylbenzene	0.00338	J	0.00188	0.00595	1	12/01/2020 21:49	WG1584153
1,3,5-Trimethylbenzene	0.00369	J	0.00238	0.00595	1	12/01/2020 21:49	WG1584153
Vinyl chloride	U		0.00138	0.00297	1	12/01/2020 21:49	WG1584153
Xylenes, Total	0.00797		0.00105	0.00773	1	12/01/2020 21:49	WG1584153
(S) Toluene-d8	105			75.0-131		12/01/2020 21:49	WG1584153
(S) 4-Bromofluorobenzene	98.4			67.0-138		12/01/2020 21:49	WG1584153
(S) 1,2-Dichloroethane-d4	96.1			70.0-130		12/01/2020 21:49	WG1584153

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



Collected date/time: 11/19/20 09:36

L1289379

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	16.6	U	8.01	43.7	10	12/01/2020 12:25	WG1583815
C22-C32 Hydrocarbons	225		14.5	43.7	10	12/01/2020 12:25	WG1583815
C32-C40 Hydrocarbons	152		14.5	43.7	10	12/01/2020 12:25	WG1583815
(S) o-Terphenyl	178	U1		18.0-148		12/01/2020 12:25	WG1583815

Sample Narrative:

L1289379-03 WG1583815: Surrogate failure due to matrix interference

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	0.0390		0.00589	0.0364	1	12/02/2020 00:53	WG1583806
Acenaphthylene	U		0.00513	0.0364	1	12/02/2020 00:53	WG1583806
Anthracene	0.00704	U	0.00648	0.0364	1	12/02/2020 00:53	WG1583806
Benzo(a)anthracene	U		0.00642	0.0364	1	12/02/2020 00:53	WG1583806
Benzo(b)fluoranthene	0.00812	U	0.00679	0.0364	1	12/02/2020 00:53	WG1583806
Benzo(k)fluoranthene	U		0.00647	0.0364	1	12/02/2020 00:53	WG1583806
Benzo(g,h,i)perylene	0.00667	U	0.00666	0.0364	1	12/02/2020 00:53	WG1583806
Benzo(a)pyrene	U		0.00677	0.0364	1	12/02/2020 00:53	WG1583806
Bis(2-chloroethoxy)methane	U		0.0109	0.364	1	12/02/2020 00:53	WG1583806
Bis(2-chloroethyl)ether	U		0.0120	0.364	1	12/02/2020 00:53	WG1583806
2,2-Oxybis(1-Chloropropane)	U		0.0157	0.364	1	12/02/2020 00:53	WG1583806
4-Bromophenyl-phenylether	U		0.0128	0.364	1	12/02/2020 00:53	WG1583806
2-Chloronaphthalene	U		0.00640	0.0364	1	12/02/2020 00:53	WG1583806
4-Chlorophenyl-phenylether	U		0.0127	0.364	1	12/02/2020 00:53	WG1583806
Chrysene	U		0.00724	0.0364	1	12/02/2020 00:53	WG1583806
Dibenz(a,h)anthracene	U		0.0101	0.0364	1	12/02/2020 00:53	WG1583806
3,3-Dichlorobenzidine	U		0.0134	0.364	1	12/02/2020 00:53	WG1583806
2,4-Dinitrotoluene	U		0.0104	0.364	1	12/02/2020 00:53	WG1583806
2,6-Dinitrotoluene	U		0.0119	0.364	1	12/02/2020 00:53	WG1583806
Fluoranthene	0.0122	U	0.00657	0.0364	1	12/02/2020 00:53	WG1583806
Fluorene	0.0177	U	0.00593	0.0364	1	12/02/2020 00:53	WG1583806
Hexachlorobenzene	U		0.0129	0.364	1	12/02/2020 00:53	WG1583806
Hexachloro-1,3-butadiene	U		0.0122	0.364	1	12/02/2020 00:53	WG1583806
Hexachlorocyclopentadiene	U		0.0191	0.364	1	12/02/2020 00:53	WG1583806
Hexachloroethane	U		0.0143	0.364	1	12/02/2020 00:53	WG1583806
Indeno(1,2,3-cd)pyrene	U		0.0103	0.0364	1	12/02/2020 00:53	WG1583806
Isophorone	U		0.0112	0.364	1	12/02/2020 00:53	WG1583806
Naphthalene	0.577		0.00914	0.0364	1	12/02/2020 00:53	WG1583806
Nitrobenzene	U		0.0127	0.364	1	12/02/2020 00:53	WG1583806
n-Nitrosodimethylamine	U		0.0540	0.364	1	12/02/2020 00:53	WG1583806
n-Nitrosodiphenylamine	U		0.0276	0.364	1	12/02/2020 00:53	WG1583806
n-Nitrosodi-n-propylamine	U		0.0121	0.364	1	12/02/2020 00:53	WG1583806
Phenanthrene	0.0255	U	0.00723	0.0364	1	12/02/2020 00:53	WG1583806
Pyridine	U		0.0241	0.364	1	12/02/2020 00:53	WG1583806
Benzylbutyl phthalate	U		0.0114	0.364	1	12/02/2020 00:53	WG1583806
Bis(2-ethylhexyl)phthalate	U		0.0461	0.364	1	12/02/2020 00:53	WG1583806
Di-n-butyl phthalate	U		0.0125	0.364	1	12/02/2020 00:53	WG1583806
Diethyl phthalate	U		0.0120	0.364	1	12/02/2020 00:53	WG1583806
Dimethyl phthalate	U		0.0772	0.364	1	12/02/2020 00:53	WG1583806
Di-n-octyl phthalate	U		0.0246	0.364	1	12/02/2020 00:53	WG1583806
Pyrene	0.00800	U	0.00708	0.0364	1	12/02/2020 00:53	WG1583806
1,2,4-Trichlorobenzene	U		0.0114	0.364	1	12/02/2020 00:53	WG1583806
4-Chloro-3-methylphenol	U		0.0118	0.364	1	12/02/2020 00:53	WG1583806
2-Chlorophenol	U		0.0120	0.364	1	12/02/2020 00:53	WG1583806
2,4-Dichlorophenol	U		0.0106	0.364	1	12/02/2020 00:53	WG1583806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/19/20 09:36

L1289379

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-Dimethylphenol	U		0.00951	0.364	1	12/02/2020 00:53	WG1583806
4,6-Dinitro-2-methylphenol	U		0.0825	0.364	1	12/02/2020 00:53	WG1583806
2,4-Dinitrophenol	U		0.0852	0.364	1	12/02/2020 00:53	WG1583806
2-Methylphenol	U		0.0109	0.364	1	12/02/2020 00:53	WG1583806
3&4-Methyl Phenol	U		0.0114	0.364	1	12/02/2020 00:53	WG1583806
2-Nitrophenol	U		0.0130	0.364	1	12/02/2020 00:53	WG1583806
4-Nitrophenol	U		0.0114	0.364	1	12/02/2020 00:53	WG1583806
Pentachlorophenol	U		0.00980	0.364	1	12/02/2020 00:53	WG1583806
Phenol	U		0.0147	0.364	1	12/02/2020 00:53	WG1583806
2,4,6-Trichlorophenol	U		0.0117	0.364	1	12/02/2020 00:53	WG1583806
2,4,5-Trichlorophenol	U		0.0124	0.364	1	12/02/2020 00:53	WG1583806
(S) 2-Fluorophenol	87.3			12.0-120		12/02/2020 00:53	WG1583806
(S) Phenol-d5	80.8			10.0-120		12/02/2020 00:53	WG1583806
(S) Nitrobenzene-d5	62.5			10.0-122		12/02/2020 00:53	WG1583806
(S) 2-Fluorobiphenyl	76.2			15.0-120		12/02/2020 00:53	WG1583806
(S) 2,4,6-Tribromophenol	105			10.0-127		12/02/2020 00:53	WG1583806
(S) p-Terphenyl-d14	77.4			10.0-120		12/02/2020 00:53	WG1583806

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



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.8		1	12/01/2020 08:45	WG1584115

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0190	0.0422	1	12/01/2020 08:51	WG1583991

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	0.772	J	0.574	2.11	1	12/01/2020 08:44	WG1583760
Arsenic	0.674	J	0.547	2.11	1	12/01/2020 08:44	WG1583760
Barium	24.9		0.0899	0.528	1	12/01/2020 08:44	WG1583760
Beryllium	0.275		0.0332	0.211	1	12/01/2020 08:44	WG1583760
Cadmium	U		0.0497	0.528	1	12/01/2020 08:44	WG1583760
Chromium	28.7		0.140	1.06	1	12/01/2020 08:44	WG1583760
Cobalt	3.69		0.0856	1.06	1	12/01/2020 08:44	WG1583760
Copper	3.11		0.422	2.11	1	12/01/2020 08:44	WG1583760
Lead	2.03		0.219	0.528	1	12/01/2020 08:44	WG1583760
Molybdenum	U		0.115	0.528	1	12/01/2020 08:44	WG1583760
Nickel	20.2		0.139	2.11	1	12/01/2020 08:44	WG1583760
Selenium	0.836	J	0.806	2.11	1	12/01/2020 08:44	WG1583760
Silver	U		0.134	1.06	1	12/01/2020 08:44	WG1583760
Thallium	U		0.416	2.11	1	12/01/2020 08:44	WG1583760
Vanadium	32.9		0.534	2.11	1	12/01/2020 08:44	WG1583760
Zinc	14.8		0.878	5.28	1	12/01/2020 08:44	WG1583760

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	U		0.924	2.78	25	12/03/2020 01:30	WG1584921
(S) a,a,a-Trifluorotoluene(FID)	95.7			77.0-120		12/03/2020 01:30	WG1584921

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0406	0.0557	1	12/01/2020 22:08	WG1584153
Acrylonitrile	U		0.00402	0.0139	1	12/01/2020 22:08	WG1584153
Benzene	0.00285		0.000520	0.00111	1	12/01/2020 22:08	WG1584153
Bromobenzene	U		0.00100	0.0139	1	12/01/2020 22:08	WG1584153
Bromodichloromethane	U		0.000807	0.00278	1	12/01/2020 22:08	WG1584153
Bromoform	U	J4	0.00130	0.0278	1	12/01/2020 22:08	WG1584153
Bromomethane	U		0.00219	0.0139	1	12/01/2020 22:08	WG1584153
n-Butylbenzene	U		0.00585	0.0139	1	12/01/2020 22:08	WG1584153
sec-Butylbenzene	U		0.00321	0.0139	1	12/01/2020 22:08	WG1584153
tert-Butylbenzene	U		0.00217	0.00557	1	12/01/2020 22:08	WG1584153
Carbon tetrachloride	U		0.00100	0.00557	1	12/01/2020 22:08	WG1584153
Chlorobenzene	U		0.000234	0.00278	1	12/01/2020 22:08	WG1584153
Chlorodibromomethane	U	J4	0.000682	0.00278	1	12/01/2020 22:08	WG1584153
Chloroethane	U		0.00189	0.00557	1	12/01/2020 22:08	WG1584153
Chloroform	U		0.00115	0.00278	1	12/01/2020 22:08	WG1584153
Chloromethane	U		0.00484	0.0139	1	12/01/2020 22:08	WG1584153
2-Chlorotoluene	U		0.000963	0.00278	1	12/01/2020 22:08	WG1584153
4-Chlorotoluene	U		0.000501	0.00557	1	12/01/2020 22:08	WG1584153

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00434	0.0278	1	12/01/2020 22:08	WG1584153
1,2-Dibromoethane	U		0.000722	0.00278	1	12/01/2020 22:08	WG1584153
Dibromomethane	U		0.000835	0.00557	1	12/01/2020 22:08	WG1584153
1,2-Dichlorobenzene	U		0.000473	0.00557	1	12/01/2020 22:08	WG1584153
1,3-Dichlorobenzene	U		0.000668	0.00557	1	12/01/2020 22:08	WG1584153
1,4-Dichlorobenzene	U		0.000780	0.00557	1	12/01/2020 22:08	WG1584153
Dichlorodifluoromethane	U		0.00179	0.00278	1	12/01/2020 22:08	WG1584153
1,1-Dichloroethane	U		0.000547	0.00278	1	12/01/2020 22:08	WG1584153
1,2-Dichloroethane	U		0.000723	0.00278	1	12/01/2020 22:08	WG1584153
1,1-Dichloroethene	U		0.000675	0.00278	1	12/01/2020 22:08	WG1584153
cis-1,2-Dichloroethene	U		0.000817	0.00278	1	12/01/2020 22:08	WG1584153
trans-1,2-Dichloroethene	U		0.00116	0.00557	1	12/01/2020 22:08	WG1584153
1,2-Dichloropropane	U		0.00158	0.00557	1	12/01/2020 22:08	WG1584153
1,1-Dichloropropene	U		0.000901	0.00278	1	12/01/2020 22:08	WG1584153
1,3-Dichloropropane	U		0.000558	0.00557	1	12/01/2020 22:08	WG1584153
cis-1,3-Dichloropropene	U		0.000843	0.00278	1	12/01/2020 22:08	WG1584153
trans-1,3-Dichloropropene	U		0.00127	0.00557	1	12/01/2020 22:08	WG1584153
2,2-Dichloropropane	U	J4	0.00154	0.00278	1	12/01/2020 22:08	WG1584153
Di-isopropyl ether	U		0.000457	0.00111	1	12/01/2020 22:08	WG1584153
Ethylbenzene	U		0.000821	0.00278	1	12/01/2020 22:08	WG1584153
Hexachloro-1,3-butadiene	U		0.00668	0.0278	1	12/01/2020 22:08	WG1584153
Isopropylbenzene	U		0.000473	0.00278	1	12/01/2020 22:08	WG1584153
p-Isopropyltoluene	U		0.00284	0.00557	1	12/01/2020 22:08	WG1584153
2-Butanone (MEK)	U		0.0707	0.111	1	12/01/2020 22:08	WG1584153
Methylene Chloride	U		0.00739	0.0278	1	12/01/2020 22:08	WG1584153
4-Methyl-2-pentanone (MIBK)	U		0.00254	0.0278	1	12/01/2020 22:08	WG1584153
Methyl tert-butyl ether	U	J4	0.000390	0.00111	1	12/01/2020 22:08	WG1584153
Naphthalene	U		0.00543	0.0139	1	12/01/2020 22:08	WG1584153
n-Propylbenzene	U		0.00106	0.00557	1	12/01/2020 22:08	WG1584153
Styrene	U		0.000255	0.0139	1	12/01/2020 22:08	WG1584153
1,1,1,2-Tetrachloroethane	U		0.00106	0.00278	1	12/01/2020 22:08	WG1584153
1,1,2,2-Tetrachloroethane	U		0.000774	0.00278	1	12/01/2020 22:08	WG1584153
1,1,2-Trichlorotrifluoroethane	U		0.000840	0.00278	1	12/01/2020 22:08	WG1584153
Tetrachloroethene	U		0.000998	0.00278	1	12/01/2020 22:08	WG1584153
Toluene	0.00178	J	0.00145	0.00557	1	12/01/2020 22:08	WG1584153
1,2,3-Trichlorobenzene	U		0.00816	0.0139	1	12/01/2020 22:08	WG1584153
1,2,4-Trichlorobenzene	U		0.00490	0.0139	1	12/01/2020 22:08	WG1584153
1,1,1-Trichloroethane	U		0.00103	0.00278	1	12/01/2020 22:08	WG1584153
1,1,2-Trichloroethane	U		0.000665	0.00278	1	12/01/2020 22:08	WG1584153
Trichloroethene	U		0.000650	0.00111	1	12/01/2020 22:08	WG1584153
Trichlorofluoromethane	U		0.000921	0.00278	1	12/01/2020 22:08	WG1584153
1,2,3-Trichloropropane	U		0.00180	0.0139	1	12/01/2020 22:08	WG1584153
1,2,4-Trimethylbenzene	U		0.00176	0.00557	1	12/01/2020 22:08	WG1584153
1,2,3-Trimethylbenzene	U		0.00176	0.00557	1	12/01/2020 22:08	WG1584153
1,3,5-Trimethylbenzene	U		0.00223	0.00557	1	12/01/2020 22:08	WG1584153
Vinyl chloride	U		0.00129	0.00278	1	12/01/2020 22:08	WG1584153
Xylenes, Total	0.00281	J	0.000980	0.00724	1	12/01/2020 22:08	WG1584153
(S) Toluene-d8	105			75.0-131		12/01/2020 22:08	WG1584153
(S) 4-Bromofluorobenzene	99.1			67.0-138		12/01/2020 22:08	WG1584153
(S) 1,2-Dichloroethane-d4	96.8			70.0-130		12/01/2020 22:08	WG1584153

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



Collected date/time: 11/19/20 09:48

L1289379

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.773	4.22	1	12/01/2020 09:05	WG1583815
C22-C32 Hydrocarbons	4.76		1.40	4.22	1	12/01/2020 09:05	WG1583815
C32-C40 Hydrocarbons	4.33		1.40	4.22	1	12/01/2020 09:05	WG1583815
(S) o-Terphenyl	74.8			18.0-148		12/01/2020 09:05	WG1583815

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

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00569	0.0351	1	12/01/2020 23:13	WG1583806
Acenaphthylene	U		0.00495	0.0351	1	12/01/2020 23:13	WG1583806
Anthracene	U		0.00626	0.0351	1	12/01/2020 23:13	WG1583806
Benzo(a)anthracene	U		0.00619	0.0351	1	12/01/2020 23:13	WG1583806
Benzo(b)fluoranthene	U		0.00655	0.0351	1	12/01/2020 23:13	WG1583806
Benzo(k)fluoranthene	U		0.00625	0.0351	1	12/01/2020 23:13	WG1583806
Benzo(g,h,i)perylene	U		0.00643	0.0351	1	12/01/2020 23:13	WG1583806
Benzo(a)pyrene	U		0.00653	0.0351	1	12/01/2020 23:13	WG1583806
Bis(2-chloroethoxy)methane	U		0.0106	0.351	1	12/01/2020 23:13	WG1583806
Bis(2-chloroethyl)ether	U		0.0116	0.351	1	12/01/2020 23:13	WG1583806
2,2-Oxybis(1-Chloropropane)	U		0.0152	0.351	1	12/01/2020 23:13	WG1583806
4-Bromophenyl-phenylether	U		0.0123	0.351	1	12/01/2020 23:13	WG1583806
2-Chloronaphthalene	U		0.00617	0.0351	1	12/01/2020 23:13	WG1583806
4-Chlorophenyl-phenylether	U		0.0122	0.351	1	12/01/2020 23:13	WG1583806
Chrysene	U		0.00698	0.0351	1	12/01/2020 23:13	WG1583806
Dibenz(a,h)anthracene	U		0.00974	0.0351	1	12/01/2020 23:13	WG1583806
3,3-Dichlorobenzidine	U		0.0130	0.351	1	12/01/2020 23:13	WG1583806
2,4-Dinitrotoluene	U		0.0101	0.351	1	12/01/2020 23:13	WG1583806
2,6-Dinitrotoluene	U		0.0115	0.351	1	12/01/2020 23:13	WG1583806
Fluoranthene	U		0.00634	0.0351	1	12/01/2020 23:13	WG1583806
Fluorene	U		0.00572	0.0351	1	12/01/2020 23:13	WG1583806
Hexachlorobenzene	U		0.0124	0.351	1	12/01/2020 23:13	WG1583806
Hexachloro-1,3-butadiene	U		0.0118	0.351	1	12/01/2020 23:13	WG1583806
Hexachlorocyclopentadiene	U		0.0185	0.351	1	12/01/2020 23:13	WG1583806
Hexachloroethane	U		0.0138	0.351	1	12/01/2020 23:13	WG1583806
Indeno(1,2,3-cd)pyrene	U		0.00993	0.0351	1	12/01/2020 23:13	WG1583806
Isophorone	U		0.0108	0.351	1	12/01/2020 23:13	WG1583806
Naphthalene	0.0624		0.00882	0.0351	1	12/01/2020 23:13	WG1583806
Nitrobenzene	U		0.0122	0.351	1	12/01/2020 23:13	WG1583806
n-Nitrosodimethylamine	U		0.0521	0.351	1	12/01/2020 23:13	WG1583806
n-Nitrosodiphenylamine	U		0.0266	0.351	1	12/01/2020 23:13	WG1583806
n-Nitrosodi-n-propylamine	U		0.0117	0.351	1	12/01/2020 23:13	WG1583806
Phenanthrene	U		0.00697	0.0351	1	12/01/2020 23:13	WG1583806
Pyridine	U		0.0232	0.351	1	12/01/2020 23:13	WG1583806
Benzylbutyl phthalate	U		0.0110	0.351	1	12/01/2020 23:13	WG1583806
Bis(2-ethylhexyl)phthalate	U		0.0445	0.351	1	12/01/2020 23:13	WG1583806
Di-n-butyl phthalate	U		0.0120	0.351	1	12/01/2020 23:13	WG1583806
Diethyl phthalate	U		0.0116	0.351	1	12/01/2020 23:13	WG1583806
Dimethyl phthalate	U		0.0745	0.351	1	12/01/2020 23:13	WG1583806
Di-n-octyl phthalate	U		0.0237	0.351	1	12/01/2020 23:13	WG1583806
Pyrene	U		0.00684	0.0351	1	12/01/2020 23:13	WG1583806
1,2,4-Trichlorobenzene	U		0.0110	0.351	1	12/01/2020 23:13	WG1583806
4-Chloro-3-methylphenol	U		0.0114	0.351	1	12/01/2020 23:13	WG1583806
2-Chlorophenol	U		0.0116	0.351	1	12/01/2020 23:13	WG1583806
2,4-Dichlorophenol	U		0.0102	0.351	1	12/01/2020 23:13	WG1583806
2,4-Dimethylphenol	U		0.00918	0.351	1	12/01/2020 23:13	WG1583806
4,6-Dinitro-2-methylphenol	U		0.0797	0.351	1	12/01/2020 23:13	WG1583806
2,4-Dinitrophenol	U		0.0822	0.351	1	12/01/2020 23:13	WG1583806



Collected date/time: 11/19/20 09:48

L1289379

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2-Methylphenol	U		0.0106	0.351	1	12/01/2020 23:13	WG1583806
3&4-Methyl Phenol	U		0.0110	0.351	1	12/01/2020 23:13	WG1583806
2-Nitrophenol	U		0.0126	0.351	1	12/01/2020 23:13	WG1583806
4-Nitrophenol	U		0.0110	0.351	1	12/01/2020 23:13	WG1583806
Pentachlorophenol	U		0.00945	0.351	1	12/01/2020 23:13	WG1583806
Phenol	U		0.0141	0.351	1	12/01/2020 23:13	WG1583806
2,4,6-Trichlorophenol	U		0.0113	0.351	1	12/01/2020 23:13	WG1583806
2,4,5-Trichlorophenol	U		0.0119	0.351	1	12/01/2020 23:13	WG1583806
(S) 2-Fluorophenol	76.0			12.0-120		12/01/2020 23:13	WG1583806
(S) Phenol-d5	69.6			10.0-120		12/01/2020 23:13	WG1583806
(S) Nitrobenzene-d5	53.5			10.0-122		12/01/2020 23:13	WG1583806
(S) 2-Fluorobiphenyl	68.9			15.0-120		12/01/2020 23:13	WG1583806
(S) 2,4,6-Tribromophenol	92.7			10.0-127		12/01/2020 23:13	WG1583806
(S) p-Terphenyl-d14	71.0			10.0-120		12/01/2020 23:13	WG1583806

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



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.7		1	12/01/2020 08:31	WG1584117

1 Cp

2 Tc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0190	0.0422	1	12/01/2020 09:02	WG1583991

3 Ss

4 Cn

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	U		0.575	2.11	1	11/30/2020 23:59	WG1583319
Arsenic	2.19	<u>B</u>	0.547	2.11	1	11/30/2020 23:59	WG1583319
Barium	25.2		0.0900	0.528	1	11/30/2020 23:59	WG1583319
Beryllium	0.273		0.0333	0.211	1	11/30/2020 23:59	WG1583319
Cadmium	0.0510	<u>J</u>	0.0497	0.528	1	11/30/2020 23:59	WG1583319
Chromium	26.7		0.140	1.06	1	11/30/2020 23:59	WG1583319
Cobalt	3.39		0.0856	1.06	1	11/30/2020 23:59	WG1583319
Copper	2.87		0.422	2.11	1	11/30/2020 23:59	WG1583319
Lead	1.33		0.220	0.528	1	11/30/2020 23:59	WG1583319
Molybdenum	0.166	<u>B J</u>	0.115	0.528	1	11/30/2020 23:59	WG1583319
Nickel	18.6		0.139	2.11	1	11/30/2020 23:59	WG1583319
Selenium	U		0.807	2.11	1	11/30/2020 23:59	WG1583319
Silver	U		0.134	1.06	1	11/30/2020 23:59	WG1583319
Thallium	U		0.416	2.11	1	11/30/2020 23:59	WG1583319
Vanadium	30.1		0.534	2.11	1	11/30/2020 23:59	WG1583319
Zinc	14.8		0.879	5.28	1	11/30/2020 23:59	WG1583319

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	U		0.928	2.79	25	12/03/2020 08:13	WG1585567
(S) a, a, a-Trifluorotoluene(FID)	96.1			77.0-120		12/03/2020 08:13	WG1585567

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0408	0.0559	1	12/01/2020 22:27	WG1584153
Acrylonitrile	U		0.00404	0.0140	1	12/01/2020 22:27	WG1584153
Benzene	U		0.000522	0.00112	1	12/01/2020 22:27	WG1584153
Bromobenzene	U		0.00101	0.0140	1	12/01/2020 22:27	WG1584153
Bromodichloromethane	U		0.000810	0.00279	1	12/01/2020 22:27	WG1584153
Bromoform	U	<u>J4</u>	0.00131	0.0279	1	12/01/2020 22:27	WG1584153
Bromomethane	U		0.00220	0.0140	1	12/01/2020 22:27	WG1584153
n-Butylbenzene	U		0.00587	0.0140	1	12/01/2020 22:27	WG1584153
sec-Butylbenzene	U		0.00322	0.0140	1	12/01/2020 22:27	WG1584153
tert-Butylbenzene	U		0.00218	0.00559	1	12/01/2020 22:27	WG1584153
Carbon tetrachloride	U		0.00100	0.00559	1	12/01/2020 22:27	WG1584153
Chlorobenzene	U		0.000235	0.00279	1	12/01/2020 22:27	WG1584153
Chlorodibromomethane	U	<u>J4</u>	0.000684	0.00279	1	12/01/2020 22:27	WG1584153
Chloroethane	U		0.00190	0.00559	1	12/01/2020 22:27	WG1584153
Chloroform	U		0.00115	0.00279	1	12/01/2020 22:27	WG1584153
Chloromethane	U		0.00486	0.0140	1	12/01/2020 22:27	WG1584153
2-Chlorotoluene	U		0.000967	0.00279	1	12/01/2020 22:27	WG1584153
4-Chlorotoluene	U		0.000503	0.00559	1	12/01/2020 22:27	WG1584153



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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00436	0.0279	1	12/01/2020 22:27	WG1584153
1,2-Dibromoethane	U		0.000724	0.00279	1	12/01/2020 22:27	WG1584153
Dibromomethane	U		0.000838	0.00559	1	12/01/2020 22:27	WG1584153
1,2-Dichlorobenzene	U		0.000475	0.00559	1	12/01/2020 22:27	WG1584153
1,3-Dichlorobenzene	U		0.000671	0.00559	1	12/01/2020 22:27	WG1584153
1,4-Dichlorobenzene	U		0.000782	0.00559	1	12/01/2020 22:27	WG1584153
Dichlorodifluoromethane	U		0.00180	0.00279	1	12/01/2020 22:27	WG1584153
1,1-Dichloroethane	U		0.000549	0.00279	1	12/01/2020 22:27	WG1584153
1,2-Dichloroethane	U		0.000725	0.00279	1	12/01/2020 22:27	WG1584153
1,1-Dichloroethene	U		0.000677	0.00279	1	12/01/2020 22:27	WG1584153
cis-1,2-Dichloroethene	U		0.000820	0.00279	1	12/01/2020 22:27	WG1584153
trans-1,2-Dichloroethene	U		0.00116	0.00559	1	12/01/2020 22:27	WG1584153
1,2-Dichloropropane	U		0.00159	0.00559	1	12/01/2020 22:27	WG1584153
1,1-Dichloropropene	U		0.000904	0.00279	1	12/01/2020 22:27	WG1584153
1,3-Dichloropropane	U		0.000560	0.00559	1	12/01/2020 22:27	WG1584153
cis-1,3-Dichloropropene	U		0.000846	0.00279	1	12/01/2020 22:27	WG1584153
trans-1,3-Dichloropropene	U		0.00127	0.00559	1	12/01/2020 22:27	WG1584153
2,2-Dichloropropane	U	J4	0.00154	0.00279	1	12/01/2020 22:27	WG1584153
Di-isopropyl ether	U		0.000458	0.00112	1	12/01/2020 22:27	WG1584153
Ethylbenzene	U		0.000824	0.00279	1	12/01/2020 22:27	WG1584153
Hexachloro-1,3-butadiene	U		0.00671	0.0279	1	12/01/2020 22:27	WG1584153
Isopropylbenzene	U		0.000475	0.00279	1	12/01/2020 22:27	WG1584153
p-Isopropyltoluene	U		0.00285	0.00559	1	12/01/2020 22:27	WG1584153
2-Butanone (MEK)	U		0.0710	0.112	1	12/01/2020 22:27	WG1584153
Methylene Chloride	U		0.00742	0.0279	1	12/01/2020 22:27	WG1584153
4-Methyl-2-pentanone (MIBK)	U		0.00255	0.0279	1	12/01/2020 22:27	WG1584153
Methyl tert-butyl ether	U	J4	0.000391	0.00112	1	12/01/2020 22:27	WG1584153
Naphthalene	U		0.00545	0.0140	1	12/01/2020 22:27	WG1584153
n-Propylbenzene	U		0.00106	0.00559	1	12/01/2020 22:27	WG1584153
Styrene	U		0.000256	0.0140	1	12/01/2020 22:27	WG1584153
1,1,1,2-Tetrachloroethane	U		0.00106	0.00279	1	12/01/2020 22:27	WG1584153
1,1,2,2-Tetrachloroethane	U		0.000777	0.00279	1	12/01/2020 22:27	WG1584153
1,1,2-Trichlorotrifluoroethane	U		0.000843	0.00279	1	12/01/2020 22:27	WG1584153
Tetrachloroethene	U		0.00100	0.00279	1	12/01/2020 22:27	WG1584153
Toluene	U		0.00145	0.00559	1	12/01/2020 22:27	WG1584153
1,2,3-Trichlorobenzene	U		0.00819	0.0140	1	12/01/2020 22:27	WG1584153
1,2,4-Trichlorobenzene	U		0.00492	0.0140	1	12/01/2020 22:27	WG1584153
1,1,1-Trichloroethane	U		0.00103	0.00279	1	12/01/2020 22:27	WG1584153
1,1,2-Trichloroethane	U		0.000667	0.00279	1	12/01/2020 22:27	WG1584153
Trichloroethene	U		0.000653	0.00112	1	12/01/2020 22:27	WG1584153
Trichlorofluoromethane	U		0.000924	0.00279	1	12/01/2020 22:27	WG1584153
1,2,3-Trichloropropane	U		0.00181	0.0140	1	12/01/2020 22:27	WG1584153
1,2,4-Trimethylbenzene	U		0.00177	0.00559	1	12/01/2020 22:27	WG1584153
1,2,3-Trimethylbenzene	U		0.00177	0.00559	1	12/01/2020 22:27	WG1584153
1,3,5-Trimethylbenzene	U		0.00224	0.00559	1	12/01/2020 22:27	WG1584153
Vinyl chloride	U		0.00130	0.00279	1	12/01/2020 22:27	WG1584153
Xylenes, Total	U		0.000984	0.00727	1	12/01/2020 22:27	WG1584153
(S) Toluene-d8	106			75.0-131		12/01/2020 22:27	WG1584153
(S) 4-Bromofluorobenzene	97.3			67.0-138		12/01/2020 22:27	WG1584153
(S) 1,2-Dichloroethane-d4	92.4			70.0-130		12/01/2020 22:27	WG1584153

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/19/20 10:13

L1289379

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	U		0.774	4.22	1	11/30/2020 22:36	WG1583815
C22-C32 Hydrocarbons	U		1.40	4.22	1	11/30/2020 22:36	WG1583815
C32-C40 Hydrocarbons	U		1.40	4.22	1	11/30/2020 22:36	WG1583815
(S) o-Terphenyl	82.8			18.0-148		11/30/2020 22:36	WG1583815

1 Cp

2 Tc

3 Ss

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	0.0194	J	0.00569	0.0352	1	12/01/2020 19:32	WG1583806
Acenaphthylene	U		0.00495	0.0352	1	12/01/2020 19:32	WG1583806
Anthracene	U		0.00626	0.0352	1	12/01/2020 19:32	WG1583806
Benzo(a)anthracene	U		0.00620	0.0352	1	12/01/2020 19:32	WG1583806
Benzo(b)fluoranthene	U		0.00656	0.0352	1	12/01/2020 19:32	WG1583806
Benzo(k)fluoranthene	U		0.00625	0.0352	1	12/01/2020 19:32	WG1583806
Benzo(g,h,i)perylene	U		0.00643	0.0352	1	12/01/2020 19:32	WG1583806
Benzo(a)pyrene	U		0.00654	0.0352	1	12/01/2020 19:32	WG1583806
Bis(2-chloroethoxy)methane	U		0.0106	0.352	1	12/01/2020 19:32	WG1583806
Bis(2-chloroethyl)ether	U		0.0116	0.352	1	12/01/2020 19:32	WG1583806
2,2-Oxybis(1-Chloropropane)	U		0.0152	0.352	1	12/01/2020 19:32	WG1583806
4-Bromophenyl-phenylether	U		0.0124	0.352	1	12/01/2020 19:32	WG1583806
2-Chloronaphthalene	U		0.00618	0.0352	1	12/01/2020 19:32	WG1583806
4-Chlorophenyl-phenylether	U		0.0123	0.352	1	12/01/2020 19:32	WG1583806
Chrysene	U		0.00699	0.0352	1	12/01/2020 19:32	WG1583806
Dibenz(a,h)anthracene	U		0.00975	0.0352	1	12/01/2020 19:32	WG1583806
3,3-Dichlorobenzidine	U		0.0130	0.352	1	12/01/2020 19:32	WG1583806
2,4-Dinitrotoluene	U		0.0101	0.352	1	12/01/2020 19:32	WG1583806
2,6-Dinitrotoluene	U		0.0115	0.352	1	12/01/2020 19:32	WG1583806
Fluoranthene	U		0.00635	0.0352	1	12/01/2020 19:32	WG1583806
Fluorene	0.00787	J	0.00572	0.0352	1	12/01/2020 19:32	WG1583806
Hexachlorobenzene	U		0.0125	0.352	1	12/01/2020 19:32	WG1583806
Hexachloro-1,3-butadiene	U		0.0118	0.352	1	12/01/2020 19:32	WG1583806
Hexachlorocyclopentadiene	U		0.0185	0.352	1	12/01/2020 19:32	WG1583806
Hexachloroethane	U		0.0138	0.352	1	12/01/2020 19:32	WG1583806
Indeno(1,2,3-cd)pyrene	U		0.00994	0.0352	1	12/01/2020 19:32	WG1583806
Isophorone	U		0.0108	0.352	1	12/01/2020 19:32	WG1583806
Naphthalene	0.331		0.00883	0.0352	1	12/01/2020 19:32	WG1583806
Nitrobenzene	U		0.0123	0.352	1	12/01/2020 19:32	WG1583806
n-Nitrosodimethylamine	U		0.0522	0.352	1	12/01/2020 19:32	WG1583806
n-Nitrosodiphenylamine	U		0.0266	0.352	1	12/01/2020 19:32	WG1583806
n-Nitrosodi-n-propylamine	U		0.0117	0.352	1	12/01/2020 19:32	WG1583806
Phenanthrene	0.00736	J	0.00698	0.0352	1	12/01/2020 19:32	WG1583806
Pyridine	U		0.0232	0.352	1	12/01/2020 19:32	WG1583806
Benzylbutyl phthalate	U		0.0110	0.352	1	12/01/2020 19:32	WG1583806
Bis(2-ethylhexyl)phthalate	U		0.0446	0.352	1	12/01/2020 19:32	WG1583806
Di-n-butyl phthalate	U		0.0120	0.352	1	12/01/2020 19:32	WG1583806
Diethyl phthalate	U		0.0116	0.352	1	12/01/2020 19:32	WG1583806
Dimethyl phthalate	U		0.0746	0.352	1	12/01/2020 19:32	WG1583806
Di-n-octyl phthalate	U		0.0238	0.352	1	12/01/2020 19:32	WG1583806
Pyrene	U		0.00684	0.0352	1	12/01/2020 19:32	WG1583806
1,2,4-Trichlorobenzene	U		0.0110	0.352	1	12/01/2020 19:32	WG1583806
4-Chloro-3-methylphenol	U		0.0114	0.352	1	12/01/2020 19:32	WG1583806
2-Chlorophenol	U		0.0116	0.352	1	12/01/2020 19:32	WG1583806
2,4-Dichlorophenol	U		0.0102	0.352	1	12/01/2020 19:32	WG1583806
2,4-Dimethylphenol	U		0.00919	0.352	1	12/01/2020 19:32	WG1583806
4,6-Dinitro-2-methylphenol	U		0.0797	0.352	1	12/01/2020 19:32	WG1583806
2,4-Dinitrophenol	U		0.0823	0.352	1	12/01/2020 19:32	WG1583806

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/19/20 10:13

L1289379

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2-Methylphenol	U		0.0106	0.352	1	12/01/2020 19:32	WG1583806
3&4-Methyl Phenol	U		0.0110	0.352	1	12/01/2020 19:32	WG1583806
2-Nitrophenol	U		0.0126	0.352	1	12/01/2020 19:32	WG1583806
4-Nitrophenol	U		0.0110	0.352	1	12/01/2020 19:32	WG1583806
Pentachlorophenol	U		0.00946	0.352	1	12/01/2020 19:32	WG1583806
Phenol	U		0.0142	0.352	1	12/01/2020 19:32	WG1583806
2,4,6-Trichlorophenol	U		0.0113	0.352	1	12/01/2020 19:32	WG1583806
2,4,5-Trichlorophenol	U		0.0119	0.352	1	12/01/2020 19:32	WG1583806
(S) 2-Fluorophenol	82.8			12.0-120		12/01/2020 19:32	WG1583806
(S) Phenol-d5	74.8			10.0-120		12/01/2020 19:32	WG1583806
(S) Nitrobenzene-d5	57.7			10.0-122		12/01/2020 19:32	WG1583806
(S) 2-Fluorobiphenyl	73.9			15.0-120		12/01/2020 19:32	WG1583806
(S) 2,4,6-Tribromophenol	99.1			10.0-127		12/01/2020 19:32	WG1583806
(S) p-Terphenyl-d14	80.4			10.0-120		12/01/2020 19:32	WG1583806

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



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.0		1	12/01/2020 08:31	WG1584117

1 Cp

2 Tc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0234	J	0.0186	0.0412	1	12/01/2020 09:05	WG1583991

3 Ss

4 Cn

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	0.931	J	0.561	2.06	1	12/01/2020 00:02	WG1583319
Arsenic	2.33	B	0.534	2.06	1	12/01/2020 00:02	WG1583319
Barium	55.7		0.0879	0.516	1	12/01/2020 00:02	WG1583319
Beryllium	0.338		0.0325	0.206	1	12/01/2020 00:02	WG1583319
Cadmium	0.134	J	0.0486	0.516	1	12/01/2020 00:02	WG1583319
Chromium	34.9		0.137	1.03	1	12/01/2020 00:02	WG1583319
Cobalt	8.03		0.0836	1.03	1	12/01/2020 00:02	WG1583319
Copper	13.1		0.412	2.06	1	12/01/2020 00:02	WG1583319
Lead	18.1		0.214	0.516	1	12/01/2020 00:02	WG1583319
Molybdenum	1.04	B	0.112	0.516	1	12/01/2020 00:02	WG1583319
Nickel	27.4		0.136	2.06	1	12/01/2020 00:02	WG1583319
Selenium	U		0.788	2.06	1	12/01/2020 00:02	WG1583319
Silver	U		0.131	1.03	1	12/01/2020 00:02	WG1583319
Thallium	U		0.406	2.06	1	12/01/2020 00:02	WG1583319
Vanadium	52.5		0.522	2.06	1	12/01/2020 00:02	WG1583319
Zinc	38.9		0.858	5.16	1	12/01/2020 00:02	WG1583319

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	1.03	B J	0.886	2.67	25	12/03/2020 08:36	WG1585567
(S) a,a,a-Trifluorotoluene(FID)	97.1			77.0-120		12/03/2020 08:36	WG1585567

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0390	0.0534	1	12/01/2020 22:46	WG1584153
Acrylonitrile	U		0.00386	0.0134	1	12/01/2020 22:46	WG1584153
Benzene	U		0.000499	0.00107	1	12/01/2020 22:46	WG1584153
Bromobenzene	U		0.000961	0.0134	1	12/01/2020 22:46	WG1584153
Bromodichloromethane	U		0.000774	0.00267	1	12/01/2020 22:46	WG1584153
Bromoform	U	J4	0.00125	0.0267	1	12/01/2020 22:46	WG1584153
Bromomethane	U		0.00210	0.0134	1	12/01/2020 22:46	WG1584153
n-Butylbenzene	U		0.00561	0.0134	1	12/01/2020 22:46	WG1584153
sec-Butylbenzene	U		0.00308	0.0134	1	12/01/2020 22:46	WG1584153
tert-Butylbenzene	U		0.00208	0.00534	1	12/01/2020 22:46	WG1584153
Carbon tetrachloride	U		0.000959	0.00534	1	12/01/2020 22:46	WG1584153
Chlorobenzene	U		0.000224	0.00267	1	12/01/2020 22:46	WG1584153
Chlorodibromomethane	U	J4	0.000654	0.00267	1	12/01/2020 22:46	WG1584153
Chloroethane	U		0.00182	0.00534	1	12/01/2020 22:46	WG1584153
Chloroform	U		0.00110	0.00267	1	12/01/2020 22:46	WG1584153
Chloromethane	U		0.00465	0.0134	1	12/01/2020 22:46	WG1584153
2-Chlorotoluene	U		0.000924	0.00267	1	12/01/2020 22:46	WG1584153
4-Chlorotoluene	U		0.000481	0.00534	1	12/01/2020 22:46	WG1584153



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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00417	0.0267	1	12/01/2020 22:46	WG1584153
1,2-Dibromoethane	U		0.000692	0.00267	1	12/01/2020 22:46	WG1584153
Dibromomethane	U		0.000801	0.00534	1	12/01/2020 22:46	WG1584153
1,2-Dichlorobenzene	U		0.000454	0.00534	1	12/01/2020 22:46	WG1584153
1,3-Dichlorobenzene	U		0.000641	0.00534	1	12/01/2020 22:46	WG1584153
1,4-Dichlorobenzene	U		0.000748	0.00534	1	12/01/2020 22:46	WG1584153
Dichlorodifluoromethane	U		0.00172	0.00267	1	12/01/2020 22:46	WG1584153
1,1-Dichloroethane	U		0.000524	0.00267	1	12/01/2020 22:46	WG1584153
1,2-Dichloroethane	U		0.000693	0.00267	1	12/01/2020 22:46	WG1584153
1,1-Dichloroethene	U		0.000647	0.00267	1	12/01/2020 22:46	WG1584153
cis-1,2-Dichloroethene	U		0.000784	0.00267	1	12/01/2020 22:46	WG1584153
trans-1,2-Dichloroethene	U		0.00111	0.00534	1	12/01/2020 22:46	WG1584153
1,2-Dichloropropane	U		0.00152	0.00534	1	12/01/2020 22:46	WG1584153
1,1-Dichloropropene	U		0.000864	0.00267	1	12/01/2020 22:46	WG1584153
1,3-Dichloropropane	U		0.000535	0.00534	1	12/01/2020 22:46	WG1584153
cis-1,3-Dichloropropene	U		0.000809	0.00267	1	12/01/2020 22:46	WG1584153
trans-1,3-Dichloropropene	U		0.00122	0.00534	1	12/01/2020 22:46	WG1584153
2,2-Dichloropropane	U	J4	0.00147	0.00267	1	12/01/2020 22:46	WG1584153
Di-isopropyl ether	U		0.000438	0.00107	1	12/01/2020 22:46	WG1584153
Ethylbenzene	U		0.000787	0.00267	1	12/01/2020 22:46	WG1584153
Hexachloro-1,3-butadiene	U		0.00641	0.0267	1	12/01/2020 22:46	WG1584153
Isopropylbenzene	U		0.000454	0.00267	1	12/01/2020 22:46	WG1584153
p-Isopropyltoluene	U		0.00272	0.00534	1	12/01/2020 22:46	WG1584153
2-Butanone (MEK)	U		0.0678	0.107	1	12/01/2020 22:46	WG1584153
Methylene Chloride	U		0.00709	0.0267	1	12/01/2020 22:46	WG1584153
4-Methyl-2-pentanone (MIBK)	U		0.00244	0.0267	1	12/01/2020 22:46	WG1584153
Methyl tert-butyl ether	U	J4	0.000374	0.00107	1	12/01/2020 22:46	WG1584153
Naphthalene	U		0.00521	0.0134	1	12/01/2020 22:46	WG1584153
n-Propylbenzene	U		0.00101	0.00534	1	12/01/2020 22:46	WG1584153
Styrene	U		0.000245	0.0134	1	12/01/2020 22:46	WG1584153
1,1,1,2-Tetrachloroethane	U		0.00101	0.00267	1	12/01/2020 22:46	WG1584153
1,1,2,2-Tetrachloroethane	U		0.000742	0.00267	1	12/01/2020 22:46	WG1584153
1,1,2-Trichlorotrifluoroethane	U		0.000805	0.00267	1	12/01/2020 22:46	WG1584153
Tetrachloroethene	U		0.000957	0.00267	1	12/01/2020 22:46	WG1584153
Toluene	U		0.00139	0.00534	1	12/01/2020 22:46	WG1584153
1,2,3-Trichlorobenzene	U		0.00783	0.0134	1	12/01/2020 22:46	WG1584153
1,2,4-Trichlorobenzene	U		0.00470	0.0134	1	12/01/2020 22:46	WG1584153
1,1,1-Trichloroethane	U		0.000986	0.00267	1	12/01/2020 22:46	WG1584153
1,1,2-Trichloroethane	U		0.000638	0.00267	1	12/01/2020 22:46	WG1584153
Trichloroethene	U		0.000624	0.00107	1	12/01/2020 22:46	WG1584153
Trichlorofluoromethane	U		0.000883	0.00267	1	12/01/2020 22:46	WG1584153
1,2,3-Trichloropropane	U		0.00173	0.0134	1	12/01/2020 22:46	WG1584153
1,2,4-Trimethylbenzene	U		0.00169	0.00534	1	12/01/2020 22:46	WG1584153
1,2,3-Trimethylbenzene	U		0.00169	0.00534	1	12/01/2020 22:46	WG1584153
1,3,5-Trimethylbenzene	U		0.00214	0.00534	1	12/01/2020 22:46	WG1584153
Vinyl chloride	U		0.00124	0.00267	1	12/01/2020 22:46	WG1584153
Xylenes, Total	U		0.000940	0.00694	1	12/01/2020 22:46	WG1584153
(S) Toluene-d8	104			75.0-131		12/01/2020 22:46	WG1584153
(S) 4-Bromofluorobenzene	99.5			67.0-138		12/01/2020 22:46	WG1584153
(S) 1,2-Dichloroethane-d4	98.2			70.0-130		12/01/2020 22:46	WG1584153

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/19/20 11:12

L1289379

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	167	J	152	825	200	12/03/2020 17:39	WG1585052
C22-C32 Hydrocarbons	1780		274	825	200	12/03/2020 17:39	WG1585052
C32-C40 Hydrocarbons	1170		274	825	200	12/03/2020 17:39	WG1585052
(S) o-Terphenyl	0.000	J7		18.0-148		12/03/2020 17:39	WG1585052

Sample Narrative:

L1289379-06 WG1585052: Cannot run at lower dilution due to viscosity of extract

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0556	0.343	10	12/02/2020 02:13	WG1583806
Acenaphthylene	U		0.0484	0.343	10	12/02/2020 02:13	WG1583806
Anthracene	U		0.0612	0.343	10	12/02/2020 02:13	WG1583806
Benzo(a)anthracene	0.134	J	0.0605	0.343	10	12/02/2020 02:13	WG1583806
Benzo(b)fluoranthene	0.259	J	0.0640	0.343	10	12/02/2020 02:13	WG1583806
Benzo(k)fluoranthene	0.0797	J	0.0610	0.343	10	12/02/2020 02:13	WG1583806
Benzo(g,h,i)perylene	0.0793	J	0.0628	0.343	10	12/02/2020 02:13	WG1583806
Benzo(a)pyrene	0.160	J	0.0638	0.343	10	12/02/2020 02:13	WG1583806
Bis(2-chloroethoxy)methane	U		0.103	3.43	10	12/02/2020 02:13	WG1583806
Bis(2-chloroethyl)ether	U		0.113	3.43	10	12/02/2020 02:13	WG1583806
2,2-Oxybis(1-Chloropropane)	U		0.148	3.43	10	12/02/2020 02:13	WG1583806
4-Bromophenyl-phenylether	U		0.121	3.43	10	12/02/2020 02:13	WG1583806
2-Chloronaphthalene	U		0.0603	0.343	10	12/02/2020 02:13	WG1583806
4-Chlorophenyl-phenylether	U		0.120	3.43	10	12/02/2020 02:13	WG1583806
Chrysene	0.154	J	0.0683	0.343	10	12/02/2020 02:13	WG1583806
Dibenz(a,h)anthracene	U		0.0952	0.343	10	12/02/2020 02:13	WG1583806
3,3-Dichlorobenzidine	U		0.127	3.43	10	12/02/2020 02:13	WG1583806
2,4-Dinitrotoluene	U		0.0985	3.43	10	12/02/2020 02:13	WG1583806
2,6-Dinitrotoluene	U		0.112	3.43	10	12/02/2020 02:13	WG1583806
Fluoranthene	0.457		0.0620	0.343	10	12/02/2020 02:13	WG1583806
Fluorene	U		0.0559	0.343	10	12/02/2020 02:13	WG1583806
Hexachlorobenzene	U		0.122	3.43	10	12/02/2020 02:13	WG1583806
Hexachloro-1,3-butadiene	U		0.115	3.43	10	12/02/2020 02:13	WG1583806
Hexachlorocyclopentadiene	U		0.180	3.43	10	12/02/2020 02:13	WG1583806
Hexachloroethane	U		0.135	3.43	10	12/02/2020 02:13	WG1583806
Indeno(1,2,3-cd)pyrene	U		0.0970	0.343	10	12/02/2020 02:13	WG1583806
Isophorone	U		0.105	3.43	10	12/02/2020 02:13	WG1583806
Naphthalene	0.171	J	0.0862	0.343	10	12/02/2020 02:13	WG1583806
Nitrobenzene	U		0.120	3.43	10	12/02/2020 02:13	WG1583806
n-Nitrosodimethylamine	U		0.509	3.43	10	12/02/2020 02:13	WG1583806
n-Nitrosodiphenylamine	U		0.260	3.43	10	12/02/2020 02:13	WG1583806
n-Nitrosodi-n-propylamine	U		0.114	3.43	10	12/02/2020 02:13	WG1583806
Phenanthrene	0.247	J	0.0682	0.343	10	12/02/2020 02:13	WG1583806
Pyridine	U		0.227	3.43	10	12/02/2020 02:13	WG1583806
Benzylbutyl phthalate	U		0.107	3.43	10	12/02/2020 02:13	WG1583806
Bis(2-ethylhexyl)phthalate	U		0.435	3.43	10	12/02/2020 02:13	WG1583806
Di-n-butyl phthalate	U		0.118	3.43	10	12/02/2020 02:13	WG1583806
Diethyl phthalate	U		0.113	3.43	10	12/02/2020 02:13	WG1583806
Dimethyl phthalate	U		0.728	3.43	10	12/02/2020 02:13	WG1583806
Di-n-octyl phthalate	U		0.232	3.43	10	12/02/2020 02:13	WG1583806
Pyrene	0.385		0.0668	0.343	10	12/02/2020 02:13	WG1583806
1,2,4-Trichlorobenzene	U		0.107	3.43	10	12/02/2020 02:13	WG1583806
4-Chloro-3-methylphenol	U		0.111	3.43	10	12/02/2020 02:13	WG1583806
2-Chlorophenol	U		0.113	3.43	10	12/02/2020 02:13	WG1583806
2,4-Dichlorophenol	U		0.100	3.43	10	12/02/2020 02:13	WG1583806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/19/20 11:12

L1289379

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-Dimethylphenol	U		0.0897	3.43	10	12/02/2020 02:13	WG1583806
4,6-Dinitro-2-methylphenol	U		0.779	3.43	10	12/02/2020 02:13	WG1583806
2,4-Dinitrophenol	U		0.803	3.43	10	12/02/2020 02:13	WG1583806
2-Methylphenol	U		0.103	3.43	10	12/02/2020 02:13	WG1583806
3&4-Methyl Phenol	U		0.107	3.43	10	12/02/2020 02:13	WG1583806
2-Nitrophenol	U		0.123	3.43	10	12/02/2020 02:13	WG1583806
4-Nitrophenol	U		0.107	3.43	10	12/02/2020 02:13	WG1583806
Pentachlorophenol	U		0.0924	3.43	10	12/02/2020 02:13	WG1583806
Phenol	U		0.138	3.43	10	12/02/2020 02:13	WG1583806
2,4,6-Trichlorophenol	U		0.110	3.43	10	12/02/2020 02:13	WG1583806
2,4,5-Trichlorophenol	U		0.117	3.43	10	12/02/2020 02:13	WG1583806
(S) 2-Fluorophenol	68.3			12.0-120		12/02/2020 02:13	WG1583806
(S) Phenol-d5	61.4			10.0-120		12/02/2020 02:13	WG1583806
(S) Nitrobenzene-d5	46.9			10.0-122		12/02/2020 02:13	WG1583806
(S) 2-Fluorobiphenyl	54.4			15.0-120		12/02/2020 02:13	WG1583806
(S) 2,4,6-Tribromophenol	82.7			10.0-127		12/02/2020 02:13	WG1583806
(S) p-Terphenyl-d14	59.4			10.0-120		12/02/2020 02:13	WG1583806

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

Sample Narrative:

L1289379-06 WG1583806: Cannot run at lower dilution due to viscosity of extract



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.1		1	12/01/2020 08:31	WG1584117

1 Cp

2 Tc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0212	0.0470	1	12/01/2020 09:07	WG1583991

3 Ss

4 Cn

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Antimony	1.33	J	0.640	2.35	1	12/01/2020 00:05	WG1583319
Arsenic	1.86	B J	0.609	2.35	1	12/01/2020 00:05	WG1583319
Barium	60.9		0.100	0.588	1	12/01/2020 00:05	WG1583319
Beryllium	0.358		0.0370	0.235	1	12/01/2020 00:05	WG1583319
Cadmium	U		0.0554	0.588	1	12/01/2020 00:05	WG1583319
Chromium	67.9		0.156	1.18	1	12/01/2020 00:05	WG1583319
Cobalt	10.8		0.0953	1.18	1	12/01/2020 00:05	WG1583319
Copper	13.1		0.470	2.35	1	12/01/2020 00:05	WG1583319
Lead	12.3		0.245	0.588	1	12/01/2020 00:05	WG1583319
Molybdenum	0.468	B J	0.128	0.588	1	12/01/2020 00:05	WG1583319
Nickel	53.0		0.155	2.35	1	12/01/2020 00:05	WG1583319
Selenium	1.28	J	0.898	2.35	1	12/01/2020 00:05	WG1583319
Silver	U		0.149	1.18	1	12/01/2020 00:05	WG1583319
Thallium	U		0.463	2.35	1	12/01/2020 00:05	WG1583319
Vanadium	56.5		0.595	2.35	1	12/01/2020 00:05	WG1583319
Zinc	42.1		0.978	5.88	1	12/01/2020 00:05	WG1583319

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPHG C5 - C12	U		1.18	3.54	25	12/03/2020 08:59	WG1585567
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		12/03/2020 08:59	WG1585567

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0517	0.0708	1	12/01/2020 23:05	WG1584153
Acrylonitrile	U		0.00511	0.0177	1	12/01/2020 23:05	WG1584153
Benzene	0.00259		0.000661	0.00142	1	12/01/2020 23:05	WG1584153
Bromobenzene	U		0.00127	0.0177	1	12/01/2020 23:05	WG1584153
Bromodichloromethane	U		0.00103	0.00354	1	12/01/2020 23:05	WG1584153
Bromoform	U	J4	0.00166	0.0354	1	12/01/2020 23:05	WG1584153
Bromomethane	U	J3	0.00279	0.0177	1	12/01/2020 23:05	WG1584153
n-Butylbenzene	U		0.00743	0.0177	1	12/01/2020 23:05	WG1584153
sec-Butylbenzene	U		0.00408	0.0177	1	12/01/2020 23:05	WG1584153
tert-Butylbenzene	U		0.00276	0.00708	1	12/01/2020 23:05	WG1584153
Carbon tetrachloride	U		0.00127	0.00708	1	12/01/2020 23:05	WG1584153
Chlorobenzene	U		0.000297	0.00354	1	12/01/2020 23:05	WG1584153
Chlorodibromomethane	U	J4	0.000867	0.00354	1	12/01/2020 23:05	WG1584153
Chloroethane	U	J3	0.00241	0.00708	1	12/01/2020 23:05	WG1584153
Chloroform	U		0.00146	0.00354	1	12/01/2020 23:05	WG1584153
Chloromethane	U		0.00616	0.0177	1	12/01/2020 23:05	WG1584153
2-Chlorotoluene	U		0.00122	0.00354	1	12/01/2020 23:05	WG1584153
4-Chlorotoluene	U		0.000637	0.00708	1	12/01/2020 23:05	WG1584153



Collected date/time: 11/19/20 10:34

L1289379

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00552	0.0354	1	12/01/2020 23:05	WG1584153
1,2-Dibromoethane	U		0.000918	0.00354	1	12/01/2020 23:05	WG1584153
Dibromomethane	U		0.00106	0.00708	1	12/01/2020 23:05	WG1584153
1,2-Dichlorobenzene	U		0.000602	0.00708	1	12/01/2020 23:05	WG1584153
1,3-Dichlorobenzene	U		0.000850	0.00708	1	12/01/2020 23:05	WG1584153
1,4-Dichlorobenzene	U		0.000991	0.00708	1	12/01/2020 23:05	WG1584153
Dichlorodifluoromethane	U		0.00228	0.00354	1	12/01/2020 23:05	WG1584153
1,1-Dichloroethane	U		0.000695	0.00354	1	12/01/2020 23:05	WG1584153
1,2-Dichloroethane	U		0.000919	0.00354	1	12/01/2020 23:05	WG1584153
1,1-Dichloroethene	U	J3	0.000858	0.00354	1	12/01/2020 23:05	WG1584153
cis-1,2-Dichloroethene	U		0.00104	0.00354	1	12/01/2020 23:05	WG1584153
trans-1,2-Dichloroethene	U		0.00147	0.00708	1	12/01/2020 23:05	WG1584153
1,2-Dichloropropane	U		0.00201	0.00708	1	12/01/2020 23:05	WG1584153
1,1-Dichloropropene	U		0.00115	0.00354	1	12/01/2020 23:05	WG1584153
1,3-Dichloropropane	U		0.000709	0.00708	1	12/01/2020 23:05	WG1584153
cis-1,3-Dichloropropene	U		0.00107	0.00354	1	12/01/2020 23:05	WG1584153
trans-1,3-Dichloropropene	U		0.00161	0.00708	1	12/01/2020 23:05	WG1584153
2,2-Dichloropropane	U	J3 J4	0.00195	0.00354	1	12/01/2020 23:05	WG1584153
Di-isopropyl ether	U		0.000581	0.00142	1	12/01/2020 23:05	WG1584153
Ethylbenzene	0.00607		0.00104	0.00354	1	12/01/2020 23:05	WG1584153
Hexachloro-1,3-butadiene	U		0.00850	0.0354	1	12/01/2020 23:05	WG1584153
Isopropylbenzene	U		0.000602	0.00354	1	12/01/2020 23:05	WG1584153
p-Isopropyltoluene	U		0.00361	0.00708	1	12/01/2020 23:05	WG1584153
2-Butanone (MEK)	U		0.0899	0.142	1	12/01/2020 23:05	WG1584153
Methylene Chloride	U		0.00940	0.0354	1	12/01/2020 23:05	WG1584153
4-Methyl-2-pentanone (MIBK)	U		0.00323	0.0354	1	12/01/2020 23:05	WG1584153
Methyl tert-butyl ether	U	J3 J4	0.000496	0.00142	1	12/01/2020 23:05	WG1584153
Naphthalene	0.0166	J	0.00691	0.0177	1	12/01/2020 23:05	WG1584153
n-Propylbenzene	0.00263	J	0.00135	0.00708	1	12/01/2020 23:05	WG1584153
Styrene	U		0.000324	0.0177	1	12/01/2020 23:05	WG1584153
1,1,1,2-Tetrachloroethane	U		0.00134	0.00354	1	12/01/2020 23:05	WG1584153
1,1,2,2-Tetrachloroethane	U		0.000984	0.00354	1	12/01/2020 23:05	WG1584153
1,1,2-Trichlorotrifluoroethane	U	J3	0.00107	0.00354	1	12/01/2020 23:05	WG1584153
Tetrachloroethene	U		0.00127	0.00354	1	12/01/2020 23:05	WG1584153
Toluene	U		0.00184	0.00708	1	12/01/2020 23:05	WG1584153
1,2,3-Trichlorobenzene	U		0.0104	0.0177	1	12/01/2020 23:05	WG1584153
1,2,4-Trichlorobenzene	U		0.00623	0.0177	1	12/01/2020 23:05	WG1584153
1,1,1-Trichloroethane	U	J3	0.00131	0.00354	1	12/01/2020 23:05	WG1584153
1,1,2-Trichloroethane	U		0.000845	0.00354	1	12/01/2020 23:05	WG1584153
Trichloroethene	U		0.000827	0.00142	1	12/01/2020 23:05	WG1584153
Trichlorofluoromethane	U	J3	0.00117	0.00354	1	12/01/2020 23:05	WG1584153
1,2,3-Trichloropropane	U		0.00229	0.0177	1	12/01/2020 23:05	WG1584153
1,2,4-Trimethylbenzene	U		0.00224	0.00708	1	12/01/2020 23:05	WG1584153
1,2,3-Trimethylbenzene	0.00804		0.00224	0.00708	1	12/01/2020 23:05	WG1584153
1,3,5-Trimethylbenzene	U		0.00283	0.00708	1	12/01/2020 23:05	WG1584153
Vinyl chloride	U		0.00164	0.00354	1	12/01/2020 23:05	WG1584153
Xylenes, Total	0.00214	J	0.00125	0.00920	1	12/01/2020 23:05	WG1584153
(S) Toluene-d8	105			75.0-131		12/01/2020 23:05	WG1584153
(S) 4-Bromofluorobenzene	101			67.0-138		12/01/2020 23:05	WG1584153
(S) 1,2-Dichloroethane-d4	99.2			70.0-130		12/01/2020 23:05	WG1584153

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/19/20 10:34

L1289379

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
C12-C22 Hydrocarbons	9.38	J	4.31	23.5	5	12/02/2020 21:28	WG1585052
C22-C32 Hydrocarbons	42.9		7.82	23.5	5	12/02/2020 21:28	WG1585052
C32-C40 Hydrocarbons	58.7		7.82	23.5	5	12/02/2020 21:28	WG1585052
(S) o-Terphenyl	82.4			18.0-148		12/02/2020 21:28	WG1585052

Sample Narrative:

L1289379-07 WG1585052: Dilution due to matrix.

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	0.0152	J	0.00634	0.0391	1	12/01/2020 23:53	WG1583806
Acenaphthylene	U		0.00551	0.0391	1	12/01/2020 23:53	WG1583806
Anthracene	U		0.00697	0.0391	1	12/01/2020 23:53	WG1583806
Benzo(a)anthracene	U		0.00690	0.0391	1	12/01/2020 23:53	WG1583806
Benzo(b)fluoranthene	U		0.00730	0.0391	1	12/01/2020 23:53	WG1583806
Benzo(k)fluoranthene	U		0.00696	0.0391	1	12/01/2020 23:53	WG1583806
Benzo(g,h,i)perylene	U		0.00716	0.0391	1	12/01/2020 23:53	WG1583806
Benzo(a)pyrene	U		0.00728	0.0391	1	12/01/2020 23:53	WG1583806
Bis(2-chloroethoxy)methane	U		0.0118	0.391	1	12/01/2020 23:53	WG1583806
Bis(2-chloroethyl)ether	U		0.0129	0.391	1	12/01/2020 23:53	WG1583806
2,2-Oxybis(1-Chloropropane)	U		0.0169	0.391	1	12/01/2020 23:53	WG1583806
4-Bromophenyl-phenylether	U		0.0138	0.391	1	12/01/2020 23:53	WG1583806
2-Chloronaphthalene	U		0.00688	0.0391	1	12/01/2020 23:53	WG1583806
4-Chlorophenyl-phenylether	U		0.0136	0.391	1	12/01/2020 23:53	WG1583806
Chrysene	U		0.00778	0.0391	1	12/01/2020 23:53	WG1583806
Dibenz(a,h)anthracene	U		0.0109	0.0391	1	12/01/2020 23:53	WG1583806
3,3-Dichlorobenzidine	U		0.0145	0.391	1	12/01/2020 23:53	WG1583806
2,4-Dinitrotoluene	U		0.0112	0.391	1	12/01/2020 23:53	WG1583806
2,6-Dinitrotoluene	U		0.0128	0.391	1	12/01/2020 23:53	WG1583806
Fluoranthene	U		0.00707	0.0391	1	12/01/2020 23:53	WG1583806
Fluorene	0.00674	J	0.00637	0.0391	1	12/01/2020 23:53	WG1583806
Hexachlorobenzene	U		0.0139	0.391	1	12/01/2020 23:53	WG1583806
Hexachloro-1,3-butadiene	U		0.0132	0.391	1	12/01/2020 23:53	WG1583806
Hexachlorocyclopentadiene	U		0.0206	0.391	1	12/01/2020 23:53	WG1583806
Hexachloroethane	U		0.0154	0.391	1	12/01/2020 23:53	WG1583806
Indeno(1,2,3-cd)pyrene	U		0.0111	0.0391	1	12/01/2020 23:53	WG1583806
Isophorone	U		0.0120	0.391	1	12/01/2020 23:53	WG1583806
Naphthalene	0.225		0.00983	0.0391	1	12/01/2020 23:53	WG1583806
Nitrobenzene	U		0.0136	0.391	1	12/01/2020 23:53	WG1583806
n-Nitrosodimethylamine	U		0.0581	0.391	1	12/01/2020 23:53	WG1583806
n-Nitrosodiphenylamine	U		0.0296	0.391	1	12/01/2020 23:53	WG1583806
n-Nitrosodi-n-propylamine	U		0.0130	0.391	1	12/01/2020 23:53	WG1583806
Phenanthrene	0.0120	J	0.00777	0.0391	1	12/01/2020 23:53	WG1583806
Pyridine	U		0.0259	0.391	1	12/01/2020 23:53	WG1583806
Benzylbutyl phthalate	U		0.0122	0.391	1	12/01/2020 23:53	WG1583806
Bis(2-ethylhexyl)phthalate	U		0.0496	0.391	1	12/01/2020 23:53	WG1583806
Di-n-butyl phthalate	U		0.0134	0.391	1	12/01/2020 23:53	WG1583806
Diethyl phthalate	U		0.0129	0.391	1	12/01/2020 23:53	WG1583806
Dimethyl phthalate	U		0.0830	0.391	1	12/01/2020 23:53	WG1583806
Di-n-octyl phthalate	U		0.0265	0.391	1	12/01/2020 23:53	WG1583806
Pyrene	U		0.00762	0.0391	1	12/01/2020 23:53	WG1583806
1,2,4-Trichlorobenzene	U		0.0122	0.391	1	12/01/2020 23:53	WG1583806
4-Chloro-3-methylphenol	U		0.0127	0.391	1	12/01/2020 23:53	WG1583806
2-Chlorophenol	U		0.0129	0.391	1	12/01/2020 23:53	WG1583806
2,4-Dichlorophenol	U		0.0114	0.391	1	12/01/2020 23:53	WG1583806

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



Collected date/time: 11/19/20 10:34

L1289379

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-Dimethylphenol	U		0.0102	0.391	1	12/01/2020 23:53	WG1583806
4,6-Dinitro-2-methylphenol	U		0.0888	0.391	1	12/01/2020 23:53	WG1583806
2,4-Dinitrophenol	U		0.0916	0.391	1	12/01/2020 23:53	WG1583806
2-Methylphenol	U		0.0118	0.391	1	12/01/2020 23:53	WG1583806
3&4-Methyl Phenol	U		0.0122	0.391	1	12/01/2020 23:53	WG1583806
2-Nitrophenol	U		0.0140	0.391	1	12/01/2020 23:53	WG1583806
4-Nitrophenol	U		0.0122	0.391	1	12/01/2020 23:53	WG1583806
Pentachlorophenol	U		0.0105	0.391	1	12/01/2020 23:53	WG1583806
Phenol	U		0.0158	0.391	1	12/01/2020 23:53	WG1583806
2,4,6-Trichlorophenol	U		0.0126	0.391	1	12/01/2020 23:53	WG1583806
2,4,5-Trichlorophenol	U		0.0133	0.391	1	12/01/2020 23:53	WG1583806
(S) 2-Fluorophenol	77.2			12.0-120		12/01/2020 23:53	WG1583806
(S) Phenol-d5	74.1			10.0-120		12/01/2020 23:53	WG1583806
(S) Nitrobenzene-d5	56.9			10.0-122		12/01/2020 23:53	WG1583806
(S) 2-Fluorobiphenyl	73.7			15.0-120		12/01/2020 23:53	WG1583806
(S) 2,4,6-Tribromophenol	108			10.0-127		12/01/2020 23:53	WG1583806
(S) p-Terphenyl-d14	76.6			10.0-120		12/01/2020 23:53	WG1583806

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



Method Blank (MB)

(MB) R3599144-1 12/01/20 08:45

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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

L1289379-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1289379-04 12/01/20 08:45 • (DUP) R3599144-3 12/01/20 08:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	94.8	93.1	1	1.80		10

6 Qc

Laboratory Control Sample (LCS)

(LCS) R3599144-2 12/01/20 08:45

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

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3599141-1 12/01/20 08:31

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	%		%	%
Total Solids	0.00100			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L1289476-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1289476-07 12/01/20 08:31 • (DUP) R3599141-3 12/01/20 08:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
	%	%		%		%
Total Solids	83.4	85.2	1	2.04		10

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3599141-2 12/01/20 08:31

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



Method Blank (MB)

(MB) R3598912-1 12/01/20 07:58

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Mercury	U		0.0180	0.0400

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

Laboratory Control Sample (LCS)

(LCS) R3598912-2 12/01/20 08:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Mercury	0.500	0.456	91.2	80.0-120	

⁷ Gl

⁸ Al

L1288970-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1288970-09 12/01/20 08:03 • (MS) R3598912-3 12/01/20 08:06 • (MSD) R3598912-4 12/01/20 08:08

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Mercury	0.500	0.0899	0.523	0.499	86.6	81.9	1	75.0-125			4.56	20

⁹ Sc



Method Blank (MB)

(MB) R3599433-1 12/02/20 07:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Mercury	U		0.0180	0.0400

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R3599433-2 12/02/20 07:22

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Mercury	0.500	0.511	102	80.0-120	

4 Cn

5 Sr

L1288982-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1288982-01 12/02/20 07:24 • (MS) R3599433-3 12/02/20 07:26 • (MSD) R3599433-4 12/02/20 07:28

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Mercury	0.500	0.112	0.679	0.900	72.3	100	1	75.0-125	<u>J6</u>	<u>J3</u>	27.9	20

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3598814-7 12/01/20 03:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Antimony	U		0.544	2.00
Arsenic	0.519	↓	0.518	2.00
Barium	U		0.0852	0.500
Beryllium	U		0.0315	0.200
Cadmium	U		0.0471	0.500
Chromium	U		0.133	1.00
Cobalt	U		0.0811	1.00
Copper	U		0.400	2.00
Lead	U		0.208	0.500
Molybdenum	0.134	↓	0.109	0.500
Nickel	U		0.132	2.00
Selenium	U		0.764	2.00
Silver	U		0.127	1.00
Thallium	U		0.394	2.00
Vanadium	U		0.506	2.00
Zinc	U		0.832	5.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3598814-2 11/30/20 22:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	100	106	106	80.0-120	
Arsenic	100	96.9	96.9	80.0-120	
Barium	100	109	109	80.0-120	
Beryllium	100	110	110	80.0-120	
Cadmium	100	104	104	80.0-120	
Chromium	100	105	105	80.0-120	
Cobalt	100	108	108	80.0-120	
Copper	100	109	109	80.0-120	
Lead	100	105	105	80.0-120	
Molybdenum	100	110	110	80.0-120	
Nickel	100	106	106	80.0-120	
Selenium	100	106	106	80.0-120	
Silver	20.0	19.3	96.3	80.0-120	
Thallium	100	101	101	80.0-120	
Vanadium	100	107	107	80.0-120	
Zinc	100	103	103	80.0-120	



L1288377-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1288377-07 11/30/20 22:53 • (MS) R3598814-5 11/30/20 23:01 • (MSD) R3598814-6 11/30/20 23:04

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	100	1.34	59.7	59.2	58.4	57.8	1	75.0-125	<u>J6</u>	<u>J6</u>	0.902	20
Arsenic	100	9.85	117	113	107	104	1	75.0-125			2.77	20
Barium	100	446	462	481	15.8	35.3	1	75.0-125	<u>V</u>	<u>V</u>	4.12	20
Beryllium	100	0.469	110	110	110	110	1	75.0-125			0.333	20
Cadmium	100	0.0856	112	111	112	111	1	75.0-125			0.703	20
Chromium	100	12.0	114	113	102	101	1	75.0-125			0.541	20
Cobalt	100	5.18	118	118	113	113	1	75.0-125			0.153	20
Copper	100	15.1	123	123	108	108	1	75.0-125			0.291	20
Lead	100	37.2	115	113	77.7	76.1	1	75.0-125			1.40	20
Molybdenum	100	0.651	107	107	107	106	1	75.0-125			0.495	20
Nickel	100	15.3	124	124	109	109	1	75.0-125			0.102	20
Selenium	100	U	114	112	114	112	1	75.0-125			1.58	20
Silver	20.0	U	20.9	20.8	104	104	1	75.0-125			0.549	20
Thallium	100	U	103	102	103	102	1	75.0-125			1.59	20
Vanadium	100	31.8	136	136	105	104	1	75.0-125			0.338	20
Zinc	100	189	117	118	0.000	0.000	1	75.0-125	<u>J6</u>	<u>J6</u>	0.747	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3599032-1 12/01/20 07:25

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Antimony	U		0.544	2.00
Arsenic	U		0.518	2.00
Barium	U		0.0852	0.500
Beryllium	U		0.0315	0.200
Cadmium	U		0.0471	0.500
Chromium	U		0.133	1.00
Cobalt	U		0.0811	1.00
Copper	U		0.400	2.00
Lead	U		0.208	0.500
Molybdenum	U		0.109	0.500
Nickel	U		0.132	2.00
Selenium	U		0.764	2.00
Silver	U		0.127	1.00
Thallium	U		0.394	2.00
Vanadium	U		0.506	2.00
Zinc	U		0.832	5.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3599032-2 12/01/20 07:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	100	112	112	80.0-120	
Arsenic	100	109	109	80.0-120	
Barium	100	117	117	80.0-120	
Beryllium	100	116	116	80.0-120	
Cadmium	100	111	111	80.0-120	
Chromium	100	113	113	80.0-120	
Cobalt	100	114	114	80.0-120	
Copper	100	114	114	80.0-120	
Lead	100	113	113	80.0-120	
Molybdenum	100	117	117	80.0-120	
Nickel	100	113	113	80.0-120	
Selenium	100	112	112	80.0-120	
Silver	20.0	20.6	103	80.0-120	
Thallium	100	108	108	80.0-120	
Vanadium	100	115	115	80.0-120	
Zinc	100	111	111	80.0-120	



L1288705-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1288705-02 12/01/20 07:30 • (MS) R3599032-5 12/01/20 07:38 • (MSD) R3599032-6 12/01/20 07:40

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	100	1.22	52.7	53.8	51.5	52.6	1	75.0-125	J6	J6	2.12	20
Arsenic	100	8.51	105	107	96.4	98.9	1	75.0-125			2.39	20
Barium	100	45.0	169	163	124	118	1	75.0-125			3.61	20
Beryllium	100	0.490	109	106	108	105	1	75.0-125			2.56	20
Cadmium	100	U	103	100	103	100	1	75.0-125			3.04	20
Chromium	100	13.5	119	116	105	102	1	75.0-125			2.87	20
Cobalt	100	7.33	123	121	115	113	1	75.0-125			1.85	20
Copper	100	20.6	125	120	104	99.0	1	75.0-125			4.47	20
Lead	100	13.0	120	121	107	108	1	75.0-125			0.966	20
Molybdenum	100	8.84	108	106	99.2	96.7	1	75.0-125			2.38	20
Nickel	100	12.8	124	122	111	109	1	75.0-125			1.92	20
Selenium	100	1.26	104	99.9	103	98.6	1	75.0-125			4.08	20
Silver	20.0	U	18.6	18.1	93.2	90.3	1	75.0-125			3.15	20
Thallium	100	U	101	97.5	101	97.5	1	75.0-125			3.05	20
Vanadium	100	25.6	136	136	110	110	1	75.0-125			0.245	20
Zinc	100	23.3	132	129	108	106	1	75.0-125			2.11	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3599597-2 12/02/20 12:55

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C5 - C12	0.0600	↓	0.0332	0.100
(S) a,a,a-Trifluorotoluene(FID)	97.3			77.0-120

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS)

(LCS) R3599597-1 12/02/20 10:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPHG C5 - C12	5.50	6.41	117	72.0-125	
(S) a,a,a-Trifluorotoluene(FID)			107	77.0-120	

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3599912-2 12/03/20 06:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C5 - C12	0.0344	↓	0.0332	0.100
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS)

(LCS) R3599912-1 12/03/20 04:07

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPHG C5 - C12	5.50	6.06	110	72.0-125	
(S) a,a,a-Trifluorotoluene(FID)			105	77.0-120	

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3599308-2 12/01/20 12:34

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
Acrylonitrile	U		0.00361	0.0125
Benzene	U		0.000467	0.00100
Bromobenzene	U		0.000900	0.0125
Bromodichloromethane	U		0.000725	0.00250
Bromoform	U		0.00117	0.0250
Bromomethane	U		0.00197	0.0125
n-Butylbenzene	U		0.00525	0.0125
sec-Butylbenzene	U		0.00288	0.0125
tert-Butylbenzene	U		0.00195	0.00500
Carbon tetrachloride	U		0.000898	0.00500
Chlorobenzene	U		0.000210	0.00250
Chlorodibromomethane	U		0.000612	0.00250
Chloroethane	U		0.00170	0.00500
Chloroform	U		0.00103	0.00250
Chloromethane	U		0.00435	0.0125
2-Chlorotoluene	U		0.000865	0.00250
4-Chlorotoluene	U		0.000450	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250
1,2-Dibromoethane	U		0.000648	0.00250
Dibromomethane	U		0.000750	0.00500
1,2-Dichlorobenzene	U		0.000425	0.00500
1,3-Dichlorobenzene	U		0.000600	0.00500
1,4-Dichlorobenzene	U		0.000700	0.00500
Dichlorodifluoromethane	U		0.00161	0.00250
1,1-Dichloroethane	U		0.000491	0.00250
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
1,2-Dichloropropane	U		0.00142	0.00500
1,1-Dichloropropene	U		0.000809	0.00250
1,3-Dichloropropane	U		0.000501	0.00500
cis-1,3-Dichloropropene	U		0.000757	0.00250
trans-1,3-Dichloropropene	U		0.00114	0.00500
2,2-Dichloropropane	U		0.00138	0.00250
Di-isopropyl ether	U		0.000410	0.00100
Ethylbenzene	U		0.000737	0.00250
Hexachloro-1,3-butadiene	U		0.00600	0.0250
Isopropylbenzene	U		0.000425	0.00250

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3599308-2 12/01/20 12:34

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00255	0.00500
2-Butanone (MEK)	0.0751	J	0.0635	0.100
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250
Methyl tert-butyl ether	U		0.000350	0.00100
Naphthalene	U		0.00488	0.0125
n-Propylbenzene	U		0.000950	0.00500
Styrene	U		0.000229	0.0125
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250
1,2,3-Trichlorobenzene	U		0.00733	0.0125
1,2,4-Trichlorobenzene	U		0.00440	0.0125
1,1,1-Trichloroethane	U		0.000923	0.00250
1,1,2-Trichloroethane	U		0.000597	0.00250
Trichloroethene	U		0.000584	0.00100
Trichlorofluoromethane	U		0.000827	0.00250
1,2,3-Trichloropropane	U		0.00162	0.0125
1,2,3-Trimethylbenzene	U		0.00158	0.00500
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	107			75.0-131
(S) 4-Bromofluorobenzene	105			67.0-138
(S) 1,2-Dichloroethane-d4	97.8			70.0-130

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3599308-1 12/01/20 11:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.477	76.3	10.0-160	
Acrylonitrile	0.625	0.600	96.0	45.0-153	
Benzene	0.125	0.132	106	70.0-123	
Bromobenzene	0.125	0.124	99.2	73.0-121	
Bromodichloromethane	0.125	0.100	80.0	73.0-121	



Laboratory Control Sample (LCS)

(LCS) R3599308-1 12/01/20 11:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromoform	0.125	0.0751	60.1	64.0-132	J4
Bromomethane	0.125	0.131	105	56.0-147	
n-Butylbenzene	0.125	0.126	101	68.0-135	
sec-Butylbenzene	0.125	0.132	106	74.0-130	
tert-Butylbenzene	0.125	0.131	105	75.0-127	
Carbon tetrachloride	0.125	0.122	97.6	66.0-128	
Chlorobenzene	0.125	0.136	109	76.0-128	
Chlorodibromomethane	0.125	0.0920	73.6	74.0-127	J4
Chloroethane	0.125	0.131	105	61.0-134	
Chloroform	0.125	0.133	106	72.0-123	
Chloromethane	0.125	0.135	108	51.0-138	
2-Chlorotoluene	0.125	0.134	107	75.0-124	
4-Chlorotoluene	0.125	0.129	103	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.0790	63.2	59.0-130	
1,2-Dibromoethane	0.125	0.128	102	74.0-128	
Dibromomethane	0.125	0.131	105	75.0-122	
1,2-Dichlorobenzene	0.125	0.129	103	76.0-124	
1,3-Dichlorobenzene	0.125	0.132	106	76.0-125	
1,4-Dichlorobenzene	0.125	0.121	96.8	77.0-121	
Dichlorodifluoromethane	0.125	0.123	98.4	43.0-156	
1,1-Dichloroethane	0.125	0.133	106	70.0-127	
1,2-Dichloroethane	0.125	0.127	102	65.0-131	
1,1-Dichloroethene	0.125	0.147	118	65.0-131	
cis-1,2-Dichloroethene	0.125	0.131	105	73.0-125	
trans-1,2-Dichloroethene	0.125	0.135	108	71.0-125	
1,2-Dichloropropane	0.125	0.144	115	74.0-125	
1,1-Dichloropropene	0.125	0.135	108	73.0-125	
1,3-Dichloropropane	0.125	0.133	106	80.0-125	
cis-1,3-Dichloropropene	0.125	0.106	84.8	76.0-127	
trans-1,3-Dichloropropene	0.125	0.103	82.4	73.0-127	
2,2-Dichloropropane	0.125	0.174	139	59.0-135	J4
Di-isopropyl ether	0.125	0.142	114	60.0-136	
Ethylbenzene	0.125	0.141	113	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.125	100	57.0-150	
Isopropylbenzene	0.125	0.144	115	72.0-127	
p-Isopropyltoluene	0.125	0.130	104	72.0-133	
2-Butanone (MEK)	0.625	0.703	112	30.0-160	
Methylene Chloride	0.125	0.130	104	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.707	113	56.0-143	
Methyl tert-butyl ether	0.125	0.179	143	66.0-132	J4

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3599308-1 12/01/20 11:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Naphthalene	0.125	0.124	99.2	59.0-130	
n-Propylbenzene	0.125	0.133	106	74.0-126	
Styrene	0.125	0.144	115	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.104	83.2	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.125	100	68.0-128	
Tetrachloroethene	0.125	0.156	125	70.0-136	
Toluene	0.125	0.142	114	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.140	112	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.126	101	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.122	97.6	62.0-137	
1,1,1-Trichloroethane	0.125	0.139	111	69.0-126	
1,1,2-Trichloroethane	0.125	0.138	110	78.0-123	
Trichloroethene	0.125	0.150	120	76.0-126	
Trichlorofluoromethane	0.125	0.137	110	61.0-142	
1,2,3-Trichloropropane	0.125	0.123	98.4	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.127	102	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.124	99.2	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.126	101	73.0-127	
Vinyl chloride	0.125	0.124	99.2	63.0-134	
Xylenes, Total	0.375	0.436	116	72.0-127	
(S) Toluene-d8			103	75.0-131	
(S) 4-Bromofluorobenzene			108	67.0-138	
(S) 1,2-Dichloroethane-d4			101	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1289379-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1289379-07 12/01/20 23:05 • (MS) R3599308-3 12/01/20 23:24 • (MSD) R3599308-4 12/01/20 23:43

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Acetone	0.649	U	0.884	0.925	136	143	1	10.0-160			4.54	40
Acrylonitrile	0.649	U	0.633	0.717	97.6	110	1	10.0-160			12.4	40
Benzene	0.130	0.00259	0.105	0.133	78.9	100	1	10.0-149			23.4	37
Bromobenzene	0.130	U	0.0987	0.116	76.2	89.7	1	10.0-156			16.3	38
Bromodichloromethane	0.130	U	0.0517	0.0658	39.9	50.8	1	10.0-143			24.1	37
Bromoform	0.130	U	0.0389	0.0464	30.1	35.8	1	10.0-146			17.6	36
Bromomethane	0.130	U	0.0630	0.0983	48.6	75.8	1	10.0-149		J3	43.7	38
n-Butylbenzene	0.130	U	0.100	0.127	77.5	97.8	1	10.0-160			23.2	40
sec-Butylbenzene	0.130	U	0.105	0.128	81.2	99.0	1	10.0-159			19.8	39
tert-Butylbenzene	0.130	U	0.105	0.127	81.3	98.4	1	10.0-156			19.0	39



L1289379-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1289379-07 12/01/20 23:05 • (MS) R3599308-3 12/01/20 23:24 • (MSD) R3599308-4 12/01/20 23:43

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	0.130	U	0.0588	0.0844	45.4	65.1	1	10.0-145			35.8	37
Chlorobenzene	0.130	U	0.111	0.129	85.4	99.6	1	10.0-152			15.4	39
Chlorodibromomethane	0.130	U	0.0447	0.0527	34.5	40.7	1	10.0-146			16.3	37
Chloroethane	0.130	U	0.102	0.186	79.0	143	1	10.0-146		J3	57.7	40
Chloroform	0.130	U	0.0902	0.120	69.6	92.9	1	10.0-146			28.6	37
Chloromethane	0.130	U	0.124	0.143	96.0	110	1	10.0-159			14.0	37
2-Chlorotoluene	0.130	U	0.107	0.129	82.7	99.9	1	10.0-159			18.8	38
4-Chlorotoluene	0.130	U	0.107	0.126	82.6	96.9	1	10.0-155			15.9	39
1,2-Dibromo-3-Chloropropane	0.130	U	0.0385	0.0436	29.7	33.7	1	10.0-151			12.4	39
1,2-Dibromoethane	0.130	U	0.0814	0.0977	62.8	75.4	1	10.0-148			18.2	34
Dibromomethane	0.130	U	0.0892	0.114	68.9	87.7	1	10.0-147			24.0	35
1,2-Dichlorobenzene	0.130	U	0.111	0.127	85.6	98.4	1	10.0-155			13.9	37
1,3-Dichlorobenzene	0.130	U	0.109	0.128	84.5	98.6	1	10.0-153			15.4	38
1,4-Dichlorobenzene	0.130	U	0.104	0.121	80.3	93.2	1	10.0-151			14.9	38
Dichlorodifluoromethane	0.130	U	0.112	0.133	86.3	103	1	10.0-160			17.2	35
1,1-Dichloroethane	0.130	U	0.0966	0.128	74.5	98.6	1	10.0-147			27.8	37
1,2-Dichloroethane	0.130	U	0.105	0.127	80.7	97.8	1	10.0-148			19.2	35
1,1-Dichloroethene	0.130	U	0.0769	0.132	59.3	102	1	10.0-155		J3	52.9	37
cis-1,2-Dichloroethene	0.130	U	0.0949	0.121	73.2	93.4	1	10.0-149			24.3	37
trans-1,2-Dichloroethene	0.130	U	0.0827	0.120	63.8	92.3	1	10.0-150			36.5	37
1,2-Dichloropropane	0.130	U	0.112	0.135	86.2	104	1	10.0-148			18.5	37
1,1-Dichloropropene	0.130	U	0.103	0.135	79.5	104	1	10.0-153			27.1	35
1,3-Dichloropropane	0.130	U	0.115	0.131	89.1	101	1	10.0-154			12.3	35
cis-1,3-Dichloropropene	0.130	U	0.0589	0.0782	45.5	60.3	1	10.0-151			28.1	37
trans-1,3-Dichloropropene	0.130	U	0.0595	0.0736	45.9	56.8	1	10.0-148			21.3	37
2,2-Dichloropropane	0.130	U	0.0816	0.125	63.0	96.7	1	10.0-138		J3	42.3	36
Di-isopropyl ether	0.130	U	0.112	0.138	86.1	107	1	10.0-147			21.2	36
Ethylbenzene	0.130	0.00607	0.120	0.139	87.7	102	1	10.0-160			14.8	38
Hexachloro-1,3-butadiene	0.130	U	0.0898	0.116	69.3	89.6	1	10.0-160			25.6	40
Isopropylbenzene	0.130	U	0.113	0.140	87.5	108	1	10.0-155			21.1	38
p-Isopropyltoluene	0.130	U	0.101	0.126	77.9	97.5	1	10.0-160			22.3	40
2-Butanone (MEK)	0.649	U	0.675	0.797	104	123	1	10.0-160			16.5	40
Methylene Chloride	0.130	U	0.0960	0.129	74.1	99.5	1	10.0-141			29.2	37
4-Methyl-2-pentanone (MIBK)	0.649	U	0.639	0.663	98.5	102	1	10.0-160			3.70	35
Methyl tert-butyl ether	0.130	U	0.126	0.180	97.3	139	1	11.0-147		J3	35.2	35
Naphthalene	0.130	0.0166	0.115	0.126	76.2	84.8	1	10.0-160			9.26	36
n-Propylbenzene	0.130	0.00263	0.111	0.135	83.4	102	1	10.0-158			19.8	38
Styrene	0.130	U	0.111	0.133	85.9	103	1	10.0-160			17.7	40
1,1,1,2-Tetrachloroethane	0.130	U	0.0564	0.0704	43.5	54.3	1	10.0-149			22.1	39

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L1289379-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1289379-07 12/01/20 23:05 • (MS) R3599308-3 12/01/20 23:24 • (MSD) R3599308-4 12/01/20 23:43

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,1,2,2-Tetrachloroethane	0.130	U	0.0790	0.0981	61.0	75.7	1	10.0-160			21.6	35
Tetrachloroethene	0.130	U	0.119	0.152	92.0	117	1	10.0-156			23.8	39
Toluene	0.130	U	0.114	0.137	87.8	106	1	10.0-156			18.9	38
1,1,2-Trichlorotrifluoroethane	0.130	U	0.0942	0.156	72.7	120	1	10.0-160		J3	49.3	36
1,2,3-Trichlorobenzene	0.130	U	0.0984	0.117	76.0	90.5	1	10.0-160			17.5	40
1,2,4-Trichlorobenzene	0.130	U	0.0983	0.117	75.8	90.6	1	10.0-160			17.7	40
1,1,1-Trichloroethane	0.130	U	0.0593	0.0976	45.8	75.3	1	10.0-144		J3	48.7	35
1,1,2-Trichloroethane	0.130	U	0.112	0.130	86.8	100	1	10.0-160			14.3	35
Trichloroethene	0.130	U	0.121	0.147	93.6	114	1	10.0-156			19.4	38
Trichlorofluoromethane	0.130	U	0.0868	0.140	67.0	108	1	10.0-160		J3	47.2	40
1,2,3-Trichloropropane	0.130	U	0.106	0.112	81.5	86.8	1	10.0-156			6.23	35
1,2,3-Trimethylbenzene	0.130	0.00804	0.107	0.129	76.2	93.4	1	10.0-160			18.9	36
1,2,4-Trimethylbenzene	0.130	U	0.101	0.118	78.0	91.3	1	10.0-160			15.6	36
1,3,5-Trimethylbenzene	0.130	U	0.103	0.122	79.8	94.4	1	10.0-160			16.8	38
Vinyl chloride	0.130	U	0.0514	0.0588	39.7	45.4	1	10.0-160			13.4	37
Xylenes, Total	0.389	0.00214	0.358	0.432	91.5	110	1	10.0-160			18.6	38
(S) Toluene-d8					105	103		75.0-131				
(S) 4-Bromofluorobenzene					105	105		67.0-138				
(S) 1,2-Dichloroethane-d4					99.5	104		70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3598822-1 11/30/20 19:14

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C12-C22 Hydrocarbons	U		0.733	4.00
C22-C32 Hydrocarbons	U		1.33	4.00
C32-C40 Hydrocarbons	U		1.33	4.00
(S) o-Terphenyl	102			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3598822-2 11/30/20 19:29

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C22-C32 Hydrocarbons	25.0	21.6	86.4	50.0-150	
C12-C22 Hydrocarbons	25.0	20.8	83.2	50.0-150	
(S) o-Terphenyl			94.4	18.0-148	

L1288983-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1288983-20 12/01/20 11:13 • (MS) R3599019-1 12/01/20 11:28 • (MSD) R3599019-2 12/01/20 11:42

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C22-C32 Hydrocarbons	24.5	272	306	249	139	0.000	10	50.0-150		J3 V	20.5	20
C12-C22 Hydrocarbons	24.5	357	406	318	200	0.000	10	50.0-150	V	J3 V	24.3	20
(S) o-Terphenyl					81.5	88.0		18.0-148				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3599797-1 12/02/20 17:23

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C12-C22 Hydrocarbons	U		0.733	4.00
C22-C32 Hydrocarbons	U		1.33	4.00
C32-C40 Hydrocarbons	U		1.33	4.00
(S) o-Terphenyl	82.6			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3599797-2 12/02/20 17:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C22-C32 Hydrocarbons	25.0	20.2	80.8	50.0-150	
C12-C22 Hydrocarbons	25.0	20.8	83.2	50.0-150	
(S) o-Terphenyl			69.7	18.0-148	

L1289125-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1289125-04 12/02/20 17:52 • (MS) R3599797-3 12/02/20 18:07 • (MSD) R3599797-4 12/02/20 18:21

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C22-C32 Hydrocarbons	24.4	U	19.7	19.0	80.7	77.6	1	50.0-150			3.62	20
C12-C22 Hydrocarbons	24.4	U	20.8	19.6	85.2	80.0	1	50.0-150			5.94	20
(S) o-Terphenyl					70.8	69.6		18.0-148				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3599366-2 12/01/20 18:52

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00539	0.0333
Acenaphthylene	U		0.00469	0.0333
Anthracene	U		0.00593	0.0333
Benzo(a)anthracene	U		0.00587	0.0333
Benzo(b)fluoranthene	U		0.00621	0.0333
Benzo(k)fluoranthene	U		0.00592	0.0333
Benzo(g,h,i)perylene	U		0.00609	0.0333
Benzo(a)pyrene	U		0.00619	0.0333
Bis(2-chlorethoxy)methane	U		0.0100	0.333
Bis(2-chloroethyl)ether	U		0.0110	0.333
2,2-Oxybis(1-Chloropropane)	U		0.0144	0.333
4-Bromophenyl-phenylether	U		0.0117	0.333
2-Chloronaphthalene	U		0.00585	0.0333
4-Chlorophenyl-phenylether	U		0.0116	0.333
Chrysene	U		0.00662	0.0333
Dibenz(a,h)anthracene	U		0.00923	0.0333
3,3-Dichlorobenzidine	U		0.0123	0.333
2,4-Dinitrotoluene	U		0.00955	0.333
2,6-Dinitrotoluene	U		0.0109	0.333
Fluoranthene	U		0.00601	0.0333
Fluorene	U		0.00542	0.0333
Hexachlorobenzene	U		0.0118	0.333
Hexachloro-1,3-butadiene	U		0.0112	0.333
Hexachlorocyclopentadiene	U		0.0175	0.333
Hexachloroethane	U		0.0131	0.333
Indeno(1,2,3-cd)pyrene	U		0.00941	0.0333
Isophorone	U		0.0102	0.333
Naphthalene	U		0.00836	0.0333
Nitrobenzene	U		0.0116	0.333
n-Nitrosodimethylamine	U		0.0494	0.333
n-Nitrosodiphenylamine	U		0.0252	0.333
n-Nitrosodi-n-propylamine	U		0.0111	0.333
Phenanthrene	U		0.00661	0.0333
Benzylbutyl phthalate	U		0.0104	0.333
Bis(2-ethylhexyl)phthalate	U		0.0422	0.333
Di-n-butyl phthalate	U		0.0114	0.333
Diethyl phthalate	U		0.0110	0.333
Dimethyl phthalate	U		0.0706	0.333
Di-n-octyl phthalate	U		0.0225	0.333
Pyrene	U		0.00648	0.0333

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3599366-2 12/01/20 18:52

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Pyridine	U		0.0220	0.333
1,2,4-Trichlorobenzene	U		0.0104	0.333
4-Chloro-3-methylphenol	U		0.0108	0.333
2-Chlorophenol	U		0.0110	0.333
2-Methylphenol	U		0.0100	0.333
3&4-Methyl Phenol	U		0.0104	0.333
2,4-Dichlorophenol	U		0.00970	0.333
2,4-Dimethylphenol	U		0.00870	0.333
4,6-Dinitro-2-methylphenol	U		0.0755	0.333
2,4-Dinitrophenol	U		0.0779	0.333
2-Nitrophenol	U		0.0119	0.333
4-Nitrophenol	U		0.0104	0.333
Pentachlorophenol	U		0.00896	0.333
Phenol	U		0.0134	0.333
2,4,5-Trichlorophenol	U		0.0113	0.333
2,4,6-Trichlorophenol	U		0.0107	0.333
(S) Nitrobenzene-d5	61.0			10.0-122
(S) 2-Fluorobiphenyl	77.8			15.0-120
(S) p-Terphenyl-d14	81.1			10.0-120
(S) Phenol-d5	78.7			10.0-120
(S) 2-Fluorophenol	83.8			12.0-120
(S) 2,4,6-Tribromophenol	91.6			10.0-127

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3599366-1 12/01/20 18:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.666	0.499	74.9	38.0-120	
Acenaphthylene	0.666	0.522	78.4	40.0-120	
Anthracene	0.666	0.592	88.9	42.0-120	
Benzo(a)anthracene	0.666	0.573	86.0	44.0-120	
Benzo(b)fluoranthene	0.666	0.605	90.8	43.0-120	
Benzo(k)fluoranthene	0.666	0.599	89.9	44.0-120	
Benzo(g,h,i)perylene	0.666	0.518	77.8	43.0-120	
Benzo(a)pyrene	0.666	0.639	95.9	45.0-120	
Bis(2-chlorethoxy)methane	0.666	0.353	53.0	20.0-120	
Bis(2-chloroethyl)ether	0.666	0.544	81.7	16.0-120	
2,2-Oxybis(1-Chloropropane)	0.666	0.508	76.3	23.0-120	



Laboratory Control Sample (LCS)

(LCS) R3599366-1 12/01/20 18:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
4-Bromophenyl-phenylether	0.666	0.611	91.7	40.0-120	
2-Chloronaphthalene	0.666	0.495	74.3	35.0-120	
4-Chlorophenyl-phenylether	0.666	0.540	81.1	40.0-120	
Chrysene	0.666	0.537	80.6	43.0-120	
Dibenz(a,h)anthracene	0.666	0.511	76.7	44.0-120	
3,3-Dichlorobenzidine	1.33	0.878	66.0	28.0-120	
2,4-Dinitrotoluene	0.666	0.604	90.7	45.0-120	
2,6-Dinitrotoluene	0.666	0.561	84.2	42.0-120	
Fluoranthene	0.666	0.628	94.3	44.0-120	
Fluorene	0.666	0.533	80.0	41.0-120	
Hexachlorobenzene	0.666	0.600	90.1	39.0-120	
Hexachloro-1,3-butadiene	0.666	0.388	58.3	15.0-120	
Hexachlorocyclopentadiene	0.666	0.415	62.3	15.0-120	
Hexachloroethane	0.666	0.486	73.0	17.0-120	
Indeno(1,2,3-cd)pyrene	0.666	0.545	81.8	45.0-120	
Isophorone	0.666	0.347	52.1	23.0-120	
Naphthalene	0.666	0.394	59.2	18.0-120	
Nitrobenzene	0.666	0.351	52.7	17.0-120	
n-Nitrosodimethylamine	0.666	0.394	59.2	10.0-125	
n-Nitrosodiphenylamine	0.666	0.581	87.2	40.0-120	
n-Nitrosodi-n-propylamine	0.666	0.457	68.6	26.0-120	
Phenanthrene	0.666	0.587	88.1	42.0-120	
Benzylbutyl phthalate	0.666	0.577	86.6	40.0-120	
Bis(2-ethylhexyl)phthalate	0.666	0.566	85.0	41.0-120	
Di-n-butyl phthalate	0.666	0.606	91.0	43.0-120	
Diethyl phthalate	0.666	0.551	82.7	43.0-120	
Dimethyl phthalate	0.666	0.573	86.0	43.0-120	
Di-n-octyl phthalate	0.666	0.591	88.7	40.0-120	
Pyrene	0.666	0.537	80.6	41.0-120	
Pyridine	0.666	0.266	39.9	10.0-120	
1,2,4-Trichlorobenzene	0.666	0.376	56.5	17.0-120	
4-Chloro-3-methylphenol	0.666	0.438	65.8	28.0-120	
2-Chlorophenol	0.666	0.526	79.0	28.0-120	
2-Methylphenol	0.666	0.538	80.8	35.0-120	
3&4-Methyl Phenol	0.666	0.637	95.6	42.0-120	
2,4-Dichlorophenol	0.666	0.416	62.5	25.0-120	
2,4-Dimethylphenol	0.666	0.416	62.5	15.0-120	
4,6-Dinitro-2-methylphenol	0.666	0.617	92.6	16.0-120	
2,4-Dinitrophenol	0.666	0.359	53.9	10.0-120	
2-Nitrophenol	0.666	0.453	68.0	20.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS)

(LCS) R3599366-1 12/01/20 18:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
4-Nitrophenol	0.666	0.531	79.7	27.0-120	
Pentachlorophenol	0.666	0.530	79.6	29.0-120	
Phenol	0.666	0.475	71.3	28.0-120	
2,4,5-Trichlorophenol	0.666	0.492	73.9	38.0-120	
2,4,6-Trichlorophenol	0.666	0.504	75.7	37.0-120	
(S) Nitrobenzene-d5			46.2	10.0-122	
(S) 2-Fluorobiphenyl			73.6	15.0-120	
(S) p-Terphenyl-d14			75.7	10.0-120	
(S) Phenol-d5			77.2	10.0-120	
(S) 2-Fluorophenol			83.2	12.0-120	
(S) 2,4,6-Tribromophenol			97.0	10.0-127	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1288390-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1288390-01 12/01/20 21:12 • (MS) R3599366-3 12/01/20 21:32 • (MSD) R3599366-4 12/01/20 21:52

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Acenaphthene	0.842	U	0.562	0.537	66.7	63.6	1	18.0-120			4.47	32
Acenaphthylene	0.842	U	0.582	0.549	69.2	65.0	1	25.0-120			5.94	32
Anthracene	0.842	U	0.686	0.669	81.4	79.2	1	22.0-120			2.48	29
Benzo(a)anthracene	0.842	U	0.683	0.682	81.1	80.7	1	25.0-120			0.189	29
Benzo(b)fluoranthene	0.842	U	0.693	0.690	82.4	81.7	1	19.0-122			0.560	31
Benzo(k)fluoranthene	0.842	U	0.695	0.692	82.5	82.0	1	23.0-120			0.372	30
Benzo(g,h,i)perylene	0.842	U	0.585	0.594	69.5	70.3	1	10.0-120			1.53	33
Benzo(a)pyrene	0.842	U	0.730	0.741	86.7	87.8	1	24.0-120			1.58	30
Bis(2-chloroethoxy)methane	0.842	U	0.381	0.350	45.2	41.4	1	10.0-120			8.48	34
Bis(2-chloroethyl)ether	0.842	U	0.536	0.369	63.7	43.7	1	10.0-120			36.8	40
2,2-Oxybis(1-Chloropropane)	0.842	U	0.504	0.431	59.8	51.1	1	10.0-120			15.5	40
4-Bromophenyl-phenylether	0.842	U	0.681	0.682	80.8	80.7	1	27.0-120			0.190	30
2-Chloronaphthalene	0.842	U	0.545	0.495	64.7	58.6	1	20.0-120			9.69	32
4-Chlorophenyl-phenylether	0.842	U	0.607	0.603	72.1	71.4	1	24.0-120			0.640	29
Chrysene	0.842	U	0.630	0.643	74.8	76.1	1	21.0-120			2.03	29
Dibenz(a,h)anthracene	0.842	U	0.590	0.599	70.1	70.9	1	10.0-120			1.52	32
3,3-Dichlorobenzidine	1.68	U	0.860	0.874	51.2	51.7	1	10.0-120			1.64	34
2,4-Dinitrotoluene	0.842	U	0.699	0.701	83.0	83.0	1	30.0-120			0.369	31
2,6-Dinitrotoluene	0.842	U	0.655	0.652	77.8	77.2	1	25.0-120			0.395	31
Fluoranthene	0.842	0.0136	0.752	0.758	87.7	88.1	1	18.0-126			0.855	32
Fluorene	0.842	U	0.606	0.593	71.9	70.2	1	25.0-120			2.16	30
Hexachlorobenzene	0.842	U	0.686	0.681	81.4	80.6	1	27.0-120			0.756	28



L1288390-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1288390-01 12/01/20 21:12 • (MS) R3599366-3 12/01/20 21:32 • (MSD) R3599366-4 12/01/20 21:52

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexachloro-1,3-butadiene	0.842	U	0.409	0.360	48.6	42.7	1	10.0-120			12.8	38
Hexachlorocyclopentadiene	0.842	U	0.430	0.378	51.1	44.8	1	10.0-120			12.8	40
Hexachloroethane	0.842	U	0.486	0.409	57.7	48.5	1	10.0-120			17.0	40
Indeno(1,2,3-cd)pyrene	0.842	U	0.617	0.617	73.3	73.1	1	10.0-120			0.000	32
Isophorone	0.842	U	0.380	0.350	45.1	41.4	1	13.0-120			8.14	34
Naphthalene	0.842	U	0.439	0.405	52.1	48.0	1	10.0-120			7.95	35
Nitrobenzene	0.842	U	0.385	0.333	45.7	39.4	1	10.0-120			14.4	36
n-Nitrosodiphenylamine	0.842	U	0.617	0.615	73.3	72.8	1	17.0-120			0.419	29
n-Nitrosodi-n-propylamine	0.842	U	0.460	0.411	54.6	48.6	1	10.0-120			11.3	37
Phenanthrene	0.842	0.00901	0.681	0.675	79.8	78.9	1	17.0-120			0.762	31
Benzylbutyl phthalate	0.842	U	0.690	0.693	81.9	82.1	1	23.0-120			0.560	30
Bis(2-ethylhexyl)phthalate	0.842	U	0.668	0.669	79.3	79.2	1	17.0-126			0.193	30
Di-n-butyl phthalate	0.842	U	0.711	0.711	84.5	84.3	1	30.0-120			0.000	29
Diethyl phthalate	0.842	U	0.635	0.629	75.5	74.5	1	26.0-120			1.02	28
Dimethyl phthalate	0.842	U	0.647	0.634	76.8	75.1	1	25.0-120			2.02	29
Di-n-octyl phthalate	0.842	U	0.709	0.706	84.2	83.6	1	21.0-123			0.365	29
Pyrene	0.842	0.00974	0.648	0.637	75.8	74.2	1	16.0-121			1.81	32
4-Chloro-3-methylphenol	0.842	U	0.498	0.523	59.2	61.9	1	15.0-120			4.80	30
2-Chlorophenol	0.842	U	0.533	0.470	63.3	55.7	1	15.0-120			12.6	37
2-Methylphenol	0.842	U	0.582	0.506	69.2	59.9	1	11.0-120			14.0	40
3&4-Methyl Phenol	0.842	U	0.638	0.591	75.8	70.0	1	12.0-123			7.56	38
2,4-Dichlorophenol	0.842	U	0.460	0.449	54.6	53.2	1	20.0-120			2.27	31
2,4-Dimethylphenol	0.842	U	0.426	0.403	50.6	47.7	1	10.0-120			5.61	33
4,6-Dinitro-2-methylphenol	0.842	U	0.906	0.865	108	102	1	10.0-120			4.66	39
2,4-Dinitrophenol	0.842	U	0.763	0.730	90.6	86.4	1	10.0-121			4.50	40
2-Nitrophenol	0.842	U	0.500	0.460	59.4	54.4	1	12.0-120			8.34	39
4-Nitrophenol	0.842	U	0.691	0.665	82.1	78.7	1	10.0-137			3.81	32
Pentachlorophenol	0.842	U	0.715	0.706	85.0	83.6	1	10.0-160			1.27	31
Phenol	0.842	U	0.482	0.439	57.2	52.0	1	12.0-120			9.26	38
2,4,5-Trichlorophenol	0.842	U	0.571	0.595	67.8	70.5	1	20.0-120			4.21	30
2,4,6-Trichlorophenol	0.842	U	0.549	0.532	65.2	63.0	1	19.0-120			3.11	32
n-Nitrosodimethylamine	0.842	U	0.356	0.345	42.3	40.8	1	10.0-127			3.31	40
Pyridine	0.842	U	0.322	0.266	38.2	31.5	1	10.0-120			18.9	40
1,2,4-Trichlorobenzene	0.842	U	0.403	0.355	47.9	42.0	1	12.0-120			12.6	37
<i>(S)</i> Nitrobenzene-d5					41.7	37.0		10.0-122				
<i>(S)</i> 2-Fluorobiphenyl					65.6	58.7		15.0-120				
<i>(S)</i> p-Terphenyl-d14					73.0	71.9		10.0-120				
<i>(S)</i> Phenol-d5					64.6	57.3		10.0-120				
<i>(S)</i> 2-Fluorophenol					69.2	60.1		12.0-120				

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



L1288390-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1288390-01 12/01/20 21:12 • (MS) R3599366-3 12/01/20 21:32 • (MSD) R3599366-4 12/01/20 21:52

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
(S) 2,4,6-Tribromophenol					91.6	93.4		10.0-127				

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



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

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

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
V	The sample concentration is too high to evaluate accurate spike recoveries.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

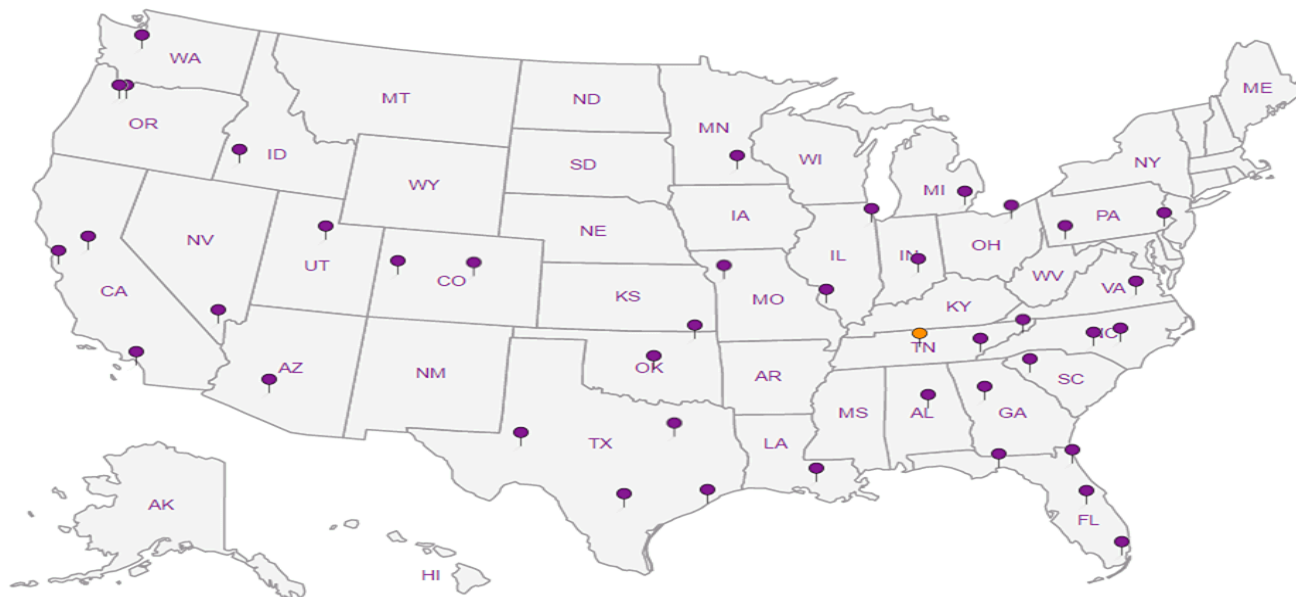
Third Party Federal Accreditations

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

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

Our Locations

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



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

AEI Consultants - CA

2500 Camino Diablo
Walnut Creek, CA 94597

Billing Information:

Accounts Payable- Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Fees
On

Analysis / Container / Preservation

Chain of Custody Page 01 of 01

Pace Analytical
National Center for Testing & Innovation

13863 Lakewood Rd
Morton Grove, IL 60053
Phone: 815-756-8858
Phone: 815-767-8858
Fax: 815-756-5430

Report to:
Natasha Budimirovic

Email To: nbudimirovic@aeiconsultants.com
jasmith@aeiconsultants.com

Project Description:
Eastmoor Avenue

City/State Collected:
Daly City, CA

Please Circle:
PT MT CT ET

Phone: 925-746-6000

Client Project #
430044

Lab Project #
AEICONWCCA-BUDIRES

Collected by (print):
N. BUDIMIROVIC

Site/Facility ID #

P.O. #
241511

Collected by (Signature):
N. Budimirovic

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

Date Results Needed

Immediately Packed on ice N Y

CA 117 Metals BorClr-NoPres
DRO/ORO-CA BorClr-NoPres
CRO-CA 40ml/AmB/MeOH/10ml/Syr
SVOCs 8.270 BorClr-NoPres
VOCs 8.280 40ml/AmB/MeOH/10ml/Syr
HOLD

C123
L1289379

Account: AEICONWCCA
Temp: 1177601
Franchise: P809274
PM: 110 - Brian Ford
PS:
Shipped Via:
Remarks: Sample # (See only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Concs	CA 117 Metals BorClr-NoPres	DRO/ORO-CA BorClr-NoPres	CRO-CA 40ml/AmB/MeOH/10ml/Syr	SVOCs 8.270 BorClr-NoPres	VOCs 8.280 40ml/AmB/MeOH/10ml/Syr	Other	Remarks
SB-1-2.5		SS		11-19-20	921	3	X	X	X	X	X	X	-01
SB-1-5.5		SS			913	3						X	
SB-2-2.5		SS			1128	3	X	X	X	X	X	X	-02
SB-2-5.5		SS			1120	3						X	
SB-3-2.5		SS			936	3	X	X	X	X	X	X	-03
SB-3-5.5		SS			930	3						X	
SB-4-2.5		SS			948	3	X	X	X	X	X	X	-04
SB-4-5.5		SS			943	3						X	
SB-5-2.5		SS			1013	3	X	X	X	X	X	X	-05
SB-5-5.5		SS			1004	3						X	

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

Remarks:
pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
UPS _____ FedEx _____ Courier _____
Tracking # **9156 24984707**

APPROX. RESPONSE TIME: 1-2 WKS
COC SHALL PREPARE / ANALYZE / REPORT / DELIVER TO YOU
PREPARE / ANALYZE / REPORT / DELIVER TO YOU
PREPARE / ANALYZE / REPORT / DELIVER TO YOU
PREPARE / ANALYZE / REPORT / DELIVER TO YOU
PREPARE / ANALYZE / REPORT / DELIVER TO YOU
PREPARE / ANALYZE / REPORT / DELIVER TO YOU
PREPARE / ANALYZE / REPORT / DELIVER TO YOU
PREPARE / ANALYZE / REPORT / DELIVER TO YOU
PREPARE / ANALYZE / REPORT / DELIVER TO YOU
PREPARE / ANALYZE / REPORT / DELIVER TO YOU

Relinquished by: (Signature)
N. Budimirovic

Date: 11-19-20 Time: 1255

Received by: (Signature)
Shipped via FedEx

Temp: 20°C / 68°F

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Temp: 98°C / 208°F

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Date: 11-20-20 Time: 0915

11-170 Condition: NCS / OK

AEI Consultants - CA

2500 Camino Diablo
Walnut Creek, CA 94597

Billing Information:

Accounts Payable- Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Pics
Chk

Report to:
Natasha Budimirovic

Email To: nbudimirovic@aeiconsultants.com
nbudim@aeiconsultants.com

Project Description:
Eastmore Avenue

City/State Collected: Daly City, CA

Please Circle:
PT MT CT ET

Phone: 925-746-6000

Client Project #
430044

Lab Project #
AEICONWCCA-BUDIRES

Collected by (print):
N. BUDIMIROVIC

Site/Facility ID #

P.O. #
241571

Collect by (signature):
NB

Rush? (Lab MUST Be Notified)

Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #

Date Results Needed

No. of
Ents

Immediately Packed on ice N Y

Analysis / Container / Preservation

Chain of Custody Page ___ of ___



12065 Lebanon Rd
Mount Airy, TN 37122
Phone: 615-716-5858
Phone: 800-767-5853
Fax: 615-758-0459



SDG # L1289379

Table #

Account: AEICONWCCA

Template: T177601

Prelog: P809224

PM: 110 - Brian Ford

PG:

Shipped Via:

Remarks Sample # (for entry)

Sample ID	Comn/Grab	Matrix *	Depth	Date	Time	Ents	AM17 Metals 8ozClr-NoPres	DRO/ORO-CA 8ozClr-NoPres	GRO-CA 40mlAmb/MeOH10ml/Syr	SVOCs 8270 8ozClr-NoPres	VOCs 8260 40mlAmb/MeOH10ml/Syr	HOLD
SB-6-2.5		SS		11-19-20	1112	3	X	X	X	X	X	
SB-6-5		SS			1107	3					X	
SB-6-7		SS			1101	3					X	
SB-7-3.5		SS			1046	3					X	
SB-7-7		SS			1034	3	X	X	X	X	X	
SB-7-9.5		SS			1025	3					X	
		SS										
		SS										
		SS										
		SS										

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist

CO: Seal Present/Intact
O2: Night/Noise
Bottles: Active Intact
Correct bottle cap used
Sufficient volume sent
44 applicable
VQA were washed
Removal/In Covered/Checked
SAD checked off

Samples returned via:
UPS FedEx Courier

Tracking #

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Trip Date Received: 11-19-20

Temp: 20

Bottles Received: 48

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Date: 11-20-20

Time: 0915

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Date:

Time:

Hold:

Condition:
NCF / OK

AEICONWCCA log off hold

R3/R4/RX/EX

log off hold using the attached revised COC, hold # 11-170, EX 12/01.

Time estimate: 0h

Time spent: 0h

Members



Brian Ford

December 18, 2020

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

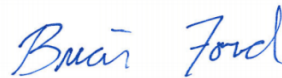
9 Sc

AEI Consultants - CA

Sample Delivery Group: L1294446
Samples Received: 12/09/2020
Project Number: 430044
Description: Eastmoor Avenue

Report To: Natasha Budimirovic
2500 Camino Diablo
Walnut Creek, CA 94597










Entire Report Reviewed By:



Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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Cn: Case Narrative	5	
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SV-5 L1294446-05	14	
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SAMPLE SUMMARY

SV-1 L1294446-01 Air

Collected by
NB
Collected date/time
12/08/20 12:04
Received date/time
12/09/20 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1590900	1	12/12/20 10:30	12/12/20 10:30	CEP	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1589561	1	12/10/20 10:58	12/10/20 10:58	DAH	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1589564	1	12/10/20 13:17	12/10/20 13:17	DAH	Mt. Juliet, TN

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

SV-2 L1294446-02 Air

Collected by
NB
Collected date/time
12/08/20 15:37
Received date/time
12/09/20 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1590878	1	12/12/20 15:30	12/12/20 15:30	MBF	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1589561	1	12/10/20 11:01	12/10/20 11:01	DAH	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1589564	1	12/10/20 13:26	12/10/20 13:26	DAH	Mt. Juliet, TN

SV-3 L1294446-03 Air

Collected by
NB
Collected date/time
12/08/20 12:38
Received date/time
12/09/20 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1590878	1	12/12/20 16:07	12/12/20 16:07	MBF	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1589561	1	12/10/20 11:04	12/10/20 11:04	DAH	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1589564	1	12/10/20 13:32	12/10/20 13:32	DAH	Mt. Juliet, TN

SV-4 L1294446-04 Air

Collected by
NB
Collected date/time
12/08/20 13:09
Received date/time
12/09/20 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1590878	1	12/12/20 16:46	12/12/20 16:46	MBF	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1589561	1	12/10/20 11:07	12/10/20 11:07	DAH	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1589564	1	12/10/20 13:40	12/10/20 13:40	DAH	Mt. Juliet, TN

SV-5 L1294446-05 Air

Collected by
NB
Collected date/time
12/08/20 13:44
Received date/time
12/09/20 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1590878	1	12/12/20 17:24	12/12/20 17:24	MBF	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1589561	1	12/10/20 11:11	12/10/20 11:11	DAH	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1589564	1	12/10/20 13:46	12/10/20 13:46	DAH	Mt. Juliet, TN

SV-6 L1294446-06 Air

Collected by
NB
Collected date/time
12/08/20 14:54
Received date/time
12/09/20 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1590878	1	12/12/20 18:04	12/12/20 18:04	MBF	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1589561	1	12/10/20 11:21	12/10/20 11:21	DAH	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1589564	1	12/10/20 13:57	12/10/20 13:57	DAH	Mt. Juliet, TN

SAMPLE SUMMARY



SV-7 L1294446-07 Air

Collected by: NB
 Collected date/time: 12/08/20 14:20
 Received date/time: 12/09/20 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1590878	1	12/12/20 18:42	12/12/20 18:42	MBF	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1592182	100	12/15/20 19:19	12/15/20 19:19	CAW	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1589561	1	12/10/20 11:24	12/10/20 11:24	DAH	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1589564	1	12/10/20 14:10	12/10/20 14:10	DAH	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1590026	5	12/10/20 14:59	12/10/20 14:59	DAH	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



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

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



Collected date/time: 12/08/20 12:04

L1294446

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	1.59	3.78		1	WG1590900
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1590900
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1590900
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1590900
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1590900
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1590900
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1590900
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1590900
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.916	2.85		1	WG1590900
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1590900
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1590900
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1590900
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1590900
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1590900
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1590900
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1590900
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1590900
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1590900
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1590900
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1590900
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1590900
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1590900
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1590900
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1590900
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1590900
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1590900
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1590900
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1590900
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1590900
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1590900
Ethanol	64-17-5	46.10	0.630	1.19	12.2	23.0		1	WG1590900
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1590900
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1590900
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.388	2.18		1	WG1590900
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	ND	ND		1	WG1590900
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1590900
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1590900
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1590900
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1590900
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1590900
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1590900
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1590900
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1590900
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1590900
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1590900
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1590900
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1590900
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1590900
2-Propanol	67-63-0	60.10	1.25	3.07	2.53	6.22		1	WG1590900
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1590900
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1590900
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1590900
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1590900
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1590900
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG1590900
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1590900

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/08/20 12:04

L1294446

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1590900
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1590900
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1590900
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1590900
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1590900
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1590900
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1590900
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1590900
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1590900
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1590900
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1590900
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	ND	ND		1	WG1590900
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.2				WG1590900

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Helium	7440-59-7		0.100	ND		1	WG1589561

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Oxygen	7782-44-7	32	5.00	20.9		1	WG1589564
Carbon Dioxide	124-38-9	44.01	0.500	ND		1	WG1589564



Collected date/time: 12/08/20 15:37

L1294446

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	44.5	106		1	WG1590878
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1590878
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1590878
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1590878
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1590878
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1590878
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1590878
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1590878
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1590878
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1590878
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1590878
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1590878
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1590878
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1590878
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1590878
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1590878
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1590878
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1590878
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1590878
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1590878
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1590878
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1590878
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1590878
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1590878
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1590878
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1590878
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1590878
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1590878
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1590878
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.257	0.926		1	WG1590878
Ethanol	64-17-5	46.10	0.630	1.19	319	601	E	1	WG1590878
Ethylbenzene	100-41-4	106	0.200	0.867	0.271	1.17		1	WG1590878
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.370	1.82		1	WG1590878
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.242	1.36		1	WG1590878
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.551	2.73		1	WG1590878
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1590878
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1590878
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1590878
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1590878
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1590878
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1590878
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.227	0.788		1	WG1590878
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1590878
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	9.00	26.5		1	WG1590878
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1590878
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1590878
MTBE	1634-04-4	88.10	0.200	0.721	0.214	0.771		1	WG1590878
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1590878
2-Propanol	67-63-0	60.10	1.25	3.07	29.9	73.5		1	WG1590878
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1590878
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1590878
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1590878
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.920	6.25		1	WG1590878
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.845	2.49		1	WG1590878
Toluene	108-88-3	92.10	0.500	1.88	1.67	6.29		1	WG1590878
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1590878

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/08/20 15:37

L1294446

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1590878
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1590878
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1590878
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.725	3.56		1	WG1590878
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.301	1.48		1	WG1590878
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	0.421	1.97		1	WG1590878
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1590878
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1590878
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1590878
m&p-Xylene	1330-20-7	106	0.400	1.73	1.45	6.29		1	WG1590878
o-Xylene	95-47-6	106	0.200	0.867	0.633	2.74		1	WG1590878
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	1.72	4.65		1	WG1590878
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		103				WG1590878

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	Qualifier	Dilution	Batch
			%	%			
Helium	7440-59-7		0.100	ND		1	WG1589561

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	Qualifier	Dilution	Batch
			%	%			
Oxygen	7782-44-7	32	5.00	21.9		1	WG1589564
Carbon Dioxide	124-38-9	44.01	0.500	ND		1	WG1589564



Collected date/time: 12/08/20 12:38

L1294446

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	5.99	14.2		1	WG1590878
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1590878
Benzene	71-43-2	78.10	0.200	0.639	0.234	0.747		1	WG1590878
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1590878
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1590878
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1590878
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1590878
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1590878
Carbon disulfide	75-15-0	76.10	0.200	0.622	1.84	5.73		1	WG1590878
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1590878
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1590878
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1590878
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1590878
Chloromethane	74-87-3	50.50	0.200	0.413	0.332	0.686		1	WG1590878
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1590878
Cyclohexane	110-82-7	84.20	0.200	0.689	0.267	0.919		1	WG1590878
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1590878
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1590878
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1590878
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1590878
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1590878
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1590878
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1590878
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1590878
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1590878
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1590878
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1590878
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1590878
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1590878
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1590878
Ethanol	64-17-5	46.10	0.630	1.19	53.1	100		1	WG1590878
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1590878
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1590878
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.245	1.38		1	WG1590878
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.554	2.74		1	WG1590878
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1590878
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1590878
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1590878
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1590878
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1590878
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1590878
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.799	2.77		1	WG1590878
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1590878
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1590878
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1590878
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1590878
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1590878
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1590878
2-Propanol	67-63-0	60.10	1.25	3.07	3.27	8.04		1	WG1590878
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1590878
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1590878
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1590878
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1590878
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.360	1.06		1	WG1590878
Toluene	108-88-3	92.10	0.500	1.88	0.744	2.80		1	WG1590878
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1590878

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/08/20 12:38

L1294446

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1590878
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1590878
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1590878
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1590878
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1590878
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1590878
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1590878
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1590878
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1590878
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1590878
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1590878
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	15.7	42.4		1	WG1590878
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				WG1590878

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	Qualifier	Dilution	Batch
			%	%			
Helium	7440-59-7		0.100	ND		1	WG1589561

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	Qualifier	Dilution	Batch
			%	%			
Oxygen	7782-44-7	32	5.00	19.7		1	WG1589564
Carbon Dioxide	124-38-9	44.01	0.500	1.26		1	WG1589564



Collected date/time: 12/08/20 13:09

L1294446

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	4.20	9.98		1	WG1590878
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1590878
Benzene	71-43-2	78.10	0.200	0.639	0.517	1.65		1	WG1590878
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1590878
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1590878
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1590878
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1590878
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1590878
Carbon disulfide	75-15-0	76.10	0.200	0.622	3.00	9.34		1	WG1590878
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1590878
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1590878
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1590878
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1590878
Chloromethane	74-87-3	50.50	0.200	0.413	0.522	1.08		1	WG1590878
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1590878
Cyclohexane	110-82-7	84.20	0.200	0.689	0.768	2.64		1	WG1590878
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1590878
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1590878
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1590878
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1590878
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1590878
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1590878
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1590878
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1590878
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1590878
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1590878
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1590878
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1590878
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1590878
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1590878
Ethanol	64-17-5	46.10	0.630	1.19	12.1	22.8		1	WG1590878
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1590878
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1590878
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG1590878
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.486	2.40		1	WG1590878
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1590878
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1590878
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1590878
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1590878
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1590878
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1590878
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1590878
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1590878
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1590878
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1590878
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1590878
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1590878
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1590878
2-Propanol	67-63-0	60.10	1.25	3.07	2.58	6.34		1	WG1590878
Propene	115-07-1	42.10	0.400	0.689	2.29	3.94		1	WG1590878
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1590878
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1590878
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1590878
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1590878
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG1590878
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1590878

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/08/20 13:09

L1294446

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1590878
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1590878
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1590878
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1590878
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1590878
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1590878
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1590878
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1590878
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1590878
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1590878
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1590878
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	1.06	2.86	B	1	WG1590878
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.1				WG1590878

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	Qualifier	Dilution	Batch
			%	%			
Helium	7440-59-7		0.100	ND		1	WG1589561

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	Qualifier	Dilution	Batch
			%	%			
Oxygen	7782-44-7	32	5.00	21.2		1	WG1589564
Carbon Dioxide	124-38-9	44.01	0.500	0.718		1	WG1589564



Collected date/time: 12/08/20 13:44

L1294446

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	7.47	17.8		1	WG1590878
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1590878
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1590878
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1590878
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1590878
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1590878
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1590878
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1590878
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1590878
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1590878
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1590878
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1590878
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1590878
Chloromethane	74-87-3	50.50	0.200	0.413	3.49	7.21		1	WG1590878
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1590878
Cyclohexane	110-82-7	84.20	0.200	0.689	0.247	0.851		1	WG1590878
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1590878
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1590878
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1590878
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1590878
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1590878
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1590878
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1590878
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1590878
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	0.800	3.17		1	WG1590878
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1590878
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1590878
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1590878
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1590878
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.762	2.75		1	WG1590878
Ethanol	64-17-5	46.10	0.630	1.19	28.6	53.9		1	WG1590878
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1590878
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1590878
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.245	1.38		1	WG1590878
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.564	2.79		1	WG1590878
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1590878
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1590878
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1590878
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1590878
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1590878
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1590878
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.396	1.38		1	WG1590878
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1590878
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1590878
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1590878
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1590878
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1590878
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1590878
2-Propanol	67-63-0	60.10	1.25	3.07	3.50	8.60		1	WG1590878
Propene	115-07-1	42.10	0.400	0.689	0.639	1.10	B	1	WG1590878
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1590878
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1590878
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.738	5.01		1	WG1590878
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.656	1.93		1	WG1590878
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG1590878
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1590878

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/08/20 13:44

L1294446

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	0.242	1.32		1	WG1590878
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1590878
Trichloroethylene	79-01-6	131	0.200	1.07	12.1	64.8		1	WG1590878
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1590878
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1590878
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1590878
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1590878
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1590878
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1590878
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1590878
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1590878
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	5.26	14.2		1	WG1590878
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.4				WG1590878

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	Qualifier	Dilution	Batch
			%	%			
Helium	7440-59-7		0.100	ND		1	WG1589561

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	Qualifier	Dilution	Batch
			%	%			
Oxygen	7782-44-7	32	5.00	22.0		1	WG1589564
Carbon Dioxide	124-38-9	44.01	0.500	ND		1	WG1589564



Collected date/time: 12/08/20 14:54

L1294446

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	5.50	13.1		1	WG1590878
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1590878
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1590878
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1590878
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1590878
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1590878
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1590878
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1590878
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.222	0.691		1	WG1590878
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1590878
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1590878
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1590878
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1590878
Chloromethane	74-87-3	50.50	0.200	0.413	0.519	1.07		1	WG1590878
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1590878
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1590878
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1590878
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1590878
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1590878
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1590878
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1590878
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1590878
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1590878
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1590878
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1590878
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1590878
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1590878
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1590878
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1590878
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1590878
Ethanol	64-17-5	46.10	0.630	1.19	34.2	64.5		1	WG1590878
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1590878
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1590878
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG1590878
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.461	2.28		1	WG1590878
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1590878
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1590878
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1590878
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1590878
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1590878
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1590878
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.377	1.31		1	WG1590878
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1590878
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1590878
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1590878
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1590878
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1590878
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1590878
2-Propanol	67-63-0	60.10	1.25	3.07	3.53	8.68		1	WG1590878
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1590878
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1590878
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1590878
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.376	2.55		1	WG1590878
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1590878
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG1590878
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1590878

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/08/20 14:54

L1294446

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1590878
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1590878
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1590878
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1590878
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1590878
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1590878
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1590878
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1590878
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1590878
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1590878
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1590878
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	3.34	9.02		1	WG1590878
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				WG1590878

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	Qualifier	Dilution	Batch
			%	%			
Helium	7440-59-7		0.100	ND		1	WG1589561

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	Qualifier	Dilution	Batch
			%	%			
Oxygen	7782-44-7	32	5.00	18.3		1	WG1589564
Carbon Dioxide	124-38-9	44.01	0.500	2.98		1	WG1589564



Collected date/time: 12/08/20 14:20

L1294446

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	14.9	35.4		1	WG1590878
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1590878
Benzene	71-43-2	78.10	20.0	63.9	196	626		100	WG1592182
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1590878
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1590878
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1590878
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1590878
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1590878
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1590878
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1590878
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1590878
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1590878
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1590878
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1590878
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1590878
Cyclohexane	110-82-7	84.20	20.0	68.9	315	1080		100	WG1592182
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1590878
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1590878
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1590878
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1590878
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	0.805	4.84		1	WG1590878
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1590878
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1590878
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1590878
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1590878
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1590878
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1590878
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1590878
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1590878
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1590878
Ethanol	64-17-5	46.10	0.630	1.19	43.2	81.5		1	WG1590878
Ethylbenzene	100-41-4	106	0.200	0.867	8.82	38.2		1	WG1590878
4-Ethyltoluene	622-96-8	120	0.200	0.982	1.23	6.04		1	WG1590878
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG1590878
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.203	1.00		1	WG1590878
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1590878
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1590878
Heptane	142-82-5	100	0.200	0.818	82.3	337		1	WG1590878
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1590878
n-Hexane	110-54-3	86.20	63.0	222	293	1030		100	WG1592182
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1590878
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1590878
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1590878
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1590878
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1590878
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1590878
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1590878
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1590878
2-Propanol	67-63-0	60.10	1.25	3.07	1.66	4.08		1	WG1590878
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1590878
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1590878
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1590878
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.285	1.93		1	WG1590878
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1590878
Toluene	108-88-3	92.10	0.500	1.88	7.18	27.0		1	WG1590878
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1590878

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/08/20 14:20

L1294446

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1590878
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1590878
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1590878
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.840	4.12		1	WG1590878
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.674	3.31		1	WG1590878
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	1190	5560		100	WG1592182
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1590878
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1590878
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1590878
m&p-Xylene	1330-20-7	106	0.400	1.73	32.6	141		1	WG1590878
o-Xylene	95-47-6	106	0.200	0.867	13.5	58.5		1	WG1590878
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	7.08	19.1		1	WG1590878
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		109				WG1590878
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.0				WG1592182

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	Qualifier	Dilution	Batch
			%	%			
Helium	7440-59-7		0.100	ND		1	WG1589561

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	Qualifier	Dilution	Batch
			%	%			
Oxygen	7782-44-7	32	5.00	12.3		1	WG1589564
Carbon Dioxide	124-38-9	44.01	2.50	7.98		5	WG1590026



Method Blank (MB)

(MB) R3602826-3 12/12/20 10:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Acetone	U		0.584	1.25
Allyl Chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	0.0913	J	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	0.0559	J	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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3602826-3 12/12/20 10:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	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	0.132	U	0.0932	0.400
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	0.161	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	0.299	U	0.265	0.630
1,1-Difluoroethane	0.131	U	0.129	1.00
(S) 1,4-Bromofluorobenzene	96.3			60.0-140

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

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

(LCS) R3602826-1 12/12/20 09:37 • (LCSD) R3602826-2 12/12/20 10:15

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Ethanol	3.75	3.68	3.43	98.1	91.5	55.0-148			7.03	25
Propene	3.75	4.07	3.95	109	105	64.0-144			2.99	25
Dichlorodifluoromethane	3.75	4.40	4.32	117	115	64.0-139			1.83	25
1,2-Dichlorotetrafluoroethane	3.75	4.32	4.35	115	116	70.0-130			0.692	25



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

(LCS) R3602826-1 12/12/20 09:37 • (LCSD) R3602826-2 12/12/20 10:15

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	4.47	4.26	119	114	70.0-130			4.81	25
Vinyl chloride	3.75	3.88	3.74	103	99.7	70.0-130			3.67	25
1,3-Butadiene	3.75	3.91	3.92	104	105	70.0-130			0.255	25
Bromomethane	3.75	4.16	4.02	111	107	70.0-130			3.42	25
Chloroethane	3.75	4.51	4.16	120	111	70.0-130			8.07	25
Trichlorofluoromethane	3.75	4.10	4.08	109	109	70.0-130			0.489	25
1,1,2-Trichlorotrifluoroethane	3.75	3.55	3.82	94.7	102	70.0-130			7.33	25
1,1-Dichloroethene	3.75	3.67	4.16	97.9	111	70.0-130			12.5	25
1,1-Dichloroethane	3.75	4.12	4.13	110	110	70.0-130			0.242	25
Acetone	3.75	3.90	3.76	104	100	70.0-130			3.66	25
2-Propanol	3.75	3.94	3.89	105	104	70.0-139			1.28	25
Carbon disulfide	3.75	4.18	4.16	111	111	70.0-130			0.480	25
Methylene Chloride	3.75	3.96	3.96	106	106	70.0-130			0.000	25
MTBE	3.75	4.05	3.94	108	105	70.0-130			2.75	25
trans-1,2-Dichloroethene	3.75	4.25	4.16	113	111	70.0-130			2.14	25
n-Hexane	3.75	4.26	4.19	114	112	70.0-130			1.66	25
Vinyl acetate	3.75	4.05	4.04	108	108	70.0-130			0.247	25
Methyl Ethyl Ketone	3.75	3.89	3.98	104	106	70.0-130			2.29	25
cis-1,2-Dichloroethene	3.75	3.80	3.77	101	101	70.0-130			0.793	25
Chloroform	3.75	4.06	4.10	108	109	70.0-130			0.980	25
Cyclohexane	3.75	4.31	4.22	115	113	70.0-130			2.11	25
1,1,1-Trichloroethane	3.75	4.14	4.07	110	109	70.0-130			1.71	25
Carbon tetrachloride	3.75	4.26	4.15	114	111	70.0-130			2.62	25
Benzene	3.75	4.17	4.10	111	109	70.0-130			1.69	25
1,2-Dichloroethane	3.75	4.05	4.10	108	109	70.0-130			1.23	25
Heptane	3.75	4.23	4.25	113	113	70.0-130			0.472	25
Trichloroethylene	3.75	4.07	4.14	109	110	70.0-130			1.71	25
1,2-Dichloropropane	3.75	4.22	4.18	113	111	70.0-130			0.952	25
1,4-Dioxane	3.75	3.93	3.83	105	102	70.0-140			2.58	25
Bromodichloromethane	3.75	4.14	4.10	110	109	70.0-130			0.971	25
cis-1,3-Dichloropropene	3.75	4.14	4.10	110	109	70.0-130			0.971	25
4-Methyl-2-pentanone (MIBK)	3.75	4.38	4.27	117	114	70.0-139			2.54	25
Toluene	3.75	4.14	4.13	110	110	70.0-130			0.242	25
trans-1,3-Dichloropropene	3.75	4.14	3.97	110	106	70.0-130			4.19	25
1,1,2-Trichloroethane	3.75	4.18	3.99	111	106	70.0-130			4.65	25
Tetrachloroethylene	3.75	4.13	4.17	110	111	70.0-130			0.964	25
Methyl Butyl Ketone	3.75	4.50	4.30	120	115	70.0-149			4.55	25
Dibromochloromethane	3.75	4.05	4.08	108	109	70.0-130			0.738	25
1,2-Dibromoethane	3.75	4.07	4.04	109	108	70.0-130			0.740	25
Chlorobenzene	3.75	4.21	4.18	112	111	70.0-130			0.715	25

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

(LCS) R3602826-1 12/12/20 09:37 • (LCSD) R3602826-2 12/12/20 10:15

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	4.21	4.21	112	112	70.0-130			0.000	25
m&p-Xylene	7.50	8.47	8.43	113	112	70.0-130			0.473	25
o-Xylene	3.75	4.18	4.12	111	110	70.0-130			1.45	25
Styrene	3.75	4.18	4.18	111	111	70.0-130			0.000	25
Bromoform	3.75	4.07	4.08	109	109	70.0-130			0.245	25
1,1,2,2-Tetrachloroethane	3.75	4.05	4.11	108	110	70.0-130			1.47	25
4-Ethyltoluene	3.75	4.16	4.12	111	110	70.0-130			0.966	25
1,3,5-Trimethylbenzene	3.75	4.17	4.19	111	112	70.0-130			0.478	25
1,2,4-Trimethylbenzene	3.75	4.15	4.12	111	110	70.0-130			0.726	25
1,3-Dichlorobenzene	3.75	4.19	4.16	112	111	70.0-130			0.719	25
1,4-Dichlorobenzene	3.75	4.18	4.03	111	107	70.0-130			3.65	25
Benzyl Chloride	3.75	3.92	3.88	105	103	70.0-152			1.03	25
1,2-Dichlorobenzene	3.75	4.18	4.15	111	111	70.0-130			0.720	25
1,2,4-Trichlorobenzene	3.75	3.97	3.87	106	103	70.0-160			2.55	25
Hexachloro-1,3-butadiene	3.75	4.29	4.20	114	112	70.0-151			2.12	25
Naphthalene	3.75	3.99	4.02	106	107	70.0-159			0.749	25
Allyl Chloride	3.75	4.10	4.19	109	112	70.0-130			2.17	25
2-Chlorotoluene	3.75	4.19	4.20	112	112	70.0-130			0.238	25
Methyl Methacrylate	3.75	4.05	3.94	108	105	70.0-130			2.75	25
Tetrahydrofuran	3.75	4.12	3.97	110	106	70.0-137			3.71	25
2,2,4-Trimethylpentane	3.75	4.39	4.26	117	114	70.0-130			3.01	25
Vinyl Bromide	3.75	4.20	4.21	112	112	70.0-130			0.238	25
Isopropylbenzene	3.75	4.13	4.18	110	111	70.0-130			1.20	25
1,1-Difluoroethane	3.75	4.17	4.27	111	114	70.0-130			2.37	25
(S) 1,4-Bromofluorobenzene				98.6	99.6	60.0-140				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3602824-3 12/12/20 07:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3602824-3 12/12/20 07:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	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	U		0.0932	0.400
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	0.630
1,1-Difluoroethane	U		0.129	1.00
(S) 1,4-Bromofluorobenzene	99.7			60.0-140

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

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

(LCS) R3602824-1 12/12/20 06:37 • (LCSD) R3602824-2 12/12/20 07:19

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Ethanol	3.75	3.09	3.18	82.4	84.8	55.0-148			2.87	25
Propene	3.75	4.00	4.30	107	115	64.0-144			7.23	25
Dichlorodifluoromethane	3.75	4.21	4.14	112	110	64.0-139			1.68	25
1,2-Dichlorotetrafluoroethane	3.75	4.24	4.01	113	107	70.0-130			5.58	25



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

(LCS) R3602824-1 12/12/20 06:37 • (LCSD) R3602824-2 12/12/20 07:19

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloromethane	3.75	3.78	4.15	101	111	70.0-130			9.33	25
Vinyl chloride	3.75	3.95	4.09	105	109	70.0-130			3.48	25
1,3-Butadiene	3.75	3.87	3.90	103	104	70.0-130			0.772	25
Bromomethane	3.75	3.90	4.00	104	107	70.0-130			2.53	25
Chloroethane	3.75	3.80	3.80	101	101	70.0-130			0.000	25
Trichlorofluoromethane	3.75	4.13	4.09	110	109	70.0-130			0.973	25
1,1,2-Trichlorotrifluoroethane	3.75	4.06	4.06	108	108	70.0-130			0.000	25
1,1-Dichloroethene	3.75	4.14	4.16	110	111	70.0-130			0.482	25
1,1-Dichloroethane	3.75	4.05	4.01	108	107	70.0-130			0.993	25
Acetone	3.75	3.42	3.58	91.2	95.5	70.0-130			4.57	25
2-Propanol	3.75	3.56	3.79	94.9	101	70.0-139			6.26	25
Carbon disulfide	3.75	3.99	3.97	106	106	70.0-130			0.503	25
Methylene Chloride	3.75	3.97	3.92	106	105	70.0-130			1.27	25
MTBE	3.75	4.17	4.23	111	113	70.0-130			1.43	25
trans-1,2-Dichloroethene	3.75	4.27	4.15	114	111	70.0-130			2.85	25
n-Hexane	3.75	4.29	4.23	114	113	70.0-130			1.41	25
Vinyl acetate	3.75	3.45	3.50	92.0	93.3	70.0-130			1.44	25
Methyl Ethyl Ketone	3.75	4.01	3.90	107	104	70.0-130			2.78	25
cis-1,2-Dichloroethene	3.75	4.08	4.15	109	111	70.0-130			1.70	25
Chloroform	3.75	4.10	3.97	109	106	70.0-130			3.22	25
Cyclohexane	3.75	4.36	4.31	116	115	70.0-130			1.15	25
1,1,1-Trichloroethane	3.75	4.01	4.04	107	108	70.0-130			0.745	25
Carbon tetrachloride	3.75	4.02	4.02	107	107	70.0-130			0.000	25
Benzene	3.75	3.97	4.07	106	109	70.0-130			2.49	25
1,2-Dichloroethane	3.75	3.86	3.93	103	105	70.0-130			1.80	25
Heptane	3.75	4.34	4.32	116	115	70.0-130			0.462	25
Trichloroethylene	3.75	4.07	4.14	109	110	70.0-130			1.71	25
1,2-Dichloropropane	3.75	4.13	4.01	110	107	70.0-130			2.95	25
1,4-Dioxane	3.75	3.41	3.61	90.9	96.3	70.0-140			5.70	25
Bromodichloromethane	3.75	3.99	3.97	106	106	70.0-130			0.503	25
cis-1,3-Dichloropropene	3.75	3.97	4.00	106	107	70.0-130			0.753	25
4-Methyl-2-pentanone (MIBK)	3.75	4.10	4.14	109	110	70.0-139			0.971	25
Toluene	3.75	4.09	4.17	109	111	70.0-130			1.94	25
trans-1,3-Dichloropropene	3.75	3.96	4.02	106	107	70.0-130			1.50	25
1,1,2-Trichloroethane	3.75	3.78	4.00	101	107	70.0-130			5.66	25
Tetrachloroethylene	3.75	4.13	4.18	110	111	70.0-130			1.20	25
Methyl Butyl Ketone	3.75	4.06	3.92	108	105	70.0-149			3.51	25
Dibromochloromethane	3.75	3.99	3.95	106	105	70.0-130			1.01	25
1,2-Dibromoethane	3.75	4.03	4.10	107	109	70.0-130			1.72	25
Chlorobenzene	3.75	3.96	3.99	106	106	70.0-130			0.755	25

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



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

(LCS) R3602824-1 12/12/20 06:37 • (LCSD) R3602824-2 12/12/20 07:19

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	4.02	3.96	107	106	70.0-130			1.50	25
m&p-Xylene	7.50	8.43	8.31	112	111	70.0-130			1.43	25
o-Xylene	3.75	4.31	4.33	115	115	70.0-130			0.463	25
Styrene	3.75	4.23	4.12	113	110	70.0-130			2.63	25
Bromoform	3.75	3.95	3.92	105	105	70.0-130			0.762	25
1,1,2,2-Tetrachloroethane	3.75	3.93	3.78	105	101	70.0-130			3.89	25
4-Ethyltoluene	3.75	4.22	4.20	113	112	70.0-130			0.475	25
1,3,5-Trimethylbenzene	3.75	4.25	4.18	113	111	70.0-130			1.66	25
1,2,4-Trimethylbenzene	3.75	4.30	4.37	115	117	70.0-130			1.61	25
1,3-Dichlorobenzene	3.75	3.98	3.95	106	105	70.0-130			0.757	25
1,4-Dichlorobenzene	3.75	4.11	4.06	110	108	70.0-130			1.22	25
Benzyl Chloride	3.75	3.17	3.29	84.5	87.7	70.0-152			3.72	25
1,2-Dichlorobenzene	3.75	3.98	4.02	106	107	70.0-130			1.00	25
1,2,4-Trichlorobenzene	3.75	3.88	4.22	103	113	70.0-160			8.40	25
Hexachloro-1,3-butadiene	3.75	4.05	3.99	108	106	70.0-151			1.49	25
Naphthalene	3.75	4.18	4.22	111	113	70.0-159			0.952	25
Allyl Chloride	3.75	4.39	4.33	117	115	70.0-130			1.38	25
2-Chlorotoluene	3.75	4.19	4.14	112	110	70.0-130			1.20	25
Methyl Methacrylate	3.75	4.19	4.03	112	107	70.0-130			3.89	25
Tetrahydrofuran	3.75	3.89	3.82	104	102	70.0-137			1.82	25
2,2,4-Trimethylpentane	3.75	4.34	4.32	116	115	70.0-130			0.462	25
Vinyl Bromide	3.75	3.94	4.06	105	108	70.0-130			3.00	25
Isopropylbenzene	3.75	4.31	4.31	115	115	70.0-130			0.000	25
1,1-Difluoroethane	3.75	3.98	3.75	106	100	70.0-130			5.95	25
(S) 1,4-Bromofluorobenzene				102	99.7	60.0-140				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3603767-3 12/15/20 12:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Benzene	U		0.0715	0.200
Cyclohexane	U		0.0753	0.200
n-Hexane	U		0.206	0.630
2,2,4-Trimethylpentane	U		0.133	0.200
(S) 1,4-Bromofluorobenzene	95.5			60.0-140

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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

(LCS) R3603767-1 12/15/20 11:33 • (LCSD) R3603767-2 12/15/20 12:14

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
n-Hexane	3.75	4.16	4.07	111	109	70.0-130			2.19	25
Cyclohexane	3.75	4.14	4.08	110	109	70.0-130			1.46	25
Benzene	3.75	4.30	4.09	115	109	70.0-130			5.01	25
2,2,4-Trimethylpentane	3.75	4.33	4.22	115	113	70.0-130			2.57	25
(S) 1,4-Bromofluorobenzene				98.1	97.9	60.0-140				

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3602115-3 12/10/20 09:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Helium	U		0.0259	0.100

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

(LCS) R3602115-1 12/10/20 08:55 • (LCSD) R3602115-2 12/10/20 09:12

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Helium	2.50	2.41	2.40	96.4	96.0	70.0-130			0.416	25

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3602254-3 12/10/20 11:57

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Oxygen	0.917		0.225	5.00
Carbon Dioxide	U		0.121	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

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

(LCS) R3602254-1 12/10/20 11:44 • (LCSD) R3602254-2 12/10/20 11:51

Analyte	Spike Amount %	LCS Result %	LCSD Result %	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Oxygen	20.0	20.6	20.3	103	102	70.0-130			1.47	20
Carbon Dioxide	2.50	2.48	2.44	99.2	97.6	70.0-130			1.63	20

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3602259-3 12/10/20 11:57

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	%		%	%
Carbon Dioxide	U		0.121	0.500

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

(LCS) R3602259-1 12/10/20 11:44 • (LCSD) R3602259-2 12/10/20 11:51

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
	%	%	%	%	%	%			%	%
Carbon Dioxide	2.50	2.48	2.44	99.2	97.6	70.0-130			1.63	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



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.

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

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA

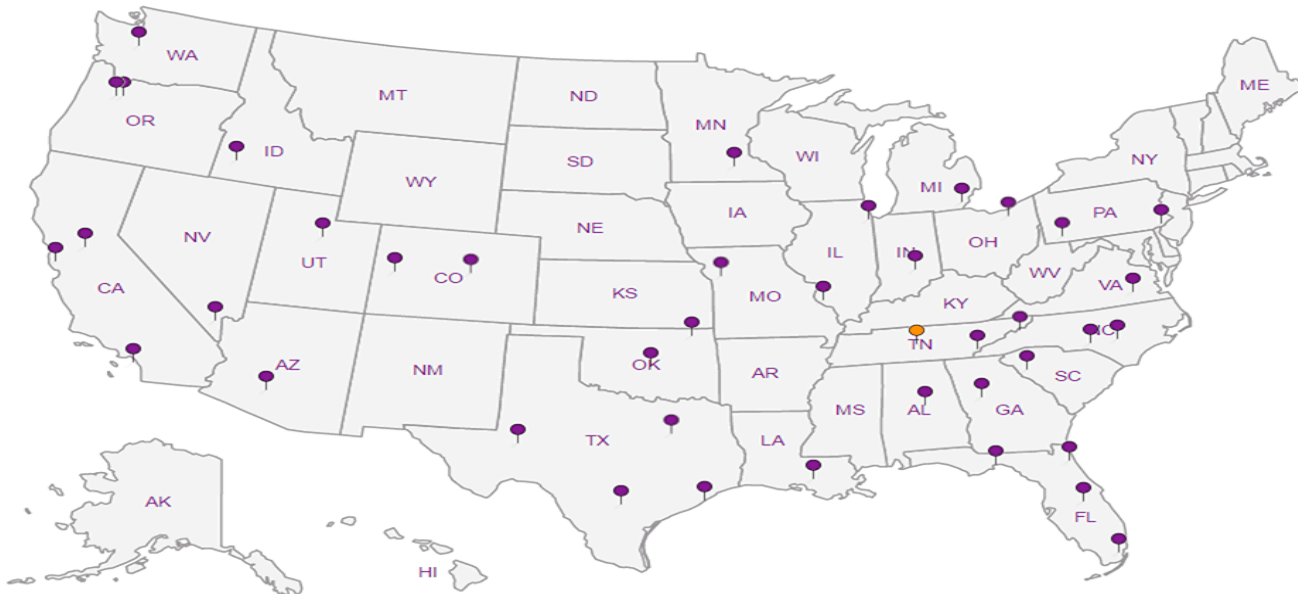
Third Party Federal Accreditations

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

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

Our Locations

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



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

AEI Consultants - CA

2500 Camino Diablo
Walnut Creek, CA 94597

Billing Information:

Accounts Payable- Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



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



Report to:
Natasha Budimirovic

Email To: nbudimirovic@aeiconsultants.com
jasmith@aeiconsultants.com

Project Description:

Eastmoor Avenue

City/State Collected: *Daly City, CA*

Please Circle:
PT MT CT E*

Phone: **925-746-6000**

Client Project #

430044

Lab Project #

AEICONWCCA-BUDIRES

Collected by (print):

N. BUDIMIROVIC

Site/Facility ID #

P.O. #

241512

Collected by (signature):

[Signature]

Rush? (Lab MUST Be Notified)

___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately

Packed on Ice N ___ Y ___

No.
of
Cnts

Helium Summa (ASTM D 1946-90)
VOCs TO-15 Summa
Fixed gases - O2, CO2 (ASTM D 1946-90)

SDG # *U29446*

Table # **J073**

Acctnum: **AEICONWCCA**

Template: **T177578**

Prelogin: **P809179**

PM: **110 - Brian Ford**

PB: *U261113hp*

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Helium Summa (ASTM D 1946-90)	VOCs TO-15 Summa	Fixed gases - O2, CO2 (ASTM D 1946-90)
SV-1		Air		12/8/20	1204	1	X	X	X
SV-2		Air			1537	1	X	X	X
SV-3		Air			1238	1	X	X	X
SV-4		Air			1309	1	X	X	X
SV-5		Air			1344	1	X	X	X
SV-6		Air			1454	1	X	X	X
SV-7		Air			1420	1	X	X	X

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

Remarks:

Please record final gauge readings and include in the report.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:

___ UPS ___ FedEx ___ Courier

Tracking # *936249385720 / 5710/5709*

Sample Receipt Checklist

COC Seal Present/Intact: Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N
 RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature)

[Signature]

Date:

12/8/20

Time:

1620

Received by: (Signature)

Shipped via FedEx

Trip Blank Received: Yes No

HCL / MeOH
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: °C Bottles Received:

AMB 7+4 Bad

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Josh Szymanski

Date: Time:

12/9/20 10:00

Hold:

Condition:

NCF OK

APPENDIX D
FIELD DATA SHEETS

Project Name: Eastmoor Multifamily, LP

Field Person: N. Budimirovic

Location: 493 Eastmoor Avenue, Daly City, CA

Project Manager: J. Smith

Project No.: 430044 Date: 12/8/20

Weather: Sunny

Daily Summary: Soil vapor sampling (7 samples)

Subcontractors: EGA, ForeSite

Equipment: Truck, PPE

Materials: _____

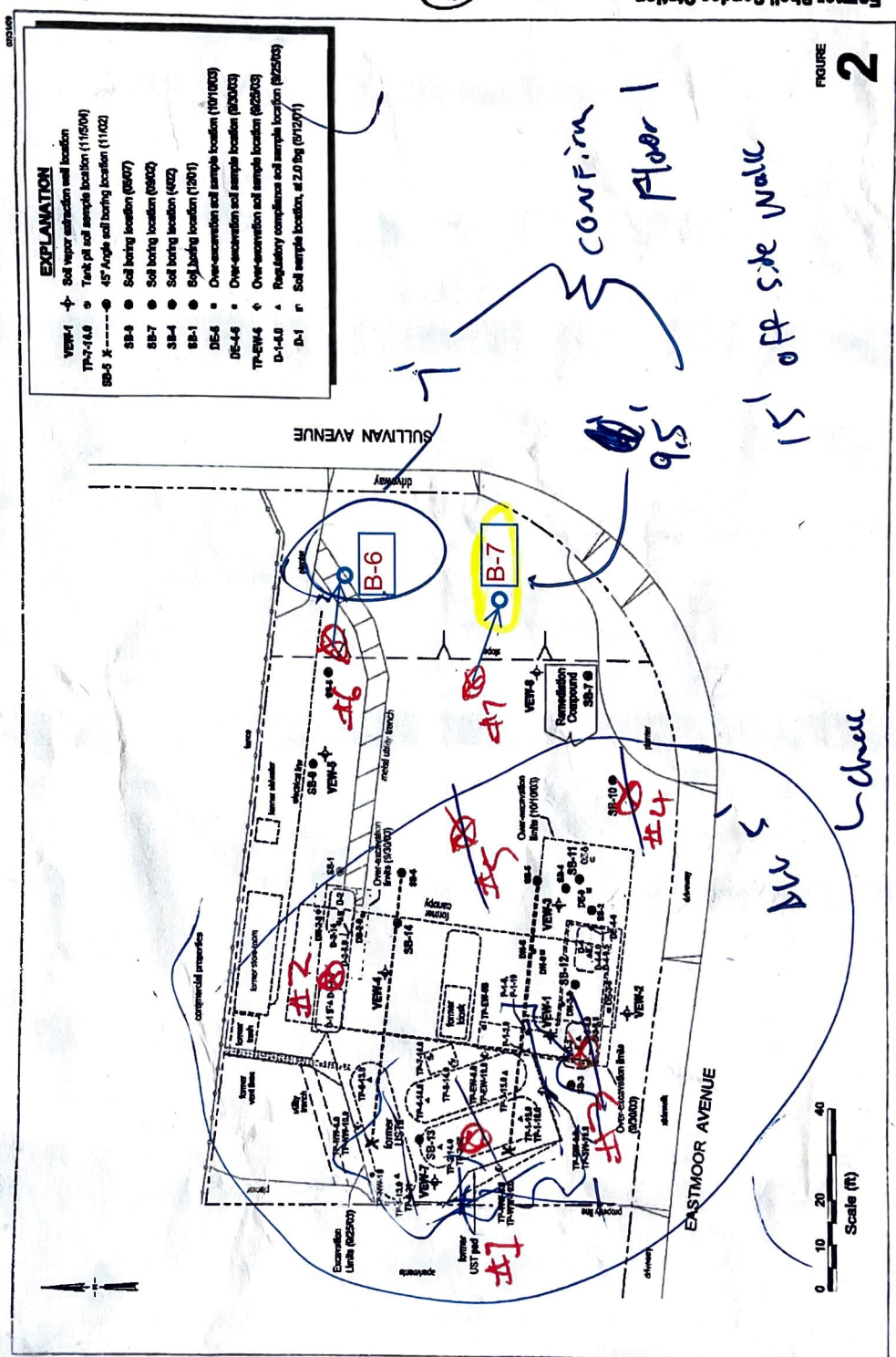
TIME	SUMMARIZE FIELD ACTIVITIES	BREATHING ZONE	
		Time	PPM
1130	AEI on site (Natasha)		
1204	sampled sv-1		
1232	sampled sv-3		
1309	sampled sv-4		
1344	sampled sv-5		
1420	sampled sv-7		
1454	sampled sv-6		
1537	sampled sv-2		
1610	AEI left the site		

Field Person Signature: 

Date: 12/8/20

Project Manager Signature: _____

Date: _____



AEI CONSULTANTS
SOIL GAS SAMPLING FIELD FORM

SOIL GAS PROBE ID: SV-1

Project Name:	Eastmoor Avenue	Date of Sampling:	12/8/20
Project Number:	430044	Start Time:	1138
Project Address:	493 Eastmoor Avenue, Solly City, CA	End Time:	1204
Helium Detector Model:	Radiodetection MGD-2002	Serial #:	216
		Calibrated by:	E.L.

SOIL GAS SAMPLING EQUIPMENT	
Number of Samples / Container Size and Type	One (1) 1-Liter Summa Canister
Sample Container Number	10807
Sampling Manifold / Flow Controller Number	12257

SHUT-IN TEST DATA			
Shut-In Test Start Time/Date	1141 12/8/20	Start Vacuum Pressure (in -Hg)	-24.5
Shut-In Test Stop Time/Date	1146 12/8/20	End Vacuum Pressure (in -Hg)	-24.5
		Shut-in Test	(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)	915 11/9/20
Tubing Type (circle one)	Teflon Nylaflow Other: _____
Wellbox and Tubing Condition	Wellbox: good / poor Tubing: (good) poor
Depth of Probe (ft bgs)	5'
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)	3
Start Purge Time	1150
End Purge Time	1155
Start Purge Vacuum (in-Hg)	-14.0
End Purge Vacuum (in-Hg)	-9.0
Total Volume Purged (mL)	1,200
Moisture / Water Present in Tubing?	Yes (No)

SAMPLING DATA			
Initial Helium Shroud Concentration (%)		27.3	
Helium Detected in Sample Train		0.0	(ppm) / %
Helium Leak Check %	0.0 %	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)
1200	-30.0	26.2	0.0
1201	-20.0	34.9	0.0
1202	-15.0	34.0	0.0
1203	-10.0	33.7	0.0
1204	-5.0	33.3	0.0
Laboratory Analyses:	(TO-15) / TO-17 / Other: He, O ₂ , CO ₂		

NOTES & COMMENTS
Initial pressure measured with a separate gauge is -30.0 Hg (gauge # 11791), reading taken at 11:39 AM

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

Trace National AB and California manifolds include a flow rate limiter.

AEI CONSULTANTS
SOIL GAS SAMPLING FIELD FORM

SOIL GAS PROBE ID: SV-2			
Project Name:	Eastmoor Avenue	Date of Sampling:	12/8/20
Project Number:	430044	Start Time:	1510
Project Address:	493 Eastmoor Avenue, Daly City, CA	End Time:	1537
Helium Detector Model:	Radiodetection MGD-2002	Serial #:	216
		Calibrated by:	E.L.
		Name of Sampler:	N.B.

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

SHUT-IN TEST DATA			
Shut-In Test Start Time/Date	1515 12/8/20	Start Vacuum Pressure (in -Hg)	-23.5
Shut-In Test Stop Time/Date	1520 12/8/20	End Vacuum Pressure (in -Hg)	-23.5
			<input checked="" type="radio"/> Pass <input type="radio"/> 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)	1119/20
Tubing Type (circle one)	<input checked="" type="radio"/> Teflon <input type="radio"/> Nylaflo <input type="radio"/> Other: _____
Wellbox and Tubing Condition	Wellbox: good / poor Tubing: <input checked="" type="radio"/> good <input type="radio"/> poor
Depth of Probe (ft bgs)	37
Sampling Flow Rate (mL/min) (circle one)	100 / 150 / <input checked="" type="radio"/> 200
Purge Method	<input checked="" type="radio"/> 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)	3
Start Purge Time	1523
End Purge Time	1528
Start Purge Vacuum (in-Hg)	-19.5
End Purge Vacuum (in-Hg)	-14.0
Total Volume Purged (mL)	1,200
Moisture / Water Present in Tubing?	<input checked="" type="radio"/> Yes <input type="radio"/> No

SAMPLING DATA			
Initial Helium Shroud Concentration (%)		24.8	
Helium Detected in Sample Train		0.0	ppm / %
Helium Leak Check %	0.0 %	Leak <5%? (circle one)	<input checked="" type="radio"/> Yes / No (if no, troubleshoot and recheck)
Helium Leak Final Re-Check %	— %	Leak <5%? (circle one)	<input type="radio"/> Yes / No
Time	Canister Vacuum (in-Hg)	He Shroud %	Down Hole Vacuum (in-Hg)
1533	-29.0	23.6	0.0
1534	-20.0	22.9	0.0
1535	-15.0	22.3	0.0
1536	-10.0	21.7	0.0
1537	-5.0	21.5	0.0
Laboratory Analyses:	TO-15 / TO-17 / Other: He, O2, CO2		

NOTES & COMMENTS
Initial gauge reading is -29 Hg taken at 15:27 PM Final gauge reading - 5 Hg

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:

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

Face National AEI and California manifolds include a flow rate limiter.

AEI CONSULTANTS
SOIL GAS SAMPLING FIELD FORM

SOIL GAS PROBE ID: SV-3

Project Name:	<u>Eastmoor Avenue</u>	Date of Sampling:	<u>12/8/20</u>
Project Number:	<u>430044</u>	Start Time:	<u>12:16</u>
Project Address:	<u>493 Eastmoor Avenue, Daly City, CA</u>	End Time:	<u>12:38</u>
Helium Detector Model:	<u>Radiodetection MGD-2002</u>	Name of Sampler:	<u>N.B.</u>
Serial #:	<u>216</u>	Calibrated by:	<u>E.I.</u>

SOIL GAS SAMPLING EQUIPMENT	
Number of Samples / Container Size and Type	One (1) 1-Liter Summa Canister
Sample Container Number	<u>10467</u>
Sampling Manifold / Flow Controller Number	<u>12260</u>

SHUT-IN TEST DATA			
Shut-In Test Start Time/Date	<u>12:19 12/8/20</u>	Start Vacuum Pressure (in -Hg)	<u>-17.5</u>
Shut-In Test Stop Time/Date	<u>12:24 12/8/20</u>	End Vacuum Pressure (in -Hg)	<u>-7.5</u>
			Shut-in Test <u>Pass</u> / 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)	<u>8:32 11/19/20</u>
Tubing Type (circle one)	<u>Teflon</u> Nylaflo Other: _____
Wellbox and Tubing Condition	Wellbox: <u>good / poor</u> Tubing: <u>good / poor</u>
Depth of Probe (ft bgs)	<u>5'</u>
Sampling Flow Rate (mL/min) (circle one)	<u>100 / 150 / 200</u>
Purge Method	<u>Summa</u> / 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)	<u>3</u>
Start Purge Time	<u>12:26</u> Start Purge Vacuum (in-Hg) <u>-9.0</u>
End Purge Time	<u>12:31</u> End Purge Vacuum (in-Hg) <u>-4.0</u>
Total Volume Purged (mL)	<u>1,200</u>
Moisture / Water Present in Tubing?	Yes / <u>No</u>

SAMPLING DATA			
Initial Helium Shroud Concentration (%)	<u>39.6</u>		
Helium Detected in Sample Train	<u>0.0</u> ppm %		
Helium Leak Check %	<u>0.0</u> %	Leak <5%? (circle one)	<u>Yes</u> / No (if no, troubleshoot and recheck)
Helium Leak Final Re-Check %	<u>—</u> %	Leak <5%? (circle one)	Yes / No
Time	Canister Vacuum (in-Hg)	He Shroud %	Down Hole Vacuum (in-Hg)
<u>12:34</u>	<u>-29.5</u>	<u>30.1</u>	<u>0.0</u>
<u>12:35</u>	<u>-25.0</u>	<u>36.7</u>	<u>0.0</u>
<u>12:36</u>	<u>-20.0</u>	<u>36.1</u>	<u>0.0</u>
<u>12:37</u>	<u>-15.0</u>	<u>35.8</u>	<u>0.0</u>
<u>12:38</u>	<u>-5.0</u>	<u>35.2</u>	<u>0.0</u>
Laboratory Analyses:	<u>TO-15 / TO-17 / Other: He, D2, CO2</u>		

NOTES & COMMENTS

Initial gauge reading is -29.5 Hg (gauge #11791), reading taken at 12:17 PM, final reading is -5.0 Hg

Leak Check Calculation
If helium detected in sample train is in %:

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

Per National ABT and California manifolds include a flow rate

If helium detected in sample train is in ppm:

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

California manifolds website.

AEI CONSULTANTS
SOIL GAS SAMPLING FIELD FORM

SOIL GAS PROBE ID: SV-4

Project Name:	<u>Eastmoor Avenue</u>	Date of Sampling:	<u>12/8/20</u>
Project Number:	<u>430044</u>	Start Time:	<u>1246</u>
Project Address:	<u>493 Eastmoor Avenue, July City, CA</u>	End Time:	<u>1309</u>
Helium Detector Model:	Radiodetection MGD-2002	Name of Sampler:	<u>N.B.</u>
Serial #:	<u>216</u>	Calibrated by:	<u>E.I.</u>

SOIL GAS SAMPLING EQUIPMENT	
Number of Samples / Container Size and Type	One (1) 1-Liter Summa Canister
Sample Container Number	<u>10807</u>
Sampling Manifold / Flow Controller Number	<u>12247</u>

SHUT-IN TEST DATA			
Shut-In Test Start Time/Date	<u>1251 12/8/20</u>	Start Vacuum Pressure (in -Hg)	<u>-20.0</u>
Shut-In Test Stop Time/Date	<u>1254 12/8/20</u>	End Vacuum Pressure (in -Hg)	<u>-20.0</u>
		Shut-in Test	<u>Pass</u> Fail

SOIL GAS PROBE DATA	
Amount of Rain (>1/2") in Last 24 hours?	Yes / No <u>(No)</u> If yes, estimate storm duration ____ day(s)
Time/Date Vapor Probe Set (HH:MM / MO/DAY/YEAR)	<u>950 11/19/20</u>
Tubing Type (circle one)	<u>Teflon</u> Nylaflo Other: _____
Wellbox and Tubing Condition	Wellbox: good / poor Tubing: <u>good</u> / poor
Depth of Probe (ft bgs)	<u>5'</u>
Sampling Flow Rate (mL/min) (circle one)	100 / 150 <u>(200)</u>
Purge Method	<u>Summa</u> / 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)	<u>3</u>
Start Purge Time	<u>1256 12/8/20</u>
End Purge Time	<u>1301 12/8/20</u>
Start Purge Vacuum (in-Hg)	<u>-16.5</u>
End Purge Vacuum (in-Hg)	<u>-11.5</u>
Total Volume Purged (mL)	<u>1,200</u>
Moisture / Water Present in Tubing?	Yes / <u>No</u>

SAMPLING DATA			
Initial Helium Shroud Concentration (%)	<u>34.8</u>		
Helium Detected in Sample Train	<u>0.0</u>		
Helium Leak Check %	<u>0.0</u> %	Leak <5%? (circle one)	<u>(Yes)</u> / No (ppm) %
Helium Leak Final Re-Check %	<u>—</u> %	Leak <5%? (circle one)	Yes / No (if no, troubleshoot and recheck)
Time	Canister Vacuum (in-Hg)	He Shroud %	Down Hole Vacuum (in-Hg)
<u>1305</u>	<u>-29.0</u>	<u>33.9</u>	<u>0.0</u>
<u>1306</u>	<u>-20.0</u>	<u>33.6</u>	<u>0.0</u>
<u>1307</u>	<u>-15.0</u>	<u>41.5</u>	<u>0.0</u>
<u>1308</u>	<u>-10.0</u>	<u>40.9</u>	<u>0.0</u>
<u>1309</u>	<u>-5.0</u>	<u>40.6</u>	<u>0.0</u>
Laboratory Analyses:	<u>(10-15) / TO-17 / Other: <u>He, O2, CO2</u></u>		

NOTES & COMMENTS

Initial gauge reading is -29 He at 1247 PM (M)
Final gauge reading is -5.0 He (gauge # 11791)

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:

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

Page National AEI and California manifolds include a flow rate limiter

AEI CONSULTANTS
SOIL GAS SAMPLING FIELD FORM

SOIL GAS PROBE ID: SV-5

Project Name:	<u>Eastmoor Avenue</u>	Date of Sampling:	<u>12/8/20</u>
Project Number:	<u>430044</u>	Start Time:	<u>1318</u>
Project Address:	<u>493 Eastmoor Avenue, Daly City, CA</u>	End Time:	<u>1344</u>
Helium Detector Model:	<u>Radiodetection MGD-2002</u>	Name of Sampler:	<u>N.B.</u>
Serial #:	<u>216</u>	Calibrated by:	<u>E.I.</u>

SOIL GAS SAMPLING EQUIPMENT	
Number of Samples / Container Size and Type	<u>One (1) 1-Liter Summa Canister</u>
Sample Container Number	<u>9613</u>
Sampling Manifold / Flow Controller Number	<u>5315</u>

SHUT-IN TEST DATA			
Shut-In Test Start Time/Date	<u>1322 12/8/20</u>	Start Vacuum Pressure (in -Hg)	<u>-18.5</u>
Shut-In Test Stop Time/Date	<u>1327 12/8/20</u>	End Vacuum Pressure (in -Hg)	<u>-18.5</u>
		Shut-in Test	<u>(Pass)</u> / 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)	<u>1020 11/19/20</u>
Tubing Type (circle one)	<u>Teflon</u> Nylaflo Other: _____
Wellbox and Tubing Condition	Wellbox: good / poor Tubing: <u>good</u> / poor
Depth of Probe (ft bgs)	<u>51</u>
Sampling Flow Rate (mL/min) (circle one)	100 / 150 / <u>200</u>
Purge Method	<u>Summa</u> 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)	<u>3</u>
Start Purge Time	<u>1330</u>
End Purge Time	<u>1335</u>
Start Purge Vacuum (in-Hg)	<u>-11.5</u>
End Purge Vacuum (in-Hg)	<u>-6.0</u>
Total Volume Purged (mL)	<u>1,200</u>
Moisture / Water Present in Tubing?	Yes / <u>No</u>

SAMPLING DATA			
Initial Helium Shroud Concentration (%)	<u>29.4</u>		
Helium Detected in Sample Train	<u>0.0</u> ppm %		
Helium Leak Check %	<u>0.0</u> %	Leak <5%? (circle one)	<u>(Yes)</u> / No (if no, troubleshoot and recheck)
Helium Leak Final Re-Check %	<u>—</u> %	Leak <5%? (circle one)	<u>(Yes)</u> / No
Time	Canister Vacuum (in-Hg)	He Shroud %	Down Hole Vacuum (in-Hg)
<u>1339</u>	<u>-30.0</u>	<u>28.3</u>	<u>0.0</u>
<u>1340</u>	<u>-20.0</u>	<u>27.8</u>	<u>0.0</u>
<u>1341</u>	<u>-20.0</u>	<u>27.6</u>	<u>0.0</u>
<u>1342</u>	<u>-15.0</u>	<u>27.2</u>	<u>0.0</u>
<u>1343</u>	<u>-10.0</u>	<u>26.9</u>	<u>0.0</u>
<u>1344</u>	<u>-5.0</u>	<u>26.6</u>	<u>0.0</u>
Laboratory Analyses:	<u>(TO-15) / TO-17 / Other: <u>He, O2, CO2</u></u>		

NOTES & COMMENTS
 Initial gauge reading is -30 He taken at 1319 PM
 Final gauge reading is -5 He (gauge # 11791)

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:

$$\frac{\text{sample train helium ppm}}{\text{helium shroud \%}} \times \frac{1\%}{10,000 \text{ ppm}} \times 100\% = \text{Leak Check \%}$$
 Flow limiter confirmation from the lab.
 Pace national Hel and California manifolds include a flow rate limiter.

AEI CONSULTANTS
SOIL GAS SAMPLING FIELD FORM

SOIL GAS PROBE ID: <u>SV-6</u>			
Project Name:	<u>Eastmoor Avenue</u>	Date of Sampling:	<u>12/8/20</u>
Project Number:	<u>430044</u>	Start Time:	<u>1430</u>
Project Address:	<u>493 Eastmoor Avenue</u> <u>Daly City, CA</u>	End Time:	<u>1454</u>
Helium Detector Model:	Radiodetection MGD-2002	Name of Sampler:	<u>N/B</u>
Serial #:	<u>216</u>	Calibrated by:	<u>E.L.</u>

SOIL GAS SAMPLING EQUIPMENT	
Number of Samples / Container Size and Type	One (1) 1-Liter Summa Canister
Sample Container Number	<u>10137</u>
Sampling Manifold / Flow Controller Number	<u>8287</u>

SHUT-IN TEST DATA			
Shut-In Test Start Time/Date	<u>1433 12/8/20</u>	Start Vacuum Pressure (in -Hg)	<u>-21.5</u>
Shut-In Test Stop Time/Date	<u>1438 12/8/20</u>	End Vacuum Pressure (in -Hg)	<u>-21.5</u>
		Shut-in Test	<u>Pass</u> / Fail

SOIL GAS PROBE DATA	
Amount of Rain (>1/2") in Last 24 hours?	Yes / <u>No</u> If yes, estimate storm duration ___ day(s)
Time/Date Vapor Probe Set (HH:MM / MO/DAY/YEAR)	<u>1102 11/19/20</u>
Tubing Type (circle one)	<u>Teflon</u> Nylaflow Other: _____
Wellbox and Tubing Condition	Wellbox: good / poor Tubing: <u>good</u> / poor
Depth of Probe (ft bgs)	<u>51</u>
Sampling Flow Rate (mL/min) (circle one)	100 / 150 / <u>200</u>
Purge Method	<u>Summa</u> / 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)	<u>3</u>
Start Purge Time	<u>1241</u>
End Purge Time	<u>1446</u>
Start Purge Vacuum (in-Hg)	<u>-24.5</u>
End Purge Vacuum (in-Hg)	<u>-19.5</u>
Total Volume Purged (mL)	<u>1,200</u>
Moisture / Water Present in Tubing?	Yes / <u>No</u>

SAMPLING DATA			
Initial Helium Shroud Concentration (%)		<u>28.7</u>	
Helium Detected in Sample Train		<u>0.0</u>	(ppm) / %
Helium Leak Check %	<u>0.0</u> %	Leak <5%? (circle one)	<u>Yes</u> / No
Helium Leak Final Re-Check %	%	Leak <5%? (circle one)	(if no, troubleshoot and recheck)
Time	Canister Vacuum (in-Hg)	He Shroud %	Down Hole Vacuum (in-Hg)
<u>1450</u>	<u>-26.0</u>	<u>26.9</u>	<u>0.0</u>
<u>1451</u>	<u>-20.0</u>	<u>26.5</u>	<u>0.0</u>
<u>1452</u>	<u>-15.0</u>	<u>25.7</u>	<u>0.0</u>
<u>1453</u>	<u>-10.0</u>	<u>24.9</u>	<u>0.0</u>
<u>1454</u>	<u>-5.0</u>	<u>24.4</u>	<u>0.0</u>
Laboratory Analyses:	<u>(0-15) / TO-17 / Other: He, O2, CO2</u>		

NOTES & COMMENTS

Initial gauge reading recorded at 1431 at -26 Hg
Final gauge reading is -5 Hg. (gauge #11791)

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:

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

Face National Lab, AEI and California manifolds include a flow rate limiter.

**AEI CONSULTANTS
SOIL GAS SAMPLING FIELD FORM**

SOIL GAS PROBE ID: SV-7

Project Name:	Eastmoor Avenue	Date of Sampling:	12/8/20
Project Number:	430044	Start Time:	1357
Project Address:	493 Eastmoor Avenue, Jolly City, OH	End Time:	1425
Helium Detector Model:	Radiodetection MGD-2002	Name of Sampler:	N.B.
Serial #:	216	Calibrated by:	E.I.

SOIL GAS SAMPLING EQUIPMENT	
Number of Samples / Container Size and Type	One (1) 1-Liter Summa Canister
Sample Container Number	6887
Sampling Manifold / Flow Controller Number	12258

SHUT-IN TEST DATA			
Shut-In Test Start Time/Date	1357 12/8/20	Start Vacuum Pressure (in -Hg)	-25.5
Shut-In Test Stop Time/Date	1402 12/8/20	End Vacuum Pressure (in -Hg)	-25.5
			Shut-in Test <input checked="" type="radio"/> Pass <input type="radio"/> 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 11/19/20
Tubing Type (circle one)	<input checked="" type="radio"/> Teflon <input type="radio"/> Nylaflo <input type="radio"/> Other: _____
Wellbox and Tubing Condition	Wellbox: good / poor Tubing: <input checked="" type="radio"/> good / <input type="radio"/> poor
Depth of Probe (ft bgs)	57
Sampling Flow Rate (mL/min) (circle one)	100 / 150 / <input checked="" type="radio"/> 200
Purge Method	<input checked="" type="radio"/> Summa / <input type="radio"/> Pump / <input type="radio"/> Syringe / <input type="radio"/> 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)	3
Start Purge Time	1405
End Purge Time	1410
Start Purge Vacuum (in-Hg)	-29.5
End Purge Vacuum (in-Hg)	-24.5
Total Volume Purged (mL)	1,200
Moisture / Water Present in Tubing?	Yes <input type="radio"/> No <input checked="" type="radio"/>

SAMPLING DATA			
Initial Helium Shroud Concentration (%)	32.1		
Helium Detected in Sample Train	0.0 ppm %		
Helium Leak Check %	0.0 %	Leak <5%? (circle one)	<input checked="" type="radio"/> Yes / <input type="radio"/> No (if no, troublehoot and recheck)
Helium Leak Final Re-Check %	— %	Leak <5%? (circle one)	<input type="radio"/> Yes / <input type="radio"/> No
Time	Canister Vacuum (in-Hg)	He Shroud %	Down Hole Vacuum (in-Hg)
1415	-29.5	35.8	0.0
1416	-25.0	35.6	0.0
1417	-20.0	35.1	0.0
1418	-15.0	34.8	0.0
1419	-10.0	34.4	0.0
1420	-5.0		
Laboratory Analyses:	<input checked="" type="radio"/> TO-15 / <input type="radio"/> TO-17 / Other: He, O ₂ , CO ₂		

NOTES & COMMENTS

Initial gauge reading is -29.5 Hg, taken at 1355
 Final gauge reading is -5 Hg (gauge # 11791)

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

Pace National AEI and California manifolds include a flow rate limiter.

AEI Consultants - CA

2500 Camino Diablo
Walnut Creek, CA 94597

Billing Information:
Accounts Payable- Jeremy Smith
2500 Camino Diablo
Walnut Creek, CA 94597

Report to: **Natasha Budimirovic**
Email To: nbudimirovic@aeiconsultants.com
105mth@aeiconsultants.com

Project Description: **Eastman Avenue**
City/State: **Daly City, CA**
Please Circle: **PT MT CT ET**

Phone: **925-746-6000**
Client Project #: **4300044**
Lab Project #: **AEICONWCCA-BUDIRES**

Collected by (print): **ALYXANDER BUDIMIROVIC**
Site/Facility ID #: **4300044**
P.O. #: **241512**

Collected by (signature): *[Signature]*
Quote #: **241512**
Date Results Needed: **12/18/20**

Immediately Packed on Ice N ___ Y ___
Rush? (Lab MUST be notified)
Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Helium Summa	VOCs TO-15 Summa	Fixed gases - O2, CO2
SV-1		Air		12/18/20	1204	1	X	X	X
SV-2		Air		12/18/20	1537	1	X	X	X
SV-3		Air		12/18/20	1238	1	X	X	X
SV-4		Air		12/18/20	1309	1	X	X	X
SV-5		Air		12/18/20	1344	1	X	X	X
SV-6		Air		12/18/20	1454	1	X	X	X
SV-7		Air		12/18/20	1420	1	X	X	X

Remarks:
Please record final gauge readings and include in the report.

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

Relinquished by: (Signature) *[Signature]* Date: **12/18/20** Time: **1630**
Relinquished by: (Signature) *[Signature]* Date: _____ Time: _____

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

Analysis / Container / Preservative
Chain of Custody Page ___ of ___



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

SDG #
Table #
Accum: **AEICONWCCA**
Template: **T177578**
Prelogin: **P809179**
PMT: **110 - Brian Ford**
PB: *[Signature]*
Shipped Via: **FedEx Ground**
Remarks: _____ Sample # (lab only)

Invno: AEICONWCCA-BUDI Date: 13Nov20
Customer: P809179 Weight: 10 LBS
Phone: (615)758-5858 COD: _____
Sat Del: N DV: _____
Shipping: 0.00
Special: 0.00
Handling: 0.00
Total: 0.00

Invno: AEICONWCCA-BUDI Date: 13Nov20
Customer: P809179 Weight: 10 LBS
Phone: (615)758-5858 COD: _____
Sat Del: N DV: _____
Shipping: 0.00
Special: 0.00
Handling: 0.00
Total: 0.00

Invno: AEICONWCCA-BUDI Date: 13Nov20
Customer: P809179 Weight: 10 LBS
Phone: (615)758-5858 COD: _____
Sat Del: N DV: _____
Shipping: 0.00
Special: 0.00
Handling: 0.00
Total: 0.00

Invno: AEICONWCCA-BUDI Date: 13Nov20
Customer: P809179 Weight: 10 LBS
Phone: (615)758-5858 COD: _____
Sat Del: N DV: _____
Shipping: 0.00
Special: 0.00
Handling: 0.00
Total: 0.00

Invno: AEICONWCCA-BUDI Date: 13Nov20
Customer: P809179 Weight: 10 LBS
Phone: (615)758-5858 COD: _____
Sat Del: N DV: _____
Shipping: 0.00
Special: 0.00
Handling: 0.00
Total: 0.00

From: [Brian Ford](#)
To: [Jeremy Smith](#)
Cc: [Natasha Budimirovic - Archived 1.4.21](#)
Subject: RE: L1294446 Proj 430044 COC Comment
Date: Monday, December 21, 2020 8:29:39 AM
Attachments: [image001.png](#)

Jeremy,

Here are the lab receipt summa pressures:

Lab ID	sample ID	lab receipt summa pressure (" Hg)
L1294446-01	SV-1	-5
L1294446-02	SV-2	-5
L1294446-03	SV-3	-4
L1294446-04	SV-4	-6
L1294446-05	SV-5	-4
L1294446-06	SV-6	-10
L1294446-07	SV-7	-5

Thanks,


Brian Ford

Project Manager 2 / Pace National

12065 Lebanon Road | Mt. Juliet, TN 37122

Office: 615.773.9772

brian.ford@pacelabs.com

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From: Jeremy Smith <jasmith@aeiconsultants.com>
Sent: Friday, December 18, 2020 1:26 PM
To: Brian Ford <Brian.Ford@pacelabs.com>
Cc: Natasha Budimirovic <nbudimirovic@aeiconsultants.com>
Subject: Re: L1294446 Proj 430044 COC Comment

CAUTION: This email originated from outside Pace Analytical. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Brian

Can you send the lab report to Natasha and I with the follow up email later as suggested? I'm assuming the report is ready?

Jeremy Smith
Senior Project Manager
AEI Consultants

[2500 Camino Diablo](#)
[Walnut Creek, CA 94597](#)

e. jasmith@aeiconsultants.com
p. [925.746.6028](tel:925.746.6028)
c. [925.595.3156](tel:925.595.3156)
f. [925.746.6099](tel:925.746.6099)
www.aeiconsultants.com



On Dec 9, 2020, at 1:22 PM, Brian Ford <Brian.Ford@pacelabs.com> wrote:

Just a heads up...the request for summa pressures on the lab report is beyond the scope of our level 2 lab report. We do keep these values on record, and we can manually find the values and then manually customize the lab report. Due to the extra steps and the customization, it will take extra time to complete the lab report. Alternatively, I can send the lab report and then follow up with the pressures at a later date by e-mail.

Thanks,

<image001.png>

Brian Ford

Project Manager 2 / Pace National

12065 Lebanon Road | Mt. Juliet, TN 37122

Office: 615.773.9772

brian.ford@pacelabs.com

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<COCL1294446.pdf>

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