

SUBMITTED TO:
Rice Fergus Miller, Inc.
275 Fifth Street, Suite 100
Bremerton, WA 98337

BY:
Shannon & Wilson
400 N. 34th Street, Suite 100
Seattle, WA 98103

(206) 632-8020
www.shannonwilson.com

DRAFT

PHASE II ENVIRONMENTAL SITE ASSESSMENT
Chehalis Fire Station Property
1380 NW STATE AVE, CHEHALIS, WASHINGTON

Submitted To: Rice Fergus Miller, Inc.
275 Fifth Street, Suite 100
Bremerton, WA 98337
Attn: Mr. Howard Struve

Subject: DRAFT PHASE II ENVIRONMENTAL SITE ASSESSMENT, CHEHALIS FIRE
STATION PROPERTY, 1380 NW STATE AVE, CHEHALIS, WASHINGTON

Shannon & Wilson participated in this project as a consultant to Rice Fergus Miller, Inc. Our scope of services was specified in a Phase II Environmental Site Assessment proposal dated May 14, 2020. Acceptance of the scope of services was provided by David A. Fergus in the form of an executed contract amendment signed on May 18, 2020.

Sincerely,

SHANNON & WILSON

Blaine Nesbit
Environmental Staff

Scott W. Gaulke, PE, LHG
Vice President – Environmental Professional

BON:PJS:KJW:SWG/bon

EXECUTIVE SUMMARY

Shannon & Wilson has prepared this Phase II Environmental Site Assessment (ESA) of property located near 1380 NW State Avenue in Chehalis, Washington (subject property). The following observations, recommendations, and conclusions have been made:

- Analytical soil data shows the subject property was not contaminated with priority pollutant metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), or petroleum hydrocarbons above Model Toxics Control Act Method A (MTCA-A) cleanup criteria.
- Analytical groundwater data shows that the subject property had concentrations of total arsenic, total chromium, and total lead that exceeded MTCA-A cleanup criteria in each groundwater sample analyzed. However, it is common to observe elevated concentrations of metals due to high turbidity in samples collected from a direct-push probe rig. The elevated total metals detected in the samples were not detected as dissolved metals. Dissolved metals concentrations are likely to be more representative of groundwater conditions as typically only the dissolved metals fraction will migrate through porous media or be drawn out of a properly developed well.
- Initial analytical sampling of GP-1-GW indicated that diesel-range and oil-range total petroleum hydrocarbons (TPH-D and TPH-O) concentrations in groundwater additively exceeded the MTCA-A cleanup criteria. However, after running additional silica gel cleanup, the analytical results for TPH-D and TPH-O dropped to below the laboratory reporting limit. Silica gel cleanup adsorbs polar non-hydrocarbons from the groundwater sample. Since the analysis which did have silica gel cleanup was below laboratory reporting limits, we can conclude that the TPH-D and TPH-O exceedance was due to polar non-hydrocarbons being present in the sample, and that the value following silica gel cleanup is more representative of actual TPH-D and TPH-O concentrations in groundwater.
- Analytical groundwater data shows the subject property is not contaminated with VOCs or SVOCs above MTCA-A cleanup criteria. Acetone was detected in three groundwater samples (GP-1-GW, GP-2-GW, and GP-4-GW). Acetone does not have a MTCA-A cleanup criteria, but does have a MTCA Method B (MTCA-B) cleanup criteria of 7,200 micrograms per liter ($\mu\text{g/L}$). The maximum acetone concentration detected was 25.8 $\mu\text{g/L}$ in GP-2-GW, which is orders of magnitude lower than the MTCA-B cleanup criteria. Additionally, acetone is a common field and laboratory contaminant, which may explain the low concentrations in the analytical results.

The preceding summary is intended for introductory use only and a thorough reading of the complete assessment is recommended.

CONTENTS

1 Introduction1

 1.1 Objective1

 1.2 Site Description.....1

2 Geologic and Hydrogeologic Setting1

 2.1 Geologic Setting.....1

 2.2 Site Geology2

 2.3 Hydrogeology.....2

3 Previous Environmental Studies3

 3.1 2019 AEG Phase I Environmental Site Assessment (ESA)3

 3.2 2020 Phase I ESA Review3

4 Field Activities.....3

 4.1 Utility Locate.....4

 4.2 Collection Method.....4

 4.3 Analytical Methods.....4

 4.4 Investigation-Derived Waste (IDW).....5

5 Analytical Results5

 5.1 Soil Results5

 5.2 Groundwater Results.....6

6 Conclusions and Recommendations6

7 Limitations7

8 References8

Tables

- Table 1: Summary of Soil Analytical Results (2 pages)
- Table 2: Summary of Groundwater Analytical Results (3 pages)

Figures

- Figure 1: Vicinity Map
- Figure 2: Site and Exploration Plan

Appendices

Appendix A: Field Methods and Field Logs

Appendix B: Analytical Laboratory Reports

Important Information

CONTENTS

ACRONYMS

µg/L	micrograms per liter
AEG	Associated Environmental Group, LLC
bgs	below ground surface
City	City of Chehalis
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
MTCA-A	Model Toxics Control Act Method A
MTCA-B	Model Toxics Control Act Method B
NWTPH-Dx	Northwest Total Petroleum Hydrocarbons-Diesel Extended
NWTPH-G	Northwest Total Petroleum Hydrocarbons-Gasoline-Range
PID	photoionization detector
ppm	parts per million
RECs	recognized environmental conditions
SVOCs	semi-volatile organic compounds
TPH-D	total petroleum hydrocarbons as diesel-range
TPH-G	total petroleum hydrocarbons as gasoline-range
TPH-O	total petroleum hydrocarbons as oil-range
VOCs	volatile organic compounds

1 INTRODUCTION

Shannon & Wilson has prepared this Phase II ESA to inform the purchasing decision of the property located at 1380 NW State Avenue in Chehalis, Washington (subject property) by the City of Chehalis (City). We understand that the City is evaluation the feasibility of purchasing the subject property for construction of a new fire station.

1.1 Objective

The objective of this Phase II ESA was to evaluate subsurface soil and groundwater at the subject property that may have been impacted by previously identified recognized environmental conditions (RECs) described in Section 3.2.

1.2 Site Description

The subject property is made up of four parcels bounded by NW Chamber of Commerce Way, NW State Avenue, and NW Sitka Street. Currently, there are five parcels located within these bounds, but we understand that the corner parcel nearest the intersection of NW State Avenue and NW Sitka Street in the southwest is not available for purchase. The subject property was approximately 1.95 acres with the temporary structures, including one modular home occupied by Cascade Trader located east of the intersection of NW Maryland Avenue and NW State Street, one small modular structure used for storage, and two containers that are used for storage. The surface of the subject property is generally flat with asphalt-paved and gravel-surfaced parking, drive, and storage areas.

A Vicinity Map showing the subject property and surrounding area is included as Figure 1. Figure 2 is a Site and Exploration Plan.

2 GEOLOGIC AND HYDROGEOLOGIC SETTING

This section summarizes the regional and site geology, including topography, regional geology, site, geology, and groundwater conditions. This information is based on published information and observations.

2.1 Geologic Setting

The project site is located in the Puget Lowland geologic province, a wide, low-lying area between the Cascade Range to the east and the Olympic Mountains to the east. The City is located near the southern end of the province. The Puget Lowland has been heavily

influenced by the convergence of the Juan de Fuca Plate beneath the North American plate. This subduction, along with north-south shortening along the West Coast, has resulted in a series of basins and uplifts bounded by faults and folds throughout the Puget Lowland (Wells and others, 1998; McCaffery and others, 2013).

Basement rocks in the southern Puget Lowland primarily consist of Eocene to Oligocene marine sedimentary rocks of the Skookumchuck and Lincoln Creek Formations. The Skookumchuck Formation middle to late Eocene sedimentary rocks were deposited in a near-shore marine depositional environment. The formation was mined as a coal resource throughout the 20th Century and is the only bedrock unit in the Chehalis area that contains al beds (Sadowksi and others, 2019). The Lincoln Creek Formation is a late Eocene to Oligocene marine siltstone and sandstone. Other bedrock units in the southern Puget lowland include the Columbia River Basalt Group and the Wilkes Formation, a nonmarine semi-consolidated sedimentary formation from fluvial and lacustrine depositional environments (Sadowksi and others, 2019).

One of the defining characteristics of the Puget Lowland is the influence of glacial erosion and deposition. While the Chehalis area lies south of the maximum extent of glaciation, outwash deposits from these glaciers drained to the south, mantling topography and forming broad, flat landforms (Sadowksi and others, 2019). Nonglacial surficial units include alluvium and landslide deposits. In the southern Puget Lowland, the Chehalis River valley consists of a broad floodplain with elevated fluvial terraces.

2.2 Site Geology

Shannon & Wilson completed a Draft Preliminary Geotechnical Engineering Report for the Subject Property in April 2020 (Shannon & Wilson, 2020). That report found that the project site sits at the eastern edge of the Chehalis River valley floodplain and is mapped by Sadowksi and others (2019) as Quaternary Alluvium. To the east of the project site, river terrace deposits are mapped where the topography begins to rise. The hill to the east of N National Avenue is mapped as Skookumchuck Formation sandstone and siltstone.

2.3 Hydrogeology

The Draft 2019 Preliminary Geotechnical Engineering Report found groundwater was measured at approximately 10 feet below ground surface (bgs). However, given the relatively high fines content and plasticity of the near-surface soils, the static groundwater may be higher than 10 feet bgs. Groundwater levels across the project site should be expected to vary seasonally and with changes in topography and precipitation. Locally, groundwater highs typically occur in the late fall to spring and groundwater lows typically

occur in the late summer and early fall. The 2019 Phase I ESA inferred that groundwater flowed generally west (Associated Environmental Group, LLC [AEG], 2019).

Groundwater was encountered from depths ranging between 1.8 to 14.7 feet bgs during field activities for this Phase II ESA, with groundwater being deeper towards the northern end of the subject property and shallower towards the southern end of the subject property.

3 PREVIOUS ENVIRONMENTAL STUDIES

This section describes two previous environmental studies that evaluated the subject property.

3.1 2019 AEG Phase I Environmental Site Assessment (ESA)

AEG prepared a Phase I ESA of the subject property in 2019 on behalf of Cascade Trader. The assessment did not find any RECs for the subject property.

3.2 2020 Phase I ESA Review

Shannon & Wilson reviewed the 2019 AEG Phase I to provide comments and recommendations to Rice Fergus Miller, Inc. The review was documented in a letter report, which derived the following conclusions and RECs derived from the 2019 Phase I ESA:

- After further review of the conclusions and recommendations in the AEG report, in our opinion, we have identified the Shell Service Station located at 1349 NW State Avenue as an REC to the subject property. The Shell Service Station historically had a leaking underground storage tank that is currently under cleanup. Due to both soil and groundwater contamination and groundwater monitoring results, there is potential for petroleum contamination migration towards the subject property.
- In addition, based on the previous and current land use on the subject property, it is our opinion that there is the potential for petroleum contamination to the surface soils from incidental spillage from the storage of logging and construction equipment. Therefore, the subject property is considered an REC.

Following the review and conclusions, a recommendation was made for a Phase II ESA to sample soil and groundwater on the subject property.

4 FIELD ACTIVITIES

Subsurface explorations were completed on the subject property on June 2, 2020. Based on known RECs, samples were collected from five direct-push locations (Figure 2). Soil was

collected from direct-push probes at 5, 10, and 15 feet bgs. Groundwater was collected from temporary environmental wells installed immediately after the borings in four locations. A summary of field methods and field data sheets are provided in Appendix A.

4.1 Utility Locate

Shannon & Wilson marked the proposed boring locations with white paint for utility clearance prior to issuing a public utility locate request. The Washington Utility Notification Center was informed of the intent to drill on the subject property on March 27, 2020, and allowed the required amount of time to mark nearby utilities. Additionally, APS Locates was present on the site June 1, 2020, to locate private utilities within 50 feet of the boring locations.

4.2 Collection Method

Samples were collected using direct-push probe. The soil from each location was screened for contamination using a photoionization detector (PID) and visual and olfactory observation. Slightly elevated to elevated PID readings were observed in each boring, with a minimum reading of 1.2 parts per million (ppm) in GP-5, and a maximum of 11.0 ppm in GP-3. Noted visual and olfactory observations did not indicate obvious signs of contamination. Samples were collected from approximately 5, 10, and 15 feet bgs in each direct-push location.

Groundwater was collected from GP-1, GP-2, GP-3, and GP-4 using temporary environmental wells. Groundwater was not encountered at GP-5. The wells were purged for several minutes prior to sampling. The wells were removed following completion of groundwater sampling.

4.3 Analytical Methods

Soil and groundwater samples were submitted to Pace Analytical under subcontract to Shannon & Wilson for analytical testing. Turnaround time was standard. Selected soil samples were analyzed for:

- TPH-D and TPH-O by Northwest Total Petroleum Hydrocarbons (NWTPH) Diesel Extended (NWTPH-Dx);
- Gasoline-range total petroleum hydrocarbons (TPH-G) by NWTPH-G;
- VOCs by U.S. Environmental Protection Agency (EPA) Method 8260D;
- SVOCs by EPA Method 8270E-SIM; and
- Metals including antimony, arsenic, barium, cadmium, chromium, lead, mercury, nickel, selenium, silver, and zinc, by EPA Methods 6020B and 7471B;

The groundwater samples were analyzed for:

- TPH-D and TPH-O by NWTPH-Dx;
- TPH-D and TPH-O by NWTPH-Dx with silica gel cleanup;
- TPH-G by NWTPH-G;
- VOCs by EPA Method 8260D;
- SVOCs by EPA Method 8270E-SIM; and
- Total and dissolved metals including arsenic, barium, cadmium, chromium, lead, mercury, nickel, selenium, silver, and zinc, by EPA Method 6020B and 7470A.

4.4 Investigation-Derived Waste (IDW)

Soil cuttings, decontamination fluids, and purge water were contained in labeled Washington State Department of Transportation-approved 55-gallon drums. The drums were temporarily stored off-site by the drilling subcontractor in their storage yard pending analytical results. Used personal protection equipment and disposable sampling equipment were placed in a plastic bag and disposed as solid waste.

5 ANALYTICAL RESULTS

Tables 1 and 2 provide a summary of soil and groundwater analytical results, respectively. The analytical laboratory reports are provided in Appendix B.

5.1 Soil Results

The soil analytical results are shown in Table 1 and are summarized below. The detected values are compared with MTCA-A cleanup level for unrestricted land use (Washington State Department of Ecology [Ecology], 2020).

- TPH-G was not detected above laboratory reporting limits in any soil sample analyzed;
- TPH-D was detected below MTCA-A cleanup criteria in GP-2 and GP-3;
- TPH-O was detected below MTCA-A cleanup criteria in GP-1, GP-2 and GP-3.
- VOCs were detected below MTCA-A cleanup criteria in GP-1 and GP-4;
- SVOCs were detected below MTCA-A cleanup criteria in GP-1, GP-2, and GP-4; and
- Metals were detected below MTCA-A cleanup criteria in each boring. The metals detections are consistent with Washington background soil concentrations.

5.2 Groundwater Results

The groundwater analytical results are shown in Table 2 and summarized below. The detected values are compared with MTCA-A cleanup levels.

- TPH-D and TPH-O were both detected in GP-1-GW, and the additive concentration exceeded the MTCA-A cleanup criteria. Further analytical testing was conducted on the groundwater sample utilizing a silica gel cleanup method. After the sample underwent silica gel cleanup, neither TPH-D nor TPH-O were detected above laboratory reporting limits in GP-1-GW.
- Petroleum hydrocarbons were not detected above laboratory reporting limits in any of the groundwater samples analyzed, with the exception of GP-1-GW noted above.
- Total arsenic, total chromium, and total lead exceeded MTCA-A cleanup criteria in each groundwater sample analyzed. However; each corresponding dissolved metal sample did not contain concentrations above laboratory reporting limits.
- Other total or dissolved metals did not exceed MTCA-A cleanup criteria for each groundwater sample analyzed.
- Acetone was detected in GP-1-GW, GP-2-GW, and GP-4-GW. There is no MTCA-A cleanup criteria for acetone.

6 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations have been determined based upon analytical sampling and site observations:

- Analytical soil data shows the subject property was not contaminated with priority pollutant metals, VOCs, SVOCs, or petroleum hydrocarbons above MTCA-A cleanup criteria.
- Analytical groundwater data shows that the subject property had concentrations of total arsenic, total chromium, and total lead that exceeded MTCA-A cleanup criteria in each groundwater sample analyzed. However, it is common to observe elevated concentrations of metals due to high turbidity in samples collected from a direct-push probe rig. The elevated total metals detected in the samples were not detected as dissolved metals. Dissolved metals concentrations are likely to be more representative of groundwater conditions as typically only the dissolved metals fraction will migrate through porous media or be drawn out of a properly developed well.
- Initial analytical sampling of GP-1-GW indicated that TPH-D and TPH-O concentrations in groundwater additively exceeded the MTCA-A cleanup criteria. However, after running additional silica gel cleanup, the analytical results for TPH-D and TPH-O dropped to below the laboratory reporting limit. Silica gel cleanup adsorbs polar non-hydrocarbons from the groundwater sample. Since the analysis, which did have silica

silica gel cleanup was below laboratory reporting limits, we can conclude that the TPH-D and TPH-O exceedance was due to polar non-hydrocarbons being present in the sample, and that the value following silica gel cleanup is more representative of actual TPH-D and TPH-O concentrations in groundwater.

- Analytical groundwater data shows the subject property is not contaminated with VOCs or SVOCs above MTCA-A cleanup criteria. Acetone was detected in three groundwater samples (GP-1-GW, GP-2-GW, and GP-4-GW). Acetone does not have a MTCA-A cleanup criteria, but does have a MTCA-B cleanup criteria of 7,200 µg/L. The maximum acetone concentration detected was 25.8 µg/L in GP-2-GW, which is orders of magnitude lower than the MTCA-B cleanup criteria. Additionally, acetone is a common field and laboratory contaminant, which may explain the low concentrations in the analytical results.

7 LIMITATIONS

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

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

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

This assessment was prepared for the exclusive use of Rice, Fergus, Miller, Inc. and their representatives, and in no way guarantees that any agency or its staff will reach the same conclusions as Shannon & Wilson. To help you and other in understanding the limitations

of this assessment, Shannon & Wilson had prepared an appendix, Important Information About Your Environmental Site Assessment/Evaluation Report.

8 REFERENCES

- Associated Environmental Group, LLC (AEG), 2019, Phase I Environmental Site Assessment, Cascade Trader, 1380 Northwest State Avenue, Chehalis, Washington 98532, November 14, 19-229.
- McCaffrey, R.; King, R. W.; Payne, S. J.; and Lancaster, M., 2013, Active tectonics of northwestern U. S. inferred from GPS-derived surface velocities: *Journal of Geophysical Research Solid Earth*, v. 118, p. 709-723,
- <https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2012JB009473>.
- Sadowski, A., Keller, W., Polenz, M., Lau T., Cakir, R., Nesbitt, E., Tepper, J., Dufrane, S.A., and Paulin, G., 2019, Geologic Map of the Centralia 7.5-minute Quadrangle, Lewis County, Washington. 10.1130/abs/2019CD-328980.
- Shannon & Wilson, 2020, Draft Preliminary Geotechnical Engineering Report, Chehalis Fire Station, Chehalis, Washington, April, 104983.
- Washington State Department of Ecology (Ecology), 2020, Cleanup levels and risk calculation (CLARC): Available <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>, accessed March 2020.
- Wells, R. E.; Weaver, C. S.; and Blakely, R. J., 1998, Fore-arc migration in Cascadia and its neotectonic significance: *Geology*, v. 26, no. 8, p. 759-762.

Table 1 - Soil Analytical Results

Client Sample ID			GP-1-5	GP-1-10	GP-1-15	GP-2-5	GP-2-10	GP-2-15	GP-3-5	GP-3-10	GP-3-15	GP-4-5	GP-4-10	GP-4-15	GP-5-5	GP-5-10	GP-5-15	
Date Collected			06/02/2020	06/02/2020	06/02/2020	06/02/2020	06/02/2020	06/02/2020	06/02/2020	06/02/2020	06/02/2020	06/02/2020	06/02/2020	06/02/2020	06/02/2020	06/02/2020	06/02/2020	
Method	Analyte	MTC A CUL	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
8260D	TRICHLOROETHENE	0.03	<0.00142		<0.00120		<0.00122		<0.00116		<0.00137		<0.00126		<0.00117		<0.00130	
8260D	TRICHLOROFLUOROMETHANE	NE	<0.00356		<0.00301		<0.00305		<0.00289		<0.00342		<0.00325		<0.00293		<0.00315	
8260D	1,2,3-TRICHLOROPROPANE	NE	<0.0178		<0.0150		<0.0153		<0.0144		<0.0171		<0.0158		<0.0146		<0.0154	
8260D	1,2,4-TRIMETHYLBENZENE	NE	<0.00711		<0.00602		<0.00610		<0.00578		<0.00683		<0.00651		<0.00585		<0.00631	
8260D	1,2,3-TRIMETHYLBENZENE	NE	<0.00711		<0.00602		<0.00610		<0.00578		<0.00683		<0.00651		<0.00585		<0.00631	
8260D	1,3,5-TRIMETHYLBENZENE	NE	<0.00711		<0.00602		<0.00610		<0.00578		<0.00683		<0.00651		<0.00585		<0.00631	
8260D	VINYL CHLORIDE	NE	<0.00356		<0.00301		<0.00305		<0.00289		<0.00342		<0.00325		<0.00293		<0.00315	
8260D	XYLENES, TOTAL	9	<0.00925		<0.00782		<0.00793		<0.00751		<0.00888		<0.00846		<0.00761		<0.00820	
SVOCs																		
8270E-SIM	ANTHRACENE	NE	<0.00854		<0.00722		<0.00718		0.0342		<0.00820		<0.00757		<0.00703		<0.00738	
8270E-SIM	ACENAPHTHENE	NE	<0.00854		<0.00722		<0.00719		0.0110		<0.00820		<0.00781		<0.00702		<0.00757	
8270E-SIM	ACENAPHTHYLENE	NE	<0.00854		<0.00722		<0.00720		<0.00693		<0.00820		<0.00781		<0.00702		<0.00757	
8270E-SIM	BENZO(A)ANTHRACENE	NE	<0.00854		0.0142		<0.00721		0.0522		<0.00820		<0.00781		<0.00702		<0.00757	
8270E-SIM	BENZO(A)PYRENE	0.1	<0.00854		<0.00722		<0.00722		0.0431		<0.00820		<0.00781	J3	<0.00702		<0.00757	
8270E-SIM	BENZO(B)FLUORANTHENE	NE	<0.00854		0.0154		<0.00723		0.0420		<0.00820		<0.00781	J3	<0.00702		<0.00757	
8270E-SIM	BENZO(G,H,I)PERYLENE	NE	<0.00854		<0.00722		<0.00724		0.0246		<0.00820		<0.00781		<0.00702		<0.00757	
8270E-SIM	BENZO(K)FLUORANTHENE	NE	<0.00854		<0.00722		<0.00725		0.0125		<0.00820		<0.00781	J3	<0.00702		<0.00757	
8270E-SIM	CHRYSENE	NE	<0.00854		0.0176		<0.00726		0.0479		<0.00820		<0.00781		<0.00702		<0.00757	
8270E-SIM	DIBENZ(A,H)ANTHRACENE	NE	<0.00854		<0.00722		<0.00727		<0.00693		<0.00820		<0.00781	J3	<0.00702		<0.00757	
8270E-SIM	FLUORANTHENE	NE	<0.00854		0.0276		<0.00728		0.120		<0.00820		<0.00781		<0.00702		<0.00757	
8270E-SIM	FLUORENE	NE	<0.00854		<0.00722		<0.00729		0.0195		<0.00820		<0.00781		<0.00702		<0.00757	
8270E-SIM	INDENO(1,2,3-CD)PYRENE	NE	<0.00854		<0.00722		<0.00730		0.0176		<0.00820		<0.00781	J3	<0.00702		<0.00757	
8270E-SIM	NAPHTHALENE	5	<0.0285		<0.0241		<0.0239		<0.0231		<0.0273		<0.0260		<0.0234		<0.0252	
8270E-SIM	PHENANTHRENE	NE	<0.00854		0.00893		<0.00718		0.169		<0.00820		<0.00781		<0.00702		<0.00757	
8270E-SIM	PYRENE	NE	<0.00854		0.0321		<0.00718		0.149		0.0133		<0.00781		<0.00702		<0.00757	
8270E-SIM	1-METHYLNAPHTHALENE	NE	<0.0285		<0.0241		<0.0239		<0.0231		<0.0273		<0.0260		<0.0234		<0.0252	
8270E-SIM	2-METHYLNAPHTHALENE	NE	<0.0285		<0.0241		<0.0239		<0.0231		<0.0273		<0.0260		<0.0234		<0.0252	
8270E-SIM	2-CHLORONAPHTHALENE	NE	<0.0285		<0.0241		<0.0239		<0.0231		<0.0273		<0.0260		<0.0234		<0.0252	
8270E-SIM	cPAH TEQ	0.1	<0.013		0.017		<0.011		0.057		<0.012		<0.012		<0.011		0.023	
Petroleum Hydrocarbons																		
NWTPHDX-NO SGT	DIESEL RANGE ORGANICS	2,000	<5.69		<96.2		<4.79		5.07		<5.47		<5.21		19.6		<5.05	
NWTPHDX-NO SGT	RESIDUAL RANGE ORGANICS	2,000	16.2		<241		17.0		<11.6		14.6		<13.0		57.1		<12.6	
NWTPHGX	GASOLINE RANGE ORGANICS	100/30**	<3.56		<3.01		<2.99		<2.89		<3.42		<3.25		<2.93		<3.15	

NOTES:

All results are in mg/kg.
 Bold cells indicate analyte concentration is greater than the cleanup criteria.
 Shaded cells indicate analyte was detected above the method reporting limit.
 * = cleanup level for Chromium (VI) is 19 mg/kg, cleanup level for Chromium (III) is 2,000 mg/kg. Chromium (III) is used as screening level.
 ** = cleanup level for gasoline-range organics is 100 mg/kg when benzene is not present, 30 mg/kg when benzene is present.
 B = the same analyte is found in the associated blank; J = The identification of the analyte is acceptable, the reported value is an estimate; J0 = The identification of the analyte is acceptable, but the reported concentration is an estimate. The calibration method criteria: J1 = Surrogate recovery limits have been exceeded; values are outside upper control limits; J2 = Surrogate recovery limits have been exceeded; values are outside lower 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; SVOCs = semi-volatile organic compounds; VOCs = volatile organic compounds;

Table 2 - Groundwater Analytical Results

Client Sample ID Date Collected			GP-1-GW 06/02/2020		GP-2-GW 06/02/2020		GP-3-GW 06/02/2020		GP-4-GW 06/02/2020	
Method	Analyte	MTCA A CUL	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Metals										
6020B	ARSENIC	5	26.0		12.2		16.9		46.2	
6020B	ARSENIC, DISSOLVED	5	<2.00		<2.00		<2.00		<2.00	
6020B	BARIUM	NE	1,200		487		1380		2,020	
6020B	BARIUM, DISSOLVED	NE	130		96.6		158		<20.0	
6020B	CADMIUM	5	1.08		<1.00		<1.00		2.06	
6020B	CADMIUM, DISSOLVED	5	<1.00		<1.00		<1.00		<1.00	
6020B	CHROMIUM	50	123		72.4		140		980	
6020B	CHROMIUM, DISSOLVED	50	<2.00		<2.00		<2.00		<2.00	
6020B	COPPER	NE	56.0		105		219		837	
6020B	COPPER, DISSOLVED	NE	5.81		5.03		5.56		<5.00	
6020B	LEAD	15	52.1		18.6		50.3		121	
6020B	LEAD, DISSOLVED	15	<5.00		<5.00		<5.00		<5.00	
6020B	NICKEL	NE	88.9		37.1		70.0		252	
6020B	NICKEL, DISSOLVED	NE	4.57		3.88		2.86		3.44	
6020B	SELENIUM	NE	5.36		<2.00		3.45		8.50	
6020B	SELENIUM, DISSOLVED	NE	<2.00		<2.00		<2.00		<2.00	
6020B	SILVER	NE	<2.00		<2.00		<2.00		<2.00	
6020B	SILVER, DISSOLVED	NE	<2.00		<2.00		<2.00		<2.00	
6020B	ZINC	NE	731		119		195		822	
6020B	ZINC, DISSOLVED	NE	<25.0		<25.0		<25.0		<25.0	
7470A	MERCURY	2	<0.200		<0.200		<0.200		<0.200	
7470A	MERCURY, DISSOLVED	2	<0.200		<0.200		<0.200		<0.200	
VOCs										
8260D	ACETONE	NE	2.50		25.8		<1.00		1.83	
8260D	ACRYLONITRILE	NE	<0.500		<0.500		<0.500		<0.500	
8260D	BENZENE	5	<0.0400		<0.0400		<0.0400		<0.0400	
8260D	BROMOBENZENE	NE	<0.500		<0.500		<0.500		<0.500	
8260D	BROMODICHLOROMETHANE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	BROMOFORM	NE	<1.00		<1.00		<1.00		<1.00	
8260D	BROMOMETHANE	NE	<0.500		<0.500		<0.500		<0.500	
8260D	N-BUTYLBENZENE	NE	<0.500		<0.500		<0.500		<0.500	
8260D	SEC-BUTYLBENZENE	NE	<0.500		<0.500		<0.500		<0.500	
8260D	TERT-BUTYLBENZENE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	CARBON TETRACHLORIDE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	CHLOROBENZENE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	CHLORODIBROMOMETHANE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	CHLOROETHANE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	CHLOROFORM	NE	<0.100		<0.100		<0.100		<0.100	
8260D	CHLOROMETHANE	NE	<0.500		<0.500		<0.500		<0.500	
8260D	2-CHLOROTOLUENE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	4-CHLOROTOLUENE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	1,2-DIBROMO-3-CHLOROPROPANE	NE	<1.00		<1.00		<1.00		<1.00	
8260D	1,2-DIBROMOETHANE	0.01	<0.100		<0.100		<0.100		<0.100	
8260D	DIBROMOMETHANE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	1,2-DICHLOROBENZENE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	1,3-DICHLOROBENZENE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	1,4-DICHLOROBENZENE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	DICHLORODIFLUOROMETHANE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	1,1-DICHLOROETHANE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	1,2-DICHLOROETHANE	5	<0.100		<0.100		<0.100		<0.100	
8260D	1,1-DICHLOROETHENE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	CIS-1,2-DICHLOROETHENE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	TRANS-1,2-DICHLOROETHENE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	1,2-DICHLOROPROPANE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	1,1-DICHLOROPROPENE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	1,3-DICHLOROPROPANE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	CIS-1,3-DICHLOROPROPENE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	TRANS-1,3-DICHLOROPROPENE	NE	<0.200		<0.200		<0.200		<0.200	

Table 2 - Groundwater Analytical Results

Client Sample ID Date Collected			GP-1-GW 06/02/2020		GP-2-GW 06/02/2020		GP-3-GW 06/02/2020		GP-4-GW 06/02/2020	
Method	Analyte	MTCA A CUL	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
8260D	2,2-DICHLOROPROPANE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	DI-ISOPROPYL ETHER	NE	<0.0400		<0.0400		<0.0400		<0.0400	
8260D	ETHYLBENZENE	700	<0.100		<0.100		<0.100		<0.100	
8260D	HEXACHLORO-1,3-BUTADIENE	NE	<1.00		<1.00		<1.00		<1.00	
8260D	IODOMETHANE	NE	<0.500		<0.500		<0.500		<0.500	
8260D	ISOPROPYLBENZENE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	P-ISOPROPYLTOLUENE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	2-BUTANONE (MEK)	NE	<1.00		<1.00		<1.00		<1.00	
8260D	METHYLENE CHLORIDE	5	<1.00		<1.00		<1.00		<1.00	
8260D	4-METHYL-2-PENTANONE (MIBK)	NE	<1.00		<1.00		<1.00		<1.00	
8260D	METHYL TERT-BUTYL ETHER	20	<0.0400		<0.0400		<0.0400		<0.0400	
8260D	NAPHTHALENE	160	<0.500		<0.500		<0.500		<0.500	
8260D	N-PROPYLBENZENE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	STYRENE	NE	<0.500		<0.500		<0.500		<0.500	
8260D	1,1,1,2-TETRACHLOROETHANE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	1,1,2,2-TETRACHLOROETHANE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	1,1,2-TRICHLOROTRIFLUOROETHANE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	TETRACHLOROETHENE	5	<0.100		<0.100		<0.100		<0.100	
8260D	TOLUENE	1000	<0.200		<0.200		<0.200		<0.200	
8260D	1,2,3-TRICHLOROBENZENE	NE	<0.500		<0.500		<0.500		<0.500	
8260D	1,2,4-TRICHLOROBENZENE	NE	<0.500		<0.500		<0.500		<0.500	
8260D	1,1,1-TRICHLOROETHANE	200	<0.100		<0.100		<0.100		<0.100	
8260D	1,1,2-TRICHLOROETHANE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	TRICHLOROETHENE	5	<0.0400		<0.0400		<0.0400		<0.0400	
8260D	TRICHLOROFUOROMETHANE	NE	<0.100		<0.100		<0.100		<0.100	
8260D	1,2,3-TRICHLOROPROPANE	NE	<0.500		<0.500		<0.500		<0.500	
8260D	1,2,4-TRIMETHYLBENZENE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	1,2,3-TRIMETHYLBENZENE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	1,3,5-TRIMETHYLBENZENE	NE	<0.200		<0.200		<0.200		<0.200	
8260D	VINYL CHLORIDE	0.2	<0.100		<0.100		<0.100		<0.100	
8260D	XYLENES, TOTAL	1000	<0.260		<0.260		<0.260		<0.260	

Table 2 - Groundwater Analytical Results

Client Sample ID			GP-1-GW		GP-2-GW		GP-3-GW		GP-4-GW	
Date Collected			06/02/2020		06/02/2020		06/02/2020		06/02/2020	
Method	Analyte	MTCA A CUL	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SVOCs										
8270E-SIM	ANTHRACENE	NE	<0.0500		<0.0500		<0.0500		<0.100	
8270E-SIM	ACENAPHTHENE	NE	<0.0500		<0.0500		<0.0500		<0.100	
8270E-SIM	ACENAPHTHYLENE	NE	<0.0500		<0.0500		<0.0500		<0.100	
8270E-SIM	BENZO(A)ANTHRACENE	NE	<0.0500		<0.0500		<0.0500		<0.100	
8270E-SIM	BENZO(A)PYRENE	0.1	<0.0500		<0.0500		<0.0500		<0.100	
8270E-SIM	BENZO(B)FLUORANTHENE	NE	<0.0500		<0.0500		<0.0500		<0.100	
8270E-SIM	BENZO(G,H,I)PERYLENE	NE	<0.0500		<0.0500		<0.0500		<0.100	
8270E-SIM	BENZO(K)FLUORANTHENE	NE	<0.0500		<0.0500		<0.0500		<0.100	
8270E-SIM	CHRYSENE	NE	<0.0500		<0.0500		<0.0500		<0.100	
8270E-SIM	DIBENZ(A,H)ANTHRACENE	NE	<0.0500		<0.0500		<0.0500		<0.100	
8270E-SIM	FLUORANTHENE	NE	<0.100		<0.100		<0.100		<0.200	
8270E-SIM	FLUORENE	NE	<0.0500		<0.0500		<0.0500		<0.100	
8270E-SIM	INDENO(1,2,3-CD)PYRENE	NE	<0.0500		<0.0500		<0.0500		<0.100	
8270E-SIM	NAPHTHALENE	160	<0.250		<0.250		<0.250		<0.500	
8270E-SIM	PHENANTHRENE	NE	<0.0500		<0.0500		<0.0500		<0.100	
8270E-SIM	PYRENE	NE	<0.0500		<0.0500		<0.0500		<0.100	
8270E-SIM	1-METHYLNAPHTHALENE	NE	<0.250		<0.250		<0.250		<0.500	
8270E-SIM	2-METHYLNAPHTHALENE	NE	<0.250		<0.250		<0.250		<0.500	
8270E-SIM	2-CHLORONAPHTHALENE	NE	<0.250		<0.250		<0.250		<0.500	
Petroleum Hydrocarbons										
NWTPHDX-NO SGT	DIESEL RANGE ORGANICS	500	242		<200		<200		<200	
NWTPHDX-NO SGT	RESIDUAL RANGE ORGANICS		360		<250		<250		<250	
NWTPHDX-SGT	DIESEL RANGE ORGANICS	500	<200		--		--		--	
NWTPHDX-SGT	RESIDUAL RANGE ORGANICS		<250		--		--		--	
NWTPHGX	GASOLINE RANGE ORGANICS	800/1000*	<100		<100		<100		<100	

NOTES:

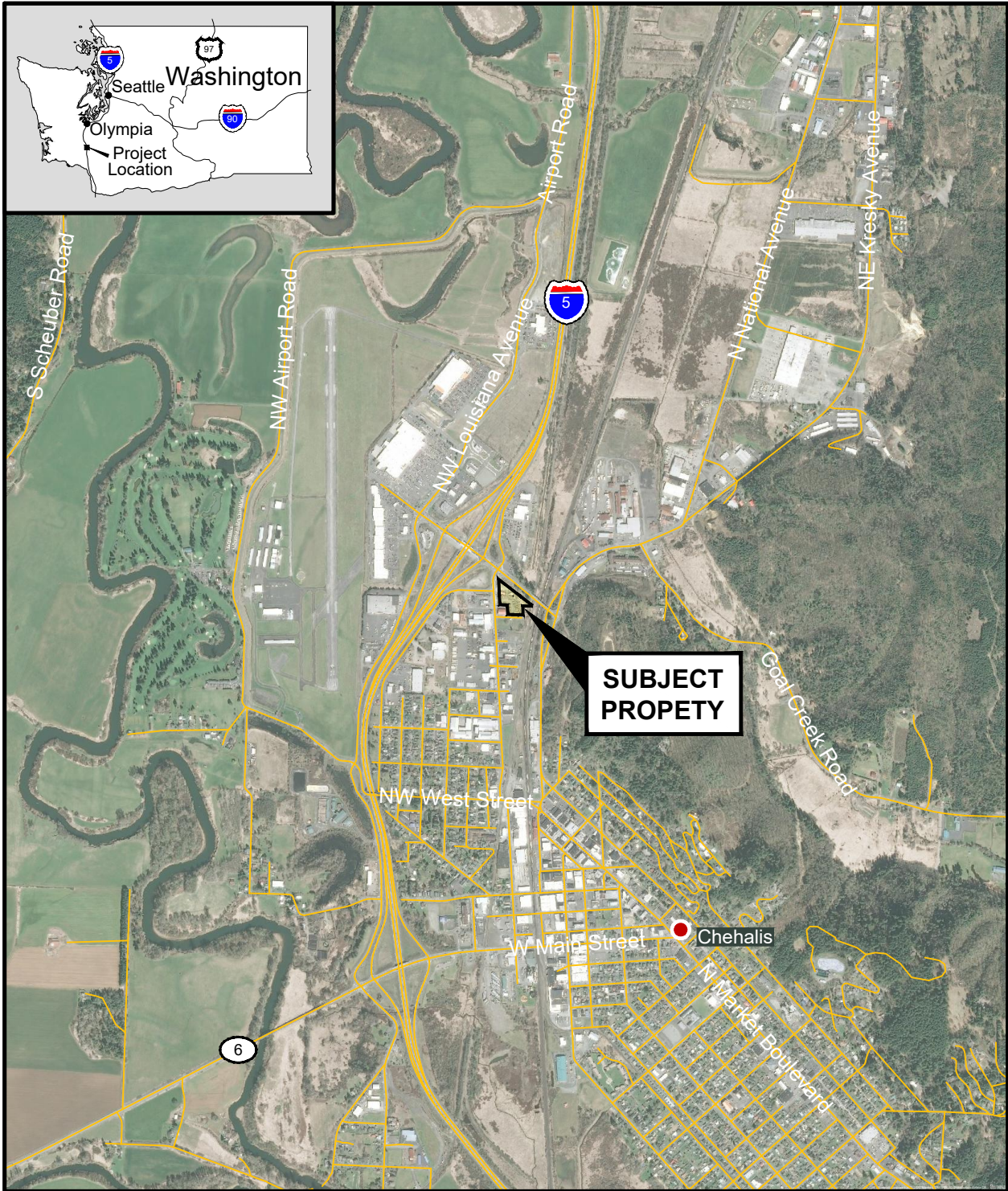
Results are in µg/L.

Bold text indicates analytic concentration is greater than the cleanup criteria.

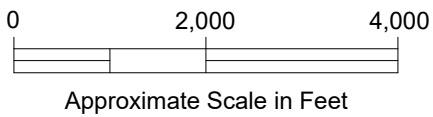
Shaded cells indicate analyte is detected above the method reporting limit.

* = cleanup level for gasoline range organics is 1000 µg/L when benzene is not present, 800 µg/L when benzene is present.

CUL = cleanup level; NE = not established; SVOCs = semi-volatile organic compounds; VOCs = volatile organic compounds.



**SUBJECT
PROPERTY**



Approximate Scale in Feet

DRAFT

Phase II Environmental Site Assessment
Chehalis Fire Station
Chehalis, Washington

VICINITY MAP

June 2020

104983-004



LEGEND



B-1 Direct-Push Probe Designation and Approximate Location



Proposed Structures



Scale in Feet

DRAFT

Phase II Environmental Site Assessment
Chehalis Fire Station
Chehalis, Washington

SITE AND EXPLORATION PLAN

June 2020

104983-004



FIG. 2

Appendix A

Field Methods and Exploration Logs

CONTENTS

- A.1 Introduction A-1
- A.2 Pre-Sampling Activities..... A-1
- A.3 Sample Collection A-1
 - A.3.1 Soil Sampling A-1
 - A.3.2 Groundwater Sampling..... A-2
- A.4 Sampling Handling..... A-2
- A.5 Field Screening Methods..... A-3
 - A.5.1 Photoionization Detector (PID) Measurements A-3
 - A.5.2 Visual Observation..... A-3
 - A.5.3 Odors..... A-4
 - A.5.4 Field Screening Documentation A-4
- A.6 Analytical Methods..... A-4
- A.7 Decontamination Methods A-5
 - A.7.1 Direct-Push Probe A-5
 - A.7.2 Sampling Equipment..... A-5
- A.8 Investigation-Derived Waste (IDW)..... A-5

APPENDIX A: FIELD METHODS AND EXPLORATION LOGS

A.1 INTRODUCTION

The project consisted of collection of soil and groundwater samples from five direct-push probe locations. The borings were completed using direct-push drilling methods. Groundwater was collected using temporary environmental wells installed within the direct-push boreholes. The activities were completed to inform a purchasing decision of the property located at 1380 NW State Avenue in Chehalis, Washington (subject property).

The assessment was completed to assess current conditions related to recognized environmental conditions and observations on the subject property.

Standard investigation methods, including sample collection, field screening, documentation procedures, and selected analyses, are described briefly in the following subsections. Sample collection and documentation were completed in accordance with Shannon & Wilson's standard operating procedures.

A.2 PRE-SAMPLING ACTIVITIES

Shannon & Wilson coordinated with Rice Fergus Miller, Inc. to gain access to the subject property. A representative of Shannon & Wilson notified the Underground Utilities Location Center (1-800-424-5555) at least 48 hours before the start of subsurface work at the site.

A.3 SAMPLE COLLECTION

During the field investigation, soil and groundwater samples were collected to evaluate the potential for site contamination. The various methods of collecting samples are presented below. Sample handling procedures are summarized in Section B.4. The samples were submitted to Pace Analytical, Inc. of Tigard, Oregon. Samples were analyzed by the methods discussed in Section B.6.

Decontamination procedures are presented in Section B.7.

A.3.1 Soil Sampling

Soil was visually described using Shannon & Wilson's soil classification procedure, which is a modified version of the Unified Soil Classification System. The soil descriptions were recorded on field logs. When a soil sample was selected for chemical analysis, the soil

sample was placed into laboratory-supplied glassware using disposable, stainless steel spoons or disposable plastic syringes.

A direct-push hydraulic probe rig was used to collect subsurface soil samples at boring locations. The probe was advanced to a depth of 15 feet below ground surface. Three soil samples were collected from each probe at each 5-foot depth interval.

A.3.2 Groundwater Sampling

One groundwater sample was collected from four drilling locations immediately following completion of the borehole. Temporary environmental wells were installed to collect groundwater samples. The wells consisted of ¾-inch Schedule 80 polyvinyl chloride pipe with 5 feet of 10-slot screen. Groundwater was withdrawn using a peristaltic pump and disposable tubing. Field personnel purged each well using a low-flow peristaltic pump set to a rate of less than 500 milliliters per minute. Purging continued until the turbidity of the groundwater visually appeared to stabilize. The purge water was collected in a bucket and transferred to a drum pending disposal. Following purging, groundwater samples were collected using the peristaltic pump. The wells were removed following completion of groundwater sampling.

A.4 SAMPLING HANDLING

Environmental samples were collected using disposable sampling equipment. New nitrile gloves were worn by the sample handler during collection of each sample. Non-disposable sampling equipment was decontaminated between sample locations to reduce potential for cross contamination. Field notes documented site conditions and sample collection activities.

Samples collected for laboratory analysis were placed into pre-cleaned, laboratory-provided glassware and containerized sequentially with the most volatile target analyte collected first. The preferred collection order for some of the more common analytes is: (a) volatile organics and petroleum, (b) semi-volatile organics, and (c) metals. The sample container labels were completed using indelible ink. The samples were sealed in plastic bags and then placed into a cooler and maintained at 4 degrees Celsius (°C) (+ 2°C) with “blue ice.”

Sample information was recorded on chain-of-custody forms and these forms accompanied the samples to the laboratory. Samples were maintained under chain-of-custody until delivered to Pace Analytical.

A.5 FIELD SCREENING METHODS

Field screening of soil samples helped evaluate the potential presence of contamination. Typically, at a nonhazardous waste site, the most likely locations to encounter contamination are in fill, at the water table interface, in the water table smear (fluctuation) zone, at fill/native soil contacts, and at pronounced changes in permeability. However, the location of contamination, if any, is site-dependent.

Field screening methods typically consisted of:

- Photoionization detector (PID) measurements
- Visual observations
- Olfactory observations

The three methods were used for the site. New nitrile gloves were worn by field personnel during the screening. Environmental samples were collected using disposable sampling equipment. New nitrile gloves were worn by field personnel during the screening.

A.5.1 Photoionization Detector (PID) Measurements

PID measurements were collected on soil samples to screen for volatile organic vapors such as gasoline and solvents. Typically, decaying organics can elevate PID measurements and diesel and oil can rarely be detected with the PID. PID measurements were obtained by passing the instrument directly over the soil or by performing a headspace measurement.

Headspace measurements were used to confirm low PID readings or to check for low volatility contaminants such as old petroleum products by the following procedure:

- Place an amount of soil into a Ziploc™ bag.
- Place the bag in a warm environment. Wait a consistent amount of time for the soil to reach “ambient” conditions (usually 15 minutes).
- Insert the top of the PID into a very small slit in the bag.
- Take a PID reading and record the data.

A.5.2 Visual Observation

Visual observations of soil samples and cuttings were recorded in the boring log or in the field logbook. Indications of contamination may include:

- Black, tarry substances
- Oily or shiny soil
- Metallic flakes

- Free product petroleum or organic hydrocarbons
- Gray, pink, red, or black discolorations

A.5.3 Odors

Unusual odors, if encountered, were recorded when noted during drilling or sampling. Soil was not intentionally smelled for contamination. Soil was not tasted for classification purposes.

A.5.4 Field Screening Documentation

During screening, the following items were recorded:

- Type of measurement/observation
- Depth
- Time of measurement or observation
- Possible source
- Description of odor (petroleum, decaying organics, creosote, cedar, etc.)

A.6 ANALYTICAL METHODS

Selected soil samples were analyzed for:

- Diesel-range and oil-range total petroleum hydrocarbons (TPH-D and TPH-O) by Northwest Total Petroleum Hydrocarbons (NWTPH) Diesel Extended (NWTPH-Dx);
- Gasoline-range total petroleum hydrocarbons (TPH-G) by NWTPH-Gx;
- Volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Method 8260D;
- Semi-volatile organics (SVOCs) by EPA Method 8270E-SIM; and
- Metals including antimony, arsenic, barium, cadmium, chromium, lead, mercury, nickel, selenium, silver, and zinc, by EPA Methods 6020B and 7471B;

Selected groundwater samples were analyzed for:

- TPH-D and TPH-O by NWTPH-Dx;
- TPH-D and TPH-O by NWTPH-Dx with silica gel cleanup;
- TPH-G by NWTPH-Gx;
- VOCs by EPA Method 8260D;
- SVOCs by EPA Method 8270E-SIM; and

- Total and dissolved metals including arsenic, barium, cadmium, chromium, lead, mercury, nickel, selenium, silver, and zinc, by EPA Methods 6020B and 7470A.

A.7 DECONTAMINATION METHODS

The primary objective of the decontamination process is to reduce the potential for the accidental introduction of contaminants to non-contaminated areas or samples. This section describes the methods associated with decontamination of field equipment.

A.7.1 Direct-Push Probe

Equipment used during soil activities was steam cleaned prior to use. Following decontamination, caution was taken to keep the equipment off the ground by placing the equipment on clean, plastic sheeting or equivalent. Sampling equipment such as steel casings were decontaminated between drilling locations if they were to be reused. The direct-push equipment and samplers were decontaminated at the site at the end of sampling activities.

A.7.2 Sampling Equipment

Groundwater and soil sampling equipment was cleaned prior to and at the completion of each location. Wherever possible, sampling equipment was dedicated to a single location to reduce potential cross contamination. Other non-dedicated sampling equipment used during the field activities was decontaminated as follows:

- Remove gross contamination and particulate matter.
- Wash thoroughly with Alconox™ or similar non-phosphate detergent plus tap water or designated decontamination water supply source.
- Rinse equipment thoroughly with distilled or deionized water.

A.8 INVESTIGATION-DERIVED WASTE (IDW)

IDW is waste generated during sampling activities. IDW that was generated during these sampling activities included soil cuttings, development water, purge water, and decontamination water. IDW was placed into steel drums. The drums are temporarily stored on the drilling subcontractor's storage lot, pending pickup.

Miscellaneous IDW consisted of used personal protective equipment (PPE), disposable sampling equipment (spoons, tubing, etc.), and other wastes that originated from site activities. This IDW was placed in doubled, heavy-duty plastic bags. The waste PPE and

disposable sampling equipment was disposed of in a dumpster at the probing subcontractor's facility and the Shannon & Wilson offices.

APPENDIX A: FIELD METHODS AND EXPLORATION LOGS

Field Sampling Data Sheet - Soil

 Project Name: Chehalis Fire Station
 Project Number: 104983-004

 Date Sampled: 6/2/20
 Sampled By: _____

	Sample #:	GP-1-S	GP-2-10	GP-1-15	GP-1-20
	Time:	1304	1315 1315	1325 1325	1350
LOCATION	Location:	Cascade Traders	→	→	→
	Depth:	5'	10'	15'	20'
SAMPLING	Sampling Method:	Direct Push	→	→	→
	Containers (type/size):	2-40ml; 1-8oz	→	→	→
	# of Containers:	3	→	→	→
	Composited (Yes/No):	Yes	→	→	→
	Cooled by:	Ice	→	→	→
SAMPLING DESCRIPTION	Soil Description/ Classification	Sandy Clay w/ gravel	gravelly clay	Clay/sand	Clay
	PID Cond:	7.3	9.8	7.7	
	Odor:				
	Sheen:				
DUPLICATE	QA Duplicate #:				
	QC Duplicate #:				
DISTRIBUTION	Analytical Lab (Yes/No):	Yes	Yes	Yes	Yes
	Laboratory Name:	Pace National	Pace National	Pace National	Pace National
	Archived (Yes/No):				
	Other:				
Comments/Diagrams					

Field Sampling Data Sheet - Soil

 Project Name: Chehalis Fire Station
 Project Number: 104983-004

 Date Sampled: 6/24/20
 Sampled By: TUM

		Sample #:	GP-2-5	GP-2-10	GP-2-15	
		Time:	1203	1210	1238	
LOCATION	Location:	Cascade Traders	→	→		
	Depth:	5'	10'	15'		
SAMPLING	Sampling Method:	Direct Push	→	→		
	Containers (type/size):	2-40ml; 1-8oz	→	→		
	# of Containers:	3	→	→		
	Composited (Yes/No):	Yes	→	→		
	Cooled by:	Ice	→	→		
SAMPLING DESCRIPTION	Soil Description/ Classification	Gravelly clay	Gravelly clay	Gravelly CLAY		
	PID Color :	4.0	4.6	0.5		
	Odor:					
	Sheen:					
DUPLICATE	QA Duplicate #:					
	QC Duplicate #:					
DISTRIBUTION	Analytical Lab (Yes/No):	Yes	Yes	Yes	Yes	
	Laboratory Name:	Pace National	Pace National	Pace National	Pace National	
	Archived (Yes/No):					
	Other:					
Comments/Diagrams				Moved hole 15' South of current		



SHANNON & WILSON, INC.
 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Field Sampling Data Sheet - Soil

Project Name: Chehalis Fire Station
 Project Number: 104983-004

Date Sampled: 6/2/20
 Sampled By: CMM

	Sample #:	GP-3-5	GP-3-10	GP-3-15	
	Time:	1100	1010	1120	
LOCATION	Location:	Cascade Traders	→	→	
	Depth:	5'	10'	15'	
SAMPLING	Sampling Method:	Direct Push	→	→	
	Containers (type/size):	2-40ml; 1-8oz	→	→	
	# of Containers:	3	→	→	
	Composited (Yes/No):	Yes	→	→	
	Cooled by:	Ice	→	→	
SAMPLING DESCRIPTION	Soil Description/ Classification				
	PID Color :	10.0	11.0	9.7	
	Odor:				
	Sheen:				
DUPLICATE	QA Duplicate #:				
	QC Duplicate #:				
DISTRIBUTION	Analytical Lab (Yes/No):	Yes	Yes	Yes	Yes
	Laboratory Name:	Pace National	Pace National	Pace National	Pace National
	Archived (Yes/No):				
	Other:				
Comments/Diagrams					



SHANNON & WILSON, INC.
 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Field Sampling Data Sheet - Soil

Project Name: Chehalis Fire Station
 Project Number: 104983-004

Date Sampled: 6/2/20
 Sampled By: CMM

	Sample #:	GP-4-5	GP-4-10	GP-4-15	
	Time:	1020 1020	1024	1030	
LOCATION	Location:	Cascade Trader	→	→	
	Depth:	5'	10'	15'	
SAMPLING	Sampling Method:	Direct Push	→	→	
	Containers (type/size):	2-40ml; 1-8oz	→	→	
	# of Containers:	3	→	→	
	Composited (Yes/No):	Yes	→	→	
	Cooled by:	Ice	→	→	
SAMPLING DESCRIPTION	Soil Description/ Classification	Clay	Gravelly Clay	Clay Clay	
	PI	5.5 5.5	3.7	4.7	
	Color:				
	Odor:				
	Sheen:				
DUPLICATE	QA Duplicate #:				
	QC Duplicate #:				
DISTRIBUTION	Analytical Lab (Yes/No):	Yes	Yes	Yes	Yes
	Laboratory Name:	Pace National	Pace National	Pace National	Pace National
	Archived (Yes/No):				
	Other:				
Comments/Diagrams					



SHANNON & WILSON, INC.
 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Field Sampling Data Sheet - Soil

Project Name: Chehalis Fire Station
 Project Number: 104983-004

Date Sampled: 6/2/20
 Sampled By: CMM

	Sample #:	GP-5-5	GP-5-10	GP-5-15	
	Time:	0933	0939	0950	
LOCATION	Location:	Cascade Trader	→	→	
	Depth:	5'	10'	15'	
SAMPLING	Sampling Method:	Direct Push	→	→	
	Containers (type/size):	2-40ml, 1-8oz	→	→	
	# of Containers:	3	→	→	
	Composited (Yes/No):	Yes	→	→	
	Cooled by:	Ice	→	→	
SAMPLING DESCRIPTION	Soil Description/ Classification	Clay	Clayey Gravel	Clayey Gravelly Clay	
	PID: Color:	1.2 1.2	2.8	1.9	
	Odor:				
	Sheen:				
DUPLICATE	QA Duplicate #:				
	QC Duplicate #:				
DISTRIBUTION	Analytical Lab (Yes/No):	Yes	Yes	Yes	Yes
	Laboratory Name:	Pace National	Pace National	Pace National	Pace National
	Archived (Yes/No):				
	Other:				
Comments/Diagrams					

FIELD SAMPLING DATA SHEET



3990 Collins Way, Suite #100, Lake Oswego, Oregon 97035
Phone: (503) 210-4750

Client: Rice Fergus Miller	Date: 6/2/20
Project No.: 104983-004	Boring I.D.: GP-1
Site Name: Chehalis Fire Station	Sample Number: GP-1-GW
Site Location: Chehalis, Washington	Weather:

Groundwater Sampling

Date	Time	Depth to Water	Measuring Point	Depth to Bottom	Casing Vol.	Purge Vol.
6/2/20	1500	14.7' bgs				~1/3 gal

Purging/Sampling Method

Water-Quality Parameters

Sampling Interval	DTW (feet)	Time	Volume Purged (gallons)	pH	Conductivity (mS/cm or μ S/cm)	Temp. (C°)	Dissolved O ₂ (mg/L)	ORP (mV)	Color/Clarity
1									
2									
3									
4									
5									
6									
7									

Bailed Dry?: _____ Odor: _____ Sheen: _____

Field QA/QC Samples Collected: _____

Borehole Sampling

Analytical Analysis	Date/Time	Sampling Method	Container			Sampling Depth:		
			Type	Volume	Number	Filtered (Y/N)	Preservative	Iced (Y/N)

Notes

15-20 screen location; 10-15' kept casing
14' 8' to H₂O bgs

Total No. of Bottles 12 Sampler _____ Signature _____

FIELD SAMPLING DATA SHEET



3990 Collins Way, Suite #100, Lake Oswego, Oregon 97035
Phone: (503) 210-4750

Client: Rice Fergus Miller	Date: 6/2/20
Project No.: 104983-004	Boring I.D.: GP-2
Site Name: Chehalis Fire Station	Sample Number: GP-2-GW
Site Location: Chehalis, Washington	Weather:

Groundwater Sampling

Date	Time	Depth to Water	Measuring Point	Depth to Bottom	Casing Vol.	Purge Vol.
6/2/20	1324	10.2' bgs				~1/3 gal

Purging/Sampling Method

Water-Quality Parameters

Sampling Interval	DTW (feet)	Time	Volume Purged (gallons)	pH	Conductivity (mS/cm or μ S/cm)	Temp. (C°)	Dissolved O ₂ (mg/L)	ORP (mV)	Color/Clarity
1									
2									
3									
4									
5									
6									
7									

Bailed Dry?: _____ Odor: _____ Sheen: _____

Field QA/QC Samples Collected: _____

Borehole Sampling

Analytical Analysis	Date/Time	Sampling Method	Container			Sampling Depth:		
			Type	Volume	Number	Filtered (Y/N)	Preservative	Iced (Y/N)

Notes

10' 2" bgs #26

Total No. of Bottles 12 Sampler _____ Signature _____

FIELD SAMPLING DATA SHEET



3990 Collins Way, Suite #100, Lake Oswego, Oregon 97035
Phone: (503) 210-4750

Client: Rice Fergus Miller	Date: 6/2/20
Project No.: 104983-004	Boring I.D.: GP-3
Site Name: Chehalis Fire Station	Sample Number: GP-3-GW
Site Location: Chehalis, Washington	Weather:

Groundwater Sampling

Date	Time	Depth to Water	Measuring Point	Depth to Bottom	Casing Vol.	Purge Vol.
6/2/20	1201	6.5' bgs				1 gal

Purging/Sampling Method

Water-Quality Parameters

Sampling Interval	DTW (feet)	Time	Volume Purged (gallons)	pH	Conductivity (mS/cm or μ S/cm)	Temp. (C°)	Dissolved O ₂ (mg/L)	ORP (mV)	Color/Clarity
1									
2									
3									
4									
5									
6									
7									

Bailed Dry?: _____ Odor: _____ Sheen: _____

Field QA/QC Samples Collected: _____

Borehole Sampling

Analytical Analysis	Date/Time	Sampling Method	Container			Sampling Depth:		
			Type	Volume	Number	Filtered (Y/N)	Preservative	Iced (Y/N)

Notes

6' 6" bgs

Total No. of Bottles 12 Sampler _____ Signature _____

FIELD SAMPLING DATA SHEET



3990 Collins Way, Suite #100, Lake Oswego, Oregon 97035
Phone: (503) 210-4750

Client: Rice Fergus Miller	Date: 6/2/20
Project No.: 104983-004	Boring I.D.: GP-4
Site Name: Chehalis Fire Station	Sample Number: GP-4-GW
Site Location: Chehalis, Washington	Weather:

Groundwater Sampling

Date	Time	Depth to Water	Measuring Point	Depth to Bottom	Casing Vol.	Purge Vol.
6/2/20	1114	1.8'				1 gal.

Purging/Sampling Method

Water-Quality Parameters

Sampling Interval	DTW (feet)	Time	Volume Purged (gallons)	pH	Conductivity (mS/cm or μ S/cm)	Temp. (C°)	Dissolved O ₂ (mg/L)	ORP (mV)	Color/Clarity
1									
2									
3									
4									
5									
6									
7									

Bailed Dry?: _____ Odor: _____ Sheen: _____

Field QA/QC Samples Collected: _____

Borehole Sampling

Analytical Analysis	Date/Time	Sampling Method	Container			Sampling Depth:		
			Type	Volume	Number	Filtered (Y/N)	Preservative	Iced (Y/N)

Notes

4' 6"

2.8' casing above ground

Could not push casing past 2.2'

Purged ~1 gal

Looked like H₂O was percolating to surface

Total No. of Bottles 12 Sampler _____ Signature _____

Appendix B

Analytical Laboratory Reports

CONTENTS

- Pace Analytical, Laboratory Report No. L1225601
- Pace Analytical, Laboratory Report No. L1225553
- Pace Analytical, Laboratory Report No. L1231378

June 11, 2020

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Shannon & Wilson - OR

Sample Delivery Group: L1225553
Samples Received: 06/04/2020
Project Number: 104983-004
Description:
Site: CHEHALIS, WA
Report To: Peter Shingledecker
3990 Collins Way, Ste. 100
Lake Oswego, OR 97035

Entire Report Reviewed By:

Brian Ford

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace 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.



Cp: Cover Page	1	1 Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	2 Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	3 Ss
GP-1-GW L1225553-01	5	
GP-2-GW L1225553-02	8	4 Cn
GP-3-GW L1225553-03	11	5 Sr
GP-4-GW L1225553-04	14	
Qc: Quality Control Summary	17	6 Qc
Mercury by Method 7470A	17	
Metals (ICPMS) by Method 6020B	19	7 Gl
Volatile Organic Compounds (GC) by Method NWTPHGX	23	8 Al
Volatile Organic Compounds (GC/MS) by Method 8260D	24	
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	28	
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	30	9 Sc
Gl: Glossary of Terms	32	
Al: Accreditations & Locations	33	
Sc: Sample Chain of Custody	34	

SAMPLE SUMMARY

GP-1-GW L1225553-01 GW

Collected by
Christine Maher
Collected date/time
06/02/20 15:00
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1487465	1	06/05/20 10:33	06/05/20 20:32	SD	Mt. Juliet, TN
Mercury by Method 7470A	WG1487466	1	06/05/20 10:30	06/05/20 19:35	SD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488761	1	06/10/20 14:07	06/10/20 19:07	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488771	1	06/09/20 08:59	06/09/20 16:28	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488771	1	06/09/20 08:59	06/09/20 17:58	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488771	5	06/09/20 08:59	06/09/20 19:06	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488437	1	06/07/20 23:10	06/07/20 23:10	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1490346	1	06/10/20 22:33	06/10/20 22:33	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1488566	1	06/08/20 17:05	06/09/20 09:41	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1488878	1	06/08/20 17:06	06/09/20 01:25	DMG	Mt. Juliet, TN

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

GP-2-GW L1225553-02 GW

Collected by
Christine Maher
Collected date/time
06/02/20 13:24
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1487465	1	06/05/20 10:33	06/05/20 20:34	SD	Mt. Juliet, TN
Mercury by Method 7470A	WG1487466	1	06/05/20 10:30	06/05/20 19:37	SD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488761	1	06/10/20 14:07	06/10/20 19:11	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488771	1	06/09/20 08:59	06/09/20 16:31	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488771	1	06/09/20 08:59	06/09/20 18:02	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488437	1	06/07/20 23:34	06/07/20 23:34	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1490346	1	06/10/20 22:52	06/10/20 22:52	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1488566	1	06/08/20 17:05	06/09/20 10:01	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1488878	1	06/08/20 17:06	06/09/20 01:45	DMG	Mt. Juliet, TN

GP-3-GW L1225553-03 GW

Collected by
Christine Maher
Collected date/time
06/02/20 12:01
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1487465	1	06/05/20 10:33	06/05/20 20:36	SD	Mt. Juliet, TN
Mercury by Method 7470A	WG1487466	1	06/05/20 10:30	06/05/20 19:45	SD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488761	1	06/10/20 14:07	06/10/20 19:14	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488771	1	06/09/20 08:59	06/09/20 16:35	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488771	1	06/09/20 08:59	06/09/20 18:06	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488437	1	06/07/20 23:58	06/07/20 23:58	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1490346	1	06/10/20 23:11	06/10/20 23:11	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1487492	1	06/05/20 14:13	06/09/20 22:11	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1488878	1	06/08/20 17:06	06/09/20 02:05	DMG	Mt. Juliet, TN

GP-4-GW L1225553-04 GW

Collected by
Christine Maher
Collected date/time
06/02/20 11:14
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1487465	1	06/05/20 10:33	06/05/20 20:38	SD	Mt. Juliet, TN
Mercury by Method 7470A	WG1487466	1	06/05/20 10:30	06/05/20 19:47	SD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488761	1	06/10/20 14:07	06/10/20 19:18	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488771	1	06/09/20 08:59	06/09/20 16:38	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488771	5	06/09/20 08:59	06/09/20 18:17	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488771	5	06/09/20 08:59	06/09/20 19:09	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488437	1	06/08/20 00:22	06/08/20 00:22	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1490346	1	06/10/20 23:30	06/10/20 23:30	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1487492	1	06/05/20 14:13	06/11/20 02:28	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1488878	2	06/08/20 17:06	06/09/20 02:25	DMG	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



Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	06/05/2020 20:32	WG1487465
Mercury,Dissolved	ND		0.200	1	06/05/2020 19:35	WG1487466

1 Cp

2 Tc

3 Ss

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Arsenic	26.0		10.0	5	06/09/2020 19:06	WG1488771
Arsenic,Dissolved	ND		2.00	1	06/10/2020 19:07	WG1488761
Barium	1200		20.0	1	06/09/2020 16:28	WG1488771
Barium,Dissolved	130		20.0	1	06/10/2020 19:07	WG1488761
Cadmium	1.08		1.00	1	06/09/2020 16:28	WG1488771
Cadmium,Dissolved	ND		1.00	1	06/10/2020 19:07	WG1488761
Chromium	123		10.0	5	06/09/2020 19:06	WG1488771
Chromium,Dissolved	ND		2.00	1	06/10/2020 19:07	WG1488761
Copper	56.0		5.00	1	06/09/2020 17:58	WG1488771
Copper,Dissolved	5.81		5.00	1	06/10/2020 19:07	WG1488761
Lead	52.1		5.00	1	06/09/2020 16:28	WG1488771
Lead,Dissolved	ND		5.00	1	06/10/2020 19:07	WG1488761
Nickel	88.9		10.0	5	06/09/2020 19:06	WG1488771
Nickel,Dissolved	4.57		2.00	1	06/10/2020 19:07	WG1488761
Selenium	5.36		2.00	1	06/09/2020 16:28	WG1488771
Selenium,Dissolved	ND		2.00	1	06/10/2020 19:07	WG1488761
Silver	ND		2.00	1	06/09/2020 16:28	WG1488771
Silver,Dissolved	ND		2.00	1	06/10/2020 19:07	WG1488761
Zinc	731		125	5	06/09/2020 19:06	WG1488771
Zinc,Dissolved	ND		25.0	1	06/10/2020 19:07	WG1488761

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	06/07/2020 23:10	WG1488437
(S) a, a, a-Trifluorotoluene(FID)	96.3		78.0-120		06/07/2020 23:10	WG1488437

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	2.50		1.00	1	06/10/2020 22:33	WG1490346
Acrylonitrile	ND		0.500	1	06/10/2020 22:33	WG1490346
Benzene	ND		0.0400	1	06/10/2020 22:33	WG1490346
Bromobenzene	ND		0.500	1	06/10/2020 22:33	WG1490346
Bromodichloromethane	ND		0.100	1	06/10/2020 22:33	WG1490346
Bromoform	ND		1.00	1	06/10/2020 22:33	WG1490346
Bromomethane	ND		0.500	1	06/10/2020 22:33	WG1490346
n-Butylbenzene	ND		0.500	1	06/10/2020 22:33	WG1490346
sec-Butylbenzene	ND		0.500	1	06/10/2020 22:33	WG1490346
tert-Butylbenzene	ND		0.200	1	06/10/2020 22:33	WG1490346
Carbon tetrachloride	ND		0.200	1	06/10/2020 22:33	WG1490346
Chlorobenzene	ND		0.100	1	06/10/2020 22:33	WG1490346
Chlorodibromomethane	ND		0.100	1	06/10/2020 22:33	WG1490346
Chloroethane	ND		0.200	1	06/10/2020 22:33	WG1490346
Chloroform	ND		0.100	1	06/10/2020 22:33	WG1490346
Chloromethane	ND		0.500	1	06/10/2020 22:33	WG1490346
2-Chlorotoluene	ND		0.100	1	06/10/2020 22:33	WG1490346
4-Chlorotoluene	ND		0.200	1	06/10/2020 22:33	WG1490346



Collected date/time: 06/02/20 15:00

L122553

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	ND		1.00	1	06/10/2020 22:33	WG1490346
1,2-Dibromoethane	ND		0.100	1	06/10/2020 22:33	WG1490346
Dibromomethane	ND		0.200	1	06/10/2020 22:33	WG1490346
1,2-Dichlorobenzene	ND		0.200	1	06/10/2020 22:33	WG1490346
1,3-Dichlorobenzene	ND		0.200	1	06/10/2020 22:33	WG1490346
1,4-Dichlorobenzene	ND		0.200	1	06/10/2020 22:33	WG1490346
Dichlorodifluoromethane	ND		0.100	1	06/10/2020 22:33	WG1490346
1,1-Dichloroethane	ND		0.100	1	06/10/2020 22:33	WG1490346
1,2-Dichloroethane	ND		0.100	1	06/10/2020 22:33	WG1490346
1,1-Dichloroethene	ND		0.100	1	06/10/2020 22:33	WG1490346
cis-1,2-Dichloroethene	ND		0.100	1	06/10/2020 22:33	WG1490346
trans-1,2-Dichloroethene	ND		0.200	1	06/10/2020 22:33	WG1490346
1,2-Dichloropropane	ND		0.200	1	06/10/2020 22:33	WG1490346
1,1-Dichloropropene	ND		0.100	1	06/10/2020 22:33	WG1490346
1,3-Dichloropropane	ND		0.200	1	06/10/2020 22:33	WG1490346
cis-1,3-Dichloropropene	ND		0.100	1	06/10/2020 22:33	WG1490346
trans-1,3-Dichloropropene	ND		0.200	1	06/10/2020 22:33	WG1490346
2,2-Dichloropropane	ND		0.100	1	06/10/2020 22:33	WG1490346
Di-isopropyl ether	ND		0.0400	1	06/10/2020 22:33	WG1490346
Ethylbenzene	ND		0.100	1	06/10/2020 22:33	WG1490346
Hexachloro-1,3-butadiene	ND		1.00	1	06/10/2020 22:33	WG1490346
Iodomethane	ND		0.500	1	06/10/2020 22:33	WG1490346
Isopropylbenzene	ND		0.100	1	06/10/2020 22:33	WG1490346
p-Isopropyltoluene	ND		0.200	1	06/10/2020 22:33	WG1490346
2-Butanone (MEK)	ND		1.00	1	06/10/2020 22:33	WG1490346
Methylene Chloride	ND		1.00	1	06/10/2020 22:33	WG1490346
4-Methyl-2-pentanone (MIBK)	ND		1.00	1	06/10/2020 22:33	WG1490346
Methyl tert-butyl ether	ND		0.0400	1	06/10/2020 22:33	WG1490346
Naphthalene	ND		0.500	1	06/10/2020 22:33	WG1490346
n-Propylbenzene	ND		0.200	1	06/10/2020 22:33	WG1490346
Styrene	ND		0.500	1	06/10/2020 22:33	WG1490346
1,1,1,2-Tetrachloroethane	ND		0.100	1	06/10/2020 22:33	WG1490346
1,1,2,2-Tetrachloroethane	ND		0.100	1	06/10/2020 22:33	WG1490346
1,1,2-Trichlorotrifluoroethane	ND		0.100	1	06/10/2020 22:33	WG1490346
Tetrachloroethene	ND		0.100	1	06/10/2020 22:33	WG1490346
Toluene	ND		0.200	1	06/10/2020 22:33	WG1490346
1,2,3-Trichlorobenzene	ND		0.500	1	06/10/2020 22:33	WG1490346
1,2,4-Trichlorobenzene	ND		0.500	1	06/10/2020 22:33	WG1490346
1,1,1-Trichloroethane	ND		0.100	1	06/10/2020 22:33	WG1490346
1,1,2-Trichloroethane	ND		0.100	1	06/10/2020 22:33	WG1490346
Trichloroethene	ND		0.0400	1	06/10/2020 22:33	WG1490346
Trichlorofluoromethane	ND		0.100	1	06/10/2020 22:33	WG1490346
1,2,3-Trichloropropane	ND		0.500	1	06/10/2020 22:33	WG1490346
1,2,4-Trimethylbenzene	ND		0.200	1	06/10/2020 22:33	WG1490346
1,2,3-Trimethylbenzene	ND		0.200	1	06/10/2020 22:33	WG1490346
1,3,5-Trimethylbenzene	ND		0.200	1	06/10/2020 22:33	WG1490346
Vinyl chloride	ND		0.100	1	06/10/2020 22:33	WG1490346
Xylenes, Total	ND		0.260	1	06/10/2020 22:33	WG1490346
(S) Toluene-d8	103		75.0-131		06/10/2020 22:33	WG1490346
(S) 4-Bromofluorobenzene	107		67.0-138		06/10/2020 22:33	WG1490346
(S) 1,2-Dichloroethane-d4	105		70.0-130		06/10/2020 22:33	WG1490346

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 15:00

L1225553

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	242		200	1	06/09/2020 09:41	WG1488566
Residual Range Organics (RRO)	360		250	1	06/09/2020 09:41	WG1488566
<i>(S) o-Terphenyl</i>	75.8		52.0-156		06/09/2020 09:41	WG1488566

1 Cp

2 Tc

3 Ss

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Anthracene	ND		0.0500	1	06/09/2020 01:25	WG1488878
Acenaphthene	ND		0.0500	1	06/09/2020 01:25	WG1488878
Acenaphthylene	ND		0.0500	1	06/09/2020 01:25	WG1488878
Benzo(a)anthracene	ND		0.0500	1	06/09/2020 01:25	WG1488878
Benzo(a)pyrene	ND		0.0500	1	06/09/2020 01:25	WG1488878
Benzo(b)fluoranthene	ND		0.0500	1	06/09/2020 01:25	WG1488878
Benzo(g,h,i)perylene	ND		0.0500	1	06/09/2020 01:25	WG1488878
Benzo(k)fluoranthene	ND		0.0500	1	06/09/2020 01:25	WG1488878
Chrysene	ND		0.0500	1	06/09/2020 01:25	WG1488878
Dibenz(a,h)anthracene	ND		0.0500	1	06/09/2020 01:25	WG1488878
Fluoranthene	ND		0.100	1	06/09/2020 01:25	WG1488878
Fluorene	ND		0.0500	1	06/09/2020 01:25	WG1488878
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	06/09/2020 01:25	WG1488878
Naphthalene	ND		0.250	1	06/09/2020 01:25	WG1488878
Phenanthrene	ND		0.0500	1	06/09/2020 01:25	WG1488878
Pyrene	ND		0.0500	1	06/09/2020 01:25	WG1488878
1-Methylnaphthalene	ND		0.250	1	06/09/2020 01:25	WG1488878
2-Methylnaphthalene	ND		0.250	1	06/09/2020 01:25	WG1488878
2-Chloronaphthalene	ND		0.250	1	06/09/2020 01:25	WG1488878
<i>(S) Nitrobenzene-d5</i>	76.3		31.0-160		06/09/2020 01:25	WG1488878
<i>(S) 2-Fluorobiphenyl</i>	84.7		48.0-148		06/09/2020 01:25	WG1488878
<i>(S) p-Terphenyl-d14</i>	86.3		37.0-146		06/09/2020 01:25	WG1488878

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	06/05/2020 20:34	WG1487465
Mercury,Dissolved	ND		0.200	1	06/05/2020 19:37	WG1487466

1 Cp

2 Tc

3 Ss

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Arsenic	12.2		2.00	1	06/09/2020 16:31	WG1488771
Arsenic,Dissolved	ND		2.00	1	06/10/2020 19:11	WG1488761
Barium	487		20.0	1	06/09/2020 16:31	WG1488771
Barium,Dissolved	96.6		20.0	1	06/10/2020 19:11	WG1488761
Cadmium	ND		1.00	1	06/09/2020 16:31	WG1488771
Cadmium,Dissolved	ND		1.00	1	06/10/2020 19:11	WG1488761
Chromium	72.4		2.00	1	06/09/2020 16:31	WG1488771
Chromium,Dissolved	ND		2.00	1	06/10/2020 19:11	WG1488761
Copper	105		5.00	1	06/09/2020 18:02	WG1488771
Copper,Dissolved	5.03		5.00	1	06/10/2020 19:11	WG1488761
Lead	18.6		5.00	1	06/09/2020 16:31	WG1488771
Lead,Dissolved	ND		5.00	1	06/10/2020 19:11	WG1488761
Nickel	37.1		2.00	1	06/09/2020 16:31	WG1488771
Nickel,Dissolved	3.88		2.00	1	06/10/2020 19:11	WG1488761
Selenium	ND		2.00	1	06/09/2020 16:31	WG1488771
Selenium,Dissolved	ND		2.00	1	06/10/2020 19:11	WG1488761
Silver	ND		2.00	1	06/09/2020 16:31	WG1488771
Silver,Dissolved	ND		2.00	1	06/10/2020 19:11	WG1488761
Zinc	119		25.0	1	06/09/2020 16:31	WG1488771
Zinc,Dissolved	ND		25.0	1	06/10/2020 19:11	WG1488761

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	06/07/2020 23:34	WG1488437
(S) a, a, a-Trifluorotoluene(FID)	94.1		78.0-120		06/07/2020 23:34	WG1488437

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	25.8		1.00	1	06/10/2020 22:52	WG1490346
Acrylonitrile	ND		0.500	1	06/10/2020 22:52	WG1490346
Benzene	ND		0.0400	1	06/10/2020 22:52	WG1490346
Bromobenzene	ND		0.500	1	06/10/2020 22:52	WG1490346
Bromodichloromethane	ND		0.100	1	06/10/2020 22:52	WG1490346
Bromoform	ND		1.00	1	06/10/2020 22:52	WG1490346
Bromomethane	ND		0.500	1	06/10/2020 22:52	WG1490346
n-Butylbenzene	ND		0.500	1	06/10/2020 22:52	WG1490346
sec-Butylbenzene	ND		0.500	1	06/10/2020 22:52	WG1490346
tert-Butylbenzene	ND		0.200	1	06/10/2020 22:52	WG1490346
Carbon tetrachloride	ND		0.200	1	06/10/2020 22:52	WG1490346
Chlorobenzene	ND		0.100	1	06/10/2020 22:52	WG1490346
Chlorodibromomethane	ND		0.100	1	06/10/2020 22:52	WG1490346
Chloroethane	ND		0.200	1	06/10/2020 22:52	WG1490346
Chloroform	ND		0.100	1	06/10/2020 22:52	WG1490346
Chloromethane	ND		0.500	1	06/10/2020 22:52	WG1490346
2-Chlorotoluene	ND		0.100	1	06/10/2020 22:52	WG1490346
4-Chlorotoluene	ND		0.200	1	06/10/2020 22:52	WG1490346



Collected date/time: 06/02/20 13:24

L122553

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	ND		1.00	1	06/10/2020 22:52	WG1490346
1,2-Dibromoethane	ND		0.100	1	06/10/2020 22:52	WG1490346
Dibromomethane	ND		0.200	1	06/10/2020 22:52	WG1490346
1,2-Dichlorobenzene	ND		0.200	1	06/10/2020 22:52	WG1490346
1,3-Dichlorobenzene	ND		0.200	1	06/10/2020 22:52	WG1490346
1,4-Dichlorobenzene	ND		0.200	1	06/10/2020 22:52	WG1490346
Dichlorodifluoromethane	ND		0.100	1	06/10/2020 22:52	WG1490346
1,1-Dichloroethane	ND		0.100	1	06/10/2020 22:52	WG1490346
1,2-Dichloroethane	ND		0.100	1	06/10/2020 22:52	WG1490346
1,1-Dichloroethene	ND		0.100	1	06/10/2020 22:52	WG1490346
cis-1,2-Dichloroethene	ND		0.100	1	06/10/2020 22:52	WG1490346
trans-1,2-Dichloroethene	ND		0.200	1	06/10/2020 22:52	WG1490346
1,2-Dichloropropane	ND		0.200	1	06/10/2020 22:52	WG1490346
1,1-Dichloropropene	ND		0.100	1	06/10/2020 22:52	WG1490346
1,3-Dichloropropane	ND		0.200	1	06/10/2020 22:52	WG1490346
cis-1,3-Dichloropropene	ND		0.100	1	06/10/2020 22:52	WG1490346
trans-1,3-Dichloropropene	ND		0.200	1	06/10/2020 22:52	WG1490346
2,2-Dichloropropane	ND		0.100	1	06/10/2020 22:52	WG1490346
Di-isopropyl ether	ND		0.0400	1	06/10/2020 22:52	WG1490346
Ethylbenzene	ND		0.100	1	06/10/2020 22:52	WG1490346
Hexachloro-1,3-butadiene	ND		1.00	1	06/10/2020 22:52	WG1490346
Iodomethane	ND		0.500	1	06/10/2020 22:52	WG1490346
Isopropylbenzene	ND		0.100	1	06/10/2020 22:52	WG1490346
p-Isopropyltoluene	ND		0.200	1	06/10/2020 22:52	WG1490346
2-Butanone (MEK)	ND		1.00	1	06/10/2020 22:52	WG1490346
Methylene Chloride	ND		1.00	1	06/10/2020 22:52	WG1490346
4-Methyl-2-pentanone (MIBK)	ND		1.00	1	06/10/2020 22:52	WG1490346
Methyl tert-butyl ether	ND		0.0400	1	06/10/2020 22:52	WG1490346
Naphthalene	ND		0.500	1	06/10/2020 22:52	WG1490346
n-Propylbenzene	ND		0.200	1	06/10/2020 22:52	WG1490346
Styrene	ND		0.500	1	06/10/2020 22:52	WG1490346
1,1,1,2-Tetrachloroethane	ND		0.100	1	06/10/2020 22:52	WG1490346
1,1,2,2-Tetrachloroethane	ND		0.100	1	06/10/2020 22:52	WG1490346
1,1,2-Trichlorotrifluoroethane	ND		0.100	1	06/10/2020 22:52	WG1490346
Tetrachloroethene	ND		0.100	1	06/10/2020 22:52	WG1490346
Toluene	ND		0.200	1	06/10/2020 22:52	WG1490346
1,2,3-Trichlorobenzene	ND		0.500	1	06/10/2020 22:52	WG1490346
1,2,4-Trichlorobenzene	ND		0.500	1	06/10/2020 22:52	WG1490346
1,1,1-Trichloroethane	ND		0.100	1	06/10/2020 22:52	WG1490346
1,1,2-Trichloroethane	ND		0.100	1	06/10/2020 22:52	WG1490346
Trichloroethene	ND		0.0400	1	06/10/2020 22:52	WG1490346
Trichlorofluoromethane	ND		0.100	1	06/10/2020 22:52	WG1490346
1,2,3-Trichloropropane	ND		0.500	1	06/10/2020 22:52	WG1490346
1,2,4-Trimethylbenzene	ND		0.200	1	06/10/2020 22:52	WG1490346
1,2,3-Trimethylbenzene	ND		0.200	1	06/10/2020 22:52	WG1490346
1,3,5-Trimethylbenzene	ND		0.200	1	06/10/2020 22:52	WG1490346
Vinyl chloride	ND		0.100	1	06/10/2020 22:52	WG1490346
Xylenes, Total	ND		0.260	1	06/10/2020 22:52	WG1490346
(S) Toluene-d8	102		75.0-131		06/10/2020 22:52	WG1490346
(S) 4-Bromofluorobenzene	105		67.0-138		06/10/2020 22:52	WG1490346
(S) 1,2-Dichloroethane-d4	106		70.0-130		06/10/2020 22:52	WG1490346

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 13:24

L1225553

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		200	1	06/09/2020 10:01	WG1488566
Residual Range Organics (RRO)	ND		250	1	06/09/2020 10:01	WG1488566
<i>(S) o-Terphenyl</i>	58.4		52.0-156		06/09/2020 10:01	WG1488566

1 Cp

2 Tc

3 Ss

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	06/09/2020 01:45	WG1488878
Acenaphthene	ND		0.0500	1	06/09/2020 01:45	WG1488878
Acenaphthylene	ND		0.0500	1	06/09/2020 01:45	WG1488878
Benzo(a)anthracene	ND		0.0500	1	06/09/2020 01:45	WG1488878
Benzo(a)pyrene	ND		0.0500	1	06/09/2020 01:45	WG1488878
Benzo(b)fluoranthene	ND		0.0500	1	06/09/2020 01:45	WG1488878
Benzo(g,h,i)perylene	ND		0.0500	1	06/09/2020 01:45	WG1488878
Benzo(k)fluoranthene	ND		0.0500	1	06/09/2020 01:45	WG1488878
Chrysene	ND		0.0500	1	06/09/2020 01:45	WG1488878
Dibenz(a,h)anthracene	ND		0.0500	1	06/09/2020 01:45	WG1488878
Fluoranthene	ND		0.100	1	06/09/2020 01:45	WG1488878
Fluorene	ND		0.0500	1	06/09/2020 01:45	WG1488878
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	06/09/2020 01:45	WG1488878
Naphthalene	ND		0.250	1	06/09/2020 01:45	WG1488878
Phenanthrene	ND		0.0500	1	06/09/2020 01:45	WG1488878
Pyrene	ND		0.0500	1	06/09/2020 01:45	WG1488878
1-Methylnaphthalene	ND		0.250	1	06/09/2020 01:45	WG1488878
2-Methylnaphthalene	ND		0.250	1	06/09/2020 01:45	WG1488878
2-Chloronaphthalene	ND		0.250	1	06/09/2020 01:45	WG1488878
<i>(S) Nitrobenzene-d5</i>	75.3		31.0-160		06/09/2020 01:45	WG1488878
<i>(S) 2-Fluorobiphenyl</i>	84.7		48.0-148		06/09/2020 01:45	WG1488878
<i>(S) p-Terphenyl-d14</i>	86.8		37.0-146		06/09/2020 01:45	WG1488878

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	06/05/2020 20:36	WG1487465
Mercury,Dissolved	ND		0.200	1	06/05/2020 19:45	WG1487466

1 Cp

2 Tc

3 Ss

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Arsenic	16.9		2.00	1	06/09/2020 16:35	WG1488771
Arsenic,Dissolved	ND		2.00	1	06/10/2020 19:14	WG1488761
Barium	1380		20.0	1	06/09/2020 16:35	WG1488771
Barium,Dissolved	158		20.0	1	06/10/2020 19:14	WG1488761
Cadmium	ND		1.00	1	06/09/2020 16:35	WG1488771
Cadmium,Dissolved	ND		1.00	1	06/10/2020 19:14	WG1488761
Chromium	140		2.00	1	06/09/2020 16:35	WG1488771
Chromium,Dissolved	ND		2.00	1	06/10/2020 19:14	WG1488761
Copper	219		5.00	1	06/09/2020 18:06	WG1488771
Copper,Dissolved	5.56		5.00	1	06/10/2020 19:14	WG1488761
Lead	50.3		5.00	1	06/09/2020 16:35	WG1488771
Lead,Dissolved	ND		5.00	1	06/10/2020 19:14	WG1488761
Nickel	70.0		2.00	1	06/09/2020 16:35	WG1488771
Nickel,Dissolved	2.86		2.00	1	06/10/2020 19:14	WG1488761
Selenium	3.45		2.00	1	06/09/2020 16:35	WG1488771
Selenium,Dissolved	ND		2.00	1	06/10/2020 19:14	WG1488761
Silver	ND		2.00	1	06/09/2020 16:35	WG1488771
Silver,Dissolved	ND		2.00	1	06/10/2020 19:14	WG1488761
Zinc	195		25.0	1	06/09/2020 16:35	WG1488771
Zinc,Dissolved	ND		25.0	1	06/10/2020 19:14	WG1488761

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	06/07/2020 23:58	WG1488437
(S) a, a, a-Trifluorotoluene(FID)	93.9		78.0-120		06/07/2020 23:58	WG1488437

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		1.00	1	06/10/2020 23:11	WG1490346
Acrylonitrile	ND		0.500	1	06/10/2020 23:11	WG1490346
Benzene	ND		0.0400	1	06/10/2020 23:11	WG1490346
Bromobenzene	ND		0.500	1	06/10/2020 23:11	WG1490346
Bromodichloromethane	ND		0.100	1	06/10/2020 23:11	WG1490346
Bromoform	ND		1.00	1	06/10/2020 23:11	WG1490346
Bromomethane	ND		0.500	1	06/10/2020 23:11	WG1490346
n-Butylbenzene	ND		0.500	1	06/10/2020 23:11	WG1490346
sec-Butylbenzene	ND		0.500	1	06/10/2020 23:11	WG1490346
tert-Butylbenzene	ND		0.200	1	06/10/2020 23:11	WG1490346
Carbon tetrachloride	ND		0.200	1	06/10/2020 23:11	WG1490346
Chlorobenzene	ND		0.100	1	06/10/2020 23:11	WG1490346
Chlorodibromomethane	ND		0.100	1	06/10/2020 23:11	WG1490346
Chloroethane	ND		0.200	1	06/10/2020 23:11	WG1490346
Chloroform	ND		0.100	1	06/10/2020 23:11	WG1490346
Chloromethane	ND		0.500	1	06/10/2020 23:11	WG1490346
2-Chlorotoluene	ND		0.100	1	06/10/2020 23:11	WG1490346
4-Chlorotoluene	ND		0.200	1	06/10/2020 23:11	WG1490346



Collected date/time: 06/02/20 12:01

L1225553

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	ND		1.00	1	06/10/2020 23:11	WG1490346
1,2-Dibromoethane	ND		0.100	1	06/10/2020 23:11	WG1490346
Dibromomethane	ND		0.200	1	06/10/2020 23:11	WG1490346
1,2-Dichlorobenzene	ND		0.200	1	06/10/2020 23:11	WG1490346
1,3-Dichlorobenzene	ND		0.200	1	06/10/2020 23:11	WG1490346
1,4-Dichlorobenzene	ND		0.200	1	06/10/2020 23:11	WG1490346
Dichlorodifluoromethane	ND		0.100	1	06/10/2020 23:11	WG1490346
1,1-Dichloroethane	ND		0.100	1	06/10/2020 23:11	WG1490346
1,2-Dichloroethane	ND		0.100	1	06/10/2020 23:11	WG1490346
1,1-Dichloroethene	ND		0.100	1	06/10/2020 23:11	WG1490346
cis-1,2-Dichloroethene	ND		0.100	1	06/10/2020 23:11	WG1490346
trans-1,2-Dichloroethene	ND		0.200	1	06/10/2020 23:11	WG1490346
1,2-Dichloropropane	ND		0.200	1	06/10/2020 23:11	WG1490346
1,1-Dichloropropene	ND		0.100	1	06/10/2020 23:11	WG1490346
1,3-Dichloropropane	ND		0.200	1	06/10/2020 23:11	WG1490346
cis-1,3-Dichloropropene	ND		0.100	1	06/10/2020 23:11	WG1490346
trans-1,3-Dichloropropene	ND		0.200	1	06/10/2020 23:11	WG1490346
2,2-Dichloropropane	ND		0.100	1	06/10/2020 23:11	WG1490346
Di-isopropyl ether	ND		0.0400	1	06/10/2020 23:11	WG1490346
Ethylbenzene	ND		0.100	1	06/10/2020 23:11	WG1490346
Hexachloro-1,3-butadiene	ND		1.00	1	06/10/2020 23:11	WG1490346
Iodomethane	ND		0.500	1	06/10/2020 23:11	WG1490346
Isopropylbenzene	ND		0.100	1	06/10/2020 23:11	WG1490346
p-Isopropyltoluene	ND		0.200	1	06/10/2020 23:11	WG1490346
2-Butanone (MEK)	ND		1.00	1	06/10/2020 23:11	WG1490346
Methylene Chloride	ND		1.00	1	06/10/2020 23:11	WG1490346
4-Methyl-2-pentanone (MIBK)	ND		1.00	1	06/10/2020 23:11	WG1490346
Methyl tert-butyl ether	ND		0.0400	1	06/10/2020 23:11	WG1490346
Naphthalene	ND		0.500	1	06/10/2020 23:11	WG1490346
n-Propylbenzene	ND		0.200	1	06/10/2020 23:11	WG1490346
Styrene	ND		0.500	1	06/10/2020 23:11	WG1490346
1,1,1,2-Tetrachloroethane	ND		0.100	1	06/10/2020 23:11	WG1490346
1,1,2,2-Tetrachloroethane	ND		0.100	1	06/10/2020 23:11	WG1490346
1,1,2-Trichlorotrifluoroethane	ND		0.100	1	06/10/2020 23:11	WG1490346
Tetrachloroethene	ND		0.100	1	06/10/2020 23:11	WG1490346
Toluene	ND		0.200	1	06/10/2020 23:11	WG1490346
1,2,3-Trichlorobenzene	ND		0.500	1	06/10/2020 23:11	WG1490346
1,2,4-Trichlorobenzene	ND		0.500	1	06/10/2020 23:11	WG1490346
1,1,1-Trichloroethane	ND		0.100	1	06/10/2020 23:11	WG1490346
1,1,2-Trichloroethane	ND		0.100	1	06/10/2020 23:11	WG1490346
Trichloroethene	ND		0.0400	1	06/10/2020 23:11	WG1490346
Trichlorofluoromethane	ND		0.100	1	06/10/2020 23:11	WG1490346
1,2,3-Trichloropropane	ND		0.500	1	06/10/2020 23:11	WG1490346
1,2,4-Trimethylbenzene	ND		0.200	1	06/10/2020 23:11	WG1490346
1,2,3-Trimethylbenzene	ND		0.200	1	06/10/2020 23:11	WG1490346
1,3,5-Trimethylbenzene	ND		0.200	1	06/10/2020 23:11	WG1490346
Vinyl chloride	ND		0.100	1	06/10/2020 23:11	WG1490346
Xylenes, Total	ND		0.260	1	06/10/2020 23:11	WG1490346
(S) Toluene-d8	103		75.0-131		06/10/2020 23:11	WG1490346
(S) 4-Bromofluorobenzene	105		67.0-138		06/10/2020 23:11	WG1490346
(S) 1,2-Dichloroethane-d4	104		70.0-130		06/10/2020 23:11	WG1490346

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 12:01

L1225553

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Diesel Range Organics (DRO)	ND		200	1	06/09/2020 22:11	WG1487492
Residual Range Organics (RRO)	ND		250	1	06/09/2020 22:11	WG1487492
<i>(S) o-Terphenyl</i>	69.0		52.0-156		06/09/2020 22:11	WG1487492

1 Cp

2 Tc

3 Ss

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Anthracene	ND		0.0500	1	06/09/2020 02:05	WG1488878
Acenaphthene	ND		0.0500	1	06/09/2020 02:05	WG1488878
Acenaphthylene	ND		0.0500	1	06/09/2020 02:05	WG1488878
Benzo(a)anthracene	ND		0.0500	1	06/09/2020 02:05	WG1488878
Benzo(a)pyrene	ND		0.0500	1	06/09/2020 02:05	WG1488878
Benzo(b)fluoranthene	ND		0.0500	1	06/09/2020 02:05	WG1488878
Benzo(g,h,i)perylene	ND		0.0500	1	06/09/2020 02:05	WG1488878
Benzo(k)fluoranthene	ND		0.0500	1	06/09/2020 02:05	WG1488878
Chrysene	ND		0.0500	1	06/09/2020 02:05	WG1488878
Dibenz(a,h)anthracene	ND		0.0500	1	06/09/2020 02:05	WG1488878
Fluoranthene	ND		0.100	1	06/09/2020 02:05	WG1488878
Fluorene	ND		0.0500	1	06/09/2020 02:05	WG1488878
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	06/09/2020 02:05	WG1488878
Naphthalene	ND		0.250	1	06/09/2020 02:05	WG1488878
Phenanthrene	ND		0.0500	1	06/09/2020 02:05	WG1488878
Pyrene	ND		0.0500	1	06/09/2020 02:05	WG1488878
1-Methylnaphthalene	ND		0.250	1	06/09/2020 02:05	WG1488878
2-Methylnaphthalene	ND		0.250	1	06/09/2020 02:05	WG1488878
2-Chloronaphthalene	ND		0.250	1	06/09/2020 02:05	WG1488878
<i>(S) Nitrobenzene-d5</i>	74.7		31.0-160		06/09/2020 02:05	WG1488878
<i>(S) 2-Fluorobiphenyl</i>	85.3		48.0-148		06/09/2020 02:05	WG1488878
<i>(S) p-Terphenyl-d14</i>	86.8		37.0-146		06/09/2020 02:05	WG1488878

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Mercury	ND		0.200	1	06/05/2020 20:38	WG1487465
Mercury,Dissolved	ND		0.200	1	06/05/2020 19:47	WG1487466

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

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Arsenic	46.2		10.0	5	06/09/2020 19:09	WG1488771
Arsenic,Dissolved	ND		2.00	1	06/10/2020 19:18	WG1488761
Barium	2020		20.0	1	06/09/2020 16:38	WG1488771
Barium,Dissolved	ND		20.0	1	06/10/2020 19:18	WG1488761
Cadmium	2.06		1.00	1	06/09/2020 16:38	WG1488771
Cadmium,Dissolved	ND		1.00	1	06/10/2020 19:18	WG1488761
Chromium	980		10.0	5	06/09/2020 19:09	WG1488771
Chromium,Dissolved	ND		2.00	1	06/10/2020 19:18	WG1488761
Copper	837		25.0	5	06/09/2020 18:17	WG1488771
Copper,Dissolved	ND		5.00	1	06/10/2020 19:18	WG1488761
Lead	121		5.00	1	06/09/2020 16:38	WG1488771
Lead,Dissolved	ND		5.00	1	06/10/2020 19:18	WG1488761
Nickel	252		10.0	5	06/09/2020 19:09	WG1488771
Nickel,Dissolved	3.44		2.00	1	06/10/2020 19:18	WG1488761
Selenium	8.50		2.00	1	06/09/2020 16:38	WG1488771
Selenium,Dissolved	ND		2.00	1	06/10/2020 19:18	WG1488761
Silver	ND		2.00	1	06/09/2020 16:38	WG1488771
Silver,Dissolved	ND		2.00	1	06/10/2020 19:18	WG1488761
Zinc	822		125	5	06/09/2020 19:09	WG1488771
Zinc,Dissolved	ND		25.0	1	06/10/2020 19:18	WG1488761

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	06/08/2020 00:22	WG1488437
(S) a, a, a-Trifluorotoluene(FID)	98.0		78.0-120		06/08/2020 00:22	WG1488437

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	1.83		1.00	1	06/10/2020 23:30	WG1490346
Acrylonitrile	ND		0.500	1	06/10/2020 23:30	WG1490346
Benzene	ND		0.0400	1	06/10/2020 23:30	WG1490346
Bromobenzene	ND		0.500	1	06/10/2020 23:30	WG1490346
Bromodichloromethane	ND		0.100	1	06/10/2020 23:30	WG1490346
Bromoform	ND		1.00	1	06/10/2020 23:30	WG1490346
Bromomethane	ND		0.500	1	06/10/2020 23:30	WG1490346
n-Butylbenzene	ND		0.500	1	06/10/2020 23:30	WG1490346
sec-Butylbenzene	ND		0.500	1	06/10/2020 23:30	WG1490346
tert-Butylbenzene	ND		0.200	1	06/10/2020 23:30	WG1490346
Carbon tetrachloride	ND		0.200	1	06/10/2020 23:30	WG1490346
Chlorobenzene	ND		0.100	1	06/10/2020 23:30	WG1490346
Chlorodibromomethane	ND		0.100	1	06/10/2020 23:30	WG1490346
Chloroethane	ND		0.200	1	06/10/2020 23:30	WG1490346
Chloroform	ND		0.100	1	06/10/2020 23:30	WG1490346
Chloromethane	ND		0.500	1	06/10/2020 23:30	WG1490346
2-Chlorotoluene	ND		0.100	1	06/10/2020 23:30	WG1490346
4-Chlorotoluene	ND		0.200	1	06/10/2020 23:30	WG1490346



Collected date/time: 06/02/20 11:14

L1225553

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	ND		1.00	1	06/10/2020 23:30	WG1490346
1,2-Dibromoethane	ND		0.100	1	06/10/2020 23:30	WG1490346
Dibromomethane	ND		0.200	1	06/10/2020 23:30	WG1490346
1,2-Dichlorobenzene	ND		0.200	1	06/10/2020 23:30	WG1490346
1,3-Dichlorobenzene	ND		0.200	1	06/10/2020 23:30	WG1490346
1,4-Dichlorobenzene	ND		0.200	1	06/10/2020 23:30	WG1490346
Dichlorodifluoromethane	ND		0.100	1	06/10/2020 23:30	WG1490346
1,1-Dichloroethane	ND		0.100	1	06/10/2020 23:30	WG1490346
1,2-Dichloroethane	ND		0.100	1	06/10/2020 23:30	WG1490346
1,1-Dichloroethene	ND		0.100	1	06/10/2020 23:30	WG1490346
cis-1,2-Dichloroethene	ND		0.100	1	06/10/2020 23:30	WG1490346
trans-1,2-Dichloroethene	ND		0.200	1	06/10/2020 23:30	WG1490346
1,2-Dichloropropane	ND		0.200	1	06/10/2020 23:30	WG1490346
1,1-Dichloropropene	ND		0.100	1	06/10/2020 23:30	WG1490346
1,3-Dichloropropane	ND		0.200	1	06/10/2020 23:30	WG1490346
cis-1,3-Dichloropropene	ND		0.100	1	06/10/2020 23:30	WG1490346
trans-1,3-Dichloropropene	ND		0.200	1	06/10/2020 23:30	WG1490346
2,2-Dichloropropane	ND		0.100	1	06/10/2020 23:30	WG1490346
Di-isopropyl ether	ND		0.0400	1	06/10/2020 23:30	WG1490346
Ethylbenzene	ND		0.100	1	06/10/2020 23:30	WG1490346
Hexachloro-1,3-butadiene	ND		1.00	1	06/10/2020 23:30	WG1490346
Iodomethane	ND		0.500	1	06/10/2020 23:30	WG1490346
Isopropylbenzene	ND		0.100	1	06/10/2020 23:30	WG1490346
p-Isopropyltoluene	ND		0.200	1	06/10/2020 23:30	WG1490346
2-Butanone (MEK)	ND		1.00	1	06/10/2020 23:30	WG1490346
Methylene Chloride	ND		1.00	1	06/10/2020 23:30	WG1490346
4-Methyl-2-pentanone (MIBK)	ND		1.00	1	06/10/2020 23:30	WG1490346
Methyl tert-butyl ether	ND		0.0400	1	06/10/2020 23:30	WG1490346
Naphthalene	ND		0.500	1	06/10/2020 23:30	WG1490346
n-Propylbenzene	ND		0.200	1	06/10/2020 23:30	WG1490346
Styrene	ND		0.500	1	06/10/2020 23:30	WG1490346
1,1,1,2-Tetrachloroethane	ND		0.100	1	06/10/2020 23:30	WG1490346
1,1,2,2-Tetrachloroethane	ND		0.100	1	06/10/2020 23:30	WG1490346
1,1,2-Trichlorotrifluoroethane	ND		0.100	1	06/10/2020 23:30	WG1490346
Tetrachloroethene	ND		0.100	1	06/10/2020 23:30	WG1490346
Toluene	ND		0.200	1	06/10/2020 23:30	WG1490346
1,2,3-Trichlorobenzene	ND		0.500	1	06/10/2020 23:30	WG1490346
1,2,4-Trichlorobenzene	ND		0.500	1	06/10/2020 23:30	WG1490346
1,1,1-Trichloroethane	ND		0.100	1	06/10/2020 23:30	WG1490346
1,1,2-Trichloroethane	ND		0.100	1	06/10/2020 23:30	WG1490346
Trichloroethene	ND		0.0400	1	06/10/2020 23:30	WG1490346
Trichlorofluoromethane	ND		0.100	1	06/10/2020 23:30	WG1490346
1,2,3-Trichloropropane	ND		0.500	1	06/10/2020 23:30	WG1490346
1,2,4-Trimethylbenzene	ND		0.200	1	06/10/2020 23:30	WG1490346
1,2,3-Trimethylbenzene	ND		0.200	1	06/10/2020 23:30	WG1490346
1,3,5-Trimethylbenzene	ND		0.200	1	06/10/2020 23:30	WG1490346
Vinyl chloride	ND		0.100	1	06/10/2020 23:30	WG1490346
Xylenes, Total	ND		0.260	1	06/10/2020 23:30	WG1490346
(S) Toluene-d8	104		75.0-131		06/10/2020 23:30	WG1490346
(S) 4-Bromofluorobenzene	106		67.0-138		06/10/2020 23:30	WG1490346
(S) 1,2-Dichloroethane-d4	103		70.0-130		06/10/2020 23:30	WG1490346

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 11:14

L1225553

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		200	1	06/11/2020 02:28	WG1487492
Residual Range Organics (RRO)	ND		250	1	06/11/2020 02:28	WG1487492
(S) o-Terphenyl	16.3	<u>J2</u>	52.0-156		06/11/2020 02:28	WG1487492

Sample Narrative:

L1225553-04 WG1487492: Sample produced heavy emulsion during Extraction process, low surr/spike recoveries due to matrix

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Anthracene	ND		0.100	2	06/09/2020 02:25	WG1488878
Acenaphthene	ND		0.100	2	06/09/2020 02:25	WG1488878
Acenaphthylene	ND		0.100	2	06/09/2020 02:25	WG1488878
Benzo(a)anthracene	ND		0.100	2	06/09/2020 02:25	WG1488878
Benzo(a)pyrene	ND		0.100	2	06/09/2020 02:25	WG1488878
Benzo(b)fluoranthene	ND		0.100	2	06/09/2020 02:25	WG1488878
Benzo(g,h,i)perylene	ND		0.100	2	06/09/2020 02:25	WG1488878
Benzo(k)fluoranthene	ND		0.100	2	06/09/2020 02:25	WG1488878
Chrysene	ND		0.100	2	06/09/2020 02:25	WG1488878
Dibenz(a,h)anthracene	ND		0.100	2	06/09/2020 02:25	WG1488878
Fluoranthene	ND		0.200	2	06/09/2020 02:25	WG1488878
Fluorene	ND		0.100	2	06/09/2020 02:25	WG1488878
Indeno(1,2,3-cd)pyrene	ND		0.100	2	06/09/2020 02:25	WG1488878
Naphthalene	ND		0.500	2	06/09/2020 02:25	WG1488878
Phenanthrene	ND		0.100	2	06/09/2020 02:25	WG1488878
Pyrene	ND		0.100	2	06/09/2020 02:25	WG1488878
1-Methylnaphthalene	ND		0.500	2	06/09/2020 02:25	WG1488878
2-Methylnaphthalene	ND		0.500	2	06/09/2020 02:25	WG1488878
2-Chloronaphthalene	ND		0.500	2	06/09/2020 02:25	WG1488878
(S) Nitrobenzene-d5	58.9		31.0-160		06/09/2020 02:25	WG1488878
(S) 2-Fluorobiphenyl	54.7		48.0-148		06/09/2020 02:25	WG1488878
(S) p-Terphenyl-d14	22.9	<u>J2</u>	37.0-146		06/09/2020 02:25	WG1488878

Sample Narrative:

L1225553-04 WG1488878: Dilution due to matrix impact during extraction procedure

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3535652-1 06/05/20 19:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.100	0.200

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

Laboratory Control Sample (LCS)

(LCS) R3535652-2 06/05/20 19:51

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	3.00	2.74	91.4	80.0-120	

⁷Gl

⁸Al

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3535652-3 06/05/20 19:55 • (MSD) R3535652-4 06/05/20 19:57

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	3.00		2.98	2.71	99.5	90.4	1	75.0-125			9.54	20

⁹Sc



Method Blank (MB)

(MB) R3535651-1 06/05/20 19:21

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Mercury,Dissolved	U		0.100	0.200

¹Cp

²Tc

³Ss

Laboratory Control Sample (LCS)

(LCS) R3535651-2 06/05/20 19:23

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Mercury,Dissolved	3.00	2.83	94.3	80.0-120	

⁴Cn

⁵Sr

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3535651-3 06/05/20 19:27 • (MSD) R3535651-4 06/05/20 19:29

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Mercury,Dissolved	3.00		2.32	1.80	77.2	59.9	1	75.0-125		<u>J3 J6</u>	25.2	20

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3537246-1 06/10/20 18:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Arsenic,Dissolved	U		0.735	2.00
Barium,Dissolved	U		7.78	20.0
Cadmium,Dissolved	U		0.478	1.00
Chromium,Dissolved	U		1.49	2.00
Copper,Dissolved	U		2.50	5.00
Lead,Dissolved	U		2.49	5.00
Nickel,Dissolved	U		0.952	2.00
Selenium,Dissolved	U		0.657	2.00
Silver,Dissolved	U		0.513	2.00
Zinc,Dissolved	U		9.96	25.0

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3537246-2 06/10/20 18:50

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Arsenic,Dissolved	50.0	49.2	98.3	80.0-120	
Barium,Dissolved	50.0	49.4	98.7	80.0-120	
Cadmium,Dissolved	50.0	52.6	105	80.0-120	
Chromium,Dissolved	50.0	51.2	102	80.0-120	
Copper,Dissolved	50.0	50.5	101	80.0-120	
Lead,Dissolved	50.0	50.0	99.9	80.0-120	
Nickel,Dissolved	50.0	52.0	104	80.0-120	
Selenium,Dissolved	50.0	56.1	112	80.0-120	
Silver,Dissolved	50.0	51.9	104	80.0-120	
Zinc,Dissolved	500	494	98.8	80.0-120	

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3537246-4 06/10/20 19:00 • (MSD) R3537246-5 06/10/20 19:04

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Arsenic,Dissolved	50.0	49.9	49.6	49.6	99.7	99.2	1	75.0-125			0.484	20
Barium,Dissolved	50.0	140	139	139	107	104	1	75.0-125			0.827	20
Cadmium,Dissolved	50.0	53.3	53.6	53.6	107	107	1	75.0-125			0.545	20
Chromium,Dissolved	50.0	50.6	48.8	48.8	101	97.7	1	75.0-125			3.57	20
Copper,Dissolved	50.0	51.0	51.3	51.3	102	103	1	75.0-125			0.550	20
Lead,Dissolved	50.0	50.8	54.0	54.0	102	108	1	75.0-125			6.10	20
Nickel,Dissolved	50.0	48.3	48.2	48.2	96.6	96.3	1	75.0-125			0.230	20



Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3537246-4 06/10/20 19:00 • (MSD) R3537246-5 06/10/20 19:04

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Selenium,Dissolved	50.0	56.9	56.9	59.7	114	119	1	75.0-125			4.91	20
Silver,Dissolved	50.0	51.7	51.7	52.0	103	104	1	75.0-125			0.533	20
Zinc,Dissolved	500	472	472	472	94.4	94.4	1	75.0-125			0.00898	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3536693-1 06/09/20 13:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Arsenic	U		0.735	2.00
Barium	U		7.78	20.0
Cadmium	U		0.478	1.00
Chromium	U		1.49	2.00
Copper	U		2.50	5.00
Lead	U		2.49	5.00
Nickel	U		0.952	2.00
Selenium	U		0.657	2.00
Silver	U		0.513	2.00
Zinc	U		9.96	25.0

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3536693-2 06/09/20 13:58

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Arsenic	50.0	48.4	96.8	80.0-120	
Barium	50.0	48.2	96.3	80.0-120	
Cadmium	50.0	51.5	103	80.0-120	
Chromium	50.0	50.8	102	80.0-120	
Copper	50.0	47.9	95.8	80.0-120	
Lead	50.0	47.4	94.9	80.0-120	
Nickel	50.0	51.3	103	80.0-120	
Selenium	50.0	49.3	98.5	80.0-120	
Silver	50.0	48.1	96.2	80.0-120	
Zinc	500	484	96.8	80.0-120	

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3536693-4 06/09/20 14:08 • (MSD) R3536693-5 06/09/20 14:11

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l		ug/l	ug/l	%	%		%			%	%
Arsenic	50.0		49.9	50.8	92.6	94.4	1	75.0-125			1.84	20
Barium	50.0		69.7	69.8	95.9	96.0	1	75.0-125			0.0392	20
Cadmium	50.0		50.9	51.6	102	103	1	75.0-125			1.45	20
Chromium	50.0		57.5	56.9	97.4	96.2	1	75.0-125			1.05	20
Copper	50.0		4590	4660	0.000	0.000	1	75.0-125	EV	EV	1.58	20
Lead	50.0		50.3	49.7	101	99.5	1	75.0-125			1.14	20
Nickel	50.0		54.7	54.7	98.5	98.6	1	75.0-125			0.0659	20



Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3536693-4 06/09/20 14:08 • (MSD) R3536693-5 06/09/20 14:11

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Selenium	50.0	62.6	60.9	60.9	100	97.1	1	75.0-125			2.78	20
Silver	50.0	48.6	48.8	48.8	97.3	97.6	1	75.0-125			0.345	20
Zinc	500	513	511	511	93.0	92.4	1	75.0-125			0.542	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3536059-2 06/07/20 14:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	97.6			78.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3536059-1 06/07/20 13:22

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	6050	110	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			104	78.0-120	



Method Blank (MB)

(MB) R3537597-2 06/10/20 21:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		0.548	1.00
Acrylonitrile	U		0.0760	0.500
Benzene	U		0.0160	0.0400
Bromobenzene	U		0.0420	0.500
Bromodichloromethane	U		0.0315	0.100
Bromoform	U		0.239	1.00
Bromomethane	U		0.148	0.500
n-Butylbenzene	U		0.153	0.500
sec-Butylbenzene	U		0.101	0.500
tert-Butylbenzene	U		0.0620	0.200
Carbon tetrachloride	U		0.0432	0.200
Chlorobenzene	U		0.0229	0.100
Chlorodibromomethane	U		0.0180	0.100
Chloroethane	U		0.0432	0.200
Chloroform	U		0.0166	0.100
Chloromethane	U		0.0556	0.500
2-Chlorotoluene	U		0.0368	0.100
4-Chlorotoluene	U		0.0452	0.200
1,2-Dibromo-3-Chloropropane	U		0.204	1.00
1,2-Dibromoethane	U		0.0210	0.100
Dibromomethane	U		0.0400	0.200
1,2-Dichlorobenzene	U		0.0580	0.200
1,3-Dichlorobenzene	U		0.0680	0.200
1,4-Dichlorobenzene	U		0.0788	0.200
Dichlorodifluoromethane	U		0.0327	0.100
1,1-Dichloroethane	U		0.0230	0.100
1,2-Dichloroethane	U		0.0190	0.100
1,1-Dichloroethene	U		0.0200	0.100
cis-1,2-Dichloroethene	U		0.0276	0.100
trans-1,2-Dichloroethene	U		0.0572	0.200
1,2-Dichloropropane	U		0.0508	0.200
1,1-Dichloropropene	U		0.0280	0.100
1,3-Dichloropropane	U		0.0700	0.200
cis-1,3-Dichloropropene	U		0.0271	0.100
trans-1,3-Dichloropropene	U		0.0612	0.200
2,2-Dichloropropane	U		0.0317	0.100
Di-isopropyl ether	U		0.0140	0.0400
Ethylbenzene	U		0.0212	0.100
Hexachloro-1,3-butadiene	U		0.508	1.00
Iodomethane	U		0.242	0.500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3537597-2 06/10/20 21:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Isopropylbenzene	U		0.0345	0.100
p-Isopropyltoluene	U		0.0932	0.200
2-Butanone (MEK)	U		0.500	1.00
Methylene Chloride	U		0.265	1.00
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00
Methyl tert-butyl ether	U		0.0118	0.0400
Naphthalene	U		0.124	0.500
n-Propylbenzene	U		0.0472	0.200
Styrene	U		0.109	0.500
1,1,1,2-Tetrachloroethane	U		0.0200	0.100
1,1,2,2-Tetrachloroethane	U		0.0156	0.100
Tetrachloroethene	0.0480	J	0.0280	0.100
Toluene	U		0.0500	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100
1,2,3-Trichlorobenzene	U		0.0250	0.500
1,2,4-Trichlorobenzene	U		0.193	0.500
1,1,1-Trichloroethane	U		0.0110	0.100
1,1,2-Trichloroethane	U		0.0353	0.100
Trichloroethene	U		0.0160	0.0400
Trichlorofluoromethane	U		0.0200	0.100
1,2,3-Trichloropropane	U		0.204	0.500
1,2,3-Trimethylbenzene	U		0.0460	0.200
1,2,4-Trimethylbenzene	U		0.0464	0.200
1,3,5-Trimethylbenzene	U		0.0432	0.200
Vinyl chloride	U		0.0273	0.100
Xylenes, Total	U		0.191	0.260
(S) Toluene-d8	100			75.0-131
(S) 4-Bromofluorobenzene	105			67.0-138
(S) 1,2-Dichloroethane-d4	103			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) R3537597-1 06/10/20 20:21

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Acetone	25.0	17.2	68.8	10.0-160	
Acrylonitrile	25.0	17.6	70.4	45.0-153	
Benzene	5.00	4.05	81.0	70.0-123	
Bromobenzene	5.00	5.08	102	73.0-121	



Laboratory Control Sample (LCS)

(LCS) R3537597-1 06/10/20 20:21

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromodichloromethane	5.00	4.46	89.2	73.0-121	
Bromoform	5.00	4.78	95.6	64.0-132	
Bromomethane	5.00	4.46	89.2	56.0-147	
n-Butylbenzene	5.00	5.00	100	68.0-135	
sec-Butylbenzene	5.00	5.45	109	74.0-130	
tert-Butylbenzene	5.00	4.76	95.2	75.0-127	
Carbon tetrachloride	5.00	5.26	105	66.0-128	
Chlorobenzene	5.00	4.72	94.4	76.0-128	
Chlorodibromomethane	5.00	4.64	92.8	74.0-127	
Chloroethane	5.00	4.05	81.0	61.0-134	
Chloroform	5.00	4.99	99.8	72.0-123	
Chloromethane	5.00	4.86	97.2	51.0-138	
2-Chlorotoluene	5.00	5.38	108	75.0-124	
4-Chlorotoluene	5.00	5.13	103	75.0-124	
1,2-Dibromo-3-Chloropropane	5.00	4.88	97.6	59.0-130	
1,2-Dibromoethane	5.00	4.62	92.4	74.0-128	
Dibromomethane	5.00	4.50	90.0	75.0-122	
1,2-Dichlorobenzene	5.00	4.87	97.4	76.0-124	
1,3-Dichlorobenzene	5.00	4.79	95.8	76.0-125	
1,4-Dichlorobenzene	5.00	4.97	99.4	77.0-121	
Dichlorodifluoromethane	5.00	4.35	87.0	43.0-156	
1,1-Dichloroethane	5.00	4.59	91.8	70.0-127	
1,2-Dichloroethane	5.00	4.78	95.6	65.0-131	
1,1-Dichloroethene	5.00	5.13	103	65.0-131	
cis-1,2-Dichloroethene	5.00	4.34	86.8	73.0-125	
trans-1,2-Dichloroethene	5.00	5.20	104	71.0-125	
1,2-Dichloropropane	5.00	4.35	87.0	74.0-125	
1,1-Dichloropropene	5.00	4.12	82.4	73.0-125	
1,3-Dichloropropane	5.00	4.66	93.2	80.0-125	
cis-1,3-Dichloropropene	5.00	4.42	88.4	76.0-127	
trans-1,3-Dichloropropene	5.00	4.40	88.0	73.0-127	
2,2-Dichloropropane	5.00	4.21	84.2	59.0-135	
Di-isopropyl ether	5.00	5.16	103	60.0-136	
Ethylbenzene	5.00	4.12	82.4	74.0-126	
Hexachloro-1,3-butadiene	5.00	4.86	97.2	57.0-150	
Iodomethane	25.0	26.5	106	74.0-134	
Isopropylbenzene	5.00	5.22	104	72.0-127	
p-Isopropyltoluene	5.00	5.21	104	72.0-133	
2-Butanone (MEK)	25.0	20.6	82.4	30.0-160	
Methylene Chloride	5.00	4.29	85.8	68.0-123	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS)

(LCS) R3537597-1 06/10/20 20:21

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
4-Methyl-2-pentanone (MIBK)	25.0	22.4	89.6	56.0-143	
Methyl tert-butyl ether	5.00	5.69	114	66.0-132	
Naphthalene	5.00	4.67	93.4	59.0-130	
n-Propylbenzene	5.00	4.90	98.0	74.0-126	
Styrene	5.00	4.75	95.0	72.0-127	
1,1,1,2-Tetrachloroethane	5.00	4.48	89.6	74.0-129	
1,1,2,2-Tetrachloroethane	5.00	4.60	92.0	68.0-128	
Tetrachloroethene	5.00	4.64	92.8	70.0-136	
Toluene	5.00	4.44	88.8	75.0-121	
1,1,2-Trichlorotrifluoroethane	5.00	5.36	107	61.0-139	
1,2,3-Trichlorobenzene	5.00	5.22	104	59.0-139	
1,2,4-Trichlorobenzene	5.00	4.30	86.0	62.0-137	
1,1,1-Trichloroethane	5.00	5.17	103	69.0-126	
1,1,2-Trichloroethane	5.00	4.46	89.2	78.0-123	
Trichloroethene	5.00	5.39	108	76.0-126	
Trichlorofluoromethane	5.00	4.61	92.2	61.0-142	
1,2,3-Trichloropropane	5.00	4.72	94.4	67.0-129	
1,2,3-Trimethylbenzene	5.00	4.63	92.6	74.0-124	
1,2,4-Trimethylbenzene	5.00	4.88	97.6	70.0-126	
1,3,5-Trimethylbenzene	5.00	4.81	96.2	73.0-127	
Vinyl chloride	5.00	4.48	89.6	63.0-134	
Xylenes, Total	15.0	14.9	99.3	72.0-127	
(S) Toluene-d8			102	75.0-131	
(S) 4-Bromofluorobenzene			102	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



Method Blank (MB)

(MB) R3536939-1 06/09/20 20:53

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
<i>(S) o-Terphenyl</i>	82.5			52.0-156

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

(LCS) R3536939-2 06/09/20 21:19 • (LCSD) R3536939-3 06/09/20 21:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1500	1570	1570	105	105	50.0-150			0.000	20
<i>(S) o-Terphenyl</i>				98.0	100	52.0-156				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3536577-3 06/09/20 09:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
<i>(S) o-Terphenyl</i>	57.0			52.0-156

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

(LCS) R3536577-1 06/09/20 03:58 • (LCSD) R3536577-2 06/09/20 04:18

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Diesel Range Organics (DRO)	1500	1430	1450	95.3	96.7	50.0-150			1.39	20
<i>(S) o-Terphenyl</i>				103	103	52.0-156				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3536379-3 06/08/20 22:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.0190	0.0500
Acenaphthene	U		0.0190	0.0500
Acenaphthylene	U		0.0171	0.0500
Benzo(a)anthracene	U		0.0203	0.0500
Benzo(a)pyrene	U		0.0184	0.0500
Benzo(b)fluoranthene	U		0.0168	0.0500
Benzo(g,h,i)perylene	U		0.0184	0.0500
Benzo(k)fluoranthene	U		0.0202	0.0500
Chrysene	U		0.0179	0.0500
Dibenz(a,h)anthracene	U		0.0160	0.0500
Fluoranthene	U		0.0270	0.100
Fluorene	U		0.0169	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500
Naphthalene	U		0.0917	0.250
Phenanthrene	U		0.0180	0.0500
Pyrene	U		0.0169	0.0500
1-Methylnaphthalene	U		0.0687	0.250
2-Methylnaphthalene	U		0.0674	0.250
2-Chloronaphthalene	U		0.0682	0.250
(S) Nitrobenzene-d5	74.5			31.0-160
(S) 2-Fluorobiphenyl	85.5			48.0-148
(S) p-Terphenyl-d14	95.5			37.0-146

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) R3536379-1 06/08/20 22:05 • (LCSD) R3536379-2 06/08/20 22:25

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	1.93	1.97	96.5	98.5	67.0-150			2.05	20
Acenaphthene	2.00	1.70	1.80	85.0	90.0	65.0-138			5.71	20
Acenaphthylene	2.00	1.79	1.88	89.5	94.0	66.0-140			4.90	20
Benzo(a)anthracene	2.00	1.93	2.02	96.5	101	61.0-140			4.56	20
Benzo(a)pyrene	2.00	1.70	1.76	85.0	88.0	60.0-143			3.47	20
Benzo(b)fluoranthene	2.00	1.59	1.67	79.5	83.5	58.0-141			4.91	20
Benzo(g,h,i)perylene	2.00	1.93	2.01	96.5	100	52.0-153			4.06	20
Benzo(k)fluoranthene	2.00	1.66	1.74	83.0	87.0	58.0-148			4.71	20
Chrysene	2.00	1.88	1.97	94.0	98.5	64.0-144			4.68	20
Dibenz(a,h)anthracene	2.00	1.86	1.93	93.0	96.5	52.0-155			3.69	20
Fluoranthene	2.00	1.79	1.87	89.5	93.5	69.0-153			4.37	20



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

(LCS) R3536379-1 06/08/20 22:05 • (LCSD) R3536379-2 06/08/20 22:25

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Fluorene	2.00	1.83	1.93	91.5	96.5	64.0-136			5.32	20
Indeno(1,2,3-cd)pyrene	2.00	1.88	1.97	94.0	98.5	54.0-153			4.68	20
Naphthalene	2.00	1.60	1.67	80.0	83.5	61.0-137			4.28	20
Phenanthrene	2.00	1.71	1.77	85.5	88.5	62.0-137			3.45	20
Pyrene	2.00	1.85	1.93	92.5	96.5	60.0-142			4.23	20
1-Methylnaphthalene	2.00	1.68	1.74	84.0	87.0	66.0-142			3.51	20
2-Methylnaphthalene	2.00	1.61	1.67	80.5	83.5	62.0-136			3.66	20
2-Chloronaphthalene	2.00	1.72	1.81	86.0	90.5	64.0-140			5.10	20
<i>(S) Nitrobenzene-d5</i>				74.5	77.5	31.0-160				
<i>(S) 2-Fluorobiphenyl</i>				82.5	89.0	48.0-148				
<i>(S) p-Terphenyl-d14</i>				90.5	96.0	37.0-146				

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.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
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.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

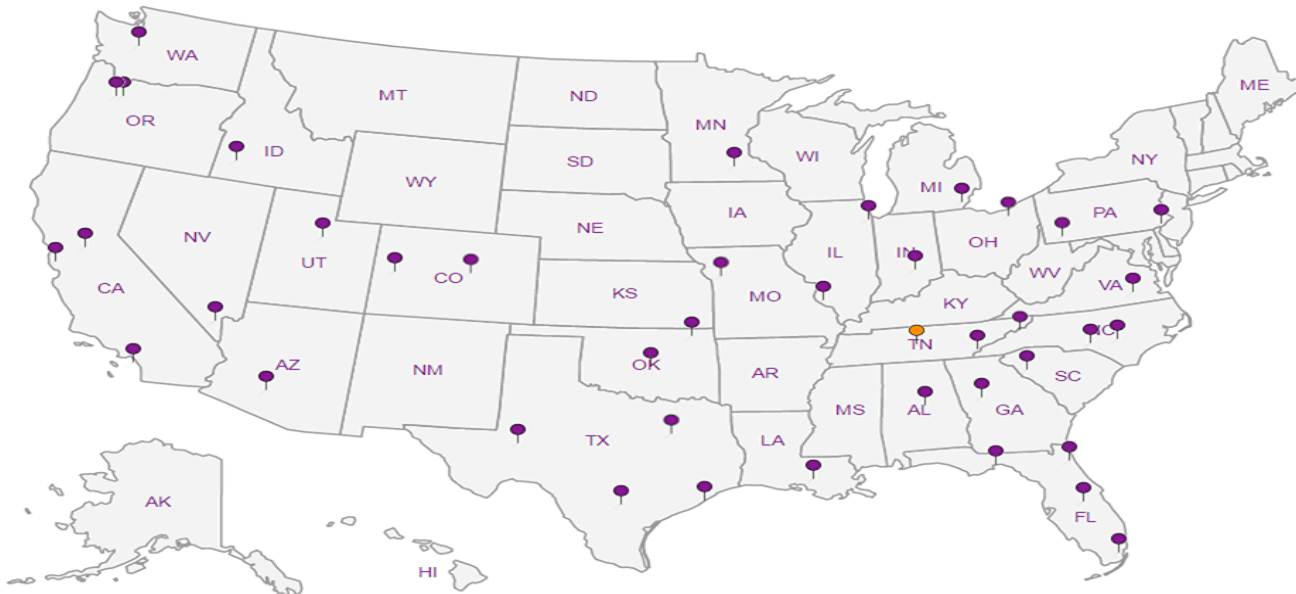
Third Party Federal Accreditations

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

Shannon & Wilson - OR

3990 Collins Way, Ste. 100
Lake Oswego, OR 97035

Billing Information:
Accounts Payable / Pete Shingledecker
3990 Collins Way, Ste. 100
Lake Oswego, OR 97035

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



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



SDG # **L1225553**

A205

Acctnum: **SHAWILOR**

Template: **T168513**

Prelogin: **P775825**

PM: **110 - Brian Ford**

PB:

Shipped Via:

Remarks Sample # (lab only)

Report to: **PETE SHINGLEDECKER**
Email To: **PJSE@SHANWIL.COM**

Project Description: City/State Collected: Please Circle: PT MT CT ET

Phone: **503-210-4750** Client Project # **104983-004** Lab Project # **SHAWILOR-104983004**

Collected by (print): **Christine Maher** Site/Facility ID # **CHEHALIS, WA** P.O. #

Collected by (signature): *[Signature]* Rush? (Lab MUST Be Notified) Quote #
 ___ 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 **X** No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Analysis / Container / Preservative												Remarks	Sample # (lab only)							
GP-1-GW	Comp	GW	20'	6/2/20	1500	12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		-01
GP-2-GW	Comp	GW	15'	6/2/20	1324	12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	02
GP-3-GW	Comp	GW	15'	6/2/20	1201	12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	03
GP-4-GW	Comp	GW	2.2'	6/2/20	1114	12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	04
		GW																								
		GW																								
		GW																								

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

Remarks: pH _____ Temp _____
Flow _____ Other _____
Samples returned via: UPS / FedEx / Courier Tracking # **1750 0004 2270**

Sample Receipt Checklist

COC Seal Present/Intact:	<input type="checkbox"/> NP	<input checked="" type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
If Applicable		
VOA Zero Headspace:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input checked="" type="checkbox"/>	<input type="checkbox"/> N

Relinquished by: (Signature) *[Signature]* Date: **6/3/20** Time: **1400** Received by: (Signature) Trip Blank Received: Yes No
 HCL / MeOH TBR
 Temp: **11.1** °C Bottles Received: **4/8**
3.9 + 4.0
 Relinquished by: (Signature) Date: Time: Received for lab by: (Signature) Date: **6/4/20** Time: **8:45** Hold: Condition: **NCF / OK**

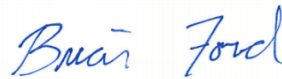
June 11, 2020

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

Shannon & Wilson - OR

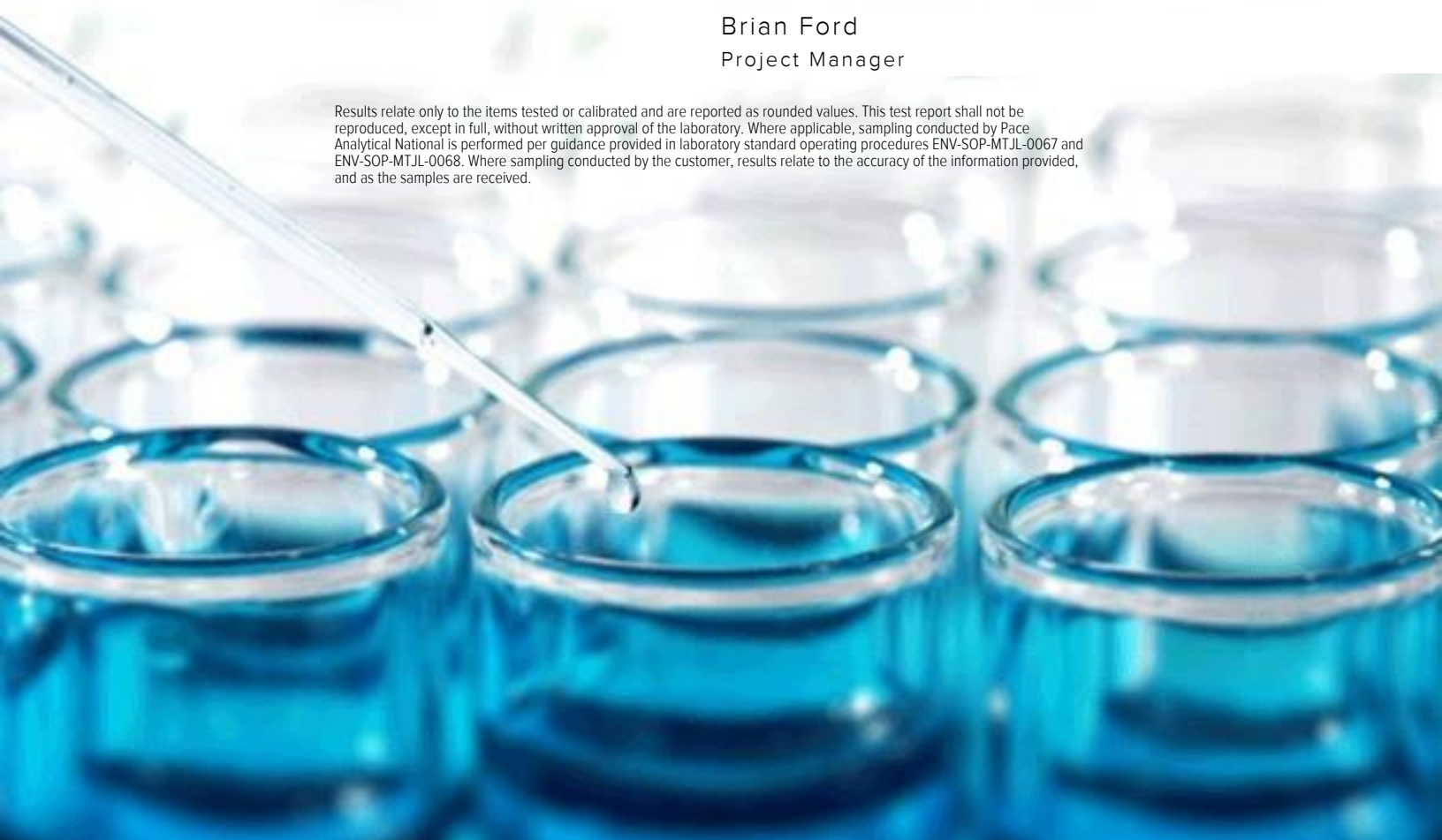
Sample Delivery Group: L1225601
Samples Received: 06/04/2020
Project Number: 104983-004
Description:
Site: CHEHALIS, WA
Report To: Peter Shingledecker
3990 Collins Way, Ste. 100
Lake Oswego, OR 97035

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.





Cp: Cover Page	1	
Tc: Table of Contents	2	
Ss: Sample Summary	3	
Cn: Case Narrative	7	
Sr: Sample Results	8	
GP-1-5 L1225601-01	8	
GP-1-10 L1225601-02	11	
GP-1-15 L1225601-03	14	
GP-2-5 L1225601-04	17	
GP-2-10 L1225601-05	20	
GP-2-15 L1225601-06	23	
GP-3-5 L1225601-07	26	
GP-3-10 L1225601-08	29	
GP-3-15 L1225601-09	32	
GP-4-5 L1225601-10	35	
GP-4-10 L1225601-11	38	
GP-4-15 L1225601-12	41	
GP-5-5 L1225601-13	44	
GP-5-10 L1225601-14	47	
GP-5-15 L1225601-15	50	
Qc: Quality Control Summary	53	
Total Solids by Method 2540 G-2011	53	
Mercury by Method 7471B	56	
Metals (ICPMS) by Method 6020B	57	
Volatile Organic Compounds (GC) by Method NWTPHGX	59	
Volatile Organic Compounds (GC/MS) by Method 8260D	62	
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	70	
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	71	
Gl: Glossary of Terms	73	
Al: Accreditations & Locations	74	
Sc: Sample Chain of Custody	75	

SAMPLE SUMMARY



GP-1-5 L1225601-01 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 13:04
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1489016	1	06/09/20 23:42	06/09/20 23:56	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1487994	1	06/05/20 18:10	06/07/20 22:02	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	5	06/06/20 07:25	06/06/20 15:30	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488294	25	06/02/20 13:04	06/07/20 03:48	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1488255	1	06/02/20 13:04	06/07/20 14:30	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1489750	1	06/09/20 19:30	06/10/20 02:52	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1489474	1	06/10/20 15:31	06/10/20 21:16	AAT	Mt. Juliet, TN

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

GP-1-10 L1225601-02 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 13:15
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1489016	1	06/09/20 23:42	06/09/20 23:56	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1487994	1	06/05/20 18:10	06/07/20 22:15	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	5	06/06/20 07:25	06/06/20 15:34	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488294	25	06/02/20 13:15	06/07/20 04:09	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1488255	1	06/02/20 13:15	06/07/20 14:49	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1489750	20	06/09/20 19:30	06/10/20 07:19	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1489474	1	06/10/20 15:31	06/11/20 03:51	AAT	Mt. Juliet, TN

GP-1-15 L1225601-03 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 13:25
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1489016	1	06/09/20 23:42	06/09/20 23:56	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1487994	1	06/05/20 18:10	06/07/20 22:23	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	5	06/06/20 07:25	06/06/20 15:37	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488294	25	06/02/20 13:25	06/07/20 04:29	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1488255	1.02	06/02/20 13:25	06/07/20 15:07	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1489750	1	06/09/20 19:30	06/10/20 04:08	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1489474	1	06/10/20 15:31	06/10/20 21:37	AAT	Mt. Juliet, TN

GP-2-5 L1225601-04 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 12:03
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1489017	1	06/09/20 23:19	06/09/20 23:34	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1487994	1	06/05/20 18:10	06/07/20 22:25	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	5	06/06/20 07:25	06/06/20 15:41	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488294	25	06/02/20 12:03	06/07/20 04:50	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1488255	1	06/02/20 12:03	06/07/20 15:26	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1489750	1	06/09/20 19:30	06/10/20 04:20	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1489474	1	06/10/20 15:31	06/10/20 21:58	AAT	Mt. Juliet, TN

GP-2-10 L1225601-05 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 12:10
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1489017	1	06/09/20 23:19	06/09/20 23:34	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1487994	1	06/05/20 18:10	06/07/20 22:28	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	5	06/06/20 07:25	06/06/20 15:44	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488294	25	06/02/20 12:10	06/07/20 05:10	DWR	Mt. Juliet, TN

SAMPLE SUMMARY



GP-2-10 L1225601-05 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 12:10
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1488255	1	06/02/20 12:10	06/07/20 15:45	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1489750	1	06/09/20 19:30	06/10/20 05:50	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1489474	1	06/10/20 15:31	06/11/20 11:56	AAT	Mt. Juliet, TN

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

GP-2-15 L1225601-06 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 12:38
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1489017	1	06/09/20 23:19	06/09/20 23:34	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1487994	1	06/05/20 18:10	06/07/20 22:31	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	5	06/06/20 07:25	06/06/20 15:48	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488294	25	06/02/20 12:38	06/07/20 05:31	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1488255	1	06/02/20 12:38	06/07/20 16:04	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1489750	1	06/09/20 19:30	06/10/20 03:04	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1489474	1	06/10/20 15:31	06/10/20 22:18	AAT	Mt. Juliet, TN

GP-3-5 L1225601-07 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 11:00
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1489017	1	06/09/20 23:19	06/09/20 23:34	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1487994	1	06/05/20 18:10	06/07/20 22:33	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	5	06/06/20 07:25	06/06/20 15:51	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488294	25	06/02/20 11:00	06/07/20 05:52	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1488255	1	06/02/20 11:00	06/07/20 16:23	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1489750	1	06/09/20 19:30	06/10/20 06:28	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1489474	1	06/10/20 15:31	06/11/20 02:49	AAT	Mt. Juliet, TN

GP-3-10 L1225601-08 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 11:10
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1489017	1	06/09/20 23:19	06/09/20 23:34	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1487994	1	06/05/20 18:10	06/07/20 22:36	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	5	06/06/20 07:25	06/06/20 15:54	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488294	25	06/02/20 11:10	06/07/20 06:12	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1488255	1	06/02/20 11:10	06/07/20 16:42	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1489750	1	06/09/20 19:30	06/10/20 03:17	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1489474	1	06/10/20 15:31	06/10/20 22:39	AAT	Mt. Juliet, TN

GP-3-15 L1225601-09 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 11:20
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1489017	1	06/09/20 23:19	06/09/20 23:34	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1487994	1	06/05/20 18:10	06/07/20 22:38	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	5	06/06/20 07:25	06/06/20 15:58	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488294	25	06/02/20 11:20	06/07/20 06:33	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1488255	1	06/02/20 11:20	06/07/20 17:01	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1489750	1	06/09/20 19:30	06/10/20 03:55	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1489474	1	06/10/20 15:31	06/10/20 23:00	AAT	Mt. Juliet, TN

SAMPLE SUMMARY



GP-4-5 L1225601-10 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 10:20
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1489017	1	06/09/20 23:19	06/09/20 23:34	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1487994	1	06/05/20 18:10	06/07/20 22:41	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	10	06/06/20 07:25	06/06/20 17:27	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	5	06/06/20 07:25	06/06/20 16:16	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488911	25	06/02/20 10:20	06/08/20 21:51	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1488255	1	06/02/20 10:20	06/07/20 17:19	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1489750	10	06/09/20 19:30	06/10/20 07:06	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1489474	1	06/10/20 15:31	06/11/20 04:12	AAT	Mt. Juliet, TN

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

GP-4-10 L1225601-11 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 10:24
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1489017	1	06/09/20 23:19	06/09/20 23:34	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1487994	1	06/05/20 18:10	06/07/20 22:44	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	5	06/06/20 07:25	06/06/20 16:20	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488911	25	06/02/20 10:24	06/08/20 22:12	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1488255	1	06/02/20 10:24	06/07/20 17:38	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1489750	1	06/09/20 19:30	06/10/20 04:33	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1489474	1	06/10/20 15:31	06/10/20 23:21	AAT	Mt. Juliet, TN

6
Qc

7
Gl

8
Al

9
Sc

GP-4-15 L1225601-12 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 10:30
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1489017	1	06/09/20 23:19	06/09/20 23:34	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1487994	1	06/05/20 18:10	06/07/20 22:46	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	5	06/06/20 07:25	06/06/20 16:23	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488911	25	06/02/20 10:30	06/08/20 22:32	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1488255	1	06/02/20 10:30	06/07/20 17:57	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1489750	1	06/09/20 19:30	06/10/20 04:46	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1489474	1	06/10/20 15:31	06/10/20 23:42	AAT	Mt. Juliet, TN

GP-5-5 L1225601-13 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 09:33
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1489017	1	06/09/20 23:19	06/09/20 23:34	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1487994	1	06/05/20 18:10	06/07/20 22:54	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	5	06/06/20 07:25	06/06/20 16:27	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1490936	25	06/02/20 09:33	06/11/20 14:36	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1490314	1.12	06/02/20 09:33	06/11/20 11:14	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1489750	1	06/09/20 19:30	06/10/20 04:59	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1489474	1	06/10/20 15:31	06/11/20 00:03	AAT	Mt. Juliet, TN

GP-5-10 L1225601-14 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 09:39
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1489018	1	06/09/20 23:03	06/09/20 23:14	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1487994	1	06/05/20 18:10	06/07/20 22:56	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	5	06/06/20 07:25	06/06/20 16:30	JPD	Mt. Juliet, TN

SAMPLE SUMMARY

GP-5-10 L1225601-14 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 09:39
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488911	25	06/02/20 09:39	06/08/20 23:14	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1488255	1	06/02/20 09:39	06/07/20 18:16	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1489750	1	06/09/20 19:30	06/10/20 05:11	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1489474	1	06/10/20 15:31	06/11/20 00:23	AAT	Mt. Juliet, TN

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

GP-5-15 L1225601-15 Solid

Collected by
Christine Maher
Collected date/time
06/02/20 09:50
Received date/time
06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1489018	1	06/09/20 23:03	06/09/20 23:14	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1487994	1	06/05/20 18:10	06/07/20 22:59	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1488068	5	06/06/20 07:25	06/06/20 16:34	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1488911	25	06/02/20 09:50	06/08/20 23:34	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1488255	1	06/02/20 09:50	06/07/20 18:35	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1489750	1	06/09/20 19:30	06/10/20 05:24	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1489474	1	06/10/20 15:31	06/11/20 00:44	AAT	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	70.3		1	06/09/2020 23:56	WG1489016

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0569	1	06/07/2020 22:02	WG1487994

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	4.69		1.42	5	06/06/2020 15:30	WG1488068
Barium	163		3.56	5	06/06/2020 15:30	WG1488068
Cadmium	ND		1.42	5	06/06/2020 15:30	WG1488068
Chromium	33.7		7.11	5	06/06/2020 15:30	WG1488068
Copper	44.9		7.11	5	06/06/2020 15:30	WG1488068
Lead	7.50		2.85	5	06/06/2020 15:30	WG1488068
Nickel	28.2		3.56	5	06/06/2020 15:30	WG1488068
Selenium	ND		3.56	5	06/06/2020 15:30	WG1488068
Silver	ND		0.711	5	06/06/2020 15:30	WG1488068
Zinc	69.9		35.6	5	06/06/2020 15:30	WG1488068

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		3.56	25	06/07/2020 03:48	WG1488294
(S) a,a,a-Trifluorotoluene(FID)	92.8		77.0-120		06/07/2020 03:48	WG1488294

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0711	1	06/07/2020 14:30	WG1488255
Acrylonitrile	ND		0.0178	1	06/07/2020 14:30	WG1488255
Benzene	ND		0.00142	1	06/07/2020 14:30	WG1488255
Bromobenzene	ND		0.0178	1	06/07/2020 14:30	WG1488255
Bromodichloromethane	ND		0.00356	1	06/07/2020 14:30	WG1488255
Bromoform	ND		0.0356	1	06/07/2020 14:30	WG1488255
Bromomethane	ND		0.0178	1	06/07/2020 14:30	WG1488255
n-Butylbenzene	ND		0.0178	1	06/07/2020 14:30	WG1488255
sec-Butylbenzene	ND		0.0178	1	06/07/2020 14:30	WG1488255
tert-Butylbenzene	ND		0.00711	1	06/07/2020 14:30	WG1488255
Carbon tetrachloride	ND		0.00711	1	06/07/2020 14:30	WG1488255
Chlorobenzene	ND		0.00356	1	06/07/2020 14:30	WG1488255
Chlorodibromomethane	ND		0.00356	1	06/07/2020 14:30	WG1488255
Chloroethane	ND		0.00711	1	06/07/2020 14:30	WG1488255
Chloroform	ND		0.00356	1	06/07/2020 14:30	WG1488255
Chloromethane	ND		0.0178	1	06/07/2020 14:30	WG1488255
2-Chlorotoluene	ND	J4	0.00356	1	06/07/2020 14:30	WG1488255
4-Chlorotoluene	ND		0.00711	1	06/07/2020 14:30	WG1488255
1,2-Dibromo-3-Chloropropane	ND		0.0356	1	06/07/2020 14:30	WG1488255
1,2-Dibromoethane	ND		0.00356	1	06/07/2020 14:30	WG1488255
Dibromomethane	ND		0.00711	1	06/07/2020 14:30	WG1488255
1,2-Dichlorobenzene	ND		0.00711	1	06/07/2020 14:30	WG1488255
1,3-Dichlorobenzene	ND		0.00711	1	06/07/2020 14:30	WG1488255
1,4-Dichlorobenzene	ND		0.00711	1	06/07/2020 14:30	WG1488255

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 13:04

L1225601

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	ND		0.00356	1	06/07/2020 14:30	WG1488255
1,1-Dichloroethane	ND		0.00356	1	06/07/2020 14:30	WG1488255
1,2-Dichloroethane	ND		0.00356	1	06/07/2020 14:30	WG1488255
1,1-Dichloroethene	ND		0.00356	1	06/07/2020 14:30	WG1488255
cis-1,2-Dichloroethene	ND		0.00356	1	06/07/2020 14:30	WG1488255
trans-1,2-Dichloroethene	ND		0.00711	1	06/07/2020 14:30	WG1488255
1,2-Dichloropropane	ND		0.00711	1	06/07/2020 14:30	WG1488255
1,1-Dichloropropene	ND		0.00356	1	06/07/2020 14:30	WG1488255
1,3-Dichloropropane	ND		0.00711	1	06/07/2020 14:30	WG1488255
cis-1,3-Dichloropropene	ND		0.00356	1	06/07/2020 14:30	WG1488255
trans-1,3-Dichloropropene	ND		0.00711	1	06/07/2020 14:30	WG1488255
2,2-Dichloropropane	ND		0.00356	1	06/07/2020 14:30	WG1488255
Di-isopropyl ether	ND		0.00142	1	06/07/2020 14:30	WG1488255
Ethylbenzene	ND		0.00356	1	06/07/2020 14:30	WG1488255
Hexachloro-1,3-butadiene	ND		0.0356	1	06/07/2020 14:30	WG1488255
Isopropylbenzene	ND		0.00356	1	06/07/2020 14:30	WG1488255
p-Isopropyltoluene	ND		0.00711	1	06/07/2020 14:30	WG1488255
2-Butanone (MEK)	ND		0.142	1	06/07/2020 14:30	WG1488255
Methylene Chloride	ND		0.0356	1	06/07/2020 14:30	WG1488255
4-Methyl-2-pentanone (MIBK)	ND		0.0356	1	06/07/2020 14:30	WG1488255
Methyl tert-butyl ether	ND		0.00142	1	06/07/2020 14:30	WG1488255
Naphthalene	ND		0.0178	1	06/07/2020 14:30	WG1488255
n-Propylbenzene	ND		0.00711	1	06/07/2020 14:30	WG1488255
Styrene	ND		0.0178	1	06/07/2020 14:30	WG1488255
1,1,1,2-Tetrachloroethane	ND		0.00356	1	06/07/2020 14:30	WG1488255
1,1,2,2-Tetrachloroethane	ND		0.00356	1	06/07/2020 14:30	WG1488255
1,1,2-Trichlorotrifluoroethane	ND		0.00356	1	06/07/2020 14:30	WG1488255
Tetrachloroethene	ND		0.00356	1	06/07/2020 14:30	WG1488255
Toluene	ND		0.00711	1	06/07/2020 14:30	WG1488255
1,2,3-Trichlorobenzene	ND		0.0178	1	06/07/2020 14:30	WG1488255
1,2,4-Trichlorobenzene	ND		0.0178	1	06/07/2020 14:30	WG1488255
1,1,1-Trichloroethane	ND		0.00356	1	06/07/2020 14:30	WG1488255
1,1,2-Trichloroethane	ND		0.00356	1	06/07/2020 14:30	WG1488255
Trichloroethene	ND		0.00142	1	06/07/2020 14:30	WG1488255
Trichlorofluoromethane	ND		0.00356	1	06/07/2020 14:30	WG1488255
1,2,3-Trichloropropane	ND		0.0178	1	06/07/2020 14:30	WG1488255
1,2,4-Trimethylbenzene	ND		0.00711	1	06/07/2020 14:30	WG1488255
1,2,3-Trimethylbenzene	ND		0.00711	1	06/07/2020 14:30	WG1488255
1,3,5-Trimethylbenzene	ND		0.00711	1	06/07/2020 14:30	WG1488255
Vinyl chloride	ND		0.00356	1	06/07/2020 14:30	WG1488255
Xylenes, Total	ND		0.00925	1	06/07/2020 14:30	WG1488255
(S) Toluene-d8	106		75.0-131		06/07/2020 14:30	WG1488255
(S) 4-Bromofluorobenzene	89.1		67.0-138		06/07/2020 14:30	WG1488255
(S) 1,2-Dichloroethane-d4	88.8		70.0-130		06/07/2020 14:30	WG1488255

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 NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		5.69	1	06/10/2020 02:52	WG1489750
Residual Range Organics (RRO)	16.2		14.2	1	06/10/2020 02:52	WG1489750
(S) o-Terphenyl	64.2		18.0-148		06/10/2020 02:52	WG1489750



Collected date/time: 06/02/20 13:04

L1225601

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Anthracene	ND		0.00854	1	06/10/2020 21:16	WG1489474	¹ Cp
Acenaphthene	ND		0.00854	1	06/10/2020 21:16	WG1489474	² Tc
Acenaphthylene	ND		0.00854	1	06/10/2020 21:16	WG1489474	³ Ss
Benzo(a)anthracene	ND		0.00854	1	06/10/2020 21:16	WG1489474	⁴ Cn
Benzo(a)pyrene	ND		0.00854	1	06/10/2020 21:16	WG1489474	⁵ Sr
Benzo(b)fluoranthene	ND		0.00854	1	06/10/2020 21:16	WG1489474	⁶ Qc
Benzo(g,h,i)perylene	ND		0.00854	1	06/10/2020 21:16	WG1489474	⁷ Gl
Benzo(k)fluoranthene	ND		0.00854	1	06/10/2020 21:16	WG1489474	⁸ Al
Chrysene	ND		0.00854	1	06/10/2020 21:16	WG1489474	⁹ Sc
Dibenz(a,h)anthracene	ND		0.00854	1	06/10/2020 21:16	WG1489474	
Fluoranthene	ND		0.00854	1	06/10/2020 21:16	WG1489474	
Fluorene	ND		0.00854	1	06/10/2020 21:16	WG1489474	
Indeno(1,2,3-cd)pyrene	ND		0.00854	1	06/10/2020 21:16	WG1489474	
Naphthalene	ND		0.0285	1	06/10/2020 21:16	WG1489474	
Phenanthrene	ND		0.00854	1	06/10/2020 21:16	WG1489474	
Pyrene	ND		0.00854	1	06/10/2020 21:16	WG1489474	
1-Methylnaphthalene	ND		0.0285	1	06/10/2020 21:16	WG1489474	
2-Methylnaphthalene	ND		0.0285	1	06/10/2020 21:16	WG1489474	
2-Chloronaphthalene	ND		0.0285	1	06/10/2020 21:16	WG1489474	
(S) Nitrobenzene-d5	93.3		14.0-149		06/10/2020 21:16	WG1489474	
(S) 2-Fluorobiphenyl	67.1		34.0-125		06/10/2020 21:16	WG1489474	
(S) p-Terphenyl-d14	70.4		23.0-120		06/10/2020 21:16	WG1489474	



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.1		1	06/09/2020 23:56	WG1489016

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0481	1	06/07/2020 22:15	WG1487994

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	3.65		1.20	5	06/06/2020 15:34	WG1488068
Barium	157		3.01	5	06/06/2020 15:34	WG1488068
Cadmium	ND		1.20	5	06/06/2020 15:34	WG1488068
Chromium	32.4		6.02	5	06/06/2020 15:34	WG1488068
Copper	43.7		6.02	5	06/06/2020 15:34	WG1488068
Lead	19.2		2.41	5	06/06/2020 15:34	WG1488068
Nickel	22.2		3.01	5	06/06/2020 15:34	WG1488068
Selenium	ND		3.01	5	06/06/2020 15:34	WG1488068
Silver	ND		0.602	5	06/06/2020 15:34	WG1488068
Zinc	76.5		30.1	5	06/06/2020 15:34	WG1488068

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		3.01	25	06/07/2020 04:09	WG1488294
(S) a,a,a-Trifluorotoluene(FID)	92.0		77.0-120		06/07/2020 04:09	WG1488294

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0602	1	06/07/2020 14:49	WG1488255
Acrylonitrile	ND		0.0150	1	06/07/2020 14:49	WG1488255
Benzene	ND		0.00120	1	06/07/2020 14:49	WG1488255
Bromobenzene	ND		0.0150	1	06/07/2020 14:49	WG1488255
Bromodichloromethane	ND		0.00301	1	06/07/2020 14:49	WG1488255
Bromoform	ND		0.0301	1	06/07/2020 14:49	WG1488255
Bromomethane	ND		0.0150	1	06/07/2020 14:49	WG1488255
n-Butylbenzene	ND		0.0150	1	06/07/2020 14:49	WG1488255
sec-Butylbenzene	ND		0.0150	1	06/07/2020 14:49	WG1488255
tert-Butylbenzene	ND		0.00602	1	06/07/2020 14:49	WG1488255
Carbon tetrachloride	ND		0.00602	1	06/07/2020 14:49	WG1488255
Chlorobenzene	ND		0.00301	1	06/07/2020 14:49	WG1488255
Chlorodibromomethane	ND		0.00301	1	06/07/2020 14:49	WG1488255
Chloroethane	ND		0.00602	1	06/07/2020 14:49	WG1488255
Chloroform	ND		0.00301	1	06/07/2020 14:49	WG1488255
Chloromethane	ND		0.0150	1	06/07/2020 14:49	WG1488255
2-Chlorotoluene	ND	<u>J4</u>	0.00301	1	06/07/2020 14:49	WG1488255
4-Chlorotoluene	ND		0.00602	1	06/07/2020 14:49	WG1488255
1,2-Dibromo-3-Chloropropane	ND		0.0301	1	06/07/2020 14:49	WG1488255
1,2-Dibromoethane	ND		0.00301	1	06/07/2020 14:49	WG1488255
Dibromomethane	ND		0.00602	1	06/07/2020 14:49	WG1488255
1,2-Dichlorobenzene	ND		0.00602	1	06/07/2020 14:49	WG1488255
1,3-Dichlorobenzene	ND		0.00602	1	06/07/2020 14:49	WG1488255
1,4-Dichlorobenzene	ND		0.00602	1	06/07/2020 14:49	WG1488255

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 13:15

L1225601

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	ND		0.00301	1	06/07/2020 14:49	WG1488255
1,1-Dichloroethane	ND		0.00301	1	06/07/2020 14:49	WG1488255
1,2-Dichloroethane	ND		0.00301	1	06/07/2020 14:49	WG1488255
1,1-Dichloroethene	ND		0.00301	1	06/07/2020 14:49	WG1488255
cis-1,2-Dichloroethene	ND		0.00301	1	06/07/2020 14:49	WG1488255
trans-1,2-Dichloroethene	ND		0.00602	1	06/07/2020 14:49	WG1488255
1,2-Dichloropropane	ND		0.00602	1	06/07/2020 14:49	WG1488255
1,1-Dichloropropene	ND		0.00301	1	06/07/2020 14:49	WG1488255
1,3-Dichloropropane	ND		0.00602	1	06/07/2020 14:49	WG1488255
cis-1,3-Dichloropropene	ND		0.00301	1	06/07/2020 14:49	WG1488255
trans-1,3-Dichloropropene	ND		0.00602	1	06/07/2020 14:49	WG1488255
2,2-Dichloropropane	ND		0.00301	1	06/07/2020 14:49	WG1488255
Di-isopropyl ether	ND		0.00120	1	06/07/2020 14:49	WG1488255
Ethylbenzene	ND		0.00301	1	06/07/2020 14:49	WG1488255
Hexachloro-1,3-butadiene	ND		0.0301	1	06/07/2020 14:49	WG1488255
Isopropylbenzene	ND		0.00301	1	06/07/2020 14:49	WG1488255
p-Isopropyltoluene	0.00917		0.00602	1	06/07/2020 14:49	WG1488255
2-Butanone (MEK)	ND		0.120	1	06/07/2020 14:49	WG1488255
Methylene Chloride	ND		0.0301	1	06/07/2020 14:49	WG1488255
4-Methyl-2-pentanone (MIBK)	ND		0.0301	1	06/07/2020 14:49	WG1488255
Methyl tert-butyl ether	ND		0.00120	1	06/07/2020 14:49	WG1488255
Naphthalene	ND		0.0150	1	06/07/2020 14:49	WG1488255
n-Propylbenzene	ND		0.00602	1	06/07/2020 14:49	WG1488255
Styrene	ND		0.0150	1	06/07/2020 14:49	WG1488255
1,1,1,2-Tetrachloroethane	ND		0.00301	1	06/07/2020 14:49	WG1488255
1,1,2,2-Tetrachloroethane	ND		0.00301	1	06/07/2020 14:49	WG1488255
1,1,2-Trichlorotrifluoroethane	ND		0.00301	1	06/07/2020 14:49	WG1488255
Tetrachloroethene	ND		0.00301	1	06/07/2020 14:49	WG1488255
Toluene	0.0112		0.00602	1	06/07/2020 14:49	WG1488255
1,2,3-Trichlorobenzene	ND		0.0150	1	06/07/2020 14:49	WG1488255
1,2,4-Trichlorobenzene	ND		0.0150	1	06/07/2020 14:49	WG1488255
1,1,1-Trichloroethane	ND		0.00301	1	06/07/2020 14:49	WG1488255
1,1,2-Trichloroethane	ND		0.00301	1	06/07/2020 14:49	WG1488255
Trichloroethene	ND		0.00120	1	06/07/2020 14:49	WG1488255
Trichlorofluoromethane	ND		0.00301	1	06/07/2020 14:49	WG1488255
1,2,3-Trichloropropane	ND		0.0150	1	06/07/2020 14:49	WG1488255
1,2,4-Trimethylbenzene	ND		0.00602	1	06/07/2020 14:49	WG1488255
1,2,3-Trimethylbenzene	ND		0.00602	1	06/07/2020 14:49	WG1488255
1,3,5-Trimethylbenzene	ND		0.00602	1	06/07/2020 14:49	WG1488255
Vinyl chloride	ND		0.00301	1	06/07/2020 14:49	WG1488255
Xylenes, Total	ND		0.00782	1	06/07/2020 14:49	WG1488255
(S) Toluene-d8	113		75.0-131		06/07/2020 14:49	WG1488255
(S) 4-Bromofluorobenzene	90.1		67.0-138		06/07/2020 14:49	WG1488255
(S) 1,2-Dichloroethane-d4	87.8		70.0-130		06/07/2020 14:49	WG1488255

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 NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		96.2	20	06/10/2020 07:19	WG1489750
Residual Range Organics (RRO)	ND		241	20	06/10/2020 07:19	WG1489750
(S) o-Terphenyl	83.6	J7	18.0-148		06/10/2020 07:19	WG1489750

Sample Narrative:

L1225601-02 WG1489750: Cannot run at lower dilution due to viscosity of extract



Collected date/time: 06/02/20 13:15

L1225601

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Anthracene	ND		0.00722	1	06/11/2020 03:51	WG1489474	¹ Cp
Acenaphthene	ND		0.00722	1	06/11/2020 03:51	WG1489474	² Tc
Acenaphthylene	ND		0.00722	1	06/11/2020 03:51	WG1489474	³ Ss
Benzo(a)anthracene	0.0142		0.00722	1	06/11/2020 03:51	WG1489474	⁴ Cn
Benzo(a)pyrene	0.0120		0.00722	1	06/11/2020 03:51	WG1489474	⁵ Sr
Benzo(b)fluoranthene	0.0154		0.00722	1	06/11/2020 03:51	WG1489474	⁶ Qc
Benzo(g,h,i)perylene	ND		0.00722	1	06/11/2020 03:51	WG1489474	⁷ Gl
Benzo(k)fluoranthene	ND		0.00722	1	06/11/2020 03:51	WG1489474	⁸ Al
Chrysene	0.0176		0.00722	1	06/11/2020 03:51	WG1489474	⁹ Sc
Dibenz(a,h)anthracene	ND		0.00722	1	06/11/2020 03:51	WG1489474	
Fluoranthene	0.0276		0.00722	1	06/11/2020 03:51	WG1489474	
Fluorene	ND		0.00722	1	06/11/2020 03:51	WG1489474	
Indeno(1,2,3-cd)pyrene	ND		0.00722	1	06/11/2020 03:51	WG1489474	
Naphthalene	ND		0.0241	1	06/11/2020 03:51	WG1489474	
Phenanthrene	0.00893		0.00722	1	06/11/2020 03:51	WG1489474	
Pyrene	0.0321		0.00722	1	06/11/2020 03:51	WG1489474	
1-Methylnaphthalene	ND		0.0241	1	06/11/2020 03:51	WG1489474	
2-Methylnaphthalene	ND		0.0241	1	06/11/2020 03:51	WG1489474	
2-Chloronaphthalene	ND		0.0241	1	06/11/2020 03:51	WG1489474	
(S) Nitrobenzene-d5	118		14.0-149		06/11/2020 03:51	WG1489474	
(S) 2-Fluorobiphenyl	74.0		34.0-125		06/11/2020 03:51	WG1489474	
(S) p-Terphenyl-d14	80.9		23.0-120		06/11/2020 03:51	WG1489474	



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.6		1	06/09/2020 23:56	WG1489016

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0479	1	06/07/2020 22:23	WG1487994

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	2.56		1.20	5	06/06/2020 15:37	WG1488068
Barium	35.4		2.99	5	06/06/2020 15:37	WG1488068
Cadmium	ND		1.20	5	06/06/2020 15:37	WG1488068
Chromium	13.6		5.98	5	06/06/2020 15:37	WG1488068
Copper	ND		5.98	5	06/06/2020 15:37	WG1488068
Lead	2.66		2.39	5	06/06/2020 15:37	WG1488068
Nickel	6.35		2.99	5	06/06/2020 15:37	WG1488068
Selenium	ND		2.99	5	06/06/2020 15:37	WG1488068
Silver	ND		0.598	5	06/06/2020 15:37	WG1488068
Zinc	ND		29.9	5	06/06/2020 15:37	WG1488068

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		2.99	25	06/07/2020 04:29	WG1488294
(S) a,a,a-Trifluorotoluene(FID)	93.6		77.0-120		06/07/2020 04:29	WG1488294

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0610	1.02	06/07/2020 15:07	WG1488255
Acrylonitrile	ND		0.0153	1.02	06/07/2020 15:07	WG1488255
Benzene	ND		0.00122	1.02	06/07/2020 15:07	WG1488255
Bromobenzene	ND		0.0153	1.02	06/07/2020 15:07	WG1488255
Bromodichloromethane	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
Bromoform	ND		0.0305	1.02	06/07/2020 15:07	WG1488255
Bromomethane	ND		0.0153	1.02	06/07/2020 15:07	WG1488255
n-Butylbenzene	ND		0.0153	1.02	06/07/2020 15:07	WG1488255
sec-Butylbenzene	ND		0.0153	1.02	06/07/2020 15:07	WG1488255
tert-Butylbenzene	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
Carbon tetrachloride	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
Chlorobenzene	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
Chlorodibromomethane	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
Chloroethane	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
Chloroform	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
Chloromethane	ND		0.0153	1.02	06/07/2020 15:07	WG1488255
2-Chlorotoluene	ND	J4	0.00305	1.02	06/07/2020 15:07	WG1488255
4-Chlorotoluene	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
1,2-Dibromo-3-Chloropropane	ND		0.0305	1.02	06/07/2020 15:07	WG1488255
1,2-Dibromoethane	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
Dibromomethane	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
1,2-Dichlorobenzene	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
1,3-Dichlorobenzene	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
1,4-Dichlorobenzene	ND		0.00610	1.02	06/07/2020 15:07	WG1488255

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 13:25

L1225601

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
1,1-Dichloroethane	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
1,2-Dichloroethane	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
1,1-Dichloroethene	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
cis-1,2-Dichloroethene	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
trans-1,2-Dichloroethene	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
1,2-Dichloropropane	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
1,1-Dichloropropene	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
1,3-Dichloropropane	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
cis-1,3-Dichloropropene	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
trans-1,3-Dichloropropene	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
2,2-Dichloropropane	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
Di-isopropyl ether	ND		0.00122	1.02	06/07/2020 15:07	WG1488255
Ethylbenzene	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
Hexachloro-1,3-butadiene	ND		0.0305	1.02	06/07/2020 15:07	WG1488255
Isopropylbenzene	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
p-Isopropyltoluene	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
2-Butanone (MEK)	0.128	B	0.122	1.02	06/07/2020 15:07	WG1488255
Methylene Chloride	ND		0.0305	1.02	06/07/2020 15:07	WG1488255
4-Methyl-2-pentanone (MIBK)	ND		0.0305	1.02	06/07/2020 15:07	WG1488255
Methyl tert-butyl ether	ND		0.00122	1.02	06/07/2020 15:07	WG1488255
Naphthalene	ND		0.0153	1.02	06/07/2020 15:07	WG1488255
n-Propylbenzene	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
Styrene	ND		0.0153	1.02	06/07/2020 15:07	WG1488255
1,1,1,2-Tetrachloroethane	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
1,1,2,2-Tetrachloroethane	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
1,1,2-Trichlorotrifluoroethane	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
Tetrachloroethene	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
Toluene	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
1,2,3-Trichlorobenzene	ND		0.0153	1.02	06/07/2020 15:07	WG1488255
1,2,4-Trichlorobenzene	ND		0.0153	1.02	06/07/2020 15:07	WG1488255
1,1,1-Trichloroethane	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
1,1,2-Trichloroethane	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
Trichloroethene	ND		0.00122	1.02	06/07/2020 15:07	WG1488255
Trichlorofluoromethane	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
1,2,3-Trichloropropane	ND		0.0153	1.02	06/07/2020 15:07	WG1488255
1,2,4-Trimethylbenzene	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
1,2,3-Trimethylbenzene	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
1,3,5-Trimethylbenzene	ND		0.00610	1.02	06/07/2020 15:07	WG1488255
Vinyl chloride	ND		0.00305	1.02	06/07/2020 15:07	WG1488255
Xylenes, Total	ND		0.00793	1.02	06/07/2020 15:07	WG1488255
(S) Toluene-d8	109		75.0-131		06/07/2020 15:07	WG1488255
(S) 4-Bromofluorobenzene	87.8		67.0-138		06/07/2020 15:07	WG1488255
(S) 1,2-Dichloroethane-d4	86.0		70.0-130		06/07/2020 15:07	WG1488255

- 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 NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		4.79	1	06/10/2020 04:08	WG1489750
Residual Range Organics (RRO)	17.0		12.0	1	06/10/2020 04:08	WG1489750
(S) o-Terphenyl	66.9		18.0-148		06/10/2020 04:08	WG1489750



Collected date/time: 06/02/20 13:25

L1225601

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00718	1	06/10/2020 21:37	WG1489474
Acenaphthene	ND		0.00718	1	06/10/2020 21:37	WG1489474
Acenaphthylene	ND		0.00718	1	06/10/2020 21:37	WG1489474
Benzo(a)anthracene	ND		0.00718	1	06/10/2020 21:37	WG1489474
Benzo(a)pyrene	ND		0.00718	1	06/10/2020 21:37	WG1489474
Benzo(b)fluoranthene	ND		0.00718	1	06/10/2020 21:37	WG1489474
Benzo(g,h,i)perylene	ND		0.00718	1	06/10/2020 21:37	WG1489474
Benzo(k)fluoranthene	ND		0.00718	1	06/10/2020 21:37	WG1489474
Chrysene	ND		0.00718	1	06/10/2020 21:37	WG1489474
Dibenz(a,h)anthracene	ND		0.00718	1	06/10/2020 21:37	WG1489474
Fluoranthene	ND		0.00718	1	06/10/2020 21:37	WG1489474
Fluorene	ND		0.00718	1	06/10/2020 21:37	WG1489474
Indeno(1,2,3-cd)pyrene	ND		0.00718	1	06/10/2020 21:37	WG1489474
Naphthalene	ND		0.0239	1	06/10/2020 21:37	WG1489474
Phenanthrene	ND		0.00718	1	06/10/2020 21:37	WG1489474
Pyrene	ND		0.00718	1	06/10/2020 21:37	WG1489474
1-Methylnaphthalene	ND		0.0239	1	06/10/2020 21:37	WG1489474
2-Methylnaphthalene	ND		0.0239	1	06/10/2020 21:37	WG1489474
2-Chloronaphthalene	ND		0.0239	1	06/10/2020 21:37	WG1489474
(S) Nitrobenzene-d5	106		14.0-149		06/10/2020 21:37	WG1489474
(S) 2-Fluorobiphenyl	70.3		34.0-125		06/10/2020 21:37	WG1489474
(S) p-Terphenyl-d14	91.8		23.0-120		06/10/2020 21:37	WG1489474

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	86.5		1	06/09/2020 23:34	WG1489017

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0462	1	06/07/2020 22:25	WG1487994

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	2.87		1.16	5	06/06/2020 15:41	WG1488068
Barium	129		2.89	5	06/06/2020 15:41	WG1488068
Cadmium	ND		1.16	5	06/06/2020 15:41	WG1488068
Chromium	21.4		5.78	5	06/06/2020 15:41	WG1488068
Copper	22.5		5.78	5	06/06/2020 15:41	WG1488068
Lead	5.69		2.31	5	06/06/2020 15:41	WG1488068
Nickel	13.2		2.89	5	06/06/2020 15:41	WG1488068
Selenium	ND		2.89	5	06/06/2020 15:41	WG1488068
Silver	ND		0.578	5	06/06/2020 15:41	WG1488068
Zinc	36.8		28.9	5	06/06/2020 15:41	WG1488068

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		2.89	25	06/07/2020 04:50	WG1488294
(S) a,a,a-Trifluorotoluene(FID)	93.5		77.0-120		06/07/2020 04:50	WG1488294

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0578	1	06/07/2020 15:26	WG1488255
Acrylonitrile	ND		0.0144	1	06/07/2020 15:26	WG1488255
Benzene	ND		0.00116	1	06/07/2020 15:26	WG1488255
Bromobenzene	ND		0.0144	1	06/07/2020 15:26	WG1488255
Bromodichloromethane	ND		0.00289	1	06/07/2020 15:26	WG1488255
Bromoform	ND		0.0289	1	06/07/2020 15:26	WG1488255
Bromomethane	ND		0.0144	1	06/07/2020 15:26	WG1488255
n-Butylbenzene	ND		0.0144	1	06/07/2020 15:26	WG1488255
sec-Butylbenzene	ND		0.0144	1	06/07/2020 15:26	WG1488255
tert-Butylbenzene	ND		0.00578	1	06/07/2020 15:26	WG1488255
Carbon tetrachloride	ND		0.00578	1	06/07/2020 15:26	WG1488255
Chlorobenzene	ND		0.00289	1	06/07/2020 15:26	WG1488255
Chlorodibromomethane	ND		0.00289	1	06/07/2020 15:26	WG1488255
Chloroethane	ND		0.00578	1	06/07/2020 15:26	WG1488255
Chloroform	ND		0.00289	1	06/07/2020 15:26	WG1488255
Chloromethane	ND		0.0144	1	06/07/2020 15:26	WG1488255
2-Chlorotoluene	ND	J4	0.00289	1	06/07/2020 15:26	WG1488255
4-Chlorotoluene	ND		0.00578	1	06/07/2020 15:26	WG1488255
1,2-Dibromo-3-Chloropropane	ND		0.0289	1	06/07/2020 15:26	WG1488255
1,2-Dibromoethane	ND		0.00289	1	06/07/2020 15:26	WG1488255
Dibromomethane	ND		0.00578	1	06/07/2020 15:26	WG1488255
1,2-Dichlorobenzene	ND		0.00578	1	06/07/2020 15:26	WG1488255
1,3-Dichlorobenzene	ND		0.00578	1	06/07/2020 15:26	WG1488255
1,4-Dichlorobenzene	ND		0.00578	1	06/07/2020 15:26	WG1488255

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 12:03

L1225601

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	ND		0.00289	1	06/07/2020 15:26	WG1488255
1,1-Dichloroethane	ND		0.00289	1	06/07/2020 15:26	WG1488255
1,2-Dichloroethane	ND		0.00289	1	06/07/2020 15:26	WG1488255
1,1-Dichloroethene	ND		0.00289	1	06/07/2020 15:26	WG1488255
cis-1,2-Dichloroethene	ND		0.00289	1	06/07/2020 15:26	WG1488255
trans-1,2-Dichloroethene	ND		0.00578	1	06/07/2020 15:26	WG1488255
1,2-Dichloropropane	ND		0.00578	1	06/07/2020 15:26	WG1488255
1,1-Dichloropropene	ND		0.00289	1	06/07/2020 15:26	WG1488255
1,3-Dichloropropane	ND		0.00578	1	06/07/2020 15:26	WG1488255
cis-1,3-Dichloropropene	ND		0.00289	1	06/07/2020 15:26	WG1488255
trans-1,3-Dichloropropene	ND		0.00578	1	06/07/2020 15:26	WG1488255
2,2-Dichloropropane	ND		0.00289	1	06/07/2020 15:26	WG1488255
Di-isopropyl ether	ND		0.00116	1	06/07/2020 15:26	WG1488255
Ethylbenzene	ND		0.00289	1	06/07/2020 15:26	WG1488255
Hexachloro-1,3-butadiene	ND		0.0289	1	06/07/2020 15:26	WG1488255
Isopropylbenzene	ND		0.00289	1	06/07/2020 15:26	WG1488255
p-Isopropyltoluene	ND		0.00578	1	06/07/2020 15:26	WG1488255
2-Butanone (MEK)	ND		0.116	1	06/07/2020 15:26	WG1488255
Methylene Chloride	ND		0.0289	1	06/07/2020 15:26	WG1488255
4-Methyl-2-pentanone (MIBK)	ND		0.0289	1	06/07/2020 15:26	WG1488255
Methyl tert-butyl ether	ND		0.00116	1	06/07/2020 15:26	WG1488255
Naphthalene	ND		0.0144	1	06/07/2020 15:26	WG1488255
n-Propylbenzene	ND		0.00578	1	06/07/2020 15:26	WG1488255
Styrene	ND		0.0144	1	06/07/2020 15:26	WG1488255
1,1,1,2-Tetrachloroethane	ND		0.00289	1	06/07/2020 15:26	WG1488255
1,1,2,2-Tetrachloroethane	ND		0.00289	1	06/07/2020 15:26	WG1488255
1,1,2-Trichlorotrifluoroethane	ND		0.00289	1	06/07/2020 15:26	WG1488255
Tetrachloroethene	ND		0.00289	1	06/07/2020 15:26	WG1488255
Toluene	ND		0.00578	1	06/07/2020 15:26	WG1488255
1,2,3-Trichlorobenzene	ND		0.0144	1	06/07/2020 15:26	WG1488255
1,2,4-Trichlorobenzene	ND		0.0144	1	06/07/2020 15:26	WG1488255
1,1,1-Trichloroethane	ND		0.00289	1	06/07/2020 15:26	WG1488255
1,1,2-Trichloroethane	ND		0.00289	1	06/07/2020 15:26	WG1488255
Trichloroethene	ND		0.00116	1	06/07/2020 15:26	WG1488255
Trichlorofluoromethane	ND		0.00289	1	06/07/2020 15:26	WG1488255
1,2,3-Trichloropropane	ND		0.0144	1	06/07/2020 15:26	WG1488255
1,2,4-Trimethylbenzene	ND		0.00578	1	06/07/2020 15:26	WG1488255
1,2,3-Trimethylbenzene	ND		0.00578	1	06/07/2020 15:26	WG1488255
1,3,5-Trimethylbenzene	ND		0.00578	1	06/07/2020 15:26	WG1488255
Vinyl chloride	ND		0.00289	1	06/07/2020 15:26	WG1488255
Xylenes, Total	ND		0.00751	1	06/07/2020 15:26	WG1488255
(S) Toluene-d8	110		75.0-131		06/07/2020 15:26	WG1488255
(S) 4-Bromofluorobenzene	88.6		67.0-138		06/07/2020 15:26	WG1488255
(S) 1,2-Dichloroethane-d4	87.7		70.0-130		06/07/2020 15:26	WG1488255

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 NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	5.07		4.62	1	06/10/2020 04:20	WG1489750
Residual Range Organics (RRO)	ND		11.6	1	06/10/2020 04:20	WG1489750
(S) o-Terphenyl	56.4		18.0-148		06/10/2020 04:20	WG1489750



Collected date/time: 06/02/20 12:03

L1225601

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.0342		0.00693	1	06/10/2020 21:58	WG1489474
Acenaphthene	0.0110		0.00693	1	06/10/2020 21:58	WG1489474
Acenaphthylene	ND		0.00693	1	06/10/2020 21:58	WG1489474
Benzo(a)anthracene	0.0522		0.00693	1	06/10/2020 21:58	WG1489474
Benzo(a)pyrene	0.0431		0.00693	1	06/10/2020 21:58	WG1489474
Benzo(b)fluoranthene	0.0420		0.00693	1	06/10/2020 21:58	WG1489474
Benzo(g,h,i)perylene	0.0246		0.00693	1	06/10/2020 21:58	WG1489474
Benzo(k)fluoranthene	0.0125		0.00693	1	06/10/2020 21:58	WG1489474
Chrysene	0.0479		0.00693	1	06/10/2020 21:58	WG1489474
Dibenz(a,h)anthracene	ND		0.00693	1	06/10/2020 21:58	WG1489474
Fluoranthene	0.120		0.00693	1	06/10/2020 21:58	WG1489474
Fluorene	0.0195		0.00693	1	06/10/2020 21:58	WG1489474
Indeno(1,2,3-cd)pyrene	0.0176		0.00693	1	06/10/2020 21:58	WG1489474
Naphthalene	ND		0.0231	1	06/10/2020 21:58	WG1489474
Phenanthrene	0.169		0.00693	1	06/10/2020 21:58	WG1489474
Pyrene	0.149		0.00693	1	06/10/2020 21:58	WG1489474
1-Methylnaphthalene	ND		0.0231	1	06/10/2020 21:58	WG1489474
2-Methylnaphthalene	ND		0.0231	1	06/10/2020 21:58	WG1489474
2-Chloronaphthalene	ND		0.0231	1	06/10/2020 21:58	WG1489474
(S) Nitrobenzene-d5	95.1		14.0-149		06/10/2020 21:58	WG1489474
(S) 2-Fluorobiphenyl	69.7		34.0-125		06/10/2020 21:58	WG1489474
(S) p-Terphenyl-d14	74.5		23.0-120		06/10/2020 21:58	WG1489474

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	73.2		1	06/09/2020 23:34	WG1489017

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0664		0.0547	1	06/07/2020 22:28	WG1487994

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	3.16		1.37	5	06/06/2020 15:44	WG1488068
Barium	172		3.42	5	06/06/2020 15:44	WG1488068
Cadmium	ND		1.37	5	06/06/2020 15:44	WG1488068
Chromium	28.2		6.83	5	06/06/2020 15:44	WG1488068
Copper	31.3		6.83	5	06/06/2020 15:44	WG1488068
Lead	19.7		2.73	5	06/06/2020 15:44	WG1488068
Nickel	19.2		3.42	5	06/06/2020 15:44	WG1488068
Selenium	ND		3.42	5	06/06/2020 15:44	WG1488068
Silver	ND		0.683	5	06/06/2020 15:44	WG1488068
Zinc	69.9		34.2	5	06/06/2020 15:44	WG1488068

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		3.42	25	06/07/2020 05:10	WG1488294
(S) a,a,a-Trifluorotoluene(FID)	93.6		77.0-120		06/07/2020 05:10	WG1488294

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0683	1	06/07/2020 15:45	WG1488255
Acrylonitrile	ND		0.0171	1	06/07/2020 15:45	WG1488255
Benzene	ND		0.00137	1	06/07/2020 15:45	WG1488255
Bromobenzene	ND		0.0171	1	06/07/2020 15:45	WG1488255
Bromodichloromethane	ND		0.00342	1	06/07/2020 15:45	WG1488255
Bromoform	ND		0.0342	1	06/07/2020 15:45	WG1488255
Bromomethane	ND		0.0171	1	06/07/2020 15:45	WG1488255
n-Butylbenzene	ND		0.0171	1	06/07/2020 15:45	WG1488255
sec-Butylbenzene	ND		0.0171	1	06/07/2020 15:45	WG1488255
tert-Butylbenzene	ND		0.00683	1	06/07/2020 15:45	WG1488255
Carbon tetrachloride	ND		0.00683	1	06/07/2020 15:45	WG1488255
Chlorobenzene	ND		0.00342	1	06/07/2020 15:45	WG1488255
Chlorodibromomethane	ND		0.00342	1	06/07/2020 15:45	WG1488255
Chloroethane	ND		0.00683	1	06/07/2020 15:45	WG1488255
Chloroform	ND		0.00342	1	06/07/2020 15:45	WG1488255
Chloromethane	ND		0.0171	1	06/07/2020 15:45	WG1488255
2-Chlorotoluene	ND	J4	0.00342	1	06/07/2020 15:45	WG1488255
4-Chlorotoluene	ND		0.00683	1	06/07/2020 15:45	WG1488255
1,2-Dibromo-3-Chloropropane	ND		0.0342	1	06/07/2020 15:45	WG1488255
1,2-Dibromoethane	ND		0.00342	1	06/07/2020 15:45	WG1488255
Dibromomethane	ND		0.00683	1	06/07/2020 15:45	WG1488255
1,2-Dichlorobenzene	ND		0.00683	1	06/07/2020 15:45	WG1488255
1,3-Dichlorobenzene	ND		0.00683	1	06/07/2020 15:45	WG1488255
1,4-Dichlorobenzene	ND		0.00683	1	06/07/2020 15:45	WG1488255

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 12:10

L1225601

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	ND		0.00342	1	06/07/2020 15:45	WG1488255
1,1-Dichloroethane	ND		0.00342	1	06/07/2020 15:45	WG1488255
1,2-Dichloroethane	ND		0.00342	1	06/07/2020 15:45	WG1488255
1,1-Dichloroethene	ND		0.00342	1	06/07/2020 15:45	WG1488255
cis-1,2-Dichloroethene	ND		0.00342	1	06/07/2020 15:45	WG1488255
trans-1,2-Dichloroethene	ND		0.00683	1	06/07/2020 15:45	WG1488255
1,2-Dichloropropane	ND		0.00683	1	06/07/2020 15:45	WG1488255
1,1-Dichloropropene	ND		0.00342	1	06/07/2020 15:45	WG1488255
1,3-Dichloropropane	ND		0.00683	1	06/07/2020 15:45	WG1488255
cis-1,3-Dichloropropene	ND		0.00342	1	06/07/2020 15:45	WG1488255
trans-1,3-Dichloropropene	ND		0.00683	1	06/07/2020 15:45	WG1488255
2,2-Dichloropropane	ND		0.00342	1	06/07/2020 15:45	WG1488255
Di-isopropyl ether	ND		0.00137	1	06/07/2020 15:45	WG1488255
Ethylbenzene	ND		0.00342	1	06/07/2020 15:45	WG1488255
Hexachloro-1,3-butadiene	ND		0.0342	1	06/07/2020 15:45	WG1488255
Isopropylbenzene	ND		0.00342	1	06/07/2020 15:45	WG1488255
p-Isopropyltoluene	ND		0.00683	1	06/07/2020 15:45	WG1488255
2-Butanone (MEK)	ND		0.137	1	06/07/2020 15:45	WG1488255
Methylene Chloride	ND		0.0342	1	06/07/2020 15:45	WG1488255
4-Methyl-2-pentanone (MIBK)	ND		0.0342	1	06/07/2020 15:45	WG1488255
Methyl tert-butyl ether	ND		0.00137	1	06/07/2020 15:45	WG1488255
Naphthalene	ND		0.0171	1	06/07/2020 15:45	WG1488255
n-Propylbenzene	ND		0.00683	1	06/07/2020 15:45	WG1488255
Styrene	ND		0.0171	1	06/07/2020 15:45	WG1488255
1,1,1,2-Tetrachloroethane	ND		0.00342	1	06/07/2020 15:45	WG1488255
1,1,2,2-Tetrachloroethane	ND		0.00342	1	06/07/2020 15:45	WG1488255
1,1,2-Trichlorotrifluoroethane	ND		0.00342	1	06/07/2020 15:45	WG1488255
Tetrachloroethene	ND		0.00342	1	06/07/2020 15:45	WG1488255
Toluene	ND		0.00683	1	06/07/2020 15:45	WG1488255
1,2,3-Trichlorobenzene	ND		0.0171	1	06/07/2020 15:45	WG1488255
1,2,4-Trichlorobenzene	ND		0.0171	1	06/07/2020 15:45	WG1488255
1,1,1-Trichloroethane	ND		0.00342	1	06/07/2020 15:45	WG1488255
1,1,2-Trichloroethane	ND		0.00342	1	06/07/2020 15:45	WG1488255
Trichloroethene	ND		0.00137	1	06/07/2020 15:45	WG1488255
Trichlorofluoromethane	ND		0.00342	1	06/07/2020 15:45	WG1488255
1,2,3-Trichloropropane	ND		0.0171	1	06/07/2020 15:45	WG1488255
1,2,4-Trimethylbenzene	ND		0.00683	1	06/07/2020 15:45	WG1488255
1,2,3-Trimethylbenzene	ND		0.00683	1	06/07/2020 15:45	WG1488255
1,3,5-Trimethylbenzene	ND		0.00683	1	06/07/2020 15:45	WG1488255
Vinyl chloride	ND		0.00342	1	06/07/2020 15:45	WG1488255
Xylenes, Total	ND		0.00888	1	06/07/2020 15:45	WG1488255
(S) Toluene-d8	110		75.0-131		06/07/2020 15:45	WG1488255
(S) 4-Bromofluorobenzene	88.9		67.0-138		06/07/2020 15:45	WG1488255
(S) 1,2-Dichloroethane-d4	87.9		70.0-130		06/07/2020 15:45	WG1488255

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 NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		5.47	1	06/10/2020 05:50	WG1489750
Residual Range Organics (RRO)	14.6		13.7	1	06/10/2020 05:50	WG1489750
(S) o-Terphenyl	61.6		18.0-148		06/10/2020 05:50	WG1489750



Collected date/time: 06/02/20 12:10

L1225601

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00820	1	06/11/2020 11:56	WG1489474
Acenaphthene	ND		0.00820	1	06/11/2020 11:56	WG1489474
Acenaphthylene	ND		0.00820	1	06/11/2020 11:56	WG1489474
Benzo(a)anthracene	ND		0.00820	1	06/11/2020 11:56	WG1489474
Benzo(a)pyrene	ND		0.00820	1	06/11/2020 11:56	WG1489474
Benzo(b)fluoranthene	ND		0.00820	1	06/11/2020 11:56	WG1489474
Benzo(g,h,i)perylene	ND		0.00820	1	06/11/2020 11:56	WG1489474
Benzo(k)fluoranthene	ND		0.00820	1	06/11/2020 11:56	WG1489474
Chrysene	ND		0.00820	1	06/11/2020 11:56	WG1489474
Dibenz(a,h)anthracene	ND		0.00820	1	06/11/2020 11:56	WG1489474
Fluoranthene	ND		0.00820	1	06/11/2020 11:56	WG1489474
Fluorene	ND		0.00820	1	06/11/2020 11:56	WG1489474
Indeno(1,2,3-cd)pyrene	ND		0.00820	1	06/11/2020 11:56	WG1489474
Naphthalene	ND		0.0273	1	06/11/2020 11:56	WG1489474
Phenanthrene	ND		0.00820	1	06/11/2020 11:56	WG1489474
Pyrene	0.0133		0.00820	1	06/11/2020 11:56	WG1489474
1-Methylnaphthalene	ND		0.0273	1	06/11/2020 11:56	WG1489474
2-Methylnaphthalene	ND		0.0273	1	06/11/2020 11:56	WG1489474
2-Chloronaphthalene	ND		0.0273	1	06/11/2020 11:56	WG1489474
(S) Nitrobenzene-d5	90.2		14.0-149		06/11/2020 11:56	WG1489474
(S) 2-Fluorobiphenyl	87.8		34.0-125		06/11/2020 11:56	WG1489474
(S) p-Terphenyl-d14	75.8		23.0-120		06/11/2020 11:56	WG1489474

- 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	76.8		1	06/09/2020 23:34	WG1489017

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0521	1	06/07/2020 22:31	WG1487994

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	3.12		1.30	5	06/06/2020 15:48	WG1488068
Barium	98.9		3.25	5	06/06/2020 15:48	WG1488068
Cadmium	ND		1.30	5	06/06/2020 15:48	WG1488068
Chromium	35.3		6.51	5	06/06/2020 15:48	WG1488068
Copper	29.0		6.51	5	06/06/2020 15:48	WG1488068
Lead	6.21		2.60	5	06/06/2020 15:48	WG1488068
Nickel	16.2		3.25	5	06/06/2020 15:48	WG1488068
Selenium	ND		3.25	5	06/06/2020 15:48	WG1488068
Silver	ND		0.651	5	06/06/2020 15:48	WG1488068
Zinc	38.1		32.5	5	06/06/2020 15:48	WG1488068

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		3.25	25	06/07/2020 05:31	WG1488294
(S) a,a,a-Trifluorotoluene(FID)	93.3		77.0-120		06/07/2020 05:31	WG1488294

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0651	1	06/07/2020 16:04	WG1488255
Acrylonitrile	ND		0.0163	1	06/07/2020 16:04	WG1488255
Benzene	ND		0.00130	1	06/07/2020 16:04	WG1488255
Bromobenzene	ND		0.0163	1	06/07/2020 16:04	WG1488255
Bromodichloromethane	ND		0.00325	1	06/07/2020 16:04	WG1488255
Bromoform	ND		0.0325	1	06/07/2020 16:04	WG1488255
Bromomethane	ND		0.0163	1	06/07/2020 16:04	WG1488255
n-Butylbenzene	ND		0.0163	1	06/07/2020 16:04	WG1488255
sec-Butylbenzene	ND		0.0163	1	06/07/2020 16:04	WG1488255
tert-Butylbenzene	ND		0.00651	1	06/07/2020 16:04	WG1488255
Carbon tetrachloride	ND		0.00651	1	06/07/2020 16:04	WG1488255
Chlorobenzene	ND		0.00325	1	06/07/2020 16:04	WG1488255
Chlorodibromomethane	ND		0.00325	1	06/07/2020 16:04	WG1488255
Chloroethane	ND		0.00651	1	06/07/2020 16:04	WG1488255
Chloroform	ND		0.00325	1	06/07/2020 16:04	WG1488255
Chloromethane	ND		0.0163	1	06/07/2020 16:04	WG1488255
2-Chlorotoluene	ND	<u>J4</u>	0.00325	1	06/07/2020 16:04	WG1488255
4-Chlorotoluene	ND		0.00651	1	06/07/2020 16:04	WG1488255
1,2-Dibromo-3-Chloropropane	ND		0.0325	1	06/07/2020 16:04	WG1488255
1,2-Dibromoethane	ND		0.00325	1	06/07/2020 16:04	WG1488255
Dibromomethane	ND		0.00651	1	06/07/2020 16:04	WG1488255
1,2-Dichlorobenzene	ND		0.00651	1	06/07/2020 16:04	WG1488255
1,3-Dichlorobenzene	ND		0.00651	1	06/07/2020 16:04	WG1488255
1,4-Dichlorobenzene	ND		0.00651	1	06/07/2020 16:04	WG1488255

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 12:38

L1225601

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	ND		0.00325	1	06/07/2020 16:04	WG1488255
1,1-Dichloroethane	ND		0.00325	1	06/07/2020 16:04	WG1488255
1,2-Dichloroethane	ND		0.00325	1	06/07/2020 16:04	WG1488255
1,1-Dichloroethene	ND		0.00325	1	06/07/2020 16:04	WG1488255
cis-1,2-Dichloroethene	ND		0.00325	1	06/07/2020 16:04	WG1488255
trans-1,2-Dichloroethene	ND		0.00651	1	06/07/2020 16:04	WG1488255
1,2-Dichloropropane	ND		0.00651	1	06/07/2020 16:04	WG1488255
1,1-Dichloropropene	ND		0.00325	1	06/07/2020 16:04	WG1488255
1,3-Dichloropropane	ND		0.00651	1	06/07/2020 16:04	WG1488255
cis-1,3-Dichloropropene	ND		0.00325	1	06/07/2020 16:04	WG1488255
trans-1,3-Dichloropropene	ND		0.00651	1	06/07/2020 16:04	WG1488255
2,2-Dichloropropane	ND		0.00325	1	06/07/2020 16:04	WG1488255
Di-isopropyl ether	ND		0.00130	1	06/07/2020 16:04	WG1488255
Ethylbenzene	ND		0.00325	1	06/07/2020 16:04	WG1488255
Hexachloro-1,3-butadiene	ND		0.0325	1	06/07/2020 16:04	WG1488255
Isopropylbenzene	ND		0.00325	1	06/07/2020 16:04	WG1488255
p-Isopropyltoluene	ND		0.00651	1	06/07/2020 16:04	WG1488255
2-Butanone (MEK)	ND		0.130	1	06/07/2020 16:04	WG1488255
Methylene Chloride	ND		0.0325	1	06/07/2020 16:04	WG1488255
4-Methyl-2-pentanone (MIBK)	ND		0.0325	1	06/07/2020 16:04	WG1488255
Methyl tert-butyl ether	ND		0.00130	1	06/07/2020 16:04	WG1488255
Naphthalene	ND		0.0163	1	06/07/2020 16:04	WG1488255
n-Propylbenzene	ND		0.00651	1	06/07/2020 16:04	WG1488255
Styrene	ND		0.0163	1	06/07/2020 16:04	WG1488255
1,1,1,2-Tetrachloroethane	ND		0.00325	1	06/07/2020 16:04	WG1488255
1,1,2,2-Tetrachloroethane	ND		0.00325	1	06/07/2020 16:04	WG1488255
1,1,2-Trichlorotrifluoroethane	ND		0.00325	1	06/07/2020 16:04	WG1488255
Tetrachloroethene	ND		0.00325	1	06/07/2020 16:04	WG1488255
Toluene	ND		0.00651	1	06/07/2020 16:04	WG1488255
1,2,3-Trichlorobenzene	ND		0.0163	1	06/07/2020 16:04	WG1488255
1,2,4-Trichlorobenzene	ND		0.0163	1	06/07/2020 16:04	WG1488255
1,1,1-Trichloroethane	ND		0.00325	1	06/07/2020 16:04	WG1488255
1,1,2-Trichloroethane	ND		0.00325	1	06/07/2020 16:04	WG1488255
Trichloroethene	ND		0.00130	1	06/07/2020 16:04	WG1488255
Trichlorofluoromethane	ND		0.00325	1	06/07/2020 16:04	WG1488255
1,2,3-Trichloropropane	ND		0.0163	1	06/07/2020 16:04	WG1488255
1,2,4-Trimethylbenzene	ND		0.00651	1	06/07/2020 16:04	WG1488255
1,2,3-Trimethylbenzene	ND		0.00651	1	06/07/2020 16:04	WG1488255
1,3,5-Trimethylbenzene	ND		0.00651	1	06/07/2020 16:04	WG1488255
Vinyl chloride	ND		0.00325	1	06/07/2020 16:04	WG1488255
Xylenes, Total	ND		0.00846	1	06/07/2020 16:04	WG1488255
(S) Toluene-d8	111		75.0-131		06/07/2020 16:04	WG1488255
(S) 4-Bromofluorobenzene	89.3		67.0-138		06/07/2020 16:04	WG1488255
(S) 1,2-Dichloroethane-d4	89.1		70.0-130		06/07/2020 16:04	WG1488255

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 NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		5.21	1	06/10/2020 03:04	WG1489750
Residual Range Organics (RRO)	ND		13.0	1	06/10/2020 03:04	WG1489750
(S) o-Terphenyl	53.5		18.0-148		06/10/2020 03:04	WG1489750



Collected date/time: 06/02/20 12:38

L1225601

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00781	1	06/10/2020 22:18	WG1489474
Acenaphthene	ND		0.00781	1	06/10/2020 22:18	WG1489474
Acenaphthylene	ND		0.00781	1	06/10/2020 22:18	WG1489474
Benzo(a)anthracene	ND		0.00781	1	06/10/2020 22:18	WG1489474
Benzo(a)pyrene	ND		0.00781	1	06/10/2020 22:18	WG1489474
Benzo(b)fluoranthene	ND		0.00781	1	06/10/2020 22:18	WG1489474
Benzo(g,h,i)perylene	ND		0.00781	1	06/10/2020 22:18	WG1489474
Benzo(k)fluoranthene	ND		0.00781	1	06/10/2020 22:18	WG1489474
Chrysene	ND		0.00781	1	06/10/2020 22:18	WG1489474
Dibenz(a,h)anthracene	ND		0.00781	1	06/10/2020 22:18	WG1489474
Fluoranthene	ND		0.00781	1	06/10/2020 22:18	WG1489474
Fluorene	ND		0.00781	1	06/10/2020 22:18	WG1489474
Indeno(1,2,3-cd)pyrene	ND		0.00781	1	06/10/2020 22:18	WG1489474
Naphthalene	ND		0.0260	1	06/10/2020 22:18	WG1489474
Phenanthrene	ND		0.00781	1	06/10/2020 22:18	WG1489474
Pyrene	ND		0.00781	1	06/10/2020 22:18	WG1489474
1-Methylnaphthalene	ND		0.0260	1	06/10/2020 22:18	WG1489474
2-Methylnaphthalene	ND		0.0260	1	06/10/2020 22:18	WG1489474
2-Chloronaphthalene	ND		0.0260	1	06/10/2020 22:18	WG1489474
(S) Nitrobenzene-d5	99.6		14.0-149		06/10/2020 22:18	WG1489474
(S) 2-Fluorobiphenyl	70.8		34.0-125		06/10/2020 22:18	WG1489474
(S) p-Terphenyl-d14	70.1		23.0-120		06/10/2020 22:18	WG1489474

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	85.4		1	06/09/2020 23:34	WG1489017

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0468	1	06/07/2020 22:33	WG1487994

Metals (ICPMS) by Method 6020B

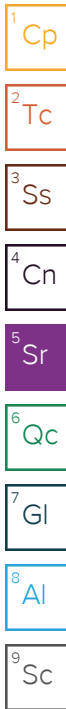
Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	2.53		1.17	5	06/06/2020 15:51	WG1488068
Barium	130		2.93	5	06/06/2020 15:51	WG1488068
Cadmium	ND		1.17	5	06/06/2020 15:51	WG1488068
Chromium	20.3		5.85	5	06/06/2020 15:51	WG1488068
Copper	22.8		5.85	5	06/06/2020 15:51	WG1488068
Lead	5.58		2.34	5	06/06/2020 15:51	WG1488068
Nickel	12.4		2.93	5	06/06/2020 15:51	WG1488068
Selenium	ND		2.93	5	06/06/2020 15:51	WG1488068
Silver	ND		0.585	5	06/06/2020 15:51	WG1488068
Zinc	35.5		29.3	5	06/06/2020 15:51	WG1488068

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		2.93	25	06/07/2020 05:52	WG1488294
(S) a,a,a-Trifluorotoluene(FID)	94.7		77.0-120		06/07/2020 05:52	WG1488294

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0585	1	06/07/2020 16:23	WG1488255
Acrylonitrile	ND		0.0146	1	06/07/2020 16:23	WG1488255
Benzene	ND		0.00117	1	06/07/2020 16:23	WG1488255
Bromobenzene	ND		0.0146	1	06/07/2020 16:23	WG1488255
Bromodichloromethane	ND		0.00293	1	06/07/2020 16:23	WG1488255
Bromoform	ND		0.0293	1	06/07/2020 16:23	WG1488255
Bromomethane	ND		0.0146	1	06/07/2020 16:23	WG1488255
n-Butylbenzene	ND		0.0146	1	06/07/2020 16:23	WG1488255
sec-Butylbenzene	ND		0.0146	1	06/07/2020 16:23	WG1488255
tert-Butylbenzene	ND		0.00585	1	06/07/2020 16:23	WG1488255
Carbon tetrachloride	ND		0.00585	1	06/07/2020 16:23	WG1488255
Chlorobenzene	ND		0.00293	1	06/07/2020 16:23	WG1488255
Chlorodibromomethane	ND		0.00293	1	06/07/2020 16:23	WG1488255
Chloroethane	ND		0.00585	1	06/07/2020 16:23	WG1488255
Chloroform	ND		0.00293	1	06/07/2020 16:23	WG1488255
Chloromethane	ND		0.0146	1	06/07/2020 16:23	WG1488255
2-Chlorotoluene	ND	J4	0.00293	1	06/07/2020 16:23	WG1488255
4-Chlorotoluene	ND		0.00585	1	06/07/2020 16:23	WG1488255
1,2-Dibromo-3-Chloropropane	ND		0.0293	1	06/07/2020 16:23	WG1488255
1,2-Dibromoethane	ND		0.00293	1	06/07/2020 16:23	WG1488255
Dibromomethane	ND		0.00585	1	06/07/2020 16:23	WG1488255
1,2-Dichlorobenzene	ND		0.00585	1	06/07/2020 16:23	WG1488255
1,3-Dichlorobenzene	ND		0.00585	1	06/07/2020 16:23	WG1488255
1,4-Dichlorobenzene	ND		0.00585	1	06/07/2020 16:23	WG1488255





Collected date/time: 06/02/20 11:00

L1225601

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	ND		0.00293	1	06/07/2020 16:23	WG1488255
1,1-Dichloroethane	ND		0.00293	1	06/07/2020 16:23	WG1488255
1,2-Dichloroethane	ND		0.00293	1	06/07/2020 16:23	WG1488255
1,1-Dichloroethene	ND		0.00293	1	06/07/2020 16:23	WG1488255
cis-1,2-Dichloroethene	ND		0.00293	1	06/07/2020 16:23	WG1488255
trans-1,2-Dichloroethene	ND		0.00585	1	06/07/2020 16:23	WG1488255
1,2-Dichloropropane	ND		0.00585	1	06/07/2020 16:23	WG1488255
1,1-Dichloropropene	ND		0.00293	1	06/07/2020 16:23	WG1488255
1,3-Dichloropropane	ND		0.00585	1	06/07/2020 16:23	WG1488255
cis-1,3-Dichloropropene	ND		0.00293	1	06/07/2020 16:23	WG1488255
trans-1,3-Dichloropropene	ND		0.00585	1	06/07/2020 16:23	WG1488255
2,2-Dichloropropane	ND		0.00293	1	06/07/2020 16:23	WG1488255
Di-isopropyl ether	ND		0.00117	1	06/07/2020 16:23	WG1488255
Ethylbenzene	ND		0.00293	1	06/07/2020 16:23	WG1488255
Hexachloro-1,3-butadiene	ND		0.0293	1	06/07/2020 16:23	WG1488255
Isopropylbenzene	ND		0.00293	1	06/07/2020 16:23	WG1488255
p-Isopropyltoluene	ND		0.00585	1	06/07/2020 16:23	WG1488255
2-Butanone (MEK)	ND		0.117	1	06/07/2020 16:23	WG1488255
Methylene Chloride	ND		0.0293	1	06/07/2020 16:23	WG1488255
4-Methyl-2-pentanone (MIBK)	ND		0.0293	1	06/07/2020 16:23	WG1488255
Methyl tert-butyl ether	ND		0.00117	1	06/07/2020 16:23	WG1488255
Naphthalene	ND		0.0146	1	06/07/2020 16:23	WG1488255
n-Propylbenzene	ND		0.00585	1	06/07/2020 16:23	WG1488255
Styrene	ND		0.0146	1	06/07/2020 16:23	WG1488255
1,1,1,2-Tetrachloroethane	ND		0.00293	1	06/07/2020 16:23	WG1488255
1,1,2,2-Tetrachloroethane	ND		0.00293	1	06/07/2020 16:23	WG1488255
1,1,2-Trichlorotrifluoroethane	ND		0.00293	1	06/07/2020 16:23	WG1488255
Tetrachloroethene	ND		0.00293	1	06/07/2020 16:23	WG1488255
Toluene	ND		0.00585	1	06/07/2020 16:23	WG1488255
1,2,3-Trichlorobenzene	ND		0.0146	1	06/07/2020 16:23	WG1488255
1,2,4-Trichlorobenzene	ND		0.0146	1	06/07/2020 16:23	WG1488255
1,1,1-Trichloroethane	ND		0.00293	1	06/07/2020 16:23	WG1488255
1,1,2-Trichloroethane	ND		0.00293	1	06/07/2020 16:23	WG1488255
Trichloroethene	ND		0.00117	1	06/07/2020 16:23	WG1488255
Trichlorofluoromethane	ND		0.00293	1	06/07/2020 16:23	WG1488255
1,2,3-Trichloropropane	ND		0.0146	1	06/07/2020 16:23	WG1488255
1,2,4-Trimethylbenzene	ND		0.00585	1	06/07/2020 16:23	WG1488255
1,2,3-Trimethylbenzene	ND		0.00585	1	06/07/2020 16:23	WG1488255
1,3,5-Trimethylbenzene	ND		0.00585	1	06/07/2020 16:23	WG1488255
Vinyl chloride	ND		0.00293	1	06/07/2020 16:23	WG1488255
Xylenes, Total	ND		0.00761	1	06/07/2020 16:23	WG1488255
(S) Toluene-d8	115		75.0-131		06/07/2020 16:23	WG1488255
(S) 4-Bromofluorobenzene	93.8		67.0-138		06/07/2020 16:23	WG1488255
(S) 1,2-Dichloroethane-d4	89.6		70.0-130		06/07/2020 16:23	WG1488255

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 NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	19.6		4.68	1	06/10/2020 06:28	WG1489750
Residual Range Organics (RRO)	57.1		11.7	1	06/10/2020 06:28	WG1489750
(S) o-Terphenyl	61.6		18.0-148		06/10/2020 06:28	WG1489750



Collected date/time: 06/02/20 11:00

L1225601

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00702	1	06/11/2020 02:49	WG1489474
Acenaphthene	ND		0.00702	1	06/11/2020 02:49	WG1489474
Acenaphthylene	ND		0.00702	1	06/11/2020 02:49	WG1489474
Benzo(a)anthracene	ND		0.00702	1	06/11/2020 02:49	WG1489474
Benzo(a)pyrene	ND	<u>J3</u>	0.00702	1	06/11/2020 02:49	WG1489474
Benzo(b)fluoranthene	ND	<u>J3</u>	0.00702	1	06/11/2020 02:49	WG1489474
Benzo(g,h,i)perylene	ND		0.00702	1	06/11/2020 02:49	WG1489474
Benzo(k)fluoranthene	ND	<u>J3</u>	0.00702	1	06/11/2020 02:49	WG1489474
Chrysene	ND		0.00702	1	06/11/2020 02:49	WG1489474
Dibenz(a,h)anthracene	ND	<u>J3</u>	0.00702	1	06/11/2020 02:49	WG1489474
Fluoranthene	ND		0.00702	1	06/11/2020 02:49	WG1489474
Fluorene	ND		0.00702	1	06/11/2020 02:49	WG1489474
Indeno(1,2,3-cd)pyrene	ND	<u>J3</u>	0.00702	1	06/11/2020 02:49	WG1489474
Naphthalene	ND		0.0234	1	06/11/2020 02:49	WG1489474
Phenanthrene	ND		0.00702	1	06/11/2020 02:49	WG1489474
Pyrene	ND		0.00702	1	06/11/2020 02:49	WG1489474
1-Methylnaphthalene	ND		0.0234	1	06/11/2020 02:49	WG1489474
2-Methylnaphthalene	ND		0.0234	1	06/11/2020 02:49	WG1489474
2-Chloronaphthalene	ND		0.0234	1	06/11/2020 02:49	WG1489474
(S) Nitrobenzene-d5	118		14.0-149		06/11/2020 02:49	WG1489474
(S) 2-Fluorobiphenyl	70.9		34.0-125		06/11/2020 02:49	WG1489474
(S) p-Terphenyl-d14	76.6		23.0-120		06/11/2020 02:49	WG1489474

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	79.2		1	06/09/2020 23:34	WG1489017

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0505	1	06/07/2020 22:36	WG1487994

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	3.05		1.26	5	06/06/2020 15:54	WG1488068
Barium	228		3.15	5	06/06/2020 15:54	WG1488068
Cadmium	ND		1.26	5	06/06/2020 15:54	WG1488068
Chromium	24.5		6.31	5	06/06/2020 15:54	WG1488068
Copper	29.2		6.31	5	06/06/2020 15:54	WG1488068
Lead	4.98		2.52	5	06/06/2020 15:54	WG1488068
Nickel	28.7		3.15	5	06/06/2020 15:54	WG1488068
Selenium	ND		3.15	5	06/06/2020 15:54	WG1488068
Silver	ND		0.631	5	06/06/2020 15:54	WG1488068
Zinc	38.3		31.5	5	06/06/2020 15:54	WG1488068

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		3.15	25	06/07/2020 06:12	WG1488294
(S) a,a,a-Trifluorotoluene(FID)	94.6		77.0-120		06/07/2020 06:12	WG1488294

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0631	1	06/07/2020 16:42	WG1488255
Acrylonitrile	ND		0.0158	1	06/07/2020 16:42	WG1488255
Benzene	ND		0.00126	1	06/07/2020 16:42	WG1488255
Bromobenzene	ND		0.0158	1	06/07/2020 16:42	WG1488255
Bromodichloromethane	ND		0.00315	1	06/07/2020 16:42	WG1488255
Bromoform	ND		0.0315	1	06/07/2020 16:42	WG1488255
Bromomethane	ND		0.0158	1	06/07/2020 16:42	WG1488255
n-Butylbenzene	ND		0.0158	1	06/07/2020 16:42	WG1488255
sec-Butylbenzene	ND		0.0158	1	06/07/2020 16:42	WG1488255
tert-Butylbenzene	ND		0.00631	1	06/07/2020 16:42	WG1488255
Carbon tetrachloride	ND		0.00631	1	06/07/2020 16:42	WG1488255
Chlorobenzene	ND		0.00315	1	06/07/2020 16:42	WG1488255
Chlorodibromomethane	ND		0.00315	1	06/07/2020 16:42	WG1488255
Chloroethane	ND		0.00631	1	06/07/2020 16:42	WG1488255
Chloroform	ND		0.00315	1	06/07/2020 16:42	WG1488255
Chloromethane	ND		0.0158	1	06/07/2020 16:42	WG1488255
2-Chlorotoluene	ND	<u>J4</u>	0.00315	1	06/07/2020 16:42	WG1488255
4-Chlorotoluene	ND		0.00631	1	06/07/2020 16:42	WG1488255
1,2-Dibromo-3-Chloropropane	ND		0.0315	1	06/07/2020 16:42	WG1488255
1,2-Dibromoethane	ND		0.00315	1	06/07/2020 16:42	WG1488255
Dibromomethane	ND		0.00631	1	06/07/2020 16:42	WG1488255
1,2-Dichlorobenzene	ND		0.00631	1	06/07/2020 16:42	WG1488255
1,3-Dichlorobenzene	ND		0.00631	1	06/07/2020 16:42	WG1488255
1,4-Dichlorobenzene	ND		0.00631	1	06/07/2020 16:42	WG1488255

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 11:10

L1225601

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	ND		0.00315	1	06/07/2020 16:42	WG1488255
1,1-Dichloroethane	ND		0.00315	1	06/07/2020 16:42	WG1488255
1,2-Dichloroethane	ND		0.00315	1	06/07/2020 16:42	WG1488255
1,1-Dichloroethene	ND		0.00315	1	06/07/2020 16:42	WG1488255
cis-1,2-Dichloroethene	ND		0.00315	1	06/07/2020 16:42	WG1488255
trans-1,2-Dichloroethene	ND		0.00631	1	06/07/2020 16:42	WG1488255
1,2-Dichloropropane	ND		0.00631	1	06/07/2020 16:42	WG1488255
1,1-Dichloropropene	ND		0.00315	1	06/07/2020 16:42	WG1488255
1,3-Dichloropropane	ND		0.00631	1	06/07/2020 16:42	WG1488255
cis-1,3-Dichloropropene	ND		0.00315	1	06/07/2020 16:42	WG1488255
trans-1,3-Dichloropropene	ND		0.00631	1	06/07/2020 16:42	WG1488255
2,2-Dichloropropane	ND		0.00315	1	06/07/2020 16:42	WG1488255
Di-isopropyl ether	ND		0.00126	1	06/07/2020 16:42	WG1488255
Ethylbenzene	ND		0.00315	1	06/07/2020 16:42	WG1488255
Hexachloro-1,3-butadiene	ND		0.0315	1	06/07/2020 16:42	WG1488255
Isopropylbenzene	ND		0.00315	1	06/07/2020 16:42	WG1488255
p-Isopropyltoluene	ND		0.00631	1	06/07/2020 16:42	WG1488255
2-Butanone (MEK)	ND		0.126	1	06/07/2020 16:42	WG1488255
Methylene Chloride	ND		0.0315	1	06/07/2020 16:42	WG1488255
4-Methyl-2-pentanone (MIBK)	ND		0.0315	1	06/07/2020 16:42	WG1488255
Methyl tert-butyl ether	ND		0.00126	1	06/07/2020 16:42	WG1488255
Naphthalene	ND		0.0158	1	06/07/2020 16:42	WG1488255
n-Propylbenzene	ND		0.00631	1	06/07/2020 16:42	WG1488255
Styrene	ND		0.0158	1	06/07/2020 16:42	WG1488255
1,1,1,2-Tetrachloroethane	ND		0.00315	1	06/07/2020 16:42	WG1488255
1,1,2,2-Tetrachloroethane	ND		0.00315	1	06/07/2020 16:42	WG1488255
1,1,2-Trichlorotrifluoroethane	ND		0.00315	1	06/07/2020 16:42	WG1488255
Tetrachloroethene	ND		0.00315	1	06/07/2020 16:42	WG1488255
Toluene	ND		0.00631	1	06/07/2020 16:42	WG1488255
1,2,3-Trichlorobenzene	ND		0.0158	1	06/07/2020 16:42	WG1488255
1,2,4-Trichlorobenzene	ND		0.0158	1	06/07/2020 16:42	WG1488255
1,1,1-Trichloroethane	ND		0.00315	1	06/07/2020 16:42	WG1488255
1,1,2-Trichloroethane	ND		0.00315	1	06/07/2020 16:42	WG1488255
Trichloroethene	ND		0.00126	1	06/07/2020 16:42	WG1488255
Trichlorofluoromethane	ND		0.00315	1	06/07/2020 16:42	WG1488255
1,2,3-Trichloropropane	ND		0.0158	1	06/07/2020 16:42	WG1488255
1,2,4-Trimethylbenzene	ND		0.00631	1	06/07/2020 16:42	WG1488255
1,2,3-Trimethylbenzene	ND		0.00631	1	06/07/2020 16:42	WG1488255
1,3,5-Trimethylbenzene	ND		0.00631	1	06/07/2020 16:42	WG1488255
Vinyl chloride	ND		0.00315	1	06/07/2020 16:42	WG1488255
Xylenes, Total	ND		0.00820	1	06/07/2020 16:42	WG1488255
(S) Toluene-d8	107		75.0-131		06/07/2020 16:42	WG1488255
(S) 4-Bromofluorobenzene	87.6		67.0-138		06/07/2020 16:42	WG1488255
(S) 1,2-Dichloroethane-d4	88.1		70.0-130		06/07/2020 16:42	WG1488255

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 NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		5.05	1	06/10/2020 03:17	WG1489750
Residual Range Organics (RRO)	ND		12.6	1	06/10/2020 03:17	WG1489750
(S) o-Terphenyl	61.4		18.0-148		06/10/2020 03:17	WG1489750



Collected date/time: 06/02/20 11:10

L1225601

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Anthracene	ND		0.00757	1	06/10/2020 22:39	WG1489474	¹ Cp
Acenaphthene	ND		0.00757	1	06/10/2020 22:39	WG1489474	² Tc
Acenaphthylene	ND		0.00757	1	06/10/2020 22:39	WG1489474	³ Ss
Benzo(a)anthracene	ND		0.00757	1	06/10/2020 22:39	WG1489474	⁴ Cn
Benzo(a)pyrene	ND		0.00757	1	06/10/2020 22:39	WG1489474	⁵ Sr
Benzo(b)fluoranthene	ND		0.00757	1	06/10/2020 22:39	WG1489474	⁶ Qc
Benzo(g,h,i)perylene	ND		0.00757	1	06/10/2020 22:39	WG1489474	⁷ Gl
Benzo(k)fluoranthene	ND		0.00757	1	06/10/2020 22:39	WG1489474	⁸ Al
Chrysene	ND		0.00757	1	06/10/2020 22:39	WG1489474	⁹ Sc
Dibenz(a,h)anthracene	ND		0.00757	1	06/10/2020 22:39	WG1489474	
Fluoranthene	ND		0.00757	1	06/10/2020 22:39	WG1489474	
Fluorene	ND		0.00757	1	06/10/2020 22:39	WG1489474	
Indeno(1,2,3-cd)pyrene	ND		0.00757	1	06/10/2020 22:39	WG1489474	
Naphthalene	ND		0.0252	1	06/10/2020 22:39	WG1489474	
Phenanthrene	ND		0.00757	1	06/10/2020 22:39	WG1489474	
Pyrene	ND		0.00757	1	06/10/2020 22:39	WG1489474	
1-Methylnaphthalene	ND		0.0252	1	06/10/2020 22:39	WG1489474	
2-Methylnaphthalene	ND		0.0252	1	06/10/2020 22:39	WG1489474	
2-Chloronaphthalene	ND		0.0252	1	06/10/2020 22:39	WG1489474	
(S) Nitrobenzene-d5	93.9		14.0-149		06/10/2020 22:39	WG1489474	
(S) 2-Fluorobiphenyl	66.7		34.0-125		06/10/2020 22:39	WG1489474	
(S) p-Terphenyl-d14	66.7		23.0-120		06/10/2020 22:39	WG1489474	



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.3		1	06/09/2020 23:34	WG1489017

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0469	1	06/07/2020 22:38	WG1487994

Metals (ICPMS) by Method 6020B

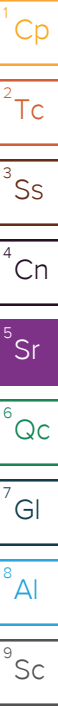
Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	3.01		1.17	5	06/06/2020 15:58	WG1488068
Barium	102		2.93	5	06/06/2020 15:58	WG1488068
Cadmium	ND		1.17	5	06/06/2020 15:58	WG1488068
Chromium	74.0		5.86	5	06/06/2020 15:58	WG1488068
Copper	73.0		5.86	5	06/06/2020 15:58	WG1488068
Lead	ND		2.34	5	06/06/2020 15:58	WG1488068
Nickel	51.3		2.93	5	06/06/2020 15:58	WG1488068
Selenium	ND		2.93	5	06/06/2020 15:58	WG1488068
Silver	ND		0.586	5	06/06/2020 15:58	WG1488068
Zinc	76.9		29.3	5	06/06/2020 15:58	WG1488068

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		2.93	25	06/07/2020 06:33	WG1488294
(S) a,a,a-Trifluorotoluene(FID)	94.4		77.0-120		06/07/2020 06:33	WG1488294

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0586	1	06/07/2020 17:01	WG1488255
Acrylonitrile	ND		0.0146	1	06/07/2020 17:01	WG1488255
Benzene	ND		0.00117	1	06/07/2020 17:01	WG1488255
Bromobenzene	ND		0.0146	1	06/07/2020 17:01	WG1488255
Bromodichloromethane	ND		0.00293	1	06/07/2020 17:01	WG1488255
Bromoform	ND		0.0293	1	06/07/2020 17:01	WG1488255
Bromomethane	ND		0.0146	1	06/07/2020 17:01	WG1488255
n-Butylbenzene	ND		0.0146	1	06/07/2020 17:01	WG1488255
sec-Butylbenzene	ND		0.0146	1	06/07/2020 17:01	WG1488255
tert-Butylbenzene	ND		0.00586	1	06/07/2020 17:01	WG1488255
Carbon tetrachloride	ND		0.00586	1	06/07/2020 17:01	WG1488255
Chlorobenzene	ND		0.00293	1	06/07/2020 17:01	WG1488255
Chlorodibromomethane	ND		0.00293	1	06/07/2020 17:01	WG1488255
Chloroethane	ND		0.00586	1	06/07/2020 17:01	WG1488255
Chloroform	ND		0.00293	1	06/07/2020 17:01	WG1488255
Chloromethane	ND		0.0146	1	06/07/2020 17:01	WG1488255
2-Chlorotoluene	ND	<u>J4</u>	0.00293	1	06/07/2020 17:01	WG1488255
4-Chlorotoluene	ND		0.00586	1	06/07/2020 17:01	WG1488255
1,2-Dibromo-3-Chloropropane	ND		0.0293	1	06/07/2020 17:01	WG1488255
1,2-Dibromoethane	ND		0.00293	1	06/07/2020 17:01	WG1488255
Dibromomethane	ND		0.00586	1	06/07/2020 17:01	WG1488255
1,2-Dichlorobenzene	ND		0.00586	1	06/07/2020 17:01	WG1488255
1,3-Dichlorobenzene	ND		0.00586	1	06/07/2020 17:01	WG1488255
1,4-Dichlorobenzene	ND		0.00586	1	06/07/2020 17:01	WG1488255





Collected date/time: 06/02/20 11:20

L1225601

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	ND		0.00293	1	06/07/2020 17:01	WG1488255
1,1-Dichloroethane	ND		0.00293	1	06/07/2020 17:01	WG1488255
1,2-Dichloroethane	ND		0.00293	1	06/07/2020 17:01	WG1488255
1,1-Dichloroethene	ND		0.00293	1	06/07/2020 17:01	WG1488255
cis-1,2-Dichloroethene	ND		0.00293	1	06/07/2020 17:01	WG1488255
trans-1,2-Dichloroethene	ND		0.00586	1	06/07/2020 17:01	WG1488255
1,2-Dichloropropane	ND		0.00586	1	06/07/2020 17:01	WG1488255
1,1-Dichloropropene	ND		0.00293	1	06/07/2020 17:01	WG1488255
1,3-Dichloropropane	ND		0.00586	1	06/07/2020 17:01	WG1488255
cis-1,3-Dichloropropene	ND		0.00293	1	06/07/2020 17:01	WG1488255
trans-1,3-Dichloropropene	ND		0.00586	1	06/07/2020 17:01	WG1488255
2,2-Dichloropropane	ND		0.00293	1	06/07/2020 17:01	WG1488255
Di-isopropyl ether	ND		0.00117	1	06/07/2020 17:01	WG1488255
Ethylbenzene	ND		0.00293	1	06/07/2020 17:01	WG1488255
Hexachloro-1,3-butadiene	ND		0.0293	1	06/07/2020 17:01	WG1488255
Isopropylbenzene	ND		0.00293	1	06/07/2020 17:01	WG1488255
p-Isopropyltoluene	ND		0.00586	1	06/07/2020 17:01	WG1488255
2-Butanone (MEK)	ND		0.117	1	06/07/2020 17:01	WG1488255
Methylene Chloride	ND		0.0293	1	06/07/2020 17:01	WG1488255
4-Methyl-2-pentanone (MIBK)	ND		0.0293	1	06/07/2020 17:01	WG1488255
Methyl tert-butyl ether	ND		0.00117	1	06/07/2020 17:01	WG1488255
Naphthalene	ND		0.0146	1	06/07/2020 17:01	WG1488255
n-Propylbenzene	ND		0.00586	1	06/07/2020 17:01	WG1488255
Styrene	ND		0.0146	1	06/07/2020 17:01	WG1488255
1,1,1,2-Tetrachloroethane	ND		0.00293	1	06/07/2020 17:01	WG1488255
1,1,2,2-Tetrachloroethane	ND		0.00293	1	06/07/2020 17:01	WG1488255
1,1,2-Trichlorotrifluoroethane	ND		0.00293	1	06/07/2020 17:01	WG1488255
Tetrachloroethene	ND		0.00293	1	06/07/2020 17:01	WG1488255
Toluene	ND		0.00586	1	06/07/2020 17:01	WG1488255
1,2,3-Trichlorobenzene	ND		0.0146	1	06/07/2020 17:01	WG1488255
1,2,4-Trichlorobenzene	ND		0.0146	1	06/07/2020 17:01	WG1488255
1,1,1-Trichloroethane	ND		0.00293	1	06/07/2020 17:01	WG1488255
1,1,2-Trichloroethane	ND		0.00293	1	06/07/2020 17:01	WG1488255
Trichloroethene	ND		0.00117	1	06/07/2020 17:01	WG1488255
Trichlorofluoromethane	ND		0.00293	1	06/07/2020 17:01	WG1488255
1,2,3-Trichloropropane	ND		0.0146	1	06/07/2020 17:01	WG1488255
1,2,4-Trimethylbenzene	ND		0.00586	1	06/07/2020 17:01	WG1488255
1,2,3-Trimethylbenzene	ND		0.00586	1	06/07/2020 17:01	WG1488255
1,3,5-Trimethylbenzene	ND		0.00586	1	06/07/2020 17:01	WG1488255
Vinyl chloride	ND		0.00293	1	06/07/2020 17:01	WG1488255
Xylenes, Total	ND		0.00762	1	06/07/2020 17:01	WG1488255
(S) Toluene-d8	113		75.0-131		06/07/2020 17:01	WG1488255
(S) 4-Bromofluorobenzene	90.7		67.0-138		06/07/2020 17:01	WG1488255
(S) 1,2-Dichloroethane-d4	88.1		70.0-130		06/07/2020 17:01	WG1488255

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 NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		4.69	1	06/10/2020 03:55	WG1489750
Residual Range Organics (RRO)	ND		11.7	1	06/10/2020 03:55	WG1489750
(S) o-Terphenyl	79.5		18.0-148		06/10/2020 03:55	WG1489750



Collected date/time: 06/02/20 11:20

L1225601

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00703	1	06/10/2020 23:00	WG1489474
Acenaphthene	ND		0.00703	1	06/10/2020 23:00	WG1489474
Acenaphthylene	ND		0.00703	1	06/10/2020 23:00	WG1489474
Benzo(a)anthracene	ND		0.00703	1	06/10/2020 23:00	WG1489474
Benzo(a)pyrene	ND		0.00703	1	06/10/2020 23:00	WG1489474
Benzo(b)fluoranthene	ND		0.00703	1	06/10/2020 23:00	WG1489474
Benzo(g,h,i)perylene	ND		0.00703	1	06/10/2020 23:00	WG1489474
Benzo(k)fluoranthene	ND		0.00703	1	06/10/2020 23:00	WG1489474
Chrysene	ND		0.00703	1	06/10/2020 23:00	WG1489474
Dibenz(a,h)anthracene	ND		0.00703	1	06/10/2020 23:00	WG1489474
Fluoranthene	ND		0.00703	1	06/10/2020 23:00	WG1489474
Fluorene	ND		0.00703	1	06/10/2020 23:00	WG1489474
Indeno(1,2,3-cd)pyrene	ND		0.00703	1	06/10/2020 23:00	WG1489474
Naphthalene	ND		0.0234	1	06/10/2020 23:00	WG1489474
Phenanthrene	ND		0.00703	1	06/10/2020 23:00	WG1489474
Pyrene	ND		0.00703	1	06/10/2020 23:00	WG1489474
1-Methylnaphthalene	ND		0.0234	1	06/10/2020 23:00	WG1489474
2-Methylnaphthalene	ND		0.0234	1	06/10/2020 23:00	WG1489474
2-Chloronaphthalene	ND		0.0234	1	06/10/2020 23:00	WG1489474
(S) Nitrobenzene-d5	103		14.0-149		06/10/2020 23:00	WG1489474
(S) 2-Fluorobiphenyl	78.2		34.0-125		06/10/2020 23:00	WG1489474
(S) p-Terphenyl-d14	82.2		23.0-120		06/10/2020 23:00	WG1489474

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	81.3		1	06/09/2020 23:34	WG1489017

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0581		0.0492	1	06/07/2020 22:41	WG1487994

Metals (ICPMS) by Method 6020B

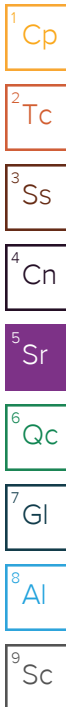
Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	3.61		1.23	5	06/06/2020 16:16	WG1488068
Barium	165		3.07	5	06/06/2020 16:16	WG1488068
Cadmium	ND		1.23	5	06/06/2020 16:16	WG1488068
Chromium	25.4		6.15	5	06/06/2020 16:16	WG1488068
Copper	48.8		6.15	5	06/06/2020 16:16	WG1488068
Lead	69.0		2.46	5	06/06/2020 16:16	WG1488068
Nickel	17.9		3.07	5	06/06/2020 16:16	WG1488068
Selenium	ND		3.07	5	06/06/2020 16:16	WG1488068
Silver	ND		0.615	5	06/06/2020 16:16	WG1488068
Zinc	114		61.5	10	06/06/2020 17:27	WG1488068

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		3.07	25	06/08/2020 21:51	WG1488911
(S) a,a,a-Trifluorotoluene(FID)	103		77.0-120		06/08/2020 21:51	WG1488911

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0615	1	06/07/2020 17:19	WG1488255
Acrylonitrile	ND		0.0154	1	06/07/2020 17:19	WG1488255
Benzene	ND		0.00123	1	06/07/2020 17:19	WG1488255
Bromobenzene	ND		0.0154	1	06/07/2020 17:19	WG1488255
Bromodichloromethane	ND		0.00307	1	06/07/2020 17:19	WG1488255
Bromoform	ND		0.0307	1	06/07/2020 17:19	WG1488255
Bromomethane	ND		0.0154	1	06/07/2020 17:19	WG1488255
n-Butylbenzene	ND		0.0154	1	06/07/2020 17:19	WG1488255
sec-Butylbenzene	ND		0.0154	1	06/07/2020 17:19	WG1488255
tert-Butylbenzene	ND		0.00615	1	06/07/2020 17:19	WG1488255
Carbon tetrachloride	ND		0.00615	1	06/07/2020 17:19	WG1488255
Chlorobenzene	ND		0.00307	1	06/07/2020 17:19	WG1488255
Chlorodibromomethane	ND		0.00307	1	06/07/2020 17:19	WG1488255
Chloroethane	ND		0.00615	1	06/07/2020 17:19	WG1488255
Chloroform	ND		0.00307	1	06/07/2020 17:19	WG1488255
Chloromethane	ND		0.0154	1	06/07/2020 17:19	WG1488255
2-Chlorotoluene	ND	J4	0.00307	1	06/07/2020 17:19	WG1488255
4-Chlorotoluene	ND		0.00615	1	06/07/2020 17:19	WG1488255
1,2-Dibromo-3-Chloropropane	ND		0.0307	1	06/07/2020 17:19	WG1488255
1,2-Dibromoethane	ND		0.00307	1	06/07/2020 17:19	WG1488255
Dibromomethane	ND		0.00615	1	06/07/2020 17:19	WG1488255
1,2-Dichlorobenzene	ND		0.00615	1	06/07/2020 17:19	WG1488255
1,3-Dichlorobenzene	ND		0.00615	1	06/07/2020 17:19	WG1488255
1,4-Dichlorobenzene	ND		0.00615	1	06/07/2020 17:19	WG1488255





Collected date/time: 06/02/20 10:20

L1225601

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	ND		0.00307	1	06/07/2020 17:19	WG1488255
1,1-Dichloroethane	ND		0.00307	1	06/07/2020 17:19	WG1488255
1,2-Dichloroethane	ND		0.00307	1	06/07/2020 17:19	WG1488255
1,1-Dichloroethene	ND		0.00307	1	06/07/2020 17:19	WG1488255
cis-1,2-Dichloroethene	ND		0.00307	1	06/07/2020 17:19	WG1488255
trans-1,2-Dichloroethene	ND		0.00615	1	06/07/2020 17:19	WG1488255
1,2-Dichloropropane	ND		0.00615	1	06/07/2020 17:19	WG1488255
1,1-Dichloropropene	ND		0.00307	1	06/07/2020 17:19	WG1488255
1,3-Dichloropropane	ND		0.00615	1	06/07/2020 17:19	WG1488255
cis-1,3-Dichloropropene	ND		0.00307	1	06/07/2020 17:19	WG1488255
trans-1,3-Dichloropropene	ND		0.00615	1	06/07/2020 17:19	WG1488255
2,2-Dichloropropane	ND		0.00307	1	06/07/2020 17:19	WG1488255
Di-isopropyl ether	ND		0.00123	1	06/07/2020 17:19	WG1488255
Ethylbenzene	ND		0.00307	1	06/07/2020 17:19	WG1488255
Hexachloro-1,3-butadiene	ND		0.0307	1	06/07/2020 17:19	WG1488255
Isopropylbenzene	ND		0.00307	1	06/07/2020 17:19	WG1488255
p-Isopropyltoluene	ND		0.00615	1	06/07/2020 17:19	WG1488255
2-Butanone (MEK)	ND		0.123	1	06/07/2020 17:19	WG1488255
Methylene Chloride	ND		0.0307	1	06/07/2020 17:19	WG1488255
4-Methyl-2-pentanone (MIBK)	ND		0.0307	1	06/07/2020 17:19	WG1488255
Methyl tert-butyl ether	ND		0.00123	1	06/07/2020 17:19	WG1488255
Naphthalene	ND		0.0154	1	06/07/2020 17:19	WG1488255
n-Propylbenzene	ND		0.00615	1	06/07/2020 17:19	WG1488255
Styrene	ND		0.0154	1	06/07/2020 17:19	WG1488255
1,1,1,2-Tetrachloroethane	ND		0.00307	1	06/07/2020 17:19	WG1488255
1,1,2,2-Tetrachloroethane	ND		0.00307	1	06/07/2020 17:19	WG1488255
1,1,2-Trichlorotrifluoroethane	ND		0.00307	1	06/07/2020 17:19	WG1488255
Tetrachloroethene	ND		0.00307	1	06/07/2020 17:19	WG1488255
Toluene	0.0120		0.00615	1	06/07/2020 17:19	WG1488255
1,2,3-Trichlorobenzene	ND		0.0154	1	06/07/2020 17:19	WG1488255
1,2,4-Trichlorobenzene	ND		0.0154	1	06/07/2020 17:19	WG1488255
1,1,1-Trichloroethane	ND		0.00307	1	06/07/2020 17:19	WG1488255
1,1,2-Trichloroethane	ND		0.00307	1	06/07/2020 17:19	WG1488255
Trichloroethene	ND		0.00123	1	06/07/2020 17:19	WG1488255
Trichlorofluoromethane	ND		0.00307	1	06/07/2020 17:19	WG1488255
1,2,3-Trichloropropane	ND		0.0154	1	06/07/2020 17:19	WG1488255
1,2,4-Trimethylbenzene	ND		0.00615	1	06/07/2020 17:19	WG1488255
1,2,3-Trimethylbenzene	ND		0.00615	1	06/07/2020 17:19	WG1488255
1,3,5-Trimethylbenzene	ND		0.00615	1	06/07/2020 17:19	WG1488255
Vinyl chloride	ND		0.00307	1	06/07/2020 17:19	WG1488255
Xylenes, Total	ND		0.00799	1	06/07/2020 17:19	WG1488255
(S) Toluene-d8	108		75.0-131		06/07/2020 17:19	WG1488255
(S) 4-Bromofluorobenzene	87.8		67.0-138		06/07/2020 17:19	WG1488255
(S) 1,2-Dichloroethane-d4	89.6		70.0-130		06/07/2020 17:19	WG1488255

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 NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		49.2	10	06/10/2020 07:06	WG1489750
Residual Range Organics (RRO)	ND		123	10	06/10/2020 07:06	WG1489750
(S) o-Terphenyl	91.6		18.0-148		06/10/2020 07:06	WG1489750

Sample Narrative:

L1225601-10 WG1489750: Cannot run at lower dilution due to viscosity of extract



Collected date/time: 06/02/20 10:20

L1225601

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00738	1	06/11/2020 04:12	WG1489474
Acenaphthene	ND		0.00738	1	06/11/2020 04:12	WG1489474
Acenaphthylene	ND		0.00738	1	06/11/2020 04:12	WG1489474
Benzo(a)anthracene	0.00989		0.00738	1	06/11/2020 04:12	WG1489474
Benzo(a)pyrene	0.0151		0.00738	1	06/11/2020 04:12	WG1489474
Benzo(b)fluoranthene	0.0344		0.00738	1	06/11/2020 04:12	WG1489474
Benzo(g,h,i)perylene	0.0304		0.00738	1	06/11/2020 04:12	WG1489474
Benzo(k)fluoranthene	0.00836		0.00738	1	06/11/2020 04:12	WG1489474
Chrysene	0.0136		0.00738	1	06/11/2020 04:12	WG1489474
Dibenz(a,h)anthracene	ND		0.00738	1	06/11/2020 04:12	WG1489474
Fluoranthene	0.0148		0.00738	1	06/11/2020 04:12	WG1489474
Fluorene	ND		0.00738	1	06/11/2020 04:12	WG1489474
Indeno(1,2,3-cd)pyrene	0.0154		0.00738	1	06/11/2020 04:12	WG1489474
Naphthalene	ND		0.0246	1	06/11/2020 04:12	WG1489474
Phenanthrene	0.00836		0.00738	1	06/11/2020 04:12	WG1489474
Pyrene	0.0230		0.00738	1	06/11/2020 04:12	WG1489474
1-Methylnaphthalene	ND		0.0246	1	06/11/2020 04:12	WG1489474
2-Methylnaphthalene	ND		0.0246	1	06/11/2020 04:12	WG1489474
2-Chloronaphthalene	ND		0.0246	1	06/11/2020 04:12	WG1489474
(S) Nitrobenzene-d5	131		14.0-149		06/11/2020 04:12	WG1489474
(S) 2-Fluorobiphenyl	82.8		34.0-125		06/11/2020 04:12	WG1489474
(S) p-Terphenyl-d14	91.3		23.0-120		06/11/2020 04:12	WG1489474

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 10:24

L1225601

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.8		1	06/09/2020 23:34	WG1489017

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0521	1	06/07/2020 22:44	WG1487994

Metals (ICPMS) by Method 6020B

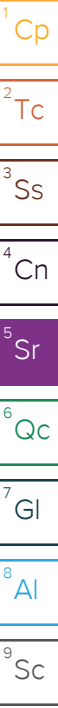
Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	1.57		1.30	5	06/06/2020 16:20	WG1488068
Barium	313		3.26	5	06/06/2020 16:20	WG1488068
Cadmium	ND		1.30	5	06/06/2020 16:20	WG1488068
Chromium	33.8		6.51	5	06/06/2020 16:20	WG1488068
Copper	43.5		6.51	5	06/06/2020 16:20	WG1488068
Lead	5.19		2.61	5	06/06/2020 16:20	WG1488068
Nickel	37.7		3.26	5	06/06/2020 16:20	WG1488068
Selenium	ND		3.26	5	06/06/2020 16:20	WG1488068
Silver	ND		0.651	5	06/06/2020 16:20	WG1488068
Zinc	41.7		32.6	5	06/06/2020 16:20	WG1488068

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		3.26	25	06/08/2020 22:12	WG1488911
(S) a,a,a-Trifluorotoluene(FID)	104		77.0-120		06/08/2020 22:12	WG1488911

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0651	1	06/07/2020 17:38	WG1488255
Acrylonitrile	ND		0.0163	1	06/07/2020 17:38	WG1488255
Benzene	ND		0.00130	1	06/07/2020 17:38	WG1488255
Bromobenzene	ND		0.0163	1	06/07/2020 17:38	WG1488255
Bromodichloromethane	ND		0.00326	1	06/07/2020 17:38	WG1488255
Bromoform	ND		0.0326	1	06/07/2020 17:38	WG1488255
Bromomethane	ND		0.0163	1	06/07/2020 17:38	WG1488255
n-Butylbenzene	ND		0.0163	1	06/07/2020 17:38	WG1488255
sec-Butylbenzene	ND		0.0163	1	06/07/2020 17:38	WG1488255
tert-Butylbenzene	ND		0.00651	1	06/07/2020 17:38	WG1488255
Carbon tetrachloride	ND		0.00651	1	06/07/2020 17:38	WG1488255
Chlorobenzene	ND		0.00326	1	06/07/2020 17:38	WG1488255
Chlorodibromomethane	ND		0.00326	1	06/07/2020 17:38	WG1488255
Chloroethane	ND		0.00651	1	06/07/2020 17:38	WG1488255
Chloroform	ND		0.00326	1	06/07/2020 17:38	WG1488255
Chloromethane	ND		0.0163	1	06/07/2020 17:38	WG1488255
2-Chlorotoluene	ND	J4	0.00326	1	06/07/2020 17:38	WG1488255
4-Chlorotoluene	ND		0.00651	1	06/07/2020 17:38	WG1488255
1,2-Dibromo-3-Chloropropane	ND		0.0326	1	06/07/2020 17:38	WG1488255
1,2-Dibromoethane	ND		0.00326	1	06/07/2020 17:38	WG1488255
Dibromomethane	ND		0.00651	1	06/07/2020 17:38	WG1488255
1,2-Dichlorobenzene	ND		0.00651	1	06/07/2020 17:38	WG1488255
1,3-Dichlorobenzene	ND		0.00651	1	06/07/2020 17:38	WG1488255
1,4-Dichlorobenzene	ND		0.00651	1	06/07/2020 17:38	WG1488255





Collected date/time: 06/02/20 10:24

L1225601

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	ND		0.00326	1	06/07/2020 17:38	WG1488255
1,1-Dichloroethane	ND		0.00326	1	06/07/2020 17:38	WG1488255
1,2-Dichloroethane	ND		0.00326	1	06/07/2020 17:38	WG1488255
1,1-Dichloroethene	ND		0.00326	1	06/07/2020 17:38	WG1488255
cis-1,2-Dichloroethene	ND		0.00326	1	06/07/2020 17:38	WG1488255
trans-1,2-Dichloroethene	ND		0.00651	1	06/07/2020 17:38	WG1488255
1,2-Dichloropropane	ND		0.00651	1	06/07/2020 17:38	WG1488255
1,1-Dichloropropene	ND		0.00326	1	06/07/2020 17:38	WG1488255
1,3-Dichloropropane	ND		0.00651	1	06/07/2020 17:38	WG1488255
cis-1,3-Dichloropropene	ND		0.00326	1	06/07/2020 17:38	WG1488255
trans-1,3-Dichloropropene	ND		0.00651	1	06/07/2020 17:38	WG1488255
2,2-Dichloropropane	ND		0.00326	1	06/07/2020 17:38	WG1488255
Di-isopropyl ether	ND		0.00130	1	06/07/2020 17:38	WG1488255
Ethylbenzene	ND		0.00326	1	06/07/2020 17:38	WG1488255
Hexachloro-1,3-butadiene	ND		0.0326	1	06/07/2020 17:38	WG1488255
Isopropylbenzene	ND		0.00326	1	06/07/2020 17:38	WG1488255
p-Isopropyltoluene	ND		0.00651	1	06/07/2020 17:38	WG1488255
2-Butanone (MEK)	ND		0.130	1	06/07/2020 17:38	WG1488255
Methylene Chloride	ND		0.0326	1	06/07/2020 17:38	WG1488255
4-Methyl-2-pentanone (MIBK)	ND		0.0326	1	06/07/2020 17:38	WG1488255
Methyl tert-butyl ether	ND		0.00130	1	06/07/2020 17:38	WG1488255
Naphthalene	ND		0.0163	1	06/07/2020 17:38	WG1488255
n-Propylbenzene	ND		0.00651	1	06/07/2020 17:38	WG1488255
Styrene	ND		0.0163	1	06/07/2020 17:38	WG1488255
1,1,1,2-Tetrachloroethane	ND		0.00326	1	06/07/2020 17:38	WG1488255
1,1,2,2-Tetrachloroethane	ND		0.00326	1	06/07/2020 17:38	WG1488255
1,1,2-Trichlorotrifluoroethane	ND		0.00326	1	06/07/2020 17:38	WG1488255
Tetrachloroethene	ND		0.00326	1	06/07/2020 17:38	WG1488255
Toluene	ND		0.00651	1	06/07/2020 17:38	WG1488255
1,2,3-Trichlorobenzene	ND		0.0163	1	06/07/2020 17:38	WG1488255
1,2,4-Trichlorobenzene	ND		0.0163	1	06/07/2020 17:38	WG1488255
1,1,1-Trichloroethane	ND		0.00326	1	06/07/2020 17:38	WG1488255
1,1,2-Trichloroethane	ND		0.00326	1	06/07/2020 17:38	WG1488255
Trichloroethene	ND		0.00130	1	06/07/2020 17:38	WG1488255
Trichlorofluoromethane	ND		0.00326	1	06/07/2020 17:38	WG1488255
1,2,3-Trichloropropane	ND		0.0163	1	06/07/2020 17:38	WG1488255
1,2,4-Trimethylbenzene	ND		0.00651	1	06/07/2020 17:38	WG1488255
1,2,3-Trimethylbenzene	ND		0.00651	1	06/07/2020 17:38	WG1488255
1,3,5-Trimethylbenzene	ND		0.00651	1	06/07/2020 17:38	WG1488255
Vinyl chloride	ND		0.00326	1	06/07/2020 17:38	WG1488255
Xylenes, Total	ND		0.00847	1	06/07/2020 17:38	WG1488255
(S) Toluene-d8	125		75.0-131		06/07/2020 17:38	WG1488255
(S) 4-Bromofluorobenzene	102		67.0-138		06/07/2020 17:38	WG1488255
(S) 1,2-Dichloroethane-d4	89.5		70.0-130		06/07/2020 17:38	WG1488255

- 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 NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		5.21	1	06/10/2020 04:33	WG1489750
Residual Range Organics (RRO)	ND		13.0	1	06/10/2020 04:33	WG1489750
(S) o-Terphenyl	72.0		18.0-148		06/10/2020 04:33	WG1489750



Collected date/time: 06/02/20 10:24

L1225601

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00782	1	06/10/2020 23:21	WG1489474
Acenaphthene	ND		0.00782	1	06/10/2020 23:21	WG1489474
Acenaphthylene	ND		0.00782	1	06/10/2020 23:21	WG1489474
Benzo(a)anthracene	ND		0.00782	1	06/10/2020 23:21	WG1489474
Benzo(a)pyrene	ND		0.00782	1	06/10/2020 23:21	WG1489474
Benzo(b)fluoranthene	ND		0.00782	1	06/10/2020 23:21	WG1489474
Benzo(g,h,i)perylene	ND		0.00782	1	06/10/2020 23:21	WG1489474
Benzo(k)fluoranthene	ND		0.00782	1	06/10/2020 23:21	WG1489474
Chrysene	ND		0.00782	1	06/10/2020 23:21	WG1489474
Dibenz(a,h)anthracene	ND		0.00782	1	06/10/2020 23:21	WG1489474
Fluoranthene	ND		0.00782	1	06/10/2020 23:21	WG1489474
Fluorene	ND		0.00782	1	06/10/2020 23:21	WG1489474
Indeno(1,2,3-cd)pyrene	ND		0.00782	1	06/10/2020 23:21	WG1489474
Naphthalene	ND		0.0261	1	06/10/2020 23:21	WG1489474
Phenanthrene	ND		0.00782	1	06/10/2020 23:21	WG1489474
Pyrene	ND		0.00782	1	06/10/2020 23:21	WG1489474
1-Methylnaphthalene	ND		0.0261	1	06/10/2020 23:21	WG1489474
2-Methylnaphthalene	ND		0.0261	1	06/10/2020 23:21	WG1489474
2-Chloronaphthalene	ND		0.0261	1	06/10/2020 23:21	WG1489474
(S) Nitrobenzene-d5	109		14.0-149		06/10/2020 23:21	WG1489474
(S) 2-Fluorobiphenyl	70.7		34.0-125		06/10/2020 23:21	WG1489474
(S) p-Terphenyl-d14	77.9		23.0-120		06/10/2020 23:21	WG1489474

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	78.7		1	06/09/2020 23:34	WG1489017

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0951		0.0508	1	06/07/2020 22:46	WG1487994

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	3.47		1.27	5	06/06/2020 16:23	WG1488068
Barium	221		3.18	5	06/06/2020 16:23	WG1488068
Cadmium	ND		1.27	5	06/06/2020 16:23	WG1488068
Chromium	35.6		6.36	5	06/06/2020 16:23	WG1488068
Copper	30.7		6.36	5	06/06/2020 16:23	WG1488068
Lead	6.39		2.54	5	06/06/2020 16:23	WG1488068
Nickel	21.1		3.18	5	06/06/2020 16:23	WG1488068
Selenium	ND		3.18	5	06/06/2020 16:23	WG1488068
Silver	ND		0.636	5	06/06/2020 16:23	WG1488068
Zinc	37.6		31.8	5	06/06/2020 16:23	WG1488068

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		3.18	25	06/08/2020 22:32	WG1488911
(S) a,a,a-Trifluorotoluene(FID)	105		77.0-120		06/08/2020 22:32	WG1488911

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0636	1	06/07/2020 17:57	WG1488255
Acrylonitrile	ND		0.0159	1	06/07/2020 17:57	WG1488255
Benzene	ND		0.00127	1	06/07/2020 17:57	WG1488255
Bromobenzene	ND		0.0159	1	06/07/2020 17:57	WG1488255
Bromodichloromethane	ND		0.00318	1	06/07/2020 17:57	WG1488255
Bromoform	ND		0.0318	1	06/07/2020 17:57	WG1488255
Bromomethane	ND		0.0159	1	06/07/2020 17:57	WG1488255
n-Butylbenzene	ND		0.0159	1	06/07/2020 17:57	WG1488255
sec-Butylbenzene	ND		0.0159	1	06/07/2020 17:57	WG1488255
tert-Butylbenzene	ND		0.00636	1	06/07/2020 17:57	WG1488255
Carbon tetrachloride	ND		0.00636	1	06/07/2020 17:57	WG1488255
Chlorobenzene	ND		0.00318	1	06/07/2020 17:57	WG1488255
Chlorodibromomethane	ND		0.00318	1	06/07/2020 17:57	WG1488255
Chloroethane	ND		0.00636	1	06/07/2020 17:57	WG1488255
Chloroform	ND		0.00318	1	06/07/2020 17:57	WG1488255
Chloromethane	ND		0.0159	1	06/07/2020 17:57	WG1488255
2-Chlorotoluene	ND	J4	0.00318	1	06/07/2020 17:57	WG1488255
4-Chlorotoluene	ND		0.00636	1	06/07/2020 17:57	WG1488255
1,2-Dibromo-3-Chloropropane	ND		0.0318	1	06/07/2020 17:57	WG1488255
1,2-Dibromoethane	ND		0.00318	1	06/07/2020 17:57	WG1488255
Dibromomethane	ND		0.00636	1	06/07/2020 17:57	WG1488255
1,2-Dichlorobenzene	ND		0.00636	1	06/07/2020 17:57	WG1488255
1,3-Dichlorobenzene	ND		0.00636	1	06/07/2020 17:57	WG1488255
1,4-Dichlorobenzene	ND		0.00636	1	06/07/2020 17:57	WG1488255

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 10:30

L1225601

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	ND		0.00318	1	06/07/2020 17:57	WG1488255
1,1-Dichloroethane	ND		0.00318	1	06/07/2020 17:57	WG1488255
1,2-Dichloroethane	ND		0.00318	1	06/07/2020 17:57	WG1488255
1,1-Dichloroethene	ND		0.00318	1	06/07/2020 17:57	WG1488255
cis-1,2-Dichloroethene	ND		0.00318	1	06/07/2020 17:57	WG1488255
trans-1,2-Dichloroethene	ND		0.00636	1	06/07/2020 17:57	WG1488255
1,2-Dichloropropane	ND		0.00636	1	06/07/2020 17:57	WG1488255
1,1-Dichloropropene	ND		0.00318	1	06/07/2020 17:57	WG1488255
1,3-Dichloropropane	ND		0.00636	1	06/07/2020 17:57	WG1488255
cis-1,3-Dichloropropene	ND		0.00318	1	06/07/2020 17:57	WG1488255
trans-1,3-Dichloropropene	ND		0.00636	1	06/07/2020 17:57	WG1488255
2,2-Dichloropropane	ND		0.00318	1	06/07/2020 17:57	WG1488255
Di-isopropyl ether	ND		0.00127	1	06/07/2020 17:57	WG1488255
Ethylbenzene	ND		0.00318	1	06/07/2020 17:57	WG1488255
Hexachloro-1,3-butadiene	ND		0.0318	1	06/07/2020 17:57	WG1488255
Isopropylbenzene	ND		0.00318	1	06/07/2020 17:57	WG1488255
p-Isopropyltoluene	ND		0.00636	1	06/07/2020 17:57	WG1488255
2-Butanone (MEK)	ND		0.127	1	06/07/2020 17:57	WG1488255
Methylene Chloride	ND		0.0318	1	06/07/2020 17:57	WG1488255
4-Methyl-2-pentanone (MIBK)	ND		0.0318	1	06/07/2020 17:57	WG1488255
Methyl tert-butyl ether	ND		0.00127	1	06/07/2020 17:57	WG1488255
Naphthalene	ND		0.0159	1	06/07/2020 17:57	WG1488255
n-Propylbenzene	ND		0.00636	1	06/07/2020 17:57	WG1488255
Styrene	ND		0.0159	1	06/07/2020 17:57	WG1488255
1,1,1,2-Tetrachloroethane	ND		0.00318	1	06/07/2020 17:57	WG1488255
1,1,2,2-Tetrachloroethane	ND		0.00318	1	06/07/2020 17:57	WG1488255
1,1,2-Trichlorotrifluoroethane	ND		0.00318	1	06/07/2020 17:57	WG1488255
Tetrachloroethene	ND		0.00318	1	06/07/2020 17:57	WG1488255
Toluene	ND		0.00636	1	06/07/2020 17:57	WG1488255
1,2,3-Trichlorobenzene	ND		0.0159	1	06/07/2020 17:57	WG1488255
1,2,4-Trichlorobenzene	ND		0.0159	1	06/07/2020 17:57	WG1488255
1,1,1-Trichloroethane	ND		0.00318	1	06/07/2020 17:57	WG1488255
1,1,2-Trichloroethane	ND		0.00318	1	06/07/2020 17:57	WG1488255
Trichloroethene	ND		0.00127	1	06/07/2020 17:57	WG1488255
Trichlorofluoromethane	ND		0.00318	1	06/07/2020 17:57	WG1488255
1,2,3-Trichloropropane	ND		0.0159	1	06/07/2020 17:57	WG1488255
1,2,4-Trimethylbenzene	ND		0.00636	1	06/07/2020 17:57	WG1488255
1,2,3-Trimethylbenzene	ND		0.00636	1	06/07/2020 17:57	WG1488255
1,3,5-Trimethylbenzene	ND		0.00636	1	06/07/2020 17:57	WG1488255
Vinyl chloride	ND		0.00318	1	06/07/2020 17:57	WG1488255
Xylenes, Total	ND		0.00826	1	06/07/2020 17:57	WG1488255
(S) Toluene-d8	112		75.0-131		06/07/2020 17:57	WG1488255
(S) 4-Bromofluorobenzene	89.4		67.0-138		06/07/2020 17:57	WG1488255
(S) 1,2-Dichloroethane-d4	88.8		70.0-130		06/07/2020 17:57	WG1488255

- 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 NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		5.08	1	06/10/2020 04:46	WG1489750
Residual Range Organics (RRO)	ND		12.7	1	06/10/2020 04:46	WG1489750
(S) o-Terphenyl	74.1		18.0-148		06/10/2020 04:46	WG1489750



Collected date/time: 06/02/20 10:30

L1225601

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00763	1	06/10/2020 23:42	WG1489474
Acenaphthene	ND		0.00763	1	06/10/2020 23:42	WG1489474
Acenaphthylene	ND		0.00763	1	06/10/2020 23:42	WG1489474
Benzo(a)anthracene	ND		0.00763	1	06/10/2020 23:42	WG1489474
Benzo(a)pyrene	ND		0.00763	1	06/10/2020 23:42	WG1489474
Benzo(b)fluoranthene	ND		0.00763	1	06/10/2020 23:42	WG1489474
Benzo(g,h,i)perylene	ND		0.00763	1	06/10/2020 23:42	WG1489474
Benzo(k)fluoranthene	ND		0.00763	1	06/10/2020 23:42	WG1489474
Chrysene	ND		0.00763	1	06/10/2020 23:42	WG1489474
Dibenz(a,h)anthracene	ND		0.00763	1	06/10/2020 23:42	WG1489474
Fluoranthene	ND		0.00763	1	06/10/2020 23:42	WG1489474
Fluorene	ND		0.00763	1	06/10/2020 23:42	WG1489474
Indeno(1,2,3-cd)pyrene	ND		0.00763	1	06/10/2020 23:42	WG1489474
Naphthalene	ND		0.0254	1	06/10/2020 23:42	WG1489474
Phenanthrene	ND		0.00763	1	06/10/2020 23:42	WG1489474
Pyrene	ND		0.00763	1	06/10/2020 23:42	WG1489474
1-Methylnaphthalene	ND		0.0254	1	06/10/2020 23:42	WG1489474
2-Methylnaphthalene	ND		0.0254	1	06/10/2020 23:42	WG1489474
2-Chloronaphthalene	ND		0.0254	1	06/10/2020 23:42	WG1489474
(S) Nitrobenzene-d5	120		14.0-149		06/10/2020 23:42	WG1489474
(S) 2-Fluorobiphenyl	73.1		34.0-125		06/10/2020 23:42	WG1489474
(S) p-Terphenyl-d14	67.1		23.0-120		06/10/2020 23:42	WG1489474

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	85.5		1	06/09/2020 23:34	WG1489017

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0468	1	06/07/2020 22:54	WG1487994

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	2.52		1.17	5	06/06/2020 16:27	WG1488068
Barium	108		2.93	5	06/06/2020 16:27	WG1488068
Cadmium	ND		1.17	5	06/06/2020 16:27	WG1488068
Chromium	23.2		5.85	5	06/06/2020 16:27	WG1488068
Copper	20.5		5.85	5	06/06/2020 16:27	WG1488068
Lead	5.72		2.34	5	06/06/2020 16:27	WG1488068
Nickel	13.7		2.93	5	06/06/2020 16:27	WG1488068
Selenium	ND		2.93	5	06/06/2020 16:27	WG1488068
Silver	ND		0.585	5	06/06/2020 16:27	WG1488068
Zinc	ND		29.3	5	06/06/2020 16:27	WG1488068

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		2.93	25	06/11/2020 14:36	WG1490936
(S) a,a,a-Trifluorotoluene(FID)	94.5		77.0-120		06/11/2020 14:36	WG1490936

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0655	1.12	06/11/2020 11:14	WG1490314
Acrylonitrile	ND		0.0164	1.12	06/11/2020 11:14	WG1490314
Benzene	ND		0.00131	1.12	06/11/2020 11:14	WG1490314
Bromobenzene	ND		0.0164	1.12	06/11/2020 11:14	WG1490314
Bromodichloromethane	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
Bromoform	ND		0.0328	1.12	06/11/2020 11:14	WG1490314
Bromomethane	ND		0.0164	1.12	06/11/2020 11:14	WG1490314
n-Butylbenzene	ND		0.0164	1.12	06/11/2020 11:14	WG1490314
sec-Butylbenzene	ND		0.0164	1.12	06/11/2020 11:14	WG1490314
tert-Butylbenzene	ND	J4	0.00655	1.12	06/11/2020 11:14	WG1490314
Carbon tetrachloride	ND		0.00655	1.12	06/11/2020 11:14	WG1490314
Chlorobenzene	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
Chlorodibromomethane	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
Chloroethane	ND		0.00655	1.12	06/11/2020 11:14	WG1490314
Chloroform	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
Chloromethane	ND	JO	0.0164	1.12	06/11/2020 11:14	WG1490314
2-Chlorotoluene	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
4-Chlorotoluene	ND		0.00655	1.12	06/11/2020 11:14	WG1490314
1,2-Dibromo-3-Chloropropane	ND		0.0328	1.12	06/11/2020 11:14	WG1490314
1,2-Dibromoethane	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
Dibromomethane	ND	J4	0.00655	1.12	06/11/2020 11:14	WG1490314
1,2-Dichlorobenzene	ND		0.00655	1.12	06/11/2020 11:14	WG1490314
1,3-Dichlorobenzene	ND		0.00655	1.12	06/11/2020 11:14	WG1490314
1,4-Dichlorobenzene	ND		0.00655	1.12	06/11/2020 11:14	WG1490314

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 09:33

L1225601

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
1,1-Dichloroethane	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
1,2-Dichloroethane	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
1,1-Dichloroethene	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
cis-1,2-Dichloroethene	ND	J4	0.00328	1.12	06/11/2020 11:14	WG1490314
trans-1,2-Dichloroethene	ND		0.00655	1.12	06/11/2020 11:14	WG1490314
1,2-Dichloropropane	ND		0.00655	1.12	06/11/2020 11:14	WG1490314
1,1-Dichloropropene	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
1,3-Dichloropropane	ND		0.00655	1.12	06/11/2020 11:14	WG1490314
cis-1,3-Dichloropropene	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
trans-1,3-Dichloropropene	ND		0.00655	1.12	06/11/2020 11:14	WG1490314
2,2-Dichloropropane	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
Di-isopropyl ether	ND	JO	0.00131	1.12	06/11/2020 11:14	WG1490314
Ethylbenzene	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
Hexachloro-1,3-butadiene	ND		0.0328	1.12	06/11/2020 11:14	WG1490314
Isopropylbenzene	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
p-Isopropyltoluene	ND	J4	0.00655	1.12	06/11/2020 11:14	WG1490314
2-Butanone (MEK)	ND		0.131	1.12	06/11/2020 11:14	WG1490314
Methylene Chloride	ND		0.0328	1.12	06/11/2020 11:14	WG1490314
4-Methyl-2-pentanone (MIBK)	ND		0.0328	1.12	06/11/2020 11:14	WG1490314
Methyl tert-butyl ether	ND		0.00131	1.12	06/11/2020 11:14	WG1490314
Naphthalene	ND	JO	0.0164	1.12	06/11/2020 11:14	WG1490314
n-Propylbenzene	ND		0.00655	1.12	06/11/2020 11:14	WG1490314
Styrene	ND		0.0164	1.12	06/11/2020 11:14	WG1490314
1,1,1,2-Tetrachloroethane	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
1,1,2,2-Tetrachloroethane	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
1,1,2-Trichlorotrifluoroethane	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
Tetrachloroethene	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
Toluene	ND		0.00655	1.12	06/11/2020 11:14	WG1490314
1,2,3-Trichlorobenzene	ND		0.0164	1.12	06/11/2020 11:14	WG1490314
1,2,4-Trichlorobenzene	ND		0.0164	1.12	06/11/2020 11:14	WG1490314
1,1,1-Trichloroethane	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
1,1,2-Trichloroethane	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
Trichloroethene	ND		0.00131	1.12	06/11/2020 11:14	WG1490314
Trichlorofluoromethane	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
1,2,3-Trichloropropane	ND		0.0164	1.12	06/11/2020 11:14	WG1490314
1,2,4-Trimethylbenzene	ND		0.00655	1.12	06/11/2020 11:14	WG1490314
1,2,3-Trimethylbenzene	ND		0.00655	1.12	06/11/2020 11:14	WG1490314
1,3,5-Trimethylbenzene	ND		0.00655	1.12	06/11/2020 11:14	WG1490314
Vinyl chloride	ND		0.00328	1.12	06/11/2020 11:14	WG1490314
Xylenes, Total	ND		0.00852	1.12	06/11/2020 11:14	WG1490314
(S) Toluene-d8	107		75.0-131		06/11/2020 11:14	WG1490314
(S) 4-Bromofluorobenzene	92.8		67.0-138		06/11/2020 11:14	WG1490314
(S) 1,2-Dichloroethane-d4	102		70.0-130		06/11/2020 11:14	WG1490314

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 NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		4.68	1	06/10/2020 04:59	WG1489750
Residual Range Organics (RRO)	ND		11.7	1	06/10/2020 04:59	WG1489750
(S) o-Terphenyl	72.6		18.0-148		06/10/2020 04:59	WG1489750



Collected date/time: 06/02/20 09:33

L1225601

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00702	1	06/11/2020 00:03	WG1489474
Acenaphthene	ND		0.00702	1	06/11/2020 00:03	WG1489474
Acenaphthylene	ND		0.00702	1	06/11/2020 00:03	WG1489474
Benzo(a)anthracene	ND		0.00702	1	06/11/2020 00:03	WG1489474
Benzo(a)pyrene	ND		0.00702	1	06/11/2020 00:03	WG1489474
Benzo(b)fluoranthene	ND		0.00702	1	06/11/2020 00:03	WG1489474
Benzo(g,h,i)perylene	ND		0.00702	1	06/11/2020 00:03	WG1489474
Benzo(k)fluoranthene	ND		0.00702	1	06/11/2020 00:03	WG1489474
Chrysene	ND		0.00702	1	06/11/2020 00:03	WG1489474
Dibenz(a,h)anthracene	ND		0.00702	1	06/11/2020 00:03	WG1489474
Fluoranthene	ND		0.00702	1	06/11/2020 00:03	WG1489474
Fluorene	ND		0.00702	1	06/11/2020 00:03	WG1489474
Indeno(1,2,3-cd)pyrene	ND		0.00702	1	06/11/2020 00:03	WG1489474
Naphthalene	ND		0.0234	1	06/11/2020 00:03	WG1489474
Phenanthrene	ND		0.00702	1	06/11/2020 00:03	WG1489474
Pyrene	ND		0.00702	1	06/11/2020 00:03	WG1489474
1-Methylnaphthalene	ND		0.0234	1	06/11/2020 00:03	WG1489474
2-Methylnaphthalene	ND		0.0234	1	06/11/2020 00:03	WG1489474
2-Chloronaphthalene	ND		0.0234	1	06/11/2020 00:03	WG1489474
(S) Nitrobenzene-d5	114		14.0-149		06/11/2020 00:03	WG1489474
(S) 2-Fluorobiphenyl	74.2		34.0-125		06/11/2020 00:03	WG1489474
(S) p-Terphenyl-d14	60.8		23.0-120		06/11/2020 00:03	WG1489474

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	84.4		1	06/09/2020 23:14	WG1489018

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0474	1	06/07/2020 22:56	WG1487994

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	3.61		1.19	5	06/06/2020 16:30	WG1488068
Barium	384		2.96	5	06/06/2020 16:30	WG1488068
Cadmium	ND		1.19	5	06/06/2020 16:30	WG1488068
Chromium	23.1		5.93	5	06/06/2020 16:30	WG1488068
Copper	52.6		5.93	5	06/06/2020 16:30	WG1488068
Lead	3.26		2.37	5	06/06/2020 16:30	WG1488068
Nickel	38.7		2.96	5	06/06/2020 16:30	WG1488068
Selenium	ND		2.96	5	06/06/2020 16:30	WG1488068
Silver	ND		0.593	5	06/06/2020 16:30	WG1488068
Zinc	49.0		29.6	5	06/06/2020 16:30	WG1488068

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		2.96	25	06/08/2020 23:14	WG1488911
(S) a,a,a-Trifluorotoluene(FID)	104		77.0-120		06/08/2020 23:14	WG1488911

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0593	1	06/07/2020 18:16	WG1488255
Acrylonitrile	ND		0.0148	1	06/07/2020 18:16	WG1488255
Benzene	ND		0.00119	1	06/07/2020 18:16	WG1488255
Bromobenzene	ND		0.0148	1	06/07/2020 18:16	WG1488255
Bromodichloromethane	ND		0.00296	1	06/07/2020 18:16	WG1488255
Bromoform	ND		0.0296	1	06/07/2020 18:16	WG1488255
Bromomethane	ND		0.0148	1	06/07/2020 18:16	WG1488255
n-Butylbenzene	ND		0.0148	1	06/07/2020 18:16	WG1488255
sec-Butylbenzene	ND		0.0148	1	06/07/2020 18:16	WG1488255
tert-Butylbenzene	ND		0.00593	1	06/07/2020 18:16	WG1488255
Carbon tetrachloride	ND		0.00593	1	06/07/2020 18:16	WG1488255
Chlorobenzene	ND		0.00296	1	06/07/2020 18:16	WG1488255
Chlorodibromomethane	ND		0.00296	1	06/07/2020 18:16	WG1488255
Chloroethane	ND		0.00593	1	06/07/2020 18:16	WG1488255
Chloroform	ND		0.00296	1	06/07/2020 18:16	WG1488255
Chloromethane	ND		0.0148	1	06/07/2020 18:16	WG1488255
2-Chlorotoluene	ND	J4	0.00296	1	06/07/2020 18:16	WG1488255
4-Chlorotoluene	ND		0.00593	1	06/07/2020 18:16	WG1488255
1,2-Dibromo-3-Chloropropane	ND		0.0296	1	06/07/2020 18:16	WG1488255
1,2-Dibromoethane	ND		0.00296	1	06/07/2020 18:16	WG1488255
Dibromomethane	ND		0.00593	1	06/07/2020 18:16	WG1488255
1,2-Dichlorobenzene	ND		0.00593	1	06/07/2020 18:16	WG1488255
1,3-Dichlorobenzene	ND		0.00593	1	06/07/2020 18:16	WG1488255
1,4-Dichlorobenzene	ND		0.00593	1	06/07/2020 18:16	WG1488255

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 09:39

L1225601

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	ND		0.00296	1	06/07/2020 18:16	WG1488255
1,1-Dichloroethane	ND		0.00296	1	06/07/2020 18:16	WG1488255
1,2-Dichloroethane	ND		0.00296	1	06/07/2020 18:16	WG1488255
1,1-Dichloroethene	ND		0.00296	1	06/07/2020 18:16	WG1488255
cis-1,2-Dichloroethene	ND		0.00296	1	06/07/2020 18:16	WG1488255
trans-1,2-Dichloroethene	ND		0.00593	1	06/07/2020 18:16	WG1488255
1,2-Dichloropropane	ND		0.00593	1	06/07/2020 18:16	WG1488255
1,1-Dichloropropene	ND		0.00296	1	06/07/2020 18:16	WG1488255
1,3-Dichloropropane	ND		0.00593	1	06/07/2020 18:16	WG1488255
cis-1,3-Dichloropropene	ND		0.00296	1	06/07/2020 18:16	WG1488255
trans-1,3-Dichloropropene	ND		0.00593	1	06/07/2020 18:16	WG1488255
2,2-Dichloropropane	ND		0.00296	1	06/07/2020 18:16	WG1488255
Di-isopropyl ether	ND		0.00119	1	06/07/2020 18:16	WG1488255
Ethylbenzene	ND		0.00296	1	06/07/2020 18:16	WG1488255
Hexachloro-1,3-butadiene	ND		0.0296	1	06/07/2020 18:16	WG1488255
Isopropylbenzene	ND		0.00296	1	06/07/2020 18:16	WG1488255
p-Isopropyltoluene	ND		0.00593	1	06/07/2020 18:16	WG1488255
2-Butanone (MEK)	ND		0.119	1	06/07/2020 18:16	WG1488255
Methylene Chloride	ND		0.0296	1	06/07/2020 18:16	WG1488255
4-Methyl-2-pentanone (MIBK)	ND		0.0296	1	06/07/2020 18:16	WG1488255
Methyl tert-butyl ether	ND		0.00119	1	06/07/2020 18:16	WG1488255
Naphthalene	ND		0.0148	1	06/07/2020 18:16	WG1488255
n-Propylbenzene	ND		0.00593	1	06/07/2020 18:16	WG1488255
Styrene	ND		0.0148	1	06/07/2020 18:16	WG1488255
1,1,1,2-Tetrachloroethane	ND		0.00296	1	06/07/2020 18:16	WG1488255
1,1,2,2-Tetrachloroethane	ND		0.00296	1	06/07/2020 18:16	WG1488255
1,1,2-Trichlorotrifluoroethane	ND		0.00296	1	06/07/2020 18:16	WG1488255
Tetrachloroethene	ND		0.00296	1	06/07/2020 18:16	WG1488255
Toluene	ND		0.00593	1	06/07/2020 18:16	WG1488255
1,2,3-Trichlorobenzene	ND		0.0148	1	06/07/2020 18:16	WG1488255
1,2,4-Trichlorobenzene	ND		0.0148	1	06/07/2020 18:16	WG1488255
1,1,1-Trichloroethane	ND		0.00296	1	06/07/2020 18:16	WG1488255
1,1,2-Trichloroethane	ND		0.00296	1	06/07/2020 18:16	WG1488255
Trichloroethene	ND		0.00119	1	06/07/2020 18:16	WG1488255
Trichlorofluoromethane	ND		0.00296	1	06/07/2020 18:16	WG1488255
1,2,3-Trichloropropane	ND		0.0148	1	06/07/2020 18:16	WG1488255
1,2,4-Trimethylbenzene	ND		0.00593	1	06/07/2020 18:16	WG1488255
1,2,3-Trimethylbenzene	ND		0.00593	1	06/07/2020 18:16	WG1488255
1,3,5-Trimethylbenzene	ND		0.00593	1	06/07/2020 18:16	WG1488255
Vinyl chloride	ND		0.00296	1	06/07/2020 18:16	WG1488255
Xylenes, Total	ND		0.00771	1	06/07/2020 18:16	WG1488255
(S) Toluene-d8	112		75.0-131		06/07/2020 18:16	WG1488255
(S) 4-Bromofluorobenzene	86.1		67.0-138		06/07/2020 18:16	WG1488255
(S) 1,2-Dichloroethane-d4	86.1		70.0-130		06/07/2020 18:16	WG1488255

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 NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		4.74	1	06/10/2020 05:11	WG1489750
Residual Range Organics (RRO)	ND		11.9	1	06/10/2020 05:11	WG1489750
(S) o-Terphenyl	80.7		18.0-148		06/10/2020 05:11	WG1489750



Collected date/time: 06/02/20 09:39

L1225601

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00711	1	06/11/2020 00:23	WG1489474
Acenaphthene	ND		0.00711	1	06/11/2020 00:23	WG1489474
Acenaphthylene	ND		0.00711	1	06/11/2020 00:23	WG1489474
Benzo(a)anthracene	ND		0.00711	1	06/11/2020 00:23	WG1489474
Benzo(a)pyrene	ND		0.00711	1	06/11/2020 00:23	WG1489474
Benzo(b)fluoranthene	ND		0.00711	1	06/11/2020 00:23	WG1489474
Benzo(g,h,i)perylene	ND		0.00711	1	06/11/2020 00:23	WG1489474
Benzo(k)fluoranthene	ND		0.00711	1	06/11/2020 00:23	WG1489474
Chrysene	ND		0.00711	1	06/11/2020 00:23	WG1489474
Dibenz(a,h)anthracene	ND		0.00711	1	06/11/2020 00:23	WG1489474
Fluoranthene	ND		0.00711	1	06/11/2020 00:23	WG1489474
Fluorene	ND		0.00711	1	06/11/2020 00:23	WG1489474
Indeno(1,2,3-cd)pyrene	ND		0.00711	1	06/11/2020 00:23	WG1489474
Naphthalene	ND		0.0237	1	06/11/2020 00:23	WG1489474
Phenanthrene	ND		0.00711	1	06/11/2020 00:23	WG1489474
Pyrene	ND		0.00711	1	06/11/2020 00:23	WG1489474
1-Methylnaphthalene	ND		0.0237	1	06/11/2020 00:23	WG1489474
2-Methylnaphthalene	ND		0.0237	1	06/11/2020 00:23	WG1489474
2-Chloronaphthalene	ND		0.0237	1	06/11/2020 00:23	WG1489474
(S) Nitrobenzene-d5	112		14.0-149		06/11/2020 00:23	WG1489474
(S) 2-Fluorobiphenyl	87.2		34.0-125		06/11/2020 00:23	WG1489474
(S) p-Terphenyl-d14	82.9		23.0-120		06/11/2020 00:23	WG1489474

- 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	85.1		1	06/09/2020 23:14	WG1489018

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0470	1	06/07/2020 22:59	WG1487994

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	1.80		1.17	5	06/06/2020 16:34	WG1488068
Barium	80.2		2.94	5	06/06/2020 16:34	WG1488068
Cadmium	ND		1.17	5	06/06/2020 16:34	WG1488068
Chromium	43.5		5.87	5	06/06/2020 16:34	WG1488068
Copper	45.5		5.87	5	06/06/2020 16:34	WG1488068
Lead	2.35		2.35	5	06/06/2020 16:34	WG1488068
Nickel	28.8		2.94	5	06/06/2020 16:34	WG1488068
Selenium	ND		2.94	5	06/06/2020 16:34	WG1488068
Silver	ND		0.587	5	06/06/2020 16:34	WG1488068
Zinc	60.3		29.4	5	06/06/2020 16:34	WG1488068

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		2.94	25	06/08/2020 23:34	WG1488911
(S) a,a,a-Trifluorotoluene(FID)	106		77.0-120		06/08/2020 23:34	WG1488911

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0587	1	06/07/2020 18:35	WG1488255
Acrylonitrile	ND		0.0147	1	06/07/2020 18:35	WG1488255
Benzene	ND		0.00117	1	06/07/2020 18:35	WG1488255
Bromobenzene	ND		0.0147	1	06/07/2020 18:35	WG1488255
Bromodichloromethane	ND		0.00294	1	06/07/2020 18:35	WG1488255
Bromoform	ND		0.0294	1	06/07/2020 18:35	WG1488255
Bromomethane	ND		0.0147	1	06/07/2020 18:35	WG1488255
n-Butylbenzene	ND		0.0147	1	06/07/2020 18:35	WG1488255
sec-Butylbenzene	ND		0.0147	1	06/07/2020 18:35	WG1488255
tert-Butylbenzene	ND		0.00587	1	06/07/2020 18:35	WG1488255
Carbon tetrachloride	ND		0.00587	1	06/07/2020 18:35	WG1488255
Chlorobenzene	ND		0.00294	1	06/07/2020 18:35	WG1488255
Chlorodibromomethane	ND		0.00294	1	06/07/2020 18:35	WG1488255
Chloroethane	ND		0.00587	1	06/07/2020 18:35	WG1488255
Chloroform	ND		0.00294	1	06/07/2020 18:35	WG1488255
Chloromethane	ND		0.0147	1	06/07/2020 18:35	WG1488255
2-Chlorotoluene	ND	J4	0.00294	1	06/07/2020 18:35	WG1488255
4-Chlorotoluene	ND		0.00587	1	06/07/2020 18:35	WG1488255
1,2-Dibromo-3-Chloropropane	ND		0.0294	1	06/07/2020 18:35	WG1488255
1,2-Dibromoethane	ND		0.00294	1	06/07/2020 18:35	WG1488255
Dibromomethane	ND		0.00587	1	06/07/2020 18:35	WG1488255
1,2-Dichlorobenzene	ND		0.00587	1	06/07/2020 18:35	WG1488255
1,3-Dichlorobenzene	ND		0.00587	1	06/07/2020 18:35	WG1488255
1,4-Dichlorobenzene	ND		0.00587	1	06/07/2020 18:35	WG1488255

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/02/20 09:50

L1225601

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	ND		0.00294	1	06/07/2020 18:35	WG1488255
1,1-Dichloroethane	ND		0.00294	1	06/07/2020 18:35	WG1488255
1,2-Dichloroethane	ND		0.00294	1	06/07/2020 18:35	WG1488255
1,1-Dichloroethene	ND		0.00294	1	06/07/2020 18:35	WG1488255
cis-1,2-Dichloroethene	ND		0.00294	1	06/07/2020 18:35	WG1488255
trans-1,2-Dichloroethene	ND		0.00587	1	06/07/2020 18:35	WG1488255
1,2-Dichloropropane	ND		0.00587	1	06/07/2020 18:35	WG1488255
1,1-Dichloropropene	ND		0.00294	1	06/07/2020 18:35	WG1488255
1,3-Dichloropropane	ND		0.00587	1	06/07/2020 18:35	WG1488255
cis-1,3-Dichloropropene	ND		0.00294	1	06/07/2020 18:35	WG1488255
trans-1,3-Dichloropropene	ND		0.00587	1	06/07/2020 18:35	WG1488255
2,2-Dichloropropane	ND		0.00294	1	06/07/2020 18:35	WG1488255
Di-isopropyl ether	ND		0.00117	1	06/07/2020 18:35	WG1488255
Ethylbenzene	ND		0.00294	1	06/07/2020 18:35	WG1488255
Hexachloro-1,3-butadiene	ND		0.0294	1	06/07/2020 18:35	WG1488255
Isopropylbenzene	ND		0.00294	1	06/07/2020 18:35	WG1488255
p-Isopropyltoluene	ND		0.00587	1	06/07/2020 18:35	WG1488255
2-Butanone (MEK)	ND		0.117	1	06/07/2020 18:35	WG1488255
Methylene Chloride	ND		0.0294	1	06/07/2020 18:35	WG1488255
4-Methyl-2-pentanone (MIBK)	ND		0.0294	1	06/07/2020 18:35	WG1488255
Methyl tert-butyl ether	ND		0.00117	1	06/07/2020 18:35	WG1488255
Naphthalene	ND		0.0147	1	06/07/2020 18:35	WG1488255
n-Propylbenzene	ND		0.00587	1	06/07/2020 18:35	WG1488255
Styrene	ND		0.0147	1	06/07/2020 18:35	WG1488255
1,1,1,2-Tetrachloroethane	ND		0.00294	1	06/07/2020 18:35	WG1488255
1,1,2,2-Tetrachloroethane	ND		0.00294	1	06/07/2020 18:35	WG1488255
1,1,2-Trichlorotrifluoroethane	ND		0.00294	1	06/07/2020 18:35	WG1488255
Tetrachloroethene	ND		0.00294	1	06/07/2020 18:35	WG1488255
Toluene	ND		0.00587	1	06/07/2020 18:35	WG1488255
1,2,3-Trichlorobenzene	ND		0.0147	1	06/07/2020 18:35	WG1488255
1,2,4-Trichlorobenzene	ND		0.0147	1	06/07/2020 18:35	WG1488255
1,1,1-Trichloroethane	ND		0.00294	1	06/07/2020 18:35	WG1488255
1,1,2-Trichloroethane	ND		0.00294	1	06/07/2020 18:35	WG1488255
Trichloroethene	ND		0.00117	1	06/07/2020 18:35	WG1488255
Trichlorofluoromethane	ND		0.00294	1	06/07/2020 18:35	WG1488255
1,2,3-Trichloropropane	ND		0.0147	1	06/07/2020 18:35	WG1488255
1,2,4-Trimethylbenzene	ND		0.00587	1	06/07/2020 18:35	WG1488255
1,2,3-Trimethylbenzene	ND		0.00587	1	06/07/2020 18:35	WG1488255
1,3,5-Trimethylbenzene	ND		0.00587	1	06/07/2020 18:35	WG1488255
Vinyl chloride	ND		0.00294	1	06/07/2020 18:35	WG1488255
Xylenes, Total	ND		0.00763	1	06/07/2020 18:35	WG1488255
(S) Toluene-d8	111		75.0-131		06/07/2020 18:35	WG1488255
(S) 4-Bromofluorobenzene	66.8	J2	67.0-138		06/07/2020 18:35	WG1488255
(S) 1,2-Dichloroethane-d4	86.6		70.0-130		06/07/2020 18:35	WG1488255

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 NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		4.70	1	06/10/2020 05:24	WG1489750
Residual Range Organics (RRO)	ND		11.7	1	06/10/2020 05:24	WG1489750
(S) o-Terphenyl	87.9		18.0-148		06/10/2020 05:24	WG1489750



Collected date/time: 06/02/20 09:50

L1225601

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00705	1	06/11/2020 00:44	WG1489474
Acenaphthene	ND		0.00705	1	06/11/2020 00:44	WG1489474
Acenaphthylene	ND		0.00705	1	06/11/2020 00:44	WG1489474
Benzo(a)anthracene	ND		0.00705	1	06/11/2020 00:44	WG1489474
Benzo(a)pyrene	ND		0.00705	1	06/11/2020 00:44	WG1489474
Benzo(b)fluoranthene	ND		0.00705	1	06/11/2020 00:44	WG1489474
Benzo(g,h,i)perylene	ND		0.00705	1	06/11/2020 00:44	WG1489474
Benzo(k)fluoranthene	ND		0.00705	1	06/11/2020 00:44	WG1489474
Chrysene	ND		0.00705	1	06/11/2020 00:44	WG1489474
Dibenz(a,h)anthracene	ND		0.00705	1	06/11/2020 00:44	WG1489474
Fluoranthene	ND		0.00705	1	06/11/2020 00:44	WG1489474
Fluorene	ND		0.00705	1	06/11/2020 00:44	WG1489474
Indeno(1,2,3-cd)pyrene	ND		0.00705	1	06/11/2020 00:44	WG1489474
Naphthalene	ND		0.0235	1	06/11/2020 00:44	WG1489474
Phenanthrene	ND		0.00705	1	06/11/2020 00:44	WG1489474
Pyrene	ND		0.00705	1	06/11/2020 00:44	WG1489474
1-Methylnaphthalene	ND		0.0235	1	06/11/2020 00:44	WG1489474
2-Methylnaphthalene	ND		0.0235	1	06/11/2020 00:44	WG1489474
2-Chloronaphthalene	ND		0.0235	1	06/11/2020 00:44	WG1489474
(S) Nitrobenzene-d5	114		14.0-149		06/11/2020 00:44	WG1489474
(S) 2-Fluorobiphenyl	83.7		34.0-125		06/11/2020 00:44	WG1489474
(S) p-Terphenyl-d14	84.3		23.0-120		06/11/2020 00:44	WG1489474

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3537081-1 06/09/20 23:56

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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Original Sample (OS) • Duplicate (DUP)

(OS) • (DUP) R3537081-3 06/09/20 23:56

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	79.8	79.8	1	0.568		10

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3537081-2 06/09/20 23:56

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



Method Blank (MB)

(MB) R3537076-1 06/09/20 23:34

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.00300			

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L1225601-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1225601-05 06/09/20 23:34 • (DUP) R3537076-3 06/09/20 23:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	73.2	75.4	1	2.98		10

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3537076-2 06/09/20 23:34

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



Method Blank (MB)

(MB) R3537067-1 06/09/20 23:14

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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L1225603-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1225603-04 06/09/20 23:14 • (DUP) R3537067-3 06/09/20 23:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	83.2	79.8	1	4.17		10

⁷ Gl

⁸ Al

Laboratory Control Sample (LCS)

(LCS) R3537067-2 06/09/20 23:14

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

⁹ Sc



Method Blank (MB)

(MB) R3535943-1 06/07/20 21:57

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) R3535943-2 06/07/20 22:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Mercury	0.500	0.505	101	80.0-120	

L1225601-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1225601-01 06/07/20 22:02 • (MS) R3535943-3 06/07/20 22:05 • (MSD) R3535943-4 06/07/20 22:07

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	0.711	ND	0.785	0.772	103	101	1	75.0-125			1.66	20

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3535733-1 06/06/20 14:40

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.422	1.00
Barium	U		1.25	2.50
Cadmium	U		0.406	1.00
Chromium	U		2.24	5.00
Copper	U		2.50	5.00
Lead	U		1.00	2.00
Nickel	U		1.21	2.50
Selenium	U		1.01	2.50
Silver	U		0.213	0.500
Zinc	U		8.15	25.0

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3535733-2 06/06/20 14:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	92.4	92.4	80.0-120	
Barium	100	92.6	92.6	80.0-120	
Cadmium	100	95.1	95.1	80.0-120	
Chromium	100	96.7	96.7	80.0-120	
Copper	100	93.7	93.7	80.0-120	
Lead	100	95.6	95.6	80.0-120	
Nickel	100	99.4	99.4	80.0-120	
Selenium	100	95.6	95.6	80.0-120	
Silver	20.0	18.7	93.6	80.0-120	
Zinc	100	96.5	96.5	80.0-120	

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3535733-5 06/06/20 14:58 • (MSD) R3535733-6 06/06/20 15:01

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 %
Arsenic	20.9		85.6	85.8	84.5	84.7	5	75.0-125			0.253	20
Barium	20.9		325	268	77.1	20.6	5	75.0-125		J6	19.0	20
Cadmium	20.9		98.4	95.6	98.4	95.6	5	75.0-125			2.86	20
Chromium	20.9		130	120	94.0	83.5	5	75.0-125			8.36	20
Copper	20.9		151	137	95.1	81.5	5	75.0-125			9.43	20
Lead	20.9		102	101	97.2	95.9	5	75.0-125			1.28	20
Nickel	20.9		124	116	89.8	81.7	5	75.0-125			6.75	20



Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3535733-5 06/06/20 14:58 • (MSD) R3535733-6 06/06/20 15:01

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 %
Selenium	20.9	99.6	99.6	95.2	99.6	95.2	5	75.0-125			4.60	20
Silver	4.18	19.1	19.1	18.6	95.5	93.1	5	75.0-125			2.53	20
Zinc	20.9	122	122	114	87.6	79.9	5	75.0-125			6.55	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3536661-2 06/06/20 23:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	0.0355	J	0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	92.8			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3536661-1 06/06/20 22:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.38	97.8	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			107	77.0-120	

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3536661-3 06/07/20 06:53 • (MSD) R3536661-4 06/07/20 07:14

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 %
Gasoline Range Organics-NWTPH	4400		4050	4030	15.0	14.5	1000	10.0-149			0.495	27
(S) a,a,a-Trifluorotoluene(FID)					125	125		77.0-120	J1	J1		

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3536287-3 06/08/20 14:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	102			77.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3536287-2 06/08/20 14:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.53	101	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			99.5	77.0-120	

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3536287-4 06/08/20 23:55 • (MSD) R3536287-5 06/09/20 00:16

Analyte	Spike Amount mg/kg	Original Result	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	350		325	315	109	106	53.3	10.0-149			3.13	27
(S) a,a,a-Trifluorotoluene(FID)					103	102		77.0-120				



Method Blank (MB)

(MB) R3537677-2 06/11/20 13:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	92.6			77.0-120

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS)

(LCS) R3537677-1 06/11/20 11:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.14	93.5	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			106	77.0-120	

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3537102-2 06/07/20 12:36

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) R3537102-2 06/07/20 12:36

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)	0.0780	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	125			75.0-131
(S) 4-Bromofluorobenzene	91.8			67.0-138
(S) 1,2-Dichloroethane-d4	88.0			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) R3537102-1 06/07/20 08:57

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.667	107	10.0-160	
Acrylonitrile	0.625	0.671	107	45.0-153	
Benzene	0.125	0.108	86.4	70.0-123	
Bromobenzene	0.125	0.114	91.2	73.0-121	
Bromodichloromethane	0.125	0.104	83.2	73.0-121	



Laboratory Control Sample (LCS)

(LCS) R3537102-1 06/07/20 08:57

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromoform	0.125	0.115	92.0	64.0-132	
Bromomethane	0.125	0.129	103	56.0-147	
n-Butylbenzene	0.125	0.114	91.2	68.0-135	
sec-Butylbenzene	0.125	0.109	87.2	74.0-130	
tert-Butylbenzene	0.125	0.102	81.6	75.0-127	
Carbon tetrachloride	0.125	0.128	102	66.0-128	
Chlorobenzene	0.125	0.122	97.6	76.0-128	
Chlorodibromomethane	0.125	0.141	113	74.0-127	
Chloroethane	0.125	0.143	114	61.0-134	
Chloroform	0.125	0.122	97.6	72.0-123	
Chloromethane	0.125	0.102	81.6	51.0-138	
2-Chlorotoluene	0.125	0.159	127	75.0-124	J4
4-Chlorotoluene	0.125	0.131	105	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.112	89.6	59.0-130	
1,2-Dibromoethane	0.125	0.131	105	74.0-128	
Dibromomethane	0.125	0.105	84.0	75.0-122	
1,2-Dichlorobenzene	0.125	0.115	92.0	76.0-124	
1,3-Dichlorobenzene	0.125	0.140	112	76.0-125	
1,4-Dichlorobenzene	0.125	0.106	84.8	77.0-121	
Dichlorodifluoromethane	0.125	0.117	93.6	43.0-156	
1,1-Dichloroethane	0.125	0.125	100	70.0-127	
1,2-Dichloroethane	0.125	0.115	92.0	65.0-131	
1,1-Dichloroethene	0.125	0.117	93.6	65.0-131	
cis-1,2-Dichloroethene	0.125	0.102	81.6	73.0-125	
trans-1,2-Dichloroethene	0.125	0.113	90.4	71.0-125	
1,2-Dichloropropane	0.125	0.109	87.2	74.0-125	
1,1-Dichloropropene	0.125	0.106	84.8	73.0-125	
1,3-Dichloropropane	0.125	0.126	101	80.0-125	
cis-1,3-Dichloropropene	0.125	0.101	80.8	76.0-127	
trans-1,3-Dichloropropene	0.125	0.118	94.4	73.0-127	
2,2-Dichloropropane	0.125	0.114	91.2	59.0-135	
Di-isopropyl ether	0.125	0.0848	67.8	60.0-136	
Ethylbenzene	0.125	0.116	92.8	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.130	104	57.0-150	
Isopropylbenzene	0.125	0.113	90.4	72.0-127	
p-Isopropyltoluene	0.125	0.0973	77.8	72.0-133	
2-Butanone (MEK)	0.625	0.646	103	30.0-160	
Methylene Chloride	0.125	0.126	101	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.747	120	56.0-143	
Methyl tert-butyl ether	0.125	0.120	96.0	66.0-132	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS)

(LCS) R3537102-1 06/07/20 08:57

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Naphthalene	0.125	0.108	86.4	59.0-130	
n-Propylbenzene	0.125	0.125	100	74.0-126	
Styrene	0.125	0.115	92.0	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.0984	78.7	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.113	90.4	68.0-128	
Tetrachloroethene	0.125	0.130	104	70.0-136	
Toluene	0.125	0.126	101	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.124	99.2	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.104	83.2	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.106	84.8	62.0-137	
1,1,1-Trichloroethane	0.125	0.0909	72.7	69.0-126	
1,1,2-Trichloroethane	0.125	0.146	117	78.0-123	
Trichloroethene	0.125	0.117	93.6	76.0-126	
Trichlorofluoromethane	0.125	0.130	104	61.0-142	
1,2,3-Trichloropropane	0.125	0.148	118	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.104	83.2	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.108	86.4	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.127	102	73.0-127	
Vinyl chloride	0.125	0.116	92.8	63.0-134	
Xylenes, Total	0.375	0.378	101	72.0-127	
<i>(S) Toluene-d8</i>			110	75.0-131	
<i>(S) 4-Bromofluorobenzene</i>			98.8	67.0-138	
<i>(S) 1,2-Dichloroethane-d4</i>			95.3	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) R3537528-3 06/11/20 08:28

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) R3537528-3 06/11/20 08:28

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)	0.0754	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	110			75.0-131
(S) 4-Bromofluorobenzene	91.1			67.0-138
(S) 1,2-Dichloroethane-d4	92.0			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) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3537528-1 06/11/20 07:11 • (LCSD) R3537528-2 06/11/20 07:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.621	0.533	99.4	85.3	10.0-160			15.3	31
Acrylonitrile	0.625	0.691	0.645	111	103	45.0-153			6.89	22
Benzene	0.125	0.103	0.0994	82.4	79.5	70.0-123			3.56	20
Bromobenzene	0.125	0.117	0.121	93.6	96.8	73.0-121			3.36	20
Bromodichloromethane	0.125	0.109	0.107	87.2	85.6	73.0-121			1.85	20



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

(LCS) R3537528-1 06/11/20 07:11 • (LCSD) R3537528-2 06/11/20 07:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromoform	0.125	0.136	0.128	109	102	64.0-132			6.06	20
Bromomethane	0.125	0.115	0.111	92.0	88.8	56.0-147			3.54	20
n-Butylbenzene	0.125	0.0965	0.0996	77.2	79.7	68.0-135			3.16	20
sec-Butylbenzene	0.125	0.0950	0.0996	76.0	79.7	74.0-130			4.73	20
tert-Butylbenzene	0.125	0.0913	0.0992	73.0	79.4	75.0-127	J4		8.29	20
Carbon tetrachloride	0.125	0.142	0.140	114	112	66.0-128			1.42	20
Chlorobenzene	0.125	0.121	0.119	96.8	95.2	76.0-128			1.67	20
Chlorodibromomethane	0.125	0.147	0.142	118	114	74.0-127			3.46	20
Chloroethane	0.125	0.120	0.128	96.0	102	61.0-134			6.45	20
Chloroform	0.125	0.124	0.116	99.2	92.8	72.0-123			6.67	20
Chloromethane	0.125	0.0872	0.0803	69.8	64.2	51.0-138			8.24	20
2-Chlorotoluene	0.125	0.144	0.148	115	118	75.0-124			2.74	20
4-Chlorotoluene	0.125	0.122	0.124	97.6	99.2	75.0-124			1.63	20
1,2-Dibromo-3-Chloropropane	0.125	0.113	0.110	90.4	88.0	59.0-130			2.69	20
1,2-Dibromoethane	0.125	0.134	0.130	107	104	74.0-128			3.03	20
Dibromomethane	0.125	0.108	0.0929	86.4	74.3	75.0-122		J4	15.0	20
1,2-Dichlorobenzene	0.125	0.110	0.113	88.0	90.4	76.0-124			2.69	20
1,3-Dichlorobenzene	0.125	0.135	0.136	108	109	76.0-125			0.738	20
1,4-Dichlorobenzene	0.125	0.102	0.101	81.6	80.8	77.0-121			0.985	20
Dichlorodifluoromethane	0.125	0.123	0.119	98.4	95.2	43.0-156			3.31	20
1,1-Dichloroethane	0.125	0.120	0.116	96.0	92.8	70.0-127			3.39	20
1,2-Dichloroethane	0.125	0.114	0.109	91.2	87.2	65.0-131			4.48	20
1,1-Dichloroethene	0.125	0.113	0.105	90.4	84.0	65.0-131			7.34	20
cis-1,2-Dichloroethene	0.125	0.100	0.0896	80.0	71.7	73.0-125		J4	11.0	20
trans-1,2-Dichloroethene	0.125	0.104	0.0957	83.2	76.6	71.0-125			8.31	20
1,2-Dichloropropane	0.125	0.105	0.104	84.0	83.2	74.0-125			0.957	20
1,1-Dichloropropene	0.125	0.101	0.105	80.8	84.0	73.0-125			3.88	20
1,3-Dichloropropane	0.125	0.116	0.119	92.8	95.2	80.0-125			2.55	20
cis-1,3-Dichloropropene	0.125	0.108	0.105	86.4	84.0	76.0-127			2.82	20
trans-1,3-Dichloropropene	0.125	0.118	0.122	94.4	97.6	73.0-127			3.33	20
2,2-Dichloropropane	0.125	0.126	0.120	101	96.0	59.0-135			4.88	20
Di-isopropyl ether	0.125	0.0834	0.0784	66.7	62.7	60.0-136			6.18	20
Ethylbenzene	0.125	0.109	0.112	87.2	89.6	74.0-126			2.71	20
Hexachloro-1,3-butadiene	0.125	0.162	0.158	130	126	57.0-150			2.50	20
Isopropylbenzene	0.125	0.106	0.104	84.8	83.2	72.0-127			1.90	20
p-Isopropyltoluene	0.125	0.0863	0.0906	69.0	72.5	72.0-133	J4		4.86	20
2-Butanone (MEK)	0.625	0.636	0.522	102	83.5	30.0-160			19.7	24
Methylene Chloride	0.125	0.116	0.103	92.8	82.4	68.0-123			11.9	20
4-Methyl-2-pentanone (MIBK)	0.625	0.658	0.638	105	102	56.0-143			3.09	20
Methyl tert-butyl ether	0.125	0.125	0.114	100	91.2	66.0-132			9.21	20

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) R3537528-1 06/11/20 07:11 • (LCSD) R3537528-2 06/11/20 07:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.125	0.0871	0.0900	69.7	72.0	59.0-130			3.27	20
n-Propylbenzene	0.125	0.110	0.116	88.0	92.8	74.0-126			5.31	20
Styrene	0.125	0.110	0.111	88.0	88.8	72.0-127			0.905	20
1,1,1,2-Tetrachloroethane	0.125	0.102	0.0957	81.6	76.6	74.0-129			6.37	20
1,1,2,2-Tetrachloroethane	0.125	0.0932	0.0929	74.6	74.3	68.0-128			0.322	20
Tetrachloroethene	0.125	0.144	0.150	115	120	70.0-136			4.08	20
Toluene	0.125	0.114	0.115	91.2	92.0	75.0-121			0.873	20
1,1,2-Trichlorotrifluoroethane	0.125	0.129	0.122	103	97.6	61.0-139			5.58	20
1,2,3-Trichlorobenzene	0.125	0.0995	0.0966	79.6	77.3	59.0-139			2.96	20
1,2,4-Trichlorobenzene	0.125	0.110	0.106	88.0	84.8	62.0-137			3.70	20
1,1,1-Trichloroethane	0.125	0.0922	0.0915	73.8	73.2	69.0-126			0.762	20
1,1,2-Trichloroethane	0.125	0.135	0.137	108	110	78.0-123			1.47	20
Trichloroethene	0.125	0.120	0.120	96.0	96.0	76.0-126			0.000	20
Trichlorofluoromethane	0.125	0.142	0.131	114	105	61.0-142			8.06	20
1,2,3-Trichloropropane	0.125	0.152	0.145	122	116	67.0-129			4.71	20
1,2,3-Trimethylbenzene	0.125	0.0931	0.0970	74.5	77.6	74.0-124			4.10	20
1,2,4-Trimethylbenzene	0.125	0.0962	0.102	77.0	81.6	70.0-126			5.85	20
1,3,5-Trimethylbenzene	0.125	0.114	0.120	91.2	96.0	73.0-127			5.13	20
Vinyl chloride	0.125	0.102	0.0968	81.6	77.4	63.0-134			5.23	20
Xylenes, Total	0.375	0.359	0.332	95.7	88.5	72.0-127			7.81	20
(S) Toluene-d8				105	105	75.0-131				
(S) 4-Bromofluorobenzene				98.7	94.9	67.0-138				
(S) 1,2-Dichloroethane-d4				95.8	94.1	70.0-130				

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 NWTPHDX-NO SG [T1225601-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15](#)

Method Blank (MB)

(MB) R3536883-1 06/10/20 02:26

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
<i>(S) o-Terphenyl</i>	77.9			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3536883-2 06/10/20 02:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	40.8	81.6	50.0-150	
<i>(S) o-Terphenyl</i>			98.6	18.0-148	

L1225601-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1225601-08 06/10/20 03:17 • (MS) R3536883-3 06/10/20 03:30 • (MSD) R3536883-4 06/10/20 03:42

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 %
Diesel Range Organics (DRO)	62.8	ND	48.7	44.5	77.5	71.0	1	50.0-150			8.93	20
<i>(S) o-Terphenyl</i>					91.0	81.6		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) R3537353-2 06/10/20 20:55

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	0.00428	J	0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) Nitrobenzene-d5	107			14.0-149
(S) 2-Fluorobiphenyl	88.1			34.0-125
(S) p-Terphenyl-d14	94.7			23.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3537353-1 06/10/20 20:35

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0790	98.8	50.0-126	
Acenaphthene	0.0800	0.0827	103	50.0-120	
Acenaphthylene	0.0800	0.0853	107	50.0-120	
Benzo(a)anthracene	0.0800	0.0846	106	45.0-120	
Benzo(a)pyrene	0.0800	0.0728	91.0	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0746	93.3	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0711	88.9	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0791	98.9	49.0-125	
Chrysene	0.0800	0.0829	104	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0721	90.1	47.0-125	
Fluoranthene	0.0800	0.0697	87.1	49.0-129	



Laboratory Control Sample (LCS)

(LCS) R3537353-1 06/10/20 20:35

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0812	102	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0731	91.4	46.0-125	
Naphthalene	0.0800	0.0741	92.6	50.0-120	
Phenanthrene	0.0800	0.0770	96.3	47.0-120	
Pyrene	0.0800	0.0826	103	43.0-123	
1-Methylnaphthalene	0.0800	0.0780	97.5	51.0-121	
2-Methylnaphthalene	0.0800	0.0733	91.6	50.0-120	
2-Chloronaphthalene	0.0800	0.0784	98.0	50.0-120	
(S) Nitrobenzene-d5			98.4	14.0-149	
(S) 2-Fluorobiphenyl			88.7	34.0-125	
(S) p-Terphenyl-d14			88.1	23.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1225601-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1225601-07 06/11/20 02:49 • (MS) R3537353-3 06/11/20 03:09 • (MSD) R3537353-4 06/11/20 03:30

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 %
Anthracene	0.0913	ND	0.0803	0.0889	87.9	97.8	1	10.0-145			10.1	30
Acenaphthene	0.0913	ND	0.0859	0.0930	94.1	102	1	14.0-127			7.85	27
Acenaphthylene	0.0913	ND	0.0890	0.0953	97.4	105	1	21.0-124			6.86	25
Benzo(a)anthracene	0.0913	ND	0.0932	0.0912	102	100	1	10.0-139			2.16	30
Benzo(a)pyrene	0.0913	ND	0.0581	0.0821	63.6	90.3	1	10.0-141	J3		34.3	31
Benzo(b)fluoranthene	0.0913	ND	0.0572	0.0843	59.4	89.5	1	10.0-140	J3		38.2	36
Benzo(g,h,i)perylene	0.0913	ND	0.0746	0.0597	78.8	62.8	1	10.0-140			22.1	33
Benzo(k)fluoranthene	0.0913	ND	0.0466	0.0735	51.0	80.9	1	10.0-137	J3		44.8	31
Chrysene	0.0913	ND	0.0855	0.0849	93.6	93.4	1	10.0-145			0.687	30
Dibenz(a,h)anthracene	0.0913	ND	0.0712	0.0498	77.9	54.8	1	10.0-132	J3		35.4	31
Fluoranthene	0.0913	ND	0.0818	0.108	89.6	119	1	10.0-153			27.7	33
Fluorene	0.0913	ND	0.0784	0.0859	85.9	94.6	1	11.0-130			9.12	29
Indeno(1,2,3-cd)pyrene	0.0913	ND	0.0741	0.0516	81.2	56.8	1	10.0-137	J3		35.8	32
Naphthalene	0.0913	ND	0.0759	0.0827	83.1	91.0	1	10.0-135			8.57	27
Phenanthrene	0.0913	ND	0.0869	0.0898	95.1	98.8	1	10.0-144			3.31	31
Pyrene	0.0913	ND	0.0967	0.0876	103	93.8	1	10.0-148			9.91	35
1-Methylnaphthalene	0.0913	ND	0.0721	0.0823	79.0	90.6	1	10.0-142			13.2	28
2-Methylnaphthalene	0.0913	ND	0.0676	0.0766	74.0	84.3	1	10.0-137			12.5	28
2-Chloronaphthalene	0.0913	ND	0.0781	0.0834	85.5	91.8	1	29.0-120			6.53	24
(S) Nitrobenzene-d5					117	123		14.0-149				
(S) 2-Fluorobiphenyl					76.8	79.7		34.0-125				
(S) p-Terphenyl-d14					81.3	84.1		23.0-120				



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.
ND	Not detected at the Reporting Limit (or MDL where applicable).
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.
J0	J0: The identification of the analyte is acceptable, but the reported concentration is an estimate. The calibration method criteria.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower 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.



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

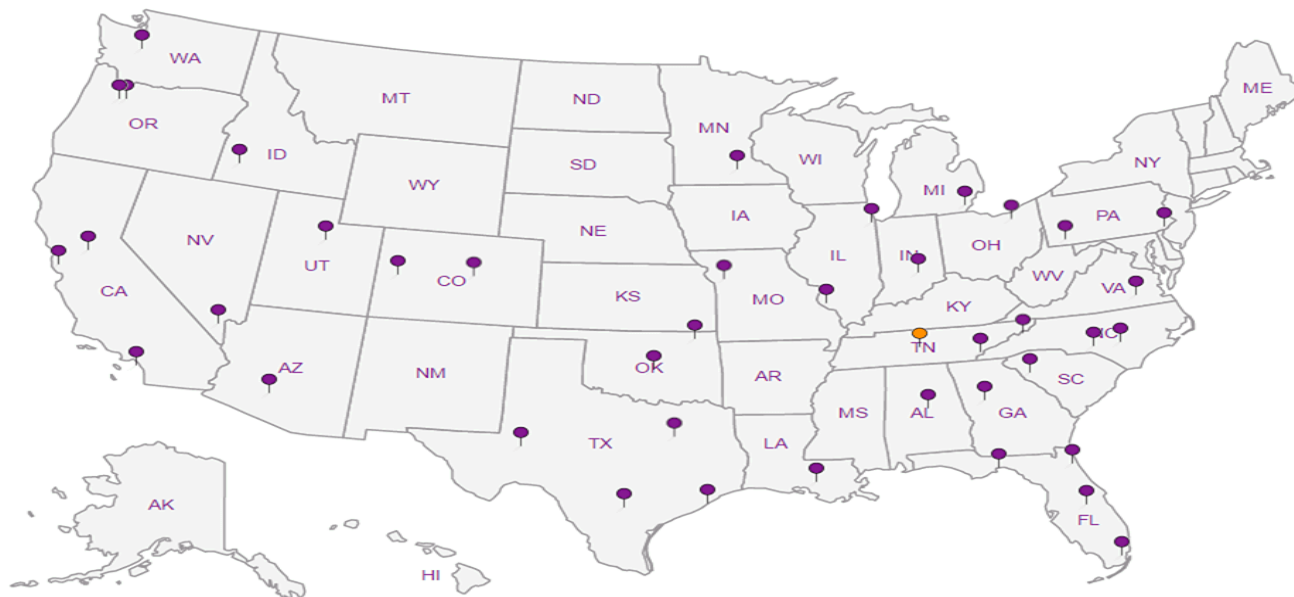
Third Party Federal Accreditations

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

Shannon & Wilson - OR

3990 Collins Way, Ste. 100
Lake Oswego, OR 97035

Billing Information:

Accounts Payable / Pete Shingledecker
3990 Collins Way, Ste. 100
Lake Oswego, OR 97035

Pres
Chk

Analysis / Container / Preservative



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



SDG # **L1225601**

F044

Acctnum: **SHAWILOR**

Template: **T168512**

Prelogin: **P775822**

PM: **110 - Brian Ford**

PB:

Shipped Via:

Remarks | Sample # (lab only)

Report to: **PETE SHINGLEDECKER**
Email To: **PJSE SHANWIL.COM**

Project Description: City/State Collected: Please Circle: PT MT CT ET

Phone: **503-210-4750** Client Project # **104983-004** Lab Project # **SHAWILOR-104983004**

Collected by (print): **Christine Maher** Site/Facility ID # **CHEHALIS, WA** P.O. #

Collected by (signature): *[Signature]* Rush? (Lab MUST Be Notified) Quote #

Immediately Packed on Ice N Y X
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day
 Date Results Needed No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHDX NOSGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH5ml/Syr	PAHs 8270E-SIM 8ozClr-NoPres	RCRA8+Cu,Ni,Zn 6020 8ozClr-NoPres	VOCs 8260D 40mlAmb/MeOH5ml/Syr								
GP-1-5	Comp	SS	5	6/2/20	1304	3	X	X	X	X	X								-01
GP-1-10	Comp	SS	10	6/2/20	1315	3	X	X	X	X	X								-02
GP-1-15	Comp	SS	15	6/2/20	1325	3	X	X	X	X	X								-03
GP-1-20	Comp	SS	20	6/2/20	1350	3	H	H	H	H	H								
GP-2-5	Comp	SS	5	6/2/20	1203	3	X	X	X	X	X								-04
GP-2-10	Comp	SS	10	6/2/20	1210	3	X	X	X	X	X								-05
GP-2-15	Comp	SS	15	6/2/20	1238	3	X	X	X	X	X								-06
GP-3-5	Comp	SS	5	6/2/20	1100	3	X	X	X	X	X								-07
GP-3-10	Comp	SS	10	6/2/20	1110	3	X	X	X	X	X								-08
GP-3-15	Comp	SS	15	6/2/20	1120	3	X	X	X	X	X								-09

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

Remarks: **H - HOLD**
X - RUN
 Samples returned via: UPS FedEx Courier
 Tracking # **175000042280**
 pH Temp
 Flow Other

Sample Receipt Checklist	
COC Seal Present/Intact: <u> </u> NP	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate: <u> </u>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact: <u> </u>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used: <u> </u>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent: <u> </u>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace: <u> </u>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked: <u> </u>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr: <u> </u>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Relinquished by: (Signature) <i>[Signature]</i>	Date: 6/3/20	Time: 1400	Received by: (Signature) <i>[Signature]</i>	Trip Blank Received: Yes/No <u> </u> HCL / MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 19.7 °C 67.1 °F Bottles Received: 48
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 06/04/20 Time: 0845

06-030 Condition: **NCF / OK**

Shannon & Wilson - OR

3990 Collins Way, Ste. 100
Lake Oswego, OR 97035

Billing Information:

Accounts Payable / Pete Shingledecker
3990 Collins Way, Ste. 100
Lake Oswego, OR 97035

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page **2** of **2**



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



SDG # **L1225601**

Table #
Acctnum: **SHAWILOR**

Template: **T168512**
Prelogin: **P775822**
PM: **110 - Brian Ford**

PB:
Shipped Via:
Remarks | Sample # (lab only)

Report to:

Pete Shingledecker

Email To:

PJS@SHAWILOR.COM

Project Description:

City/State
Collected:

Please Circle:
PT MT CT ET

Phone: **503-210-4750**

Client Project #
104983-004

Lab Project #
SHAWILOR-104983004

Collected by (print):

Christine Maher

Site/Facility ID #
CHEHALIS, WA

P.O. #

Collected by (signature):

Christine Maher

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
Cnts

Immediately

Packed on Ice N ___ Y **X**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts	NWTPHDX NOSGT 8ozClr-NoPres	NWTPHGX 40mIAmb/MeOH5ml/Syr	PAHs 8270E-SIM 8ozClr-NoPres	RCRA8+Cu,Ni,Zn 6020 8ozClr-NoPres	VOCs 8260D 40mIAmb/MeOH5ml/Syr							
GP-4-5	Comp	SS	5	6/2/20	1020	3	X	X	X	X	X							-10
GP-4-10	Comp	SS	10	6/2/20	1024	3	X	X	X	X	X							-11
GP-4-15	Comp	SS	15	6/2/20	1030	3	X	X	X	X	X							-12
GP-5-5	Comp	SS	5	6/2/20	0933	3	X	X	X	X	X							-13
GP-5-10	Comp	SS	10	6/2/20	0939	3	X	X	X	X	X							-14
GP-5-15	Comp	SS	15	6/2/20	0950	3	X	X	X	X	X							-15
		SS																
		SS																

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

Remarks:

**X - RUN
H - HOLD**

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:

UPS ___ FedEx ___ Courier ___

Tracking #

Sample Receipt Checklist	
COC Seal Present/Intact: ___ NP	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate: ___	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact: ___	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used: ___	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent: ___	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace: ___	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked: ___	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr: ___	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Relinquished by: (Signature)

Christine Maher

Date:

6/13/20

Time:

1400

Received by: (Signature)

[Signature]

Trip Blank Received: Yes No

HCL / MeOH
TBR

Relinquished by: (Signature)

[Signature]

Date:

6/13/20

Time:

0845

Received by: (Signature)

[Signature]

Temp: **19.1 ± 0.2** °C

Bottles Received: **48**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

[Signature]

Date:

6/13/20

Time:

0845

Received for lab by: (Signature)

[Signature]

Date: **06/04/20** Time: **0845**

Hold:

Condition:
NCF **1/OK**

June 23, 2020

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

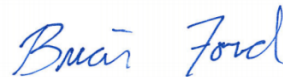
8 Al

9 Sc

Shannon & Wilson - OR

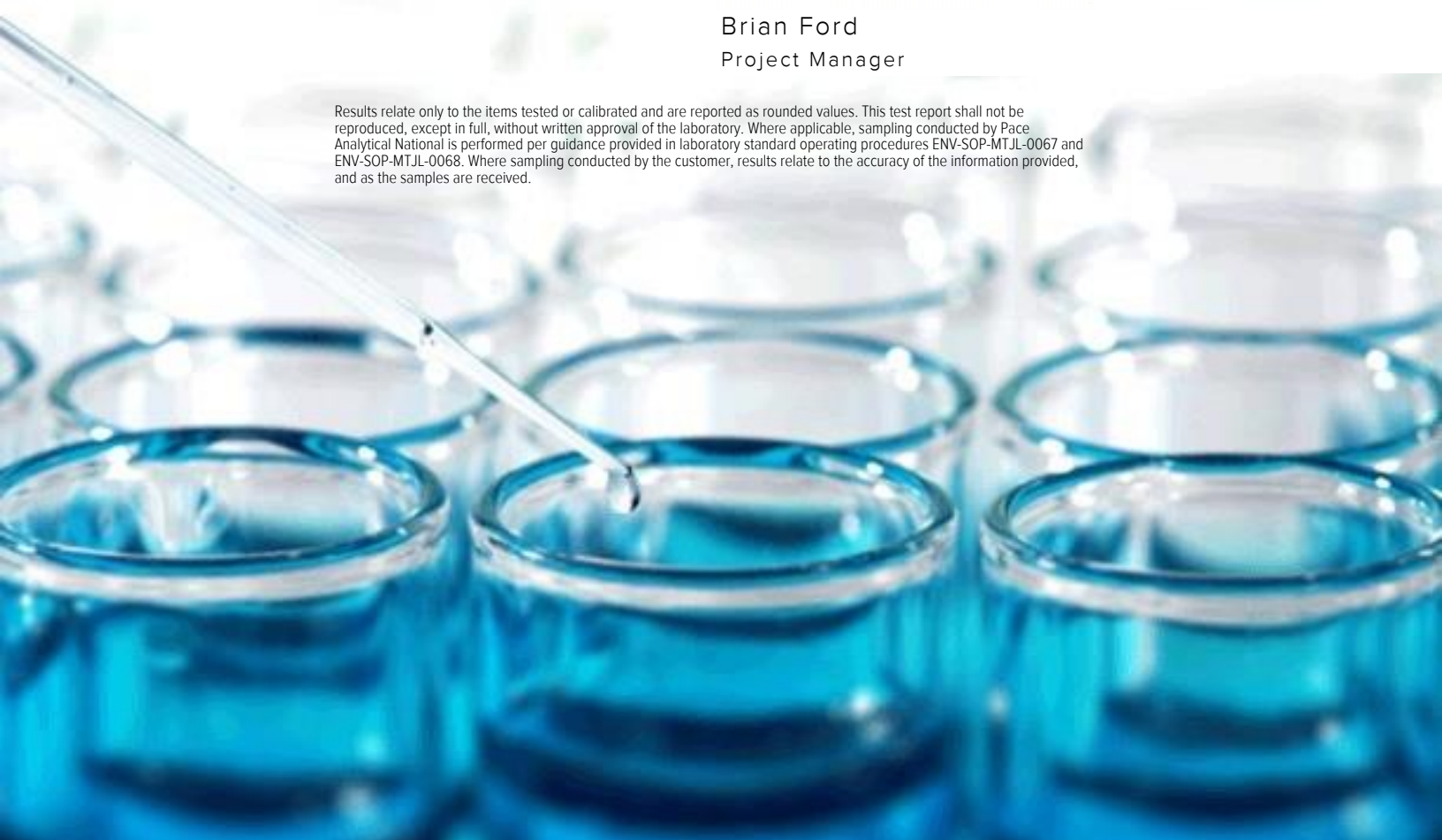
Sample Delivery Group: L1231378
Samples Received: 06/04/2020
Project Number: 104983-004
Description:
Site: CHEHALIS, WA
Report To: Peter Shingledecker
3990 Collins Way, Ste. 100
Lake Oswego, OR 97035

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.





Cp: Cover Page	1	¹Cp
Tc: Table of Contents	2	²Tc
Ss: Sample Summary	3	³Ss
Cn: Case Narrative	4	⁴Cn
Sr: Sample Results	5	⁵Sr
GP-1-GW L1231378-01	5	⁴Cn
Qc: Quality Control Summary	6	⁵Sr
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT	6	⁶Qc
Gl: Glossary of Terms	7	⁷Gl
Al: Accreditations & Locations	8	⁸Al
Sc: Sample Chain of Custody	9	⁹Sc

SAMPLE SUMMARY



GP-1-GW L1231378-01 GW

Collected by: Christine Maher
 Collected date/time: 06/02/20 15:00
 Received date/time: 06/04/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT	WG1496676	1	06/21/20 23:56	06/22/20 10:52	KME	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

Report Revision History

Level II Report - Version 1: 06/23/20 17:42



Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-SGT

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U	J4	66.7	200	1	06/22/2020 10:52	WG1496676
Residual Range Organics (RRO)	U		83.3	250	1	06/22/2020 10:52	WG1496676
(S) o-Terphenyl	95.0			52.0-156		06/22/2020 10:52	WG1496676

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3541495-1 06/23/20 01:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
<i>(S) o-Terphenyl</i>	147			52.0-156

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

(LCS) R3541495-2 06/23/20 01:47 • (LCSD) R3541495-3 06/23/20 02:13

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1500	2430	2410	162	161	50.0-150	<u>J4</u>	<u>J4</u>	0.826	20
<i>(S) o-Terphenyl</i>				152	148	52.0-156				

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.
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

J4	The associated batch QC was outside the established quality control range for accuracy.
----	---



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

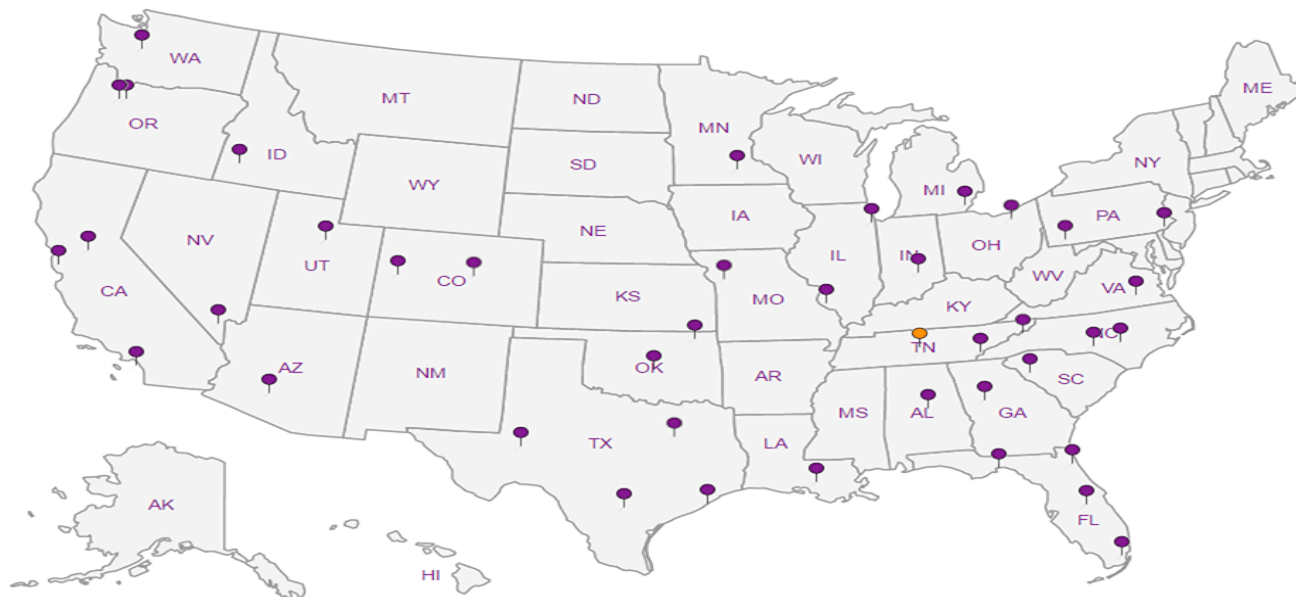
Third Party Federal Accreditations

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

Shannon & Wilson - OR

3990 Collins Way, Ste. 100
Lake Oswego, OR 97035

Billing Information:
Accounts Payable / Pete
Shingledecker
3990 Collins Way, Ste. 100
Lake Oswego, OR 97035

Report to:
PETE SHINGLEDECKER

Email To:
PJSE@SHANWIL.COM

Project Description: City/State Collected: Please Circle: PT MT CT ET

Phone: 503-210-4750 Client Project # 104983-004 Lab Project # SHAWILOR-104983004

Collected by (print): *Christine Maher* Site/Facility ID # CHEHALIS, WA P.O. #

Collected by (signature): *[Signature]* Rush? (Lab MUST Be Notified) Quote #
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day
 Immediately Packed on Ice N Y X Date Results Needed No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Analysis / Container / Preservative																	
GP-1-GW	Comp	GW	20'	6/2/20	1500	12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
GP-2-GW	Comp	GW	15'	6/2/20	1324	12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
GP-3-GW	Comp	GW	15'	6/2/20	1201	12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
GP-4-GW	Comp	GW	2.2'	6/2/20	1114	12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		GW																					
		GW																					
		GW																					

Chain of Custody Page 1 of 1



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



SDG # *L1225553*
A205 *MS 6/20*

Acctnum: SHAWILOR
Template: T168513
Prelogin: P775825
PM: 110 - Brian Ford
PB:

Remarks	Sample # (lab only)
01	-01
	02
	03
	04

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

Remarks: pH _____ Temp _____
Flow _____ Other _____

Samples returned via: UPS FedEx Courier

Tracking # *1750 0004 2270*

Sample Receipt Checklist

COC Seal Present/Intact:	NE	<input checked="" type="checkbox"/>	N
COC Signed/Accurate:		<input checked="" type="checkbox"/>	N
Bottles arrive intact:		<input checked="" type="checkbox"/>	N
Correct bottles used:		<input checked="" type="checkbox"/>	N
Sufficient volume sent:		<input checked="" type="checkbox"/>	N
If Applicable			
VOA Zero Headspace:		<input checked="" type="checkbox"/>	N
Preservation Correct/Checked:		<input checked="" type="checkbox"/>	N
RAD Screen < 0.5 mR/hr:		<input checked="" type="checkbox"/>	N

Relinquished by: (Signature) <i>[Signature]</i>	Date: 6/3/20	Time: 1400	Received by: (Signature)	Trip Blank Received: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> HCL / MeOH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <i>11.6</i> °C <i>3.9</i> °C <i>4.0</i> °C Bottles Received: <i>48</i>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: <i>6/4/20</i> Time: <i>8:45</i> Hold: Condition: NCF / <input checked="" type="checkbox"/> OK

Matt Shacklock

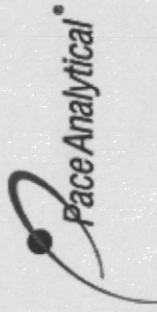
From: Jason Romer
Sent: Friday, June 19, 2020 1:32 PM
To: Project Service; Due SVOC
Cc: Brian Ford
Subject: L1225553-01 - SHAWILOR - RUSH RELOG

Please relog L1225553-01 for NWTHPDXLVI (w/ SGT). Please log as **R2** due **Monday, 06/22**

Thanks,

Jason Romer

Project Manager II
Pace Analytical - National
12065 Lebanon Road | Mt. Juliet, TN 37122
o.615.773.9713 | jromer@pacenational.com



Important Information

About Your Environmental Site Assessment/Evaluation Report

IMPORTANT INFORMATION

ENVIRONMENTAL SITE ASSESSMENTS/EVALUATIONS ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.

This report was prepared to meet the needs you specified with respect to your specific site and your risk management preferences. Unless indicated otherwise, we prepared your report expressly for you and for the purposes you indicated. No one other than you should use this report for any purpose without first conferring with us. No one is authorized to use this report for any purpose other than that originally contemplated without our prior written consent.

The findings and conclusions documented in this site assessment/evaluation have been prepared for specific application to this project and have been developed in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in this area. The conclusions presented are based on interpretation of information currently available to us and are made within the operational scope, budget, and schedule constraints of this project. No warranty, express or implied, is made.

OUR REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.

Our environmental site assessment is based on several factors and may include (but not be limited to) reviewing public documents to chronicle site ownership for the past 30, 40, or more years; investigating the site's regulatory history to learn about permits granted or citations issued; determining prior uses of the site and those adjacent to it; reviewing available topographic and real estate maps, historical aerial photos, geologic information, and hydrologic data; reviewing readily available published information about surface and subsurface conditions; reviewing federal and state lists of known and potentially contaminated sites; evaluating the potential for naturally occurring hazards; and interviewing public officials, owners/operators, and/or adjacent owners with respect to local concerns and environmental conditions.

Except as noted within the text of the report, no sampling or quantitative laboratory testing was performed by us as part of this site assessment. Where such analyses were conducted by an outside laboratory, Shannon & Wilson relied upon the data provided and did not conduct an independent evaluation regarding the reliability of the data.

CONDITIONS CAN CHANGE.

Site conditions, both surface and subsurface, may be affected as a result of natural processes or human influence. An environmental site assessment/evaluation is based on conditions that existed at the time of the evaluation. Because so many aspects of a historical review rely on third-party information, most consultants will refuse to certify (warrant) that a site is free of contaminants, as it is impossible to know with absolute certainty if such a condition exists. Contaminants may be present in areas that were not surveyed or sampled or may migrate to areas that showed no signs of contamination at the time they were studied.

Unless your consultant indicates otherwise, your report should not be construed to represent geotechnical subsurface conditions at or adjacent to the site and does not provide sufficient information for construction-related activities. Your report also should not be used following floods, earthquakes, or other acts of nature; if the size or configuration of the site is altered; if the location of the site is modified; or if there is a change of ownership and/or use of the property.

INCIDENTAL DAMAGE MAY OCCUR DURING SAMPLING ACTIVITIES.

Incidental damage to a facility may occur during sampling activities. Asbestos and lead-based paint sampling often require destructive sampling of pipe insulation, floor tile, walls, doors, ceiling tile, roofing, and other building materials. Shannon & Wilson does not provide for paint repair. Limited repair of asbestos sample locations is provided. However, Shannon & Wilson neither warrants repairs made by our field personnel, nor are we held liable for injuries or damages as a result of those repairs. If you desire a specific form of repair, such as those provided by a licensed roofing contractor, you need to request the specific repair at the time of the proposal. The owner is responsible for repair methods that are not specified in the proposal.

READ RESPONSIBILITY CLAUSES CAREFULLY.

Environmental site assessments/evaluations are less exact than other design disciplines because they are based extensively on judgment and opinion and there may not have been any (or very limited) investigation of actual subsurface conditions. Wholly unwarranted claims have been lodged against consultants. To limit this exposure, consultants have developed a number of clauses for use in their contracts, reports, and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses may appear in this report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

Consultants cannot accept responsibility for problems that may develop if they are not consulted after factors considered in their reports have changed or conditions at the site have changed. Therefore, it is incumbent upon you to notify your consultant of any factors that may have changed prior to submission of the final assessment/evaluation.

An assessment/evaluation of a site helps reduce your risk but does not eliminate it. Even the most rigorous professional assessment may fail to identify all existing conditions.

ONE OF THE OBLIGATIONS OF YOUR CONSULTANT IS TO PROTECT THE SAFETY, HEALTH, PROPERTY, AND WELFARE OF THE PUBLIC.

If our environmental site assessment/evaluation discloses the existence of conditions that may endanger the safety, health, property, or welfare of the public, we may be obligated under rules of professional conduct, statutory law, or common law to notify you and others of these conditions.

The preceding paragraphs are based on information provided by the ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland