SUCCEED
ENVIRONMENTAL
CONSULTING, LLC

RISK-BASED CLOSURE REPORT

DEQ LUST File No. 26-17-1138
NE Imperial Avenue Public ROW
Near 3434 NE Sandy Boulevard
Portland, Oregon

April 16, 2018

Prepared For:
Oregon Department of Environmental Quality
and Sandy34 Real Estate LLC

Project ID: GL-3-01

6028 NE 49th Avenue | Portland, OR 97218 | 971.371.0404 | www.succeed-env.com

SUCCEED ENVIRONMENTAL CONSULTING, LLC

EXECUTIVE SUMMARY

An approximately 4-foot-diameter and 8-foot-long decommissioned UST was encountered beneath the western sidewalk of NE Imperial Avenue in Portland, Oregon. The UST was historically used to store waste oil and was reportedly decommissioned by previous owners of the property located at 3434 NE Sandy Boulevard in Portland, Oregon. Specific details regarding historical decommissioning activities were not provided to the current owners. A previous subsurface investigation conducted by GeoDesign, Inc. did not reveal evidence of subsurface impact near the decommissioned UST. In September 2017, Alpha Environmental Services Inc. (AES) of Beaverton, Oregon accessed the UST and confirmed that the UST was filled in-place with concrete slurry. While on-site, AES advanced two soil borings, from which compliance soil samples were collected for chemical analysis. Evidence of petroleum hydrocarbon impact was not observed by AES beneath the southern end of the UST. However, an estimated 3.75-cubic-yard area of waste oil impacted soil was identified beneath the northern end of the UST. AES notified DEQ and the decommissioned UST was added to the LUST database. Based on a requested for additional data by DEQ, Succeed Environmental Consulting (SEC) advanced three additional soil borings and one soil vapor probe in April 2018. The soil samples collected by SEC, AES, and/or GeoDesign were analyzed (as appropriate) for gasoline-, diesel-, and residual-range organics, VOCs, PAHs, PCBs, and/or total metals.

This report includes a CSM that considers the following generic RBCs as applicable regulatory screening levels:

- Soil Ingestion, Dermal Contact, and Inhalation of Soil: Excavation Worker Scenario
- Volatilization to Outdoor Air: Residential, Urban Residential, and Occupational Scenarios
- Vapor Intrusion into Buildings: Residential, Urban Residential, and Occupational Scenarios

Based on the chemical analytical results presented herein, the area of impacted soil that was identified by AES does not exceed applicable occupational or excavation worker RBCs, which indicates no risk to current or future occupational or excavator worker receptors. Although gasoline-range hydrocarbons were detected in one soil sample collected beneath the northern end of the decommissioned UST at a concentration that slightly exceeded the corresponding residential vapor intrusion and volatilization RBC, none of the constituent VOCs were detected in this sample at concentrations exceeding any corresponding RBCs. These results are indicative of a "weathered" petroleum product, which is consistent with the likely age of the historically decommissioned UST. This is further supported by the soil gas analytical results, which indicate no adverse vapor intrusion risk associated with the residual area of impact. Also, chemical analytical or field evidence of petroleum hydrocarbon impact were not identified in soil samples collected to the west, southwest, south, southeast or east of the UST, which confirms the extent of impact is delineated in the direction of the properties that are zoned for residential use. Based on the foregoing, it is our professional opinion that the limited pocket of waste oil impacted soil does not present an adverse risk to human health or the environment. Further assessment is not recommended at this time. Accordingly, SEC respectfully requests that DEQ close their LUST File regarding the project site.

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SUCCEED ENVIRONMENTAL CONSULTING, LLC

April 16, 2018

Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232

Attention: Mr. Mark Drouin

Risk-Based Closure Report
NE Imperial Avenue Public ROW
Near 3434 NE Sandy Boulevard
Portland, Oregon
SEC Project: GL-3-01
DEQ LUST File No. 26-17-1138

1.0 INTRODUCTION

Succeed Environmental Consulting LLC (SEC) is pleased to submit this risk-based closure report for DEQ LUST File No. 26-17-1138, which is associated with a release of waste oil from a UST that was decommissioned in-place beneath the western sidewalk of NE Imperial Avenue. The UST was reportedly used by previous occupants of the property located at 3434 NE Sandy Boulevard in Portland, Oregon. A vicinity map is presented on Figure 1. The UST is shown relative to nearby features on Figure 2. For reference, definitions of acronyms used herein are defined at the end of this document.

2.0 REGIONAL GEOLOGY

The subject site is situated within the subsided lowland of the Portland Basin (part of the Puget-Willamette Trough physiographic province, a north-south structural basin lying between the Coast Range and the Cascade Range[1]). Flood basalts that erupted far to the east flowed across the Willamette Trough and on to the Pacific. Rivers (including the existing and ancestral Columbia)

[1] Burns, Scott, 1998, Geologic and physiographic provinces of Oregon: p 3-14 *in* Scott Burns, editor, *Environmental, Groundwater and Engineering Geology: Applications from Oregon*: Association of Engineering Geologists, Special Publication 11, 689 p

deposited gravels, sands, and silts, which buried the volcanic rocks beneath most of the Portland Basin. In the past 3 million years, short-lived eruptions from dozens of vents (including Rocky Butte and Mount Tabor) formed the many small volcanic cones and shields near the project site. The most recent major geologic events to shape the region were tremendous floods caused by the collapse of glacial dams and drainage of large lakes in western Montana[2] which occurred between about 15,500 and 12,500 years ago. Flood waters several hundred feet deep swept out of the Columbia Gorge and over the lowlands of East Portland, reshaping the surfaces and depositing fresh sediments (silt, sand, gravel, and boulders) over the Portland Basin and Willamette valley.

In the periods between and following the Missoula Floods, the Columbia and Willamette rivers and their tributaries eroded down through the loose sediments mantling the Portland Basin to reestablish their channels. Long-term deposition out of the Columbia pushed the Willamette to the west side of the basin, where it flows along the base of the Tualatin Mountains. There are also several abandoned channels, including the large trough that is located north of the subject site and is currently occupied by Interstate 84.

3.0 UST DESCRIPTION

An approximately 4-foot-diameter and 8-foot-long decommissioned UST is located beneath the western sidewalk of NE Imperial Avenue in Portland, Oregon. The UST historically stored waste oil but was decommissioned in-place by previous owners of the property located at 3434 NE Sandy Boulevard in Portland, Oregon. Specific details regarding historical UST decommissioning activities by the previous occupants were not provided to the current owners. The property located at 3434 NE Sandy Boulevard is currently occupied by an approximately 15,346-square-foot structure that has been used for commercial purposes since approximately 1951. The project was recently purchased by GL Sandy34 Real Estate LLC and is being redeveloped for commercial purposes. Ongoing redevelopment activities have included remodeling of the existing structure and replacement of the surrounding sidewalks.

4.0 2016 SUBSURFACE EXPLORATION ACTIVITIES

In April 2016, GeoDesign, Inc. (GeoDesign) of Wilsonville, Oregon conducted a subsurface investigation at the 3434 NE Sandy Boulevard site. Although not discussed specifically herein, that investigation did not identify contamination at concentrations that would present a risk to future users of the site. As part of the investigation, GeoDesign advanced direct-push soil boring DP-5 proximate to the decommissioned UST to a depth of approximately 15 feet BGS. Soil recovered from this boring was tested in the field using standard field screening methods, including PID measurements, sheen testing, and visual observation. Evidence of petroleum hydrocarbon impact was not observed. One soil sample [DP-5(7.0-8.0)] was collected from a depth of 7.0 to 8.0 feet BGS for chemical analysis. Soil sample DP-5(7.0-8.0) was placed into labeled, laboratory-prepared containers and immediately placed in a cooler with ice and transported under chain-of-custody procedures to ESC Lab Sciences of Mt. Juliet, Tennessee. The approximate soil sample location is presented on Figures 2 and 3. The boring log and corresponding chemical analytical laboratory report provided by GeoDesign are included in Appendix A and the results are discussed herein.

[2] Allen, J.E., M. Burns, and S. Sargent, 1986, *Cataclysms on the Columbia*: Timber Press, Portland, 211 p

5.0 VERIFICATION OF UST DECOMMISSIONING AND 2017 SOIL SAMPLING ACTIVITIES

On September 21, 2017, Alpha Environmental Services Inc. (AES) of Beaverton, Oregon confirmed that the UST had been filled in-place with concrete slurry. While on-site, AES advanced two soil borings, from which compliance soil samples were collected for observation and chemical analysis. Specifically, AES collected the following samples:

- Soil sample 17-16408 T2 S(OT)-100" was collected from a depth of approximately 100 inches (8.3 feet) BGS adjacent to the southern end of the UST.
- Soil sample 17-16408 T2 NF(OT)-100" was collected from a depth of approximately 100 inches (8.3 feet) BGS adjacent to the northern end of the UST.

The approximate soil sample locations are presented on Figures 2 and 3. Evidence of petroleum hydrocarbon impact was not observed by AES beneath the southern end of the UST, but slight staining and a petroleum-like odor was observed in soil beneath the northern end of the UST, which indicated a minor release from the UST system. AES informed SEC that the field screening evidence of impact appeared to diminish at depths below 8.3 feet BGS. The samples were placed into laboratory-prepared containers, placed in a cooler with ice, and transported under chain-of-custody procedures to Apex Laboratories of Tigard, Oregon. The report provided by AES and the corresponding chemical analytical laboratory report are presented in Appendix B.

6.0 2018 SUBSURFACE EXPLORATION ACTIVITIES

On April 5, 2018, SEC subcontracted Pacific Soil and Water of Tigard, Oregon to advance three soil borings (DP-1 through DP-3) and one soil vapor probe (SV-1) proximate to the decommissioned UST. All three soil borings were advanced to a depth of 16.0 feet BGS using direct-push drilling equipment. The vapor probe was advanced to a depth of approximately 5.0 feet BGS. Prior to drilling, SEC obtained a permit from the City of Portland to explore the public ROW. In addition, SEC notified the Oregon One-Call Utility Notification Center to mark the location of public utilities beneath the project site and subcontracted a private utility locator to clear proposed boring locations prior to drilling.

A representative of SEC remained onsite during drilling activities to classify and sample project site soil and collect the vapor sample. Soil conditions encountered by SEC generally consisted of silt and sand to the depths explored. Groundwater was not encountered. The soil samples obtained by SEC were screened in the field using visual methods, headspace vapor screening methods using a hand-held photoionization detector, and water sheen testing. Field evidence of petroleum hydrocarbon impact was not observed by SEC during drilling. The soil samples selected for analysis were placed into labeled, laboratory-prepared containers and immediately placed in a cooler with ice and transported under chain-of-custody procedures to ESC Lab Sciences of Mt. Juliet, Tennessee.

Vapor sample SV-1 was collected from a sampling system consisting of a laboratory provided 1-liter Summa™ canister with an in-line filter (0.7 micron) and flow controller (less than 200 milliliters per minute), which was connected to decontaminated stainless-steel soil-gas sampling probes via Teflon™ tubing. SEC sealed the annular space between the soil vapor sampling probe and the boring sidewall with bentonite to minimize ambient air migration into the soil-gas sampling zone. Swagelok™ fittings

and hose barb connections were used to create a reasonably closed system. A leak-check system was installed prior to sampling. Specifically, isopropyl alcohol (2-propanol) was applied to the exteriors of the sample train fittings to verify that the sampling train was reasonably airtight. 2-propanol was not detected in any of the samples at concentrations greater than one percent, indicating that leakage of ambient air did not occur during sample collection. Prior to collection, the sampling train was slowly purged using a photoionization detector. After purging the sample train and waiting at least 30 minutes (equilibration time), SV-1 was collected into the laboratory-prepared container and transported under chain-of-custody procedures to ESC.

SEC submitted the following samples to ESC Lab Sciences for chemical analysis:

- Soil sample DP-1(9.0-10.0) was collected from a depth of approximately 9.0 to 10.0 feet BGS adjacent to the northeastern end of the UST.
- Soil sample DP-1(13.0-14.0) was collected from a depth of approximately 13.0 to 14.0 feet BGS adjacent to the northeastern end of the UST.
- Soil sample DP-2(9.0-10.0) was collected from a depth of approximately 9.0 to 10.0 feet BGS adjacent to the southeastern end of the UST.
- Soil sample DP-2(15.0-16.0) was collected from a depth of approximately 15.0 to 16.0 feet BGS adjacent to the southeastern end of the UST.
- Soil sample DP-3(9.0-10.0) was collected from a depth of approximately 9.0 to 10.0 feet BGS adjacent to the southwestern end of the UST.
- Soil sample DP-3(15.0-16.0) was collected from a depth of approximately 15.0 to 16.0 feet BGS adjacent to the southwestern end of the UST.
- Soil vapor sample (SV-1) was collected from a depth of approximately 5.0 feet BGS near the southern end of the UST.

The approximate sample locations are presented on Figures 2 and 3. SEC's boring logs, a description of our field procedures, the chemical analytical laboratory reports, and chain-of-custody documentation are provided in Appendix C. The results of this investigation are discussed in the following sections.

7.0 CONCEPTUAL SITE MODEL

Land use in the vicinity of the UST is primarily commercial with residential use to the south and southeast. The surrounding properties to the north, northeast, and west are zoned by the City of Portland as Central Commercial (CG). It is our understanding that these properties will be used for commercial purposes. Two properties near the decommissioned UST (one located to the south, and one located to the east-southeast) are zoned as Residential 5,000 (R5). The property located to the south currently consists of a vacant parking lot. A residence is located approximately 80 to 100 feet from the decommissioned UST on the property located to the east-southeast (across NE Imperial Avenue). The depth to groundwater beneath the decommissioned UST is estimated by the USGS[3] to range between 120 and 140 feet BGS. Water and sewer services are provided to the properties surrounding the UST by the City of Portland. Based on the this information, we have developed the following CSM in general accordance with Section 2.3 of the DEQ Risk-Based Decision Making guidance document dated September 22, 2003.

[3] U.S. Geological Survey *Scientific Investigations Report 2008-5059; Depth to Ground Water – Plate 1*

CONCEPTUAL SITE MODEL			
Exposure Route, Medium, and Exposure Point	**Potential Receptor**	**Was this Pathway Selected?**	**Reason for Selection or Exclusion**
Soil Ingestion, Dermal Contact, and Inhalation	Residential	No	**Incomplete Pathway:** Residential or occupational receptors will not encounter soil located at depths greater than five feet below the sidewalk. In addition, long-term construction worker exposure is not anticipated in this area.
	Urban Residential	No	
	Occupational	No	
	Construction Worker	No	
	Excavation Worker	Yes	**Complete Pathway:** Short-term excavation/utility workers.
Volatilization from Soil to Outdoor Air	Residential	Yes	**Complete Pathway:** Residual contamination is located approximately five to eight feet below the sidewalk in a commercial area with some residential land located to the south of the site.
	Urban Residential	Yes	
	Occupational	Yes	
Vapor Intrusion into Buildings	Residential	Yes	
	Urban Residential	Yes	
	Occupational	Yes	
Leaching to Groundwater	Residential	No	**Incomplete Pathway:** USGS reports regional groundwater beneath the site at depths ranging between120 and 140 feet BGS. Municipal water and sewer services are provided to the site by the City of Portland.
	Urban Residential	No	
	Occupational	No	

8.0 REGULATORY SCREENING LEVELS

Based on the CSM provided in Section 4.0, the following generic RBCs dated November 1, 2015 were selected as applicable regulatory screening levels for the site.

- Soil Ingestion, Dermal Contact, and Inhalation of Soil: Excavation Worker Scenario
- Volatilization to Outdoor Air: Residential, Urban Residential and Occupational Scenario
- Vapor Intrusion Into Buildings: Residential, Urban Residential and Occupational Scenario

9.0 CHEMICAL ANALYTICAL PROGRAM

One or more soil samples were analyzed for petroleum hydrocarbons, VOCs, PAHs, PCBs, and RCRA 8 total metals in general accordance with Section 2.2 of the DEQ Risk-Based Decision Making guidance document dated September 22, 2003. The chemical analytical results are compared to the applicable regulatory screening levels in Tables 1 through 6 and are discussed in the following sections.

9.1 *SOIL CHEMICAL ANALYTICAL RESULTS*

9.1.1 Gasoline-Range Hydrocarbons

Eight soil samples [17-16408 T2 NF(OT)-100", DP-1(9.0-10.0), DP-1(13.0-14.0), DP-2(9.0-10.0), DP-2(15.0-16.0), DP-3(9.0-10.0), DP-3(15.0-16.0), and DP-5(7.0-8.0)] were analyzed for gasoline-range hydrocarbons by Method NWTPH-Gx. Gasoline range hydrocarbons were detected in soil sample 17-16408 T2 NF(OT)-100" at a concentration of 185 mg/kg, which is less than the corresponding soil ingestion, dermal contact, inhalation RBC; the volatilization to outdoor air RBC; and the occupational vapor intrusion into buildings RBC, but slightly exceeds the residential and urban residential vapor intrusion into buildings RBC of 94 mg/kg. The detected concentration is consistent with the slight staining and a petroleum-like odor that was observed in soil beneath the northern end of the UST (Section 3.0). Gasoline-range hydrocarbons were otherwise not detected in samples submitted for analysis at concentrations greater than the laboratory RDL, which were less than all applicable RBCs.

9.1.2 Diesel- And Oil-Range Hydrocarbons

Three soil samples [17-16408 T2 NF(OT)-100", 17-16408 T2 S(OT)-100", and DP-5(7.0-8.0)] were analyzed for diesel- and oil-range hydrocarbons by Method NWTPH-Dx. Diesel-range hydrocarbons were not detected at concentrations greater than the corresponding RDLs, which were less than all applicable RBCs. Oil-range hydrocarbons were detected in soil sample 17-16408 T2 NF(OT)-100" at a concentration of 6,320 mg/kg but were not otherwise detected at concentrations greater than the laboratory RDL. RBCs for oil-range hydrocarbons have not been established.

9.1.3 VOCs

Eight soil samples [17-16408 T2 NF(OT)-100", DP-1(9.0-10.0), DP-1(13.0-14.0), DP-2(9.0-10.0), DP-2(15.0-16.0), DP-3(9.0-10.0), DP-3(15.0-16.0), and DP-5(7.0-8.0)] were analyzed for selected VOCs by EPA Method 5035A/8260C. VOCs were not detected in any of the samples analyzed at concentrations greater than the corresponding RDLs or were detected at concentrations less than all applicable RBCs.

9.1.4 PAHs

Soil sample 17-16408 T2 NF(OT)-100" was analyzed for PAHs by EPA Method 8270D-SIM. PAHs were not detected at concentrations greater than the corresponding RDLs or were detected at concentrations less than all applicable RBCs. It should be noted that evidence of petroleum hydrocarbon impact was not observed by AES beneath the southern end of the UST. Accordingly, soil sample 17-16408 T2 S(OT)-100" was not selected for analysis of PAHs.

9.1.5 PCBs

Two soil samples [17-16408 T2 NF(OT)-100" and 17-16408 T2 S(OT)-100"] were analyzed for PCBs by EPA Method 8082A. PCBs were not detected at concentrations greater than the corresponding RDLs or were detected at concentrations less than all applicable RBCs.

9.1.6 Total Metals

Two soil samples [17-16408 T2 NF(OT)-100" and 17-16408 T2 S(OT)-100"] were analyzed for RCRA 8 total metals by EPA Method 6020. Metals were not detected at concentrations greater than the corresponding RDLs or were detected at concentrations less than all applicable RBCs.

9.2 *VAPOR CHEMICAL ANALYTICAL RESULTS*

Vapor sample SV-1 was analyzed for VOCs by EPA Method TO-15. No VOCs were detected in the sub-slab vapor sample collected by SEC at concentrations greater than corresponding regulatory screening levels.

10.0 ESTIMATED VOLUME OF RESIDUAL CONTAMINATION

Based on the chemical analytical data and observations discussed herein, less than 3.75-cubic-yards (less than 2 feet deep by 8 feet diameter) area of residual waste oil impacted soil may be located below the northern end of the decommissioned UST. However, the corresponding data indicates that the residual waste oil will not pose a risk to likely future receptors.

11.0 CONCLUSIONS

An area consisting of less than 3.75-cubic-yards of waste oil impacted soil appears to remain beneath the northern end of the decommissioned UST. The minor area of low-level impact appears limited to the northern portion of the decommissioned UST, which is surrounded by commercial land and public ROW. Based on the chemical analytical results presented herein, this area of impacted soil does not exceed any applicable occupational or excavation worker RBCs, which indicates no risk to current or future occupational or excavator worker receptors.

Although gasoline-range hydrocarbons were detected in one soil sample collected beneath the northern end of the decommissioned UST at a concentration that slightly exceeded the corresponding residential vapor intrusion and volatilization RBC, none of the constituent VOCs were detected in this sample at concentrations exceeding any corresponding RBCs. These results are indicative of a "weathered" petroleum product, which is consistent with the likely age of the historically decommissioned UST. This is further supported by the soil gas analytical results, which indicate no adverse vapor intrusion risk associated with the residual area of impact.

In addition, chemical analytical or field evidence of petroleum hydrocarbon impact were not identified in soil samples collected to the west, southwest, south, southeast or east of the UST, which confirms the extent of impact is delineated in the direction of the properties that are zoned for residential use.

Based on the foregoing, it is our professional opinion that the limited pocket of waste oil impacted soil does not present an adverse risk to human health or the environment. Further assessment is not recommended at this time. Accordingly, SEC respectfully requests that DEQ close LUST File No. 26-17-1138.

12.0 LIMITATIONS

This report has been prepared for the exclusive use of the Oregon Department of Environmental Quality, Sandy34 Real Estate LLC, and their authorized agents. This report is not intended for use by others, and the information contained herein is not applicable to other sites. No other party may rely on the product of our services unless we agree in advance and in writing to such reliance.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. Analytical data from the laboratory samples should only be considered as indicators of site conditions and not a guarantee of the absence of subsurface impact in areas not sampled.

♦ ♦ ♦

We appreciate the opportunity to be of service to the Oregon Department of Environmental Quality and Sandy34 Real Estate LLC. Please call if you have questions regarding this report.

Sincerely,

Succeed Environmental Consulting LLC

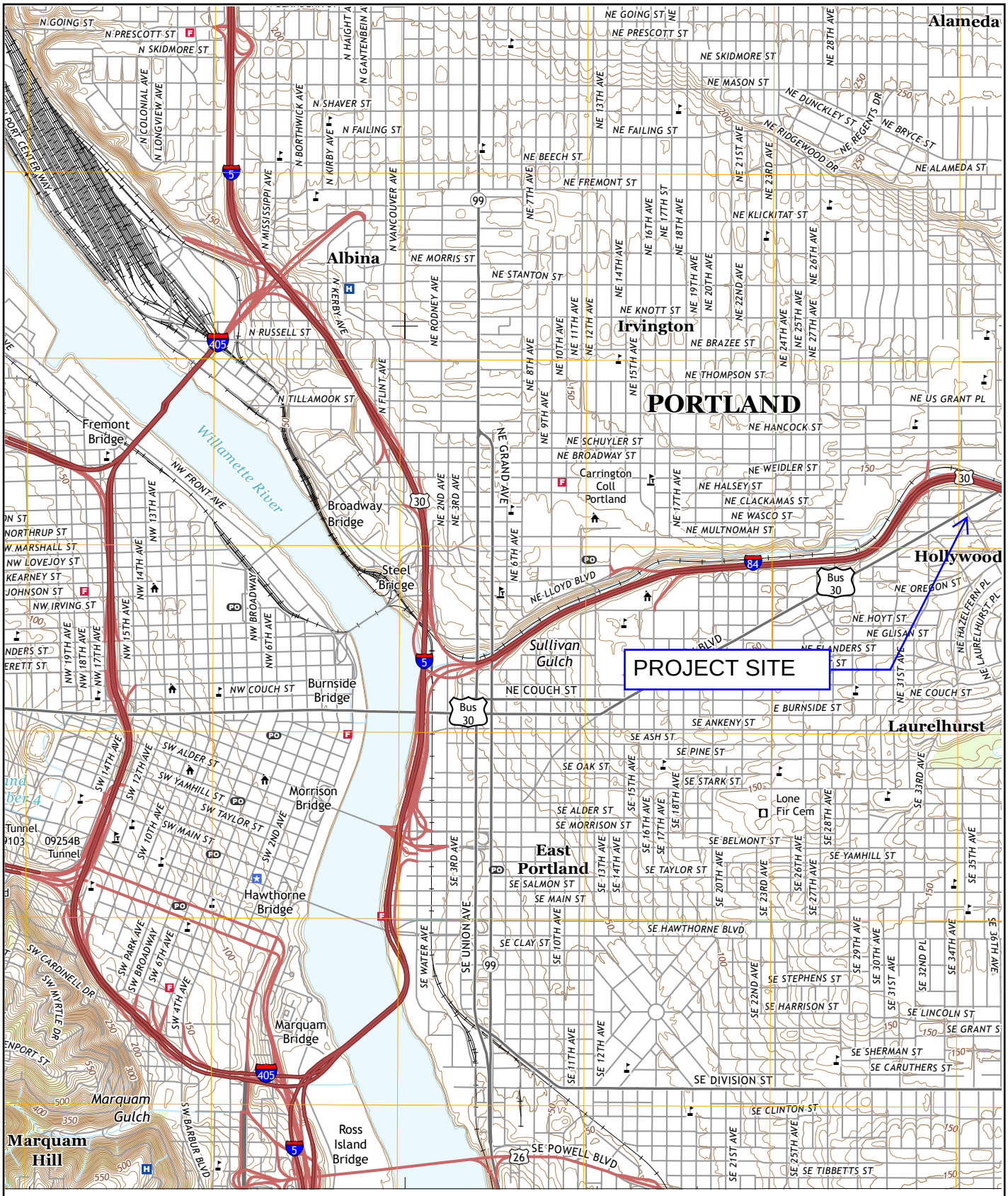
Andrew S. Blake, R.G., L.G.
Principal Geologist

Expires 06/30/2018

cc: Mark Desbrow, Green Light Development (electronic copy)
Jake Raiton, Green Light Development (electronic copy)

Attachments
Two hard copies submitted
Document ID: GL-3-01-041618-envr

FIGURES



SUCCEED ENVIRONMENTAL CONSULTING, LLC	GL-3-01	VICINITY MAP	
	APRIL 2018	ROW NEAR 3434 NE SANDY BOULEVARD PORTLAND, OREGON	FIGURE 1

LEGEND:

- DECOMMISSIONED UST LOCATION
- DP-5(7.0-8.0) SOIL SAMPLE LOCATION
- SV-1 SOIL VAPOR SAMPLE LOCATION
- A' / A CROSS SECTION LINE (SEE FIGURE 3)

N
N

(APPROXIMATE SCALE IN FEET)

20

SITE PLAN BASED ON FIELD MEASUREMENTS AND OBSERVATIONS MADE BY SEC. THIS FIGURE SHOULD BE CONSIDERED APPROXIMATE.

SITE PLAN

ROW NEAR 3434 NE SANDY BOULEVARD
PORTLAND, OREGON

FIGURE 2

GL-3-01

APRIL 2018

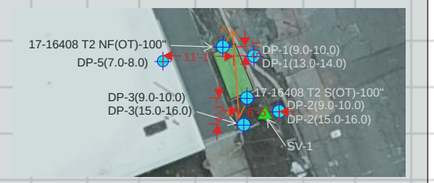
SUCCEED ENVIRONMENTAL CONSULTING, LLC

PAVED SURFACE

A

A'

DECOMMISSIONED UST



SV-1

DP-5(7.0-8.0)

17-16408 T2 S(OT)-100"

17-16408 T2 NF(OT)-100"

DP-3(9.0-10.0)

DP-2(9.0-10.0)

DP-1(9.0-10.0)

APPROXIMATE SOIL SAMPLE LOCATIONS

DP-1(13.0-14.0)

DP-3(15.0-16.0)

DP-2(15.0-16.0)

LEGEND:

DP-5(7.0-8.0) SOIL SAMPLE LOCATION

SV-1 SOIL VAPOR SAMPLE LOCATION

N

N

APPROXIMATE SCALE SHOWN IN FEET

CROSS SECTION A - A'

ROW NEAR 3434 NE SANDY BOULEVARD
PORTLAND, OREGON

FIGURE 3

GL-3-01

APRIL 2018

SUCCEED ENVIRONMENTAL CONSULTING, LLC

TABLES

TABLE 1
Summary of Soil Sample Chemical Analytical Results
Petroleum Hydrocarbons
3434 NE Sandy Boulevard
Portland, Oregon

Sample I.D.	Sample Depth (feet BGS)	Sample Date	Gasoline-Range Hydrocarbons by Method NWTPH-Gx	Diesel-Range Hydrocarbons by Method NWTPH-Dx	Oil-Range Hydrocarbons by Method NWTPH-Dx
			Results (mg/kg)		
17-16408 T2 NF(OT)-100"	8.3	09/21/17	**185**	235 U	**6,320**
17-16408 T2 S(OT)-100"	8.3	09/21/17	--	25.0 U	50.0 U
DP-1(9.0-10.0)	9.0 - 10.0	04/05/18	0.0568 U	--	--
DP-1(13.0-14.0)	13.0 - 14.0	04/05/18	0.0410 U	--	--
DP-2(9.0-10.0)	9.0 - 10.0	04/05/18	0.0424 U	--	--
DP-2(15.0-16.0)	15.0 - 16.0	04/05/18	0.0391 U	--	--
DP-3(9.0-10.0)	9.0 - 10.0	04/05/18	0.0413 U	--	--
DP-3(15.0-16.0)	15.0 - 16.0	04/05/18	0.0408 U	--	--
DP-5(7.0-8.0)	7.0 - 8.0	04/28/16	0.116 U	4.45 U	11.6 U
DEQ Generic RBCs dated 11/1/2015					
Soil Ingestion, Dermal Contact, and Inhalation					
Excavation Worker			>Max	>Max	NE
Volatilization to Outdoor Air					
Residential			5,900	>Max	NE
Urban Residential			5,900	>Max	NE
Occupational			69,000	>Max	NE
Vapor Intrusion into Buildings					
Residential			94	>Max	NE
Urban Residential			94	>Max	NE
Occupational			>Max	>Max	NE

Notes:
>Max: The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario.
U: not detected at concentrations greater than the analytical laboratory RDL (reported)
--: not analyzed
Bolding indicates analyte was quantitatively detected in the soil sample.
NE: not established

TABLE 2
Summary of Soil Sample Chemical Analytical Results
VOCs Detected by EPA Method 5035A/8260C
3434 NE Sandy Boulevard
Portland, Oregon

Sample I.D.	Sample Depth (feet BGS)	Sample Date	Benzene	n-Butylbenzene	Ethylbenzene	Naphthalene	n-Propylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylene	o-Xylene
			Results (mg/kg)									
17-16408 T2 NF(OT)-100"	8.3	09/21/17	**0.0862**	**0.0951**	**0.258**	**0.526**	**0.203**	**0.361**	**1.65**	**0.557**	**1.02**	**0.682**
17-16408 T2 S(OT)-100"	8.3	09/21/17	--	--	--	--	--	--	--	--	--	--
DP-1(9.0-10.0)	9.0 - 10.0	04/05/18	0.00163 U	--	0.00161 U	--	--	0.00332 U	--	--	0.00156 U	
DP-1(13.0-14.0)	13.0 - 14.0	04/05/18	0.00157 U	--	0.00156 U	--	--	0.00321 U	--	--	0.00151 U	
DP-2(9.0-10.0)	9.0 - 10.0	04/05/18	0.00162 U	--	0.00161 U	--	--	0.00331 U	--	--	0.00156 U	
DP-2(15.0-16.0)	15.0 - 16.0	04/05/18	0.00150 U	--	0.00149 U	--	--	0.00306 U	--	--	0.00865 U	
DP-3(9.0-10.0)	9.0 - 10.0	04/05/18	0.00159 U	--	0.00157 U	--	--	0.00323 U	--	--	0.00152 U	
DP-3(15.0-16.0)	15.0 - 16.0	04/05/18	0.00172 U	--	0.00171 U	--	--	0.00352 U	--	--	0.00166 U	
DP-5(7.0-8.0)	7.0 - 8.0	04/28/16	0.00119 U	0.00119 U	0.00119 U	0.00597 U	0.00119 U	**0.00676 V3**	0.00119 U	0.00119 U	0.00358 U	
DEQ Generic RBCs dated 11/1/2015												
Soil Ingestion, Dermal Contact, and Inhalation												
Excavation Worker			11,000	NE	49,000	16,000	NE	770,000	54,000	98,000	560,000	
Volatilization to Outdoor Air												
Residential			11	NE	36	6.4	NE	>CSAT	230	>Max	>CSAT	
Urban Residential			27	NE	85	15	NE	>CSAT	230	>Max	>CSAT	
Occupational			50	NE	160	83	NE	>CSAT	980	>Max	>CSAT	
Vapor Intrusion into Buildings												
Residential			0.16	NE	1.3	6.4	NE	>CSAT	16	>Max	160	
Urban Residential			0.38	NE	3.0	15	NE	>CSAT	16	>Max	160	
Occupational			2.1	NE	17	83	NE	>CSAT	210	>Max	>CSAT	

Notes:
>Max: The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario.
>CSAT: This soil RBC exceeds the limit of three-phase equilibrium partitioning.
--: not analyzed
Bolding indicates analyte was quantitatively detected in the soil sample.
NE: not established
V3: The internal standard exhibited poor recovery due to sample matrix interference. This result is biased high, but is acceptable for the intended use because no screening levels are exceeded.

TABLE 3
Summary of Soil Sample Chemical Analytical Results
PAHs by EPA 8270D SIM
3434 NE Sandy Boulevard
Portland, Oregon

Sample I.D.	Sample Depth (feet BGS)	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
			Results (mg/kg)															
17-16408 T2 NF(OT)-100"	8.3	09/21/17	0.0613 U	0.0613 U	0.0613 U	**0.0853**	0.0613 U	0.0613 U	**0.0689**	**0.112**	**0.0758**	0.0613 U	**0.104**	0.0613 U	0.0613 U	**0.282**	**0.117**	**0.270**
17-16408 T2 S(OT)-100"	8.3	09/21/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DEQ Generic RBCs dated 11/01/2015																		
Soil Ingestion, Dermal Contact, and Inhalation																		
Excavation Worker			590,000	NE	>Max	660	67	670	6,700	NE	67,000	67	280,000	390,000	670	16,000	NE	210,000
Volatilization to Outdoor Air																		
Residential			>Max	NE	>Max	>Csat	NV	NV	NV	NE	NV	NV	NV	>Max	NV	6.4	NE	>Csat
Urban Residential			>Max	NE	>Max	>Csat	NV	NV	NV	NE	NV	NV	NV	>Max	NV	15	NE	>Csat
Occupational			>Max	NE	>Max	>Csat	NV	NV	NV	NE	NV	NV	NV	>Max	NV	83	NE	>Csat
Vapor Intrusion into Buildings																		
Residential			>Max	NE	>Max	>Csat	NV	NV	NV	NE	NV	NV	NV	>Max	NV	6.4	NE	>Csat
Urban Residential			>Max	NE	>Max	>Csat	NV	NV	NV	NE	NV	NV	NV	>Max	NV	15	NE	>Csat
Occupational			>Max	NE	>Max	>Csat	NV	NV	NV	NE	NV	NV	NV	>Max	NV	83	NE	>Csat

Notes:
NE: not established
NV: not volatile
--: not analyzed
U: not detected at concentrations greater than the analytical laboratory MDL or RDL (shown)
Bolding indicates analyte detection at a concentration greater than the analytical laboratory PQL or RDL.
>Csat: The soil RBC exceeds the limit of three-phase equilibrium partitioning.
>Max: This substance is deemed by DEQ to not pose a risk in this scenario.

TABLE 4
Summary of Soil Sample Chemical Analytical Results[1]
PCBs by EPA Method 8082A
3434 NE Sandy Boulevard
Portland, Oregon

Sample I.D.	Sample Depth (feet BGS)	Sample Date	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
			Results (mg/kg)						
17-16408 T2 NF(OT)-100"	8.3	09/21/17	0.0112 U	0.0112 U	0.0112 U	**0.0297**	0.0112 U	0.0112 U	**0.0141**
17-16408 T2 S(OT)-100"	8.3	09/21/17	0.0122 U	0.0122 U	0.0122 U	0.0122 U	0.0122 U	0.0122 U	0.0122 U
DEQ Generic RBCs dated 11/01/15									
Soil Ingestion, Dermal Contact, and Inhalation									
Excavation Worker			140						
Volatilization to Outdoor Air									
Residential			>Csat						
Urban Residential			>Csat						
Occupational			>Csat						
Vapor Intrusion into Buildings									
Residential			>Csat						
Urban Residential			>Csat						
Occupational			>Csat						

Notes:

1. Chemical analysis performed by Apex Labs of Tigard, Oregon.

>Csat: The soil RBC exceeds the limit of three-phase equilibrium partitioning.

U: not detected at concentrations greater than the analytical laboratory PQL or RDL (shown)

Bolding indicates analyte detection at a concentration greater than the analytical laboratory PQL or RDL.

--: not analyzed

TABLE 5
Summary of Soil Sample Chemical Analytical Results[1]
Total Metals by EPA Method 6020
3434 NE Sandy Boulevard
Portland, Oregon

Sample I.D.	Sample Depth (feet BGS)	Sample Date	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
			Results (mg/kg)							
17-16408 T2 NF(OT)-100"	8.3	09/21/17	**5.10**	**161**	**0.428**	**18.6**	**82.1**	0.110 U	1.38 U	0.276 U
17-16408 T2 S(OT)-100"	8.3	09/21/17	**5.11**	**166**	**0.513**	**20.4**	**11.7**	0.105 U	1.32 U	0.263 U
DEQ Generic RBCs dated 11/1/2015										
Soil Ingestion, Dermal Contact, and Inhalation										
Excavation Worker			420	>Max	9,700	>Max	800	2,900	NE	49,000
Volatilization to Outdoor Air										
Residential			NV	NV	NV	NV	NV	NV	NV	NV
Urban Residential			NV	NV	NV	NV	NV	NV	NV	NV
Occupational			NV	NV	NV	NV	NV	NV	NV	NV
Vapor Intrusion into Buildings										
Residential			NV	NV	NV	NV	NV	NV	NV	NV
Urban Residential			NV	NV	NV	NV	NV	NV	NV	NV
Occupational			NV	NV	NV	NV	NV	NV	NV	NV

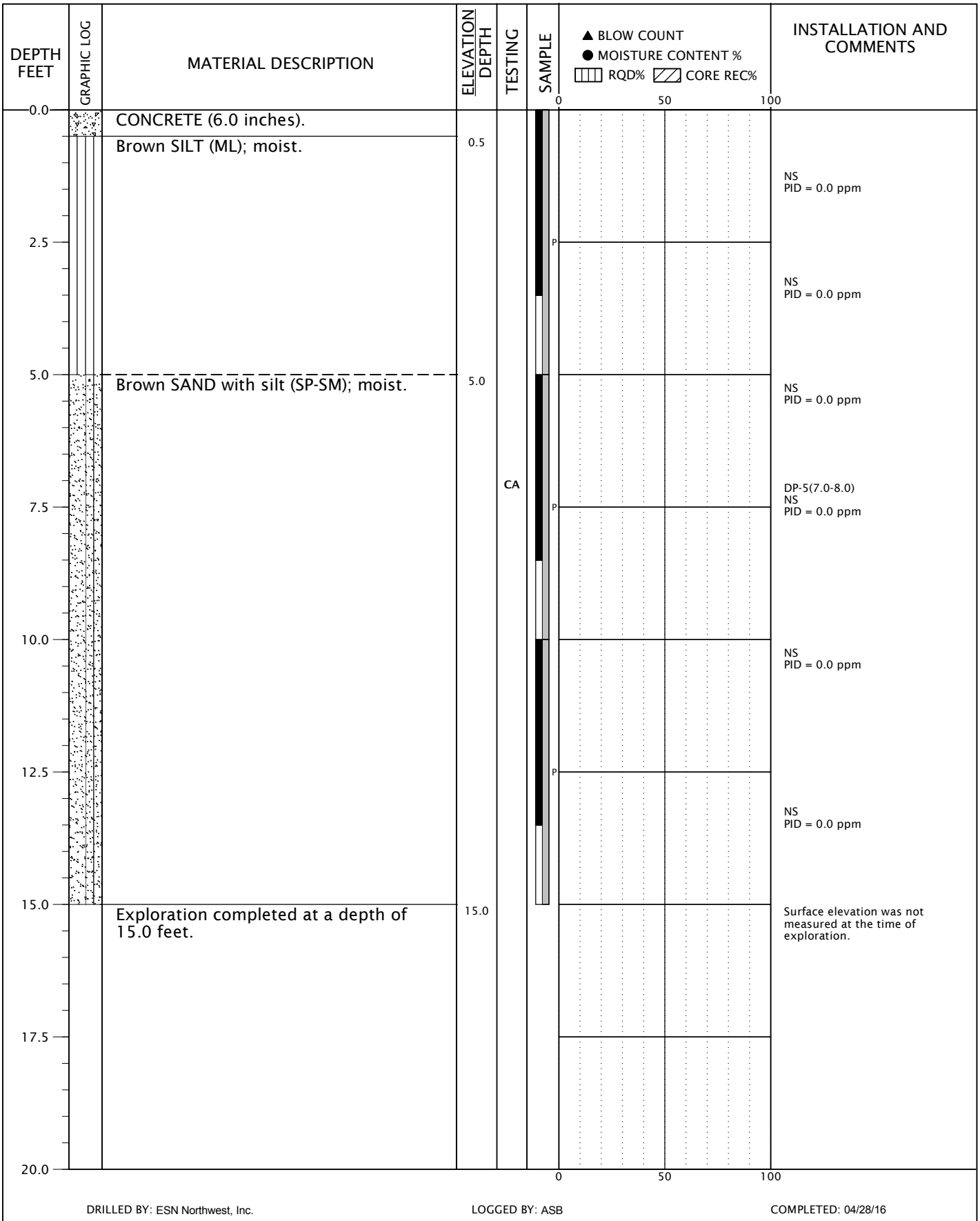
Notes:
1. Chemical analysis performed by Apex Labs of Tigard, Oregon.
>Max: The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L.
Therefore, this substance is deemed not to pose risks in this scenario.
--: not analyzed
Bolding indicates analyte detection.

TABLE 6
Summary of Vapor Chemical Analytical Results
VOCs Detected by EPA Method TO-15
3434 NE Sandy Boulevard
Portland, Oregon

Sample I.D.	Sample Type	Date Collected	2-Propanol	Benzene	Ethylbenzene	Toluene	m,p-Xylene	o-Xylene	TPH (GC/MS) Low Fraction
			µg/m^3						
SV-1	Soil Gas	4/5/2018	**263 E**	**14.5**	**7.39**	**34.2**	**26.1**	**9.59**	**931**
DEQ RBCs dated November 1, 2015									
Residential Vapor Intrusion into Buildings			NE	72	220	1,000,000	21,000		79,000
Urban Residential Vapor Intrusion into Buildings			NE	170	530	1,000,000	21,000		79,000
Occupational Vapor Intrusion into Buildings			NE	1,600	4,900	21,900,000	440,000		1,700,000

Notes:
Chemical analysis performed by ESC Lab Sciences of Mt. Juliet, Tennessee.
E: Analyte exceeds the upper limit of calibration range, but is considered acceptable for intended use based on significantly low reported value.
U: Analyte not detected at a concentration greater than the laboratory RDL (shown).
Bolding indicates analyte was dected at a concentration greater than the laboratory RDL.
NE: not established

APPENDIX A



DRILLED BY: ESN Northwest, Inc.

LOGGED BY: ASB

COMPLETED: 04/28/16

BORING METHOD: direct push (see document text)

BORING BIT DIAMETER: 3 inches

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

GREENLIGHT-5-01

OCTOBER 2016

BORING DP-5

3434 NE SANDY BOULEVARD SITE
PORTLAND, OR

FIGURE D-5

BORING LOG GREENLIGHT-5-01-DP1_15.GPJ GEODESIGN.GDT PRINT DATE: 10/20/16:RC:KT

ANALYTICAL REPORT

May 12, 2016

GeoDesign Inc.

Sample Delivery Group:	L832537
Samples Received:	04/29/2016
Project Number:	GREENLIGHT-5-01
Description:	Greenlight-5-01

Report To: Andrew Blake
15575 SW Sequoia Pkwy. Suite 100
Portland, OR 97224

Entire Report Reviewed By:

Jarred Willis
Technical Service Representative

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 ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

DP-1(27.0-28.0) L832537-01 Solid

Collected by: Andrew Blake | Collected date/time: 04/28/16 10:00 | Received date/time: 04/29/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG871736	1	05/11/16 21:19	05/12/16 07:44	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG868898	1	05/02/16 07:10	05/03/16 14:46	KLM
Total Solids by Method 2540 G-2011	WG869225	1	05/02/16 15:34	05/02/16 15:41	MEL
Volatile Organic Compounds (GC) by Method NWTPHGX	WG868859	1.36	04/30/16 12:00	05/01/16 00:19	BMB

DP-2(10.0-11.0) L832537-02 Solid

Collected by: Andrew Blake | Collected date/time: 04/28/16 10:15 | Received date/time: 04/29/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG868898	1	05/02/16 07:10	05/03/16 14:58	KLM
Total Solids by Method 2540 G-2011	WG869225	1	05/02/16 15:34	05/02/16 15:41	MEL
Volatile Organic Compounds (GC) by Method NWTPHGX	WG868859	1	04/30/16 12:00	05/01/16 01:02	BMB

DP-3(0.5-2.0) L832537-03 Solid

Collected by: Andrew Blake | Collected date/time: 04/28/16 10:25 | Received date/time: 04/29/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG869469	1	05/03/16 18:09	05/04/16 11:38	NJB
Metals (ICP) by Method 6010B	WG869271	1	05/03/16 08:27	05/05/16 15:35	ST
Polychlorinated Biphenyls (GC) by Method 8082	WG871409	1	05/11/16 09:14	05/11/16 17:06	ADF
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG869940	50	05/04/16 22:37	05/06/16 21:37	KMP
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG868898	1	05/02/16 07:10	05/03/16 16:27	KLM
Total Solids by Method 2540 G-2011	WG869225	1	05/02/16 15:34	05/02/16 15:41	MEL
Volatile Organic Compounds (GC) by Method NWTPHGX	WG868859	1	04/30/16 12:00	05/01/16 01:23	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG868794	1	04/29/16 23:05	04/30/16 08:37	ACG

DP-4(3.0-4.0) L832537-04 Solid

Collected by: Andrew Blake | Collected date/time: 04/28/16 10:45 | Received date/time: 04/29/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG868898	1	05/02/16 07:10	05/03/16 15:49	KLM
Total Solids by Method 2540 G-2011	WG869225	1	05/02/16 15:34	05/02/16 15:41	MEL
Volatile Organic Compounds (GC) by Method NWTPHGX	WG868859	1	04/30/16 12:00	05/01/16 01:44	BMB

DP-5(7.0-8.0) L832537-05 Solid

Collected by: Andrew Blake | Collected date/time: 04/28/16 11:10 | Received date/time: 04/29/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG868898	1	05/02/16 07:10	05/03/16 16:01	KLM
Total Solids by Method 2540 G-2011	WG869225	1	05/02/16 15:34	05/02/16 15:41	MEL
Volatile Organic Compounds (GC) by Method NWTPHGX	WG868859	1	04/30/16 12:00	05/01/16 02:04	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG868794	1.03	04/29/16 23:05	04/30/16 08:58	ACG

DP-6(1.0-2.0) L832537-06 Solid

Collected by: Andrew Blake | Collected date/time: 04/28/16 11:40 | Received date/time: 04/29/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG869469	1	05/03/16 18:09	05/04/16 11:41	NJB
Metals (ICP) by Method 6010B	WG869271	1	05/03/16 08:27	05/05/16 15:38	ST
Polychlorinated Biphenyls (GC) by Method 8082	WG871409	1	05/11/16 09:14	05/11/16 17:18	ADF
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG869940	50	05/04/16 22:37	05/06/16 21:17	KMP

DP-6(1.0-2.0) L832537-06 Solid

Collected by: Andrew Blake
Collected date/time: 04/28/16 11:40
Received date/time: 04/29/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG868898	200	05/02/16 07:10	05/03/16 16:52	KLM
Total Solids by Method 2540 G-2011	WG869225	1	05/02/16 15:34	05/02/16 15:41	MEL
Volatile Organic Compounds (GC) by Method NWTPHGX	WG870401	430	05/05/16 17:35	05/06/16 00:01	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG868794	86	04/29/16 23:05	04/30/16 09:19	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG869294	860	05/02/16 17:11	05/03/16 07:58	ACG

DP-6(12.0-13.0) L832537-07 Solid

Collected by: Andrew Blake
Collected date/time: 04/28/16 11:50
Received date/time: 04/29/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG869496	1	05/04/16 08:30	05/04/16 17:30	DMG
Total Solids by Method 2540 G-2011	WG869225	1	05/02/16 15:34	05/02/16 15:41	MEL
Volatile Organic Compounds (GC) by Method NWTPHGX	WG868904	1	04/30/16 17:19	05/02/16 03:37	JHH

DP-7(5.0-6.0) L832537-08 Solid

Collected by: Andrew Blake
Collected date/time: 04/28/16 12:15
Received date/time: 04/29/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX	WG869496	1	05/04/16 08:30	05/04/16 18:15	DMG
Total Solids by Method 2540 G-2011	WG869225	1	05/02/16 15:34	05/02/16 15:41	MEL
Volatile Organic Compounds (GC) by Method NWTPHGX	WG868904	1	04/30/16 17:19	05/02/16 03:59	JHH

SV-1 L832537-09 Air

Collected by: Andrew Blake
Collected date/time: 04/28/16 10:30
Received date/time: 04/29/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG870199	1	05/06/16 00:51	05/06/16 00:51	MBF

SV-2 L832537-10 Air

Collected by: Andrew Blake
Collected date/time: 04/28/16 13:00
Received date/time: 04/29/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG870199	1	05/06/16 01:42	05/06/16 01:42	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG870525	20	05/06/16 12:58	05/06/16 12:58	MBF

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Jarred Willis
Technical Service Representative

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.1		1	05/02/2016 15:41	WG869225

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		0.145	1.36	05/01/2016 00:19	WG868859
(S) α,α,α-Trifluorotoluene(FID)	*96.7*		*59.0-128*		*05/01/2016 00:19*	WG868859

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	5.75		4.25	1	05/03/2016 14:46	WG868898
Residual Range Organics (RRO)	ND		10.6	1	05/03/2016 14:46	WG868898
(S) o-Terphenyl	*85.0*		*50.0-150*		*05/03/2016 14:46*	WG868898

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Anthracene	ND		0.00638	1	05/12/2016 07:44	WG871736
Acenaphthene	ND		0.00638	1	05/12/2016 07:44	WG871736
Acenaphthylene	ND		0.00638	1	05/12/2016 07:44	WG871736
Benzo(a)anthracene	ND		0.00638	1	05/12/2016 07:44	WG871736
Benzo(a)pyrene	ND		0.00638	1	05/12/2016 07:44	WG871736
Benzo(b)fluoranthene	ND		0.00638	1	05/12/2016 07:44	WG871736
Benzo(g,h,i)perylene	ND		0.00638	1	05/12/2016 07:44	WG871736
Benzo(k)fluoranthene	ND		0.00638	1	05/12/2016 07:44	WG871736
Chrysene	ND		0.00638	1	05/12/2016 07:44	WG871736
Dibenz(a,h)anthracene	ND		0.00638	1	05/12/2016 07:44	WG871736
Fluoranthene	ND		0.00638	1	05/12/2016 07:44	WG871736
Fluorene	ND		0.00638	1	05/12/2016 07:44	WG871736
Indeno(1,2,3-cd)pyrene	ND		0.00638	1	05/12/2016 07:44	WG871736
Naphthalene	ND		0.0213	1	05/12/2016 07:44	WG871736
Phenanthrene	ND		0.00638	1	05/12/2016 07:44	WG871736
Pyrene	ND		0.00638	1	05/12/2016 07:44	WG871736
1-Methylnaphthalene	ND		0.0213	1	05/12/2016 07:44	WG871736
2-Methylnaphthalene	ND		0.0213	1	05/12/2016 07:44	WG871736
2-Chloronaphthalene	ND		0.0213	1	05/12/2016 07:44	WG871736
(S) Nitrobenzene-d5	*74.1*		*22.1-146*		*05/12/2016 07:44*	WG871736
(S) 2-Fluorobiphenyl	*71.8*		*40.6-122*		*05/12/2016 07:44*	WG871736
(S) p-Terphenyl-d14	*69.0*		*32.2-131*		*05/12/2016 07:44*	WG871736

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.8		1	05/02/2016 15:41	WG869225

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		0.132	1	05/01/2016 01:02	WG868859
(S) α,α,α-Trifluorotoluene(FID)	*97.5*		*59.0-128*		*05/01/2016 01:02*	WG868859

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	ND		5.28	1	05/03/2016 14:58	WG868898
Residual Range Organics (RRO)	ND		13.2	1	05/03/2016 14:58	WG868898
(S) o-Terphenyl	*66.4*		*50.0-150*		*05/03/2016 14:58*	WG868898

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	71.9		1	05/02/2016 15:41	WG869225

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0278	1	05/04/2016 11:38	WG869469

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	7.85		2.78	1	05/05/2016 15:35	WG869271
Barium	215		0.695	1	05/05/2016 15:35	WG869271
Cadmium	ND		0.695	1	05/05/2016 15:35	WG869271
Chromium	36.7		1.39	1	05/05/2016 15:35	WG869271
Lead	67.4		0.695	1	05/05/2016 15:35	WG869271
Selenium	ND		2.78	1	05/05/2016 15:35	WG869271
Silver	ND		1.39	1	05/05/2016 15:35	WG869271

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		0.139	1	05/01/2016 01:23	WG868859
(S) a,a,a-Trifluorotoluene(FID)	*97.0*		*59.0-128*		*05/01/2016 01:23*	WG868859

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0695	1	04/30/2016 08:37	WG868794
Acrylonitrile	ND		0.0139	1	04/30/2016 08:37	WG868794
Benzene	ND		0.00139	1	04/30/2016 08:37	WG868794
Bromobenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
Bromodichloromethane	ND		0.00139	1	04/30/2016 08:37	WG868794
Bromoform	ND		0.00139	1	04/30/2016 08:37	WG868794
Bromomethane	ND		0.00695	1	04/30/2016 08:37	WG868794
n-Butylbenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
sec-Butylbenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
tert-Butylbenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
Carbon tetrachloride	ND		0.00139	1	04/30/2016 08:37	WG868794
Chlorobenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
Chlorodibromomethane	ND		0.00139	1	04/30/2016 08:37	WG868794
Chloroethane	ND		0.00695	1	04/30/2016 08:37	WG868794
2-Chloroethyl vinyl ether	ND		0.0695	1	04/30/2016 08:37	WG868794
Chloroform	ND		0.00695	1	04/30/2016 08:37	WG868794
Chloromethane	ND		0.00347	1	04/30/2016 08:37	WG868794
2-Chlorotoluene	ND		0.00139	1	04/30/2016 08:37	WG868794
4-Chlorotoluene	ND		0.00139	1	04/30/2016 08:37	WG868794
1,2-Dibromo-3-Chloropropane	ND		0.00695	1	04/30/2016 08:37	WG868794
1,2-Dibromoethane	ND		0.00139	1	04/30/2016 08:37	WG868794
Dibromomethane	ND		0.00139	1	04/30/2016 08:37	WG868794
1,2-Dichlorobenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
1,3-Dichlorobenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
1,4-Dichlorobenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
Dichlorodifluoromethane	ND		0.00695	1	04/30/2016 08:37	WG868794
1,1-Dichloroethane	ND		0.00139	1	04/30/2016 08:37	WG868794

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	ND		0.00139	1	04/30/2016 08:37	WG868794
1,1-Dichloroethene	ND		0.00139	1	04/30/2016 08:37	WG868794
cis-1,2-Dichloroethene	ND		0.00139	1	04/30/2016 08:37	WG868794
trans-1,2-Dichloroethene	ND		0.00139	1	04/30/2016 08:37	WG868794
1,2-Dichloropropane	ND		0.00139	1	04/30/2016 08:37	WG868794
1,1-Dichloropropene	ND		0.00139	1	04/30/2016 08:37	WG868794
1,3-Dichloropropane	ND		0.00139	1	04/30/2016 08:37	WG868794
cis-1,3-Dichloropropene	ND		0.00139	1	04/30/2016 08:37	WG868794
trans-1,3-Dichloropropene	ND		0.00139	1	04/30/2016 08:37	WG868794
2,2-Dichloropropane	ND		0.00139	1	04/30/2016 08:37	WG868794
Di-isopropyl ether	ND		0.00139	1	04/30/2016 08:37	WG868794
Ethylbenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
Hexachloro-1,3-butadiene	ND		0.00139	1	04/30/2016 08:37	WG868794
Isopropylbenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
p-Isopropyltoluene	ND		0.00139	1	04/30/2016 08:37	WG868794
2-Butanone (MEK)	ND		0.0139	1	04/30/2016 08:37	WG868794
Methylene Chloride	ND		0.00695	1	04/30/2016 08:37	WG868794
4-Methyl-2-pentanone (MIBK)	ND		0.0139	1	04/30/2016 08:37	WG868794
Methyl tert-butyl ether	ND		0.00139	1	04/30/2016 08:37	WG868794
Naphthalene	ND		0.00695	1	04/30/2016 08:37	WG868794
n-Propylbenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
Styrene	ND		0.00139	1	04/30/2016 08:37	WG868794
1,1,1,2-Tetrachloroethane	ND		0.00139	1	04/30/2016 08:37	WG868794
1,1,2,2-Tetrachloroethane	ND		0.00139	1	04/30/2016 08:37	WG868794
1,1,2-Trichlorotrifluoroethane	ND		0.00139	1	04/30/2016 08:37	WG868794
Tetrachloroethene	ND		0.00139	1	04/30/2016 08:37	WG868794
Toluene	ND		0.00695	1	04/30/2016 08:37	WG868794
1,2,3-Trichlorobenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
1,2,4-Trichlorobenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
1,1,1-Trichloroethane	ND		0.00139	1	04/30/2016 08:37	WG868794
1,1,2-Trichloroethane	ND		0.00139	1	04/30/2016 08:37	WG868794
Trichloroethene	ND		0.00139	1	04/30/2016 08:37	WG868794
Trichlorofluoromethane	ND		0.00695	1	04/30/2016 08:37	WG868794
1,2,3-Trichloropropane	ND		0.00347	1	04/30/2016 08:37	WG868794
1,2,4-Trimethylbenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
1,2,3-Trimethylbenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
1,3,5-Trimethylbenzene	ND		0.00139	1	04/30/2016 08:37	WG868794
Vinyl chloride	ND		0.00139	1	04/30/2016 08:37	WG868794
Xylenes, Total	ND		0.00417	1	04/30/2016 08:37	WG868794
(S) Toluene-d8	*105*		*88.7-115*		*04/30/2016 08:37*	WG868794
(S) Dibromofluoromethane	*102*		*76.3-123*		*04/30/2016 08:37*	WG868794
(S) α,α,α-Trifluorotoluene	*99.8*		*87.2-117*		*04/30/2016 08:37*	WG868794
(S) 4-Bromofluorobenzene	*99.0*		*69.7-129*		*04/30/2016 08:37*	WG868794

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	112		5.56	1	05/03/2016 16:27	WG868898
Residual Range Organics (RRO)	271		13.9	1	05/03/2016 16:27	WG868898
(S) o-Terphenyl	*61.7*		*50.0-150*		*05/03/2016 16:27*	WG868898

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND		0.0236	1	05/11/2016 17:06	WG871409
PCB 1221	ND		0.0236	1	05/11/2016 17:06	WG871409
PCB 1232	ND		0.0236	1	05/11/2016 17:06	WG871409
PCB 1242	ND		0.0236	1	05/11/2016 17:06	WG871409
PCB 1248	ND		0.0236	1	05/11/2016 17:06	WG871409
PCB 1254	ND		0.0236	1	05/11/2016 17:06	WG871409
PCB 1260	ND		0.0236	1	05/11/2016 17:06	WG871409
(S) Decachlorobiphenyl	*38.8*		*10.0-143*		*05/11/2016 17:06*	WG871409
(S) Tetrachloro-m-xylene	*59.9*		*29.2-144*		*05/11/2016 17:06*	WG871409

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.417	50	05/06/2016 21:37	WG869940
Acenaphthene	ND		0.417	50	05/06/2016 21:37	WG869940
Acenaphthylene	ND		0.417	50	05/06/2016 21:37	WG869940
Benzo(a)anthracene	ND		0.417	50	05/06/2016 21:37	WG869940
Benzo(a)pyrene	ND		0.417	50	05/06/2016 21:37	WG869940
Benzo(b)fluoranthene	ND		0.417	50	05/06/2016 21:37	WG869940
Benzo(g,h,i)perylene	ND		0.417	50	05/06/2016 21:37	WG869940
Benzo(k)fluoranthene	ND		0.417	50	05/06/2016 21:37	WG869940
Chrysene	ND		0.417	50	05/06/2016 21:37	WG869940
Dibenz(a,h)anthracene	ND		0.417	50	05/06/2016 21:37	WG869940
Fluoranthene	ND		0.417	50	05/06/2016 21:37	WG869940
Fluorene	ND		0.417	50	05/06/2016 21:37	WG869940
Indeno(1,2,3-cd)pyrene	ND		0.417	50	05/06/2016 21:37	WG869940
Naphthalene	ND		1.39	50	05/06/2016 21:37	WG869940
Phenanthrene	ND		0.417	50	05/06/2016 21:37	WG869940
Pyrene	ND		0.417	50	05/06/2016 21:37	WG869940
1-Methylnaphthalene	ND		1.39	50	05/06/2016 21:37	WG869940
2-Methylnaphthalene	ND		1.39	50	05/06/2016 21:37	WG869940
2-Chloronaphthalene	ND		1.39	50	05/06/2016 21:37	WG869940
(S) Nitrobenzene-d5	*62.8*	J7	*22.1-146*		*05/06/2016 21:37*	WG869940
(S) 2-Fluorobiphenyl	*65.2*	J7	*40.6-122*		*05/06/2016 21:37*	WG869940
(S) p-Terphenyl-d14	*51.3*	J7	*32.2-131*		*05/06/2016 21:37*	WG869940

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.5		1	05/02/2016 15:41	WG869225

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		0.118	1	05/01/2016 01:44	WG868859
(S) α,α,α-Trifluorotoluene(FID)	*97.3*		*59.0-128*		*05/01/2016 01:44*	WG868859

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	ND		4.74	1	05/03/2016 15:49	WG868898
Residual Range Organics (RRO)	ND		11.8	1	05/03/2016 15:49	WG868898
(S) o-Terphenyl	*81.5*		*50.0-150*		*05/03/2016 15:49*	WG868898

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.3		1	05/02/2016 15:41	WG869225

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		0.116	1	05/01/2016 02:04	WG868859
(S) a,a,a-Trifluorotoluene(FID)	*97.1*		*59.0-128*		*05/01/2016 02:04*	WG868859

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0597	1.03	04/30/2016 08:58	WG868794
Acrylonitrile	ND		0.0119	1.03	04/30/2016 08:58	WG868794
Benzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Bromobenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Bromodichloromethane	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Bromoform	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Bromomethane	ND		0.00597	1.03	04/30/2016 08:58	WG868794
n-Butylbenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
sec-Butylbenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
tert-Butylbenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Carbon tetrachloride	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Chlorobenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Chlorodibromomethane	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Chloroethane	ND		0.00597	1.03	04/30/2016 08:58	WG868794
2-Chloroethyl vinyl ether	ND		0.0597	1.03	04/30/2016 08:58	WG868794
Chloroform	ND		0.00597	1.03	04/30/2016 08:58	WG868794
Chloromethane	ND		0.00298	1.03	04/30/2016 08:58	WG868794
2-Chlorotoluene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
4-Chlorotoluene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,2-Dibromo-3-Chloropropane	ND		0.00597	1.03	04/30/2016 08:58	WG868794
1,2-Dibromoethane	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Dibromomethane	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,2-Dichlorobenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,3-Dichlorobenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,4-Dichlorobenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Dichlorodifluoromethane	ND		0.00597	1.03	04/30/2016 08:58	WG868794
1,1-Dichloroethane	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,2-Dichloroethane	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,1-Dichloroethene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
cis-1,2-Dichloroethene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
trans-1,2-Dichloroethene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,2-Dichloropropane	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,1-Dichloropropene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,3-Dichloropropane	ND		0.00119	1.03	04/30/2016 08:58	WG868794
cis-1,3-Dichloropropene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
trans-1,3-Dichloropropene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
2,2-Dichloropropane	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Di-isopropyl ether	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Ethylbenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Hexachloro-1,3-butadiene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Isopropylbenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
p-Isopropyltoluene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
2-Butanone (MEK)	ND		0.0119	1.03	04/30/2016 08:58	WG868794
Methylene Chloride	ND		0.00597	1.03	04/30/2016 08:58	WG868794

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	ND		0.0119	1.03	04/30/2016 08:58	WG868794
Methyl tert-butyl ether	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Naphthalene	ND		0.00597	1.03	04/30/2016 08:58	WG868794
n-Propylbenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Styrene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,1,1,2-Tetrachloroethane	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,1,2,2-Tetrachloroethane	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,1,2-Trichlorotrifluoroethane	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Tetrachloroethene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Toluene	0.00676	V3	0.00597	1.03	04/30/2016 08:58	WG868794
1,2,3-Trichlorobenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,2,4-Trichlorobenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,1,1-Trichloroethane	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,1,2-Trichloroethane	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Trichloroethene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Trichlorofluoromethane	ND		0.00597	1.03	04/30/2016 08:58	WG868794
1,2,3-Trichloropropane	ND		0.00298	1.03	04/30/2016 08:58	WG868794
1,2,4-Trimethylbenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,2,3-Trimethylbenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
1,3,5-Trimethylbenzene	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Vinyl chloride	ND		0.00119	1.03	04/30/2016 08:58	WG868794
Xylenes, Total	ND		0.00358	1.03	04/30/2016 08:58	WG868794
(S) Toluene-d8	*427*	J1	*88.7-115*		*04/30/2016 08:58*	WG868794
(S) Dibromofluoromethane	*116*		*76.3-123*		*04/30/2016 08:58*	WG868794
(S) a,a,a-Trifluorotoluene	*392*	J1	*87.2-117*		*04/30/2016 08:58*	WG868794
(S) 4-Bromofluorobenzene	*114*		*69.7-129*		*04/30/2016 08:58*	WG868794

Sample Narrative:

8260B L832537-05 WG868794: Surrogate and internal standard failures due to matrix interference.

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		4.63	1	05/03/2016 16:01	WG868898
Residual Range Organics (RRO)	ND		11.6	1	05/03/2016 16:01	WG868898
(S) o-Terphenyl	*93.6*		*50.0-150*		*05/03/2016 16:01*	WG868898

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.8		1	05/02/2016 15:41	WG869225

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0245	1	05/04/2016 11:41	WG869469

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	6.17		2.45	1	05/05/2016 15:38	WG869271
Barium	203		0.612	1	05/05/2016 15:38	WG869271
Cadmium	ND		0.612	1	05/05/2016 15:38	WG869271
Chromium	20.8		1.22	1	05/05/2016 15:38	WG869271
Lead	15.3		0.612	1	05/05/2016 15:38	WG869271
Selenium	ND		2.45	1	05/05/2016 15:38	WG869271
Silver	ND		1.22	1	05/05/2016 15:38	WG869271

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	981		52.6	430	05/06/2016 00:01	WG870401
(S) a,a,a-Trifluorotoluene(FID)	*93.9*		*59.0-128*		*05/06/2016 00:01*	WG870401

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		5.26	86	04/30/2016 09:19	WG868794
Acrylonitrile	ND		1.05	86	04/30/2016 09:19	WG868794
Benzene	ND		0.105	86	04/30/2016 09:19	WG868794
Bromobenzene	ND		0.105	86	04/30/2016 09:19	WG868794
Bromodichloromethane	ND		0.105	86	04/30/2016 09:19	WG868794
Bromoform	ND		0.105	86	04/30/2016 09:19	WG868794
Bromomethane	ND		0.526	86	04/30/2016 09:19	WG868794
n-Butylbenzene	5.88		0.105	86	04/30/2016 09:19	WG868794
sec-Butylbenzene	4.10		0.105	86	04/30/2016 09:19	WG868794
tert-Butylbenzene	0.274		0.105	86	04/30/2016 09:19	WG868794
Carbon tetrachloride	ND		0.105	86	04/30/2016 09:19	WG868794
Chlorobenzene	ND		0.105	86	04/30/2016 09:19	WG868794
Chlorodibromomethane	ND		0.105	86	04/30/2016 09:19	WG868794
Chloroethane	ND		0.526	86	04/30/2016 09:19	WG868794
2-Chloroethyl vinyl ether	ND		5.26	86	04/30/2016 09:19	WG868794
Chloroform	ND		0.526	86	04/30/2016 09:19	WG868794
Chloromethane	ND		0.263	86	04/30/2016 09:19	WG868794
2-Chlorotoluene	ND		0.105	86	04/30/2016 09:19	WG868794
4-Chlorotoluene	ND		0.105	86	04/30/2016 09:19	WG868794
1,2-Dibromo-3-Chloropropane	ND		0.526	86	04/30/2016 09:19	WG868794
1,2-Dibromoethane	ND		0.105	86	04/30/2016 09:19	WG868794
Dibromomethane	ND		0.105	86	04/30/2016 09:19	WG868794
1,2-Dichlorobenzene	1.36		0.105	86	04/30/2016 09:19	WG868794
1,3-Dichlorobenzene	ND		0.105	86	04/30/2016 09:19	WG868794
1,4-Dichlorobenzene	0.184		0.105	86	04/30/2016 09:19	WG868794
Dichlorodifluoromethane	ND		0.526	86	04/30/2016 09:19	WG868794
1,1-Dichloroethane	ND		0.105	86	04/30/2016 09:19	WG868794

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	ND		0.105	86	04/30/2016 09:19	WG868794
1,1-Dichloroethene	ND		0.105	86	04/30/2016 09:19	WG868794
cis-1,2-Dichloroethene	ND		0.105	86	04/30/2016 09:19	WG868794
trans-1,2-Dichloroethene	ND		0.105	86	04/30/2016 09:19	WG868794
1,2-Dichloropropane	ND		0.105	86	04/30/2016 09:19	WG868794
1,1-Dichloropropene	ND		0.105	86	04/30/2016 09:19	WG868794
1,3-Dichloropropane	ND		0.105	86	04/30/2016 09:19	WG868794
cis-1,3-Dichloropropene	ND		0.105	86	04/30/2016 09:19	WG868794
trans-1,3-Dichloropropene	ND		0.105	86	04/30/2016 09:19	WG868794
2,2-Dichloropropane	ND		0.105	86	04/30/2016 09:19	WG868794
Di-isopropyl ether	ND		0.105	86	04/30/2016 09:19	WG868794
Ethylbenzene	1.28		0.105	86	04/30/2016 09:19	WG868794
Hexachloro-1,3-butadiene	ND		0.105	86	04/30/2016 09:19	WG868794
Isopropylbenzene	0.919		0.105	86	04/30/2016 09:19	WG868794
p-Isopropyltoluene	6.42		0.105	86	04/30/2016 09:19	WG868794
2-Butanone (MEK)	ND		1.05	86	04/30/2016 09:19	WG868794
Methylene Chloride	ND		0.526	86	04/30/2016 09:19	WG868794
4-Methyl-2-pentanone (MIBK)	ND		1.05	86	04/30/2016 09:19	WG868794
Methyl tert-butyl ether	ND		0.105	86	04/30/2016 09:19	WG868794
Naphthalene	5.85		0.526	86	04/30/2016 09:19	WG868794
n-Propylbenzene	3.70		0.105	86	04/30/2016 09:19	WG868794
Styrene	ND		0.105	86	04/30/2016 09:19	WG868794
1,1,1,2-Tetrachloroethane	ND		0.105	86	04/30/2016 09:19	WG868794
1,1,2,2-Tetrachloroethane	ND		0.105	86	04/30/2016 09:19	WG868794
1,1,2-Trichlorotrifluoroethane	ND		0.105	86	04/30/2016 09:19	WG868794
Tetrachloroethene	7.20		0.105	86	04/30/2016 09:19	WG868794
Toluene	ND		0.526	86	04/30/2016 09:19	WG868794
1,2,3-Trichlorobenzene	ND		0.105	86	04/30/2016 09:19	WG868794
1,2,4-Trichlorobenzene	0.295		0.105	86	04/30/2016 09:19	WG868794
1,1,1-Trichloroethane	ND		0.105	86	04/30/2016 09:19	WG868794
1,1,2-Trichloroethane	ND		0.105	86	04/30/2016 09:19	WG868794
Trichloroethene	0.136		0.105	86	04/30/2016 09:19	WG868794
Trichlorofluoromethane	ND		0.526	86	04/30/2016 09:19	WG868794
1,2,3-Trichloropropane	ND		0.263	86	04/30/2016 09:19	WG868794
1,2,4-Trimethylbenzene	38.9		1.05	860	05/03/2016 07:58	WG869294
1,2,3-Trimethylbenzene	32.8		1.05	860	05/03/2016 07:58	WG869294
1,3,5-Trimethylbenzene	10.6		0.105	86	04/30/2016 09:19	WG868794
Vinyl chloride	ND		0.105	86	04/30/2016 09:19	WG868794
Xylenes, Total	9.79		0.316	86	04/30/2016 09:19	WG868794
(S) Toluene-d8	*104*		*88.7-115*		*04/30/2016 09:19*	WG868794
(S) Toluene-d8	*99.1*		*88.7-115*		*05/03/2016 07:58*	WG869294
(S) Dibromofluoromethane	*108*		*76.3-123*		*05/03/2016 07:58*	WG869294
(S) Dibromofluoromethane	*101*		*76.3-123*		*04/30/2016 09:19*	WG868794
(S) α,α,α-Trifluorotoluene	*101*		*87.2-117*		*04/30/2016 09:19*	WG868794
(S) α,α,α-Trifluorotoluene	*98.9*		*87.2-117*		*05/03/2016 07:58*	WG869294
(S) 4-Bromofluorobenzene	*117*		*69.7-129*		*05/03/2016 07:58*	WG869294
(S) 4-Bromofluorobenzene	*200*	J1	*69.7-129*		*04/30/2016 09:19*	WG868794

Sample Narrative:

8260B L832537-06 WG868794: Surrogate failure due to matrix interference.

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	27900		979	200	05/03/2016 16:52	WG868898
Residual Range Organics (RRO)	28400		2450	200	05/03/2016 16:52	WG868898

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
(S) o-Terphenyl	*0.000*	J7	*50.0-150*		*05/03/2016 16:52*	WG868898

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND		0.0208	1	05/11/2016 17:18	WG871409
PCB 1221	ND		0.0208	1	05/11/2016 17:18	WG871409
PCB 1232	ND		0.0208	1	05/11/2016 17:18	WG871409
PCB 1242	0.711		0.0208	1	05/11/2016 17:18	WG871409
PCB 1248	ND		0.0208	1	05/11/2016 17:18	WG871409
PCB 1254	ND		0.0208	1	05/11/2016 17:18	WG871409
PCB 1260	0.214		0.0208	1	05/11/2016 17:18	WG871409
(S) Decachlorobiphenyl	*68.5*		*10.0-143*		*05/11/2016 17:18*	WG871409
(S) Tetrachloro-m-xylene	*75.6*		*29.2-144*		*05/11/2016 17:18*	WG871409

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.599		0.367	50	05/06/2016 21:17	WG869940
Acenaphthene	ND		0.367	50	05/06/2016 21:17	WG869940
Acenaphthylene	ND		0.367	50	05/06/2016 21:17	WG869940
Benzo(a)anthracene	ND		0.367	50	05/06/2016 21:17	WG869940
Benzo(a)pyrene	ND		0.367	50	05/06/2016 21:17	WG869940
Benzo(b)fluoranthene	ND		0.367	50	05/06/2016 21:17	WG869940
Benzo(g,h,i)perylene	ND		0.367	50	05/06/2016 21:17	WG869940
Benzo(k)fluoranthene	ND		0.367	50	05/06/2016 21:17	WG869940
Chrysene	ND		0.367	50	05/06/2016 21:17	WG869940
Dibenz(a,h)anthracene	ND		0.367	50	05/06/2016 21:17	WG869940
Fluoranthene	ND		0.367	50	05/06/2016 21:17	WG869940
Fluorene	0.409		0.367	50	05/06/2016 21:17	WG869940
Indeno(1,2,3-cd)pyrene	ND		0.367	50	05/06/2016 21:17	WG869940
Naphthalene	5.25		1.22	50	05/06/2016 21:17	WG869940
Phenanthrene	2.11		0.367	50	05/06/2016 21:17	WG869940
Pyrene	0.530		0.367	50	05/06/2016 21:17	WG869940
1-Methylnaphthalene	2.98		1.22	50	05/06/2016 21:17	WG869940
2-Methylnaphthalene	5.47		1.22	50	05/06/2016 21:17	WG869940
2-Chloronaphthalene	ND		1.22	50	05/06/2016 21:17	WG869940
(S) Nitrobenzene-d5	*1450*	J7	*22.1-146*		*05/06/2016 21:17*	WG869940
(S) 2-Fluorobiphenyl	*88.4*	J7	*40.6-122*		*05/06/2016 21:17*	WG869940
(S) p-Terphenyl-d14	*103*	J7	*32.2-131*		*05/06/2016 21:17*	WG869940

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.2		1	05/02/2016 15:41	WG869225

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		0.125	1	05/02/2016 03:37	WG868904
(S) α,α,α-Trifluorotoluene(FID)	*96.8*		*59.0-128*		*05/02/2016 03:37*	WG868904

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	ND		4.99	1	05/04/2016 17:30	WG869496
Residual Range Organics (RRO)	ND		12.5	1	05/04/2016 17:30	WG869496
(S) o-Terphenyl	*77.2*		*50.0-150*		*05/04/2016 17:30*	WG869496

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.9		1	05/02/2016 15:41	WG869225

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		0.122	1	05/02/2016 03:59	WG868904
(S) α,α,α-Trifluorotoluene(FID)	*94.9*		*59.0-128*		*05/02/2016 03:59*	WG868904

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Diesel Range Organics (DRO)	ND		4.89	1	05/04/2016 18:15	WG869496
Residual Range Organics (RRO)	ND		12.2	1	05/04/2016 18:15	WG869496
(S) o-Terphenyl	*61.9*		*50.0-150*		*05/04/2016 18:15*	WG869496

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	14.3	34.0		1	WG870199
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG870199
Benzene	71-43-2	78.10	0.200	0.639	1.64	5.25		1	WG870199
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG870199
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG870199
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG870199
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG870199
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG870199
Carbon disulfide	75-15-0	76.10	0.200	0.622	2.56	7.98		1	WG870199
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG870199
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG870199
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG870199
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG870199
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG870199
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG870199
Cyclohexane	110-82-7	84.20	0.200	0.689	0.253	0.872		1	WG870199
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG870199
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG870199
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG870199
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG870199
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND	J4	1	WG870199
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG870199
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG870199
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG870199
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG870199
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG870199
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG870199
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG870199
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG870199
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.620	2.23		1	WG870199
Ethanol	64-17-5	46.10	0.630	1.19	1880	3550	E	1	WG870199
Ethylbenzene	100-41-4	106	0.200	0.867	0.371	1.61		1	WG870199
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.390	1.91		1	WG870199
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.405	2.28		1	WG870199
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.717	3.55		1	WG870199
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG870199
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG870199
Heptane	142-82-5	100	0.200	0.818	0.486	1.99		1	WG870199
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG870199
n-Hexane	110-54-3	86.20	0.200	0.705	0.706	2.49		1	WG870199
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG870199
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG870199
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG870199
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	2.97	8.76		1	WG870199
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG870199
Methyl methacrylate	80-62-6	100.12	0.200	0.819	0.859	3.52		1	WG870199
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG870199
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG870199
2-Propanol	67-63-0	60.10	1.25	3.07	10.8	26.6		1	WG870199
Propene	115-07-1	42.10	0.400	0.689	1.80	3.10		1	WG870199
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG870199
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG870199
Tetrachloroethylene	127-18-4	166	0.200	1.36	2.82	19.1		1	WG870199
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG870199
Toluene	108-88-3	92.10	0.200	0.753	2.43	9.14		1	WG870199
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG870199

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG870199
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG870199
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG870199
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.421	2.07		1	WG870199
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG870199
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG870199
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG870199
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG870199
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG870199
m&p-Xylene	1330-20-7	106	0.400	1.73	0.860	3.73		1	WG870199
o-Xylene	95-47-6	106	0.200	0.867	0.409	1.77		1	WG870199
TPH (GC/MS) Low Fraction	8006-61-9	101	50.0	207	ND	ND		1	WG870199
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.0*				WG870199

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

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	15.3	36.3		1	WG870199
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG870199
Benzene	71-43-2	78.10	0.200	0.639	0.495	1.58		1	WG870199
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG870199
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG870199
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG870199
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG870199
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG870199
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG870199
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG870199
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG870199
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG870199
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG870199
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG870199
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG870199
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG870199
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG870199
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG870199
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG870199
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG870199
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND	J4	1	WG870199
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG870199
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG870199
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG870199
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG870199
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG870199
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG870199
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG870199
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG870199
1,4-Dioxane	123-91-1	88.10	0.200	0.721	2.43	8.77		1	WG870199
Ethanol	64-17-5	46.10	12.6	23.8	588	1110		20	WG870525
Ethylbenzene	100-41-4	106	0.200	0.867	0.748	3.24		1	WG870199
4-Ethyltoluene	622-96-8	120	0.200	0.982	15.1	74.2		1	WG870199
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.475	2.67		1	WG870199
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.771	3.81		1	WG870199
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG870199
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG870199
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG870199
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG870199
n-Hexane	110-54-3	86.20	0.200	0.705	0.223	0.787		1	WG870199
Isopropylbenzene	98-82-8	120.20	0.200	0.983	1.13	5.53		1	WG870199
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.795	2.76		1	WG870199
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG870199
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	4.23	12.5		1	WG870199
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG870199
Methyl methacrylate	80-62-6	100.12	0.200	0.819	0.241	0.987		1	WG870199
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG870199
Naphthalene	91-20-3	128	0.630	3.30	7.41	38.8		1	WG870199
2-Propanol	67-63-0	60.10	1.25	3.07	35.7	87.6		1	WG870199
Propene	115-07-1	42.10	0.400	0.689	0.433	0.746		1	WG870199
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG870199
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG870199
Tetrachloroethylene	127-18-4	166	4.00	27.2	92.0	625		20	WG870525
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG870199
Toluene	108-88-3	92.10	0.200	0.753	1.01	3.81		1	WG870199
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG870199

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	0.427	2.32		1	WG870199
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG870199
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG870199
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	23.6	116		1	WG870199
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	10.6	52.2		1	WG870199
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG870199
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG870199
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG870199
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG870199
m&p-Xylene	1330-20-7	106	0.400	1.73	3.94	17.1		1	WG870199
o-Xylene	95-47-6	106	0.200	0.867	3.33	14.4		1	WG870199
TPH (GC/MS) Low Fraction	8006-61-9	101	50.0	207	336	1390		1	WG870199
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*97.2*				WG870199
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*90.6*				WG870525

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

Method Blank (MB)

(MB) R3133160-1 05/02/16 15:41

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000900			

L832537-02 Original Sample (OS) • Duplicate (DUP)

(OS) L832537-02 05/02/16 15:41 • (DUP) R3133160-3 05/02/16 15:41

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	75.8	76.9	1	1.39		5

Laboratory Control Sample (LCS)

(LCS) R3133160-2 05/02/16 15:41

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) R3133600-1 05/04/16 10:25

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.0028	0.0200

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

(LCS) R3133600-2 05/04/16 10:28 • (LCSD) R3133600-3 05/04/16 10:31

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 %
Mercury	0.300	0.261	0.273	87	91	80-120			4	20

L832218-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L832218-09 05/04/16 10:34 • (MS) R3133600-4 05/04/16 10:37 • (MSD) R3133600-5 05/04/16 10:39

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 %
Mercury	0.300	ND	0.253	0.255	84	85	1	75-125			1	20

Method Blank (MB)

(MB) R3134041-1 05/04/16 14:15

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Barium	U		0.17	0.500
Cadmium	U		0.07	0.500
Chromium	U		0.14	1.00
Lead	U		0.19	0.500
Selenium	U		0.74	2.00
Silver	U		0.28	1.00

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

(LCS) R3134041-2 05/04/16 14:17 • (LCSD) R3134041-3 05/04/16 14:20

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 %
Arsenic	100	104	102	104	102	80-120			2	20
Barium	100	107	105	107	105	80-120			2	20
Cadmium	100	106	103	106	103	80-120			2	20
Chromium	100	105	103	105	103	80-120			2	20
Lead	100	107	105	107	105	80-120			2	20
Selenium	100	107	104	107	104	80-120			3	20
Silver	100	102	100	102	100	80-120			2	20

L832376-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L832376-05 05/04/16 14:23 • (MS) R3134041-8 05/04/16 15:53 • (MSD) R3134041-9 05/04/16 15:55

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	100	3.80	98.8	101	95	97	1	75-125			2	20
Barium	100	78.5	156	171	77	93	1	75-125			9	20
Cadmium	100	ND	95.9	99.6	96	99	1	75-125			4	20
Chromium	100	12.4	102	105	89	92	1	75-125			3	20
Lead	100	9.19	113	117	103	108	1	75-125			4	20
Selenium	100	ND	95.4	99.3	95	99	1	75-125			4	20
Silver	100	ND	96.3	100	96	100	1	75-125			4	20

Method Blank (MB)

(MB) R3134038-3 05/05/16 10:51

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

Method Blank (MB)

(MB) R3134038-3 05/05/16 10:51

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Heptane	U		0.0626	0.200
Hexachloro-1,3-butadiene	U		0.0656	0.630
n-Hexane	U		0.0457	0.200
Isopropylbenzene	U		0.0563	0.200
Methylene Chloride	U		0.0465	0.200
Methyl Butyl Ketone	U		0.0682	1.25
2-Butanone (MEK)	U		0.0493	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
Methyl Methacrylate	U		0.0773	0.200
MTBE	U		0.0505	0.200
Naphthalene	0.175		0.154	0.630
2-Propanol	U		0.0882	1.25
Propene	U		0.0932	0.400
Styrene	U		0.0465	0.200
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
Tetrachloroethylene	U		0.0497	0.200
Tetrahydrofuran	U		0.0508	0.200
Toluene	U		0.0499	0.200
1,2,4-Trichlorobenzene	0.176		0.148	0.630
1,1,1-Trichloroethane	U		0.0665	0.200
1,1,2-Trichloroethane	U		0.0287	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
2,2,4-Trimethylpentane	U		0.0456	0.200
Vinyl chloride	U		0.0457	0.200
Vinyl Bromide	U		0.0727	0.200
Vinyl acetate	U		0.0639	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
Ethanol	U		0.0832	0.630
TPH (GC/MS) Low Fraction	U		6.91	50.0
(S) 1,4-Bromofluorobenzene	*91.6*			*60.0-140*

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

(LCS) R3134038-1 05/05/16 09:17 • (LCSD) R3134038-2 05/05/16 10:04

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	3.65	3.56	97.3	95.0	34.3-167			2.39	25
Propene	3.75	3.73	3.81	99.5	102	53.9-143			1.94	25
Dichlorodifluoromethane	3.75	3.75	3.75	100	100	56.7-140			0.0400	25
1,2-Dichlorotetrafluoroethane	3.75	4.11	4.14	110	110	70.0-130			0.810	25
Chloromethane	3.75	3.89	3.89	104	104	70.0-130			0.0200	25
Vinyl chloride	3.75	3.96	4.01	106	107	70.0-130			1.22	25
1,3-Butadiene	3.75	3.80	3.84	101	102	70.0-130			0.970	25
Bromomethane	3.75	4.05	4.02	108	107	70.0-130			0.850	25
Chloroethane	3.75	3.83	3.89	102	104	70.0-130			1.54	25
Trichlorofluoromethane	3.75	4.15	4.16	111	111	70.0-130			0.420	25
1,1,2-Trichlorotrifluoroethane	3.75	4.05	4.04	108	108	70.0-130			0.280	25
1,1-Dichloroethene	3.75	3.83	3.91	102	104	70.0-130			1.98	25
1,1-Dichloroethane	3.75	3.96	3.90	106	104	70.0-130			1.70	25
Acetone	3.75	4.22	4.30	113	115	70.0-130			1.79	25
2-Propanol	3.75	4.29	4.33	114	116	50.4-152			1.05	25
Carbon disulfide	3.75	3.83	3.87	102	103	70.0-130			1.15	25
Methylene Chloride	3.75	3.48	3.51	92.8	93.6	70.0-130			0.910	25
MTBE	3.75	3.97	3.98	106	106	70.0-130			0.0600	25
trans-1,2-Dichloroethene	3.75	4.03	4.02	107	107	70.0-130			0.250	25
n-Hexane	3.75	3.81	3.82	102	102	70.0-130			0.350	25
Vinyl acetate	3.75	3.68	3.75	98.0	100	70.0-130			2.10	25
Methyl Ethyl Ketone	3.75	4.00	4.03	107	108	70.0-130			0.920	25
cis-1,2-Dichloroethene	3.75	4.17	4.21	111	112	70.0-130			1.03	25
Chloroform	3.75	4.02	4.09	107	109	70.0-130			1.71	25
Cyclohexane	3.75	4.01	4.02	107	107	70.0-130			0.410	25
1,1,1-Trichloroethane	3.75	4.13	4.18	110	112	70.0-130			1.22	25
Carbon tetrachloride	3.75	4.21	4.23	112	113	70.0-130			0.460	25
Benzene	3.75	4.06	4.04	108	108	70.0-130			0.520	25
1,2-Dichloroethane	3.75	4.06	4.03	108	108	70.0-130			0.730	25
Heptane	3.75	3.82	3.81	102	102	70.0-130			0.250	25
Trichloroethylene	3.75	4.17	4.11	111	110	70.0-130			1.35	25
1,2-Dichloropropane	3.75	3.90	3.90	104	104	70.0-130			0.0900	25
1,4-Dioxane	3.75	4.46	4.32	119	115	48.0-156			3.01	25
Bromodichloromethane	3.75	4.15	4.05	111	108	70.0-130			2.37	25
cis-1,3-Dichloropropene	3.75	4.12	4.03	110	108	70.0-130			2.28	25
4-Methyl-2-pentanone (MIBK)	3.75	4.09	4.01	109	107	55.3-154			2.10	25

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

(LCS) R3134038-1 05/05/16 09:17 • (LCSD) R3134038-2 05/05/16 10:04

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Toluene	3.75	4.15	4.06	111	108	70.0-130			2.04	25
trans-1,3-Dichloropropene	3.75	4.13	4.07	110	109	70.0-130			1.54	25
1,1,2-Trichloroethane	3.75	4.16	4.08	111	109	70.0-130			2.03	25
Tetrachloroethylene	3.75	4.42	4.34	118	116	70.0-130			1.92	25
Methyl Butyl Ketone	3.75	4.27	4.14	114	110	47.9-165			3.09	25
Dibromochloromethane	3.75	4.28	4.18	114	112	70.0-130			2.36	25
1,2-Dibromoethane	3.75	4.17	4.11	111	110	70.0-130			1.43	25
Chlorobenzene	3.75	4.05	3.98	108	106	70.0-130			1.89	25
Ethylbenzene	3.75	4.15	4.10	111	109	70.0-130			1.17	25
m&p-Xylene	7.50	8.28	8.14	110	109	70.0-130			1.68	25
o-Xylene	3.75	4.19	4.15	112	111	70.0-130			1.16	25
Styrene	3.75	4.26	4.19	114	112	70.0-130			1.70	25
Bromoform	3.75	4.61	4.53	123	121	70.0-130			1.90	25
1,1,2,2-Tetrachloroethane	3.75	4.13	4.14	110	110	70.0-130			0.240	25
4-Ethyltoluene	3.75	4.37	4.35	116	116	70.0-130			0.370	25
1,3,5-Trimethylbenzene	3.75	4.27	4.23	114	113	70.0-130			0.810	25
1,2,4-Trimethylbenzene	3.75	4.33	4.31	116	115	70.0-130			0.600	25
1,3-Dichlorobenzene	3.75	4.83	4.77	129	127	70.0-130			1.21	25
1,4-Dichlorobenzene	3.75	4.91	4.90	131	131	70.0-130	J4	J4	0.140	25
Benzyl Chloride	3.75	4.69	4.66	125	124	55.6-160			0.640	25
1,2-Dichlorobenzene	3.75	4.70	4.64	125	124	70.0-130			1.25	25
1,2,4-Trichlorobenzene	3.75	5.00	4.99	133	133	53.6-154			0.0500	25
Hexachloro-1,3-butadiene	3.75	4.84	4.78	129	128	62.1-143			1.15	25
Naphthalene	3.75	4.95	4.98	132	133	52.0-158			0.690	25
TPH (GC/MS) Low Fraction	150	169	169	113	113	70.0-130			0.260	25
Allyl Chloride	3.75	3.69	3.72	98.4	99.3	70.0-130			0.880	25
2-Chlorotoluene	3.75	4.28	4.23	114	113	70.0-130			1.06	25
Methyl Methacrylate	3.75	3.76	3.67	100	98.0	70.0-130			2.38	25
Tetrahydrofuran	3.75	3.85	3.93	103	105	65.0-140			2.05	25
2,2,4-Trimethylpentane	3.75	3.80	3.90	101	104	70.0-130			2.52	25
Vinyl Bromide	3.75	4.02	3.93	107	105	70.0-130			2.17	25
Isopropylbenzene	3.75	4.24	4.22	113	113	70.0-130			0.370	25
(S) 1,4-Bromofluorobenzene				*101*	*101*	*60.0-140*				

Method Blank (MB)

(MB) R3134670-3 05/06/16 09:58

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Tetrachloroethylene	U		0.0497	0.200
Ethanol	U		0.0832	0.630
(S) 1,4-Bromofluorobenzene	*93.1*			*60.0-140*

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

(LCS) R3134670-1 05/06/16 08:25 • (LCSD) R3134670-2 05/06/16 09:11

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.27	4.11	114	109	34.3-167			3.89	25
Tetrachloroethylene	3.75	4.29	4.27	114	114	70.0-130			0.580	25
(S) 1,4-Bromofluorobenzene				*99.4*	*98.6*	*60.0-140*				

Method Blank (MB)

(MB) R3132803-3 04/30/16 13:52

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C6 - C12	U		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	*98.3*			*59.0-128*

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

(LCS) R3132803-1 04/30/16 12:49 • (LCSD) R3132803-2 04/30/16 13:10

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 %
TPHG C6 - C12	5.50	5.51	5.46	100	99.4	62.2-127			0.880	20
(S) a,a,a-Trifluorotoluene(FID)				*98.6*	*98.5*	*59.0-128*				

L832421-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L832421-05 04/30/16 17:44 • (MS) R3132803-4 04/30/16 16:39 • (MSD) R3132803-5 04/30/16 17:03

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 %
TPHG C6 - C12	7.20	U	4.56	4.47	63.3	62.1	1	20.5-134			2.02	23.8
(S) a,a,a-Trifluorotoluene(FID)					*95.6*	*96.7*		*59.0-128*				

Method Blank (MB)

(MB) R3132870-3 05/01/16 20:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C6 - C12	U		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	*96.8*			*59.0-128*

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

(LCS) R3132870-1 05/01/16 19:04 • (LCSD) R3132870-2 05/01/16 19:26

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 %
TPHG C6 - C12	5.50	4.70	4.64	85.5	84.3	62.2-127			1.43	20
(S) a,a,a-Trifluorotoluene(FID)				*101*	*102*	*59.0-128*				

L832503-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L832503-01 05/02/16 00:17 • (MS) R3132870-4 05/01/16 20:58 • (MSD) R3132870-5 05/01/16 21:20

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 %
TPHG C6 - C12	5.50	ND	12.2	13.4	43.2	47.8	5	20.5-134			9.91	23.8
(S) a,a,a-Trifluorotoluene(FID)					*98.8*	*98.9*		*59.0-128*				

Method Blank (MB)

(MB) R3134321-5 05/05/16 19:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C6 - C12	0.0498		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	*93.9*			*59.0-128*

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

(LCS) R3134321-3 05/05/16 18:23 • (LCSD) R3134321-4 05/05/16 18:45

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 %
TPHG C6 - C12	5.50	4.97	5.00	90.4	90.9	62.2-127			0.590	20
(S) a,a,a-Trifluorotoluene(FID)				*102*	*101*	*59.0-128*				

L832928-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L832928-05 05/05/16 23:39 • (MS) R3134321-8 05/05/16 22:11 • (MSD) R3134321-9 05/05/16 22:33

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 %
TPHG C6 - C12	6.78	82.6	144	181	50.5	80.8	18	20.5-134			22.7	23.8
(S) a,a,a-Trifluorotoluene(FID)					*99.6*	*102*		*59.0-128*				

Method Blank (MB)

(MB) R3133016-3 04/30/16 01:34

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
2-Chloroethyl vinyl ether	U		0.00234	0.0500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100

Method Blank (MB)

(MB) R3133016-3 04/30/16 01:34

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
Isopropylbenzene	U		0.000243	0.00100
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	*104*			*88.7-115*
(S) Dibromofluoromethane	*103*			*76.3-123*
(S) a,a,a-Trifluorotoluene	*100*			*87.2-117*
(S) 4-Bromofluorobenzene	*103*			*69.7-129*

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

(LCS) R3133016-1 04/29/16 23:49 • (LCSD) R3133016-2 04/30/16 00:10

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	0.125	0.0968	0.102	77.4	81.3	25.3-178			4.86	22.9
Acrylonitrile	0.125	0.123	0.130	98.6	104	57.8-143			5.54	20
Benzene	0.0250	0.0239	0.0245	95.6	97.9	72.6-120			2.40	20
Bromobenzene	0.0250	0.0248	0.0251	99.4	100	80.3-115			1.06	20
Bromodichloromethane	0.0250	0.0248	0.0255	99.2	102	75.3-119			2.65	20
Bromoform	0.0250	0.0247	0.0248	98.8	99.0	69.1-135			0.260	20
Bromomethane	0.0250	0.0288	0.0287	115	115	23.0-191			0.260	20
n-Butylbenzene	0.0250	0.0250	0.0254	100	102	74.2-134			1.55	20
sec-Butylbenzene	0.0250	0.0244	0.0250	97.4	100	77.8-129			2.60	20
tert-Butylbenzene	0.0250	0.0248	0.0254	99.4	101	77.2-129			2.11	20
Carbon tetrachloride	0.0250	0.0228	0.0233	91.4	93.1	69.4-129			1.87	20
Chlorobenzene	0.0250	0.0249	0.0249	99.5	99.8	78.9-122			0.280	20
Chlorodibromomethane	0.0250	0.0251	0.0253	101	101	76.4-126			0.620	20
Chloroethane	0.0250	0.0240	0.0250	96.0	100	47.2-147			4.15	20
2-Chloroethyl vinyl ether	0.125	0.147	0.147	117	118	16.7-162			0.270	23.7
Chloroform	0.0250	0.0236	0.0245	94.5	98.2	73.3-122			3.76	20
Chloromethane	0.0250	0.0218	0.0228	87.1	91.1	53.1-135			4.47	20
2-Chlorotoluene	0.0250	0.0238	0.0242	95.4	96.8	74.6-127			1.44	20
4-Chlorotoluene	0.0250	0.0252	0.0256	101	103	79.5-123			1.67	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0240	0.0252	96.0	101	64.9-131			4.93	20
1,2-Dibromoethane	0.0250	0.0247	0.0248	98.8	99.4	78.7-123			0.630	20
Dibromomethane	0.0250	0.0227	0.0236	90.7	94.6	78.5-117			4.12	20
1,2-Dichlorobenzene	0.0250	0.0251	0.0256	100	102	83.6-119			1.86	20
1,3-Dichlorobenzene	0.0250	0.0241	0.0245	96.6	98.1	75.9-129			1.52	20
1,4-Dichlorobenzene	0.0250	0.0242	0.0245	96.6	98.1	81.0-115			1.50	20
Dichlorodifluoromethane	0.0250	0.0251	0.0254	100	102	50.9-139			1.44	20
1,1-Dichloroethane	0.0250	0.0234	0.0246	93.7	98.5	71.7-125			4.96	20
1,2-Dichloroethane	0.0250	0.0230	0.0242	91.9	96.6	67.2-121			5.04	20
1,1-Dichloroethene	0.0250	0.0205	0.0218	81.9	87.2	60.6-133			6.28	20
cis-1,2-Dichloroethene	0.0250	0.0244	0.0253	97.5	101	76.1-121			3.57	20
trans-1,2-Dichloroethene	0.0250	0.0245	0.0254	98.2	102	70.7-124			3.52	20
1,2-Dichloropropane	0.0250	0.0246	0.0249	98.3	99.6	76.9-123			1.31	20
1,1-Dichloropropene	0.0250	0.0247	0.0255	98.6	102	71.2-126			3.20	20
1,3-Dichloropropane	0.0250	0.0253	0.0253	101	101	80.3-114			0.0700	20
cis-1,3-Dichloropropene	0.0250	0.0256	0.0258	102	103	77.3-123			0.850	20
trans-1,3-Dichloropropene	0.0250	0.0257	0.0258	103	103	73.0-127			0.630	20

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

(LCS) R3133016-1 04/29/16 23:49 • (LCSD) R3133016-2 04/30/16 00:10

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 %
2,2-Dichloropropane	0.0250	0.0233	0.0234	93.0	93.5	61.9-132			0.540	20
Di-isopropyl ether	0.0250	0.0227	0.0235	90.9	94.1	67.2-131			3.41	20
Ethylbenzene	0.0250	0.0245	0.0246	97.9	98.3	78.6-124			0.390	20
Hexachloro-1,3-butadiene	0.0250	0.0252	0.0251	101	100	69.2-136			0.720	20
Isopropylbenzene	0.0250	0.0246	0.0252	98.5	101	79.4-126			2.27	20
p-Isopropyltoluene	0.0250	0.0252	0.0257	101	103	75.4-132			1.86	20
2-Butanone (MEK)	0.125	0.114	0.118	91.0	94.3	44.5-154			3.61	21.3
Methylene Chloride	0.0250	0.0233	0.0246	93.1	98.3	68.2-119			5.45	20
4-Methyl-2-pentanone (MIBK)	0.125	0.118	0.123	94.6	98.2	61.1-138			3.83	20
Methyl tert-butyl ether	0.0250	0.0232	0.0242	92.8	96.8	70.2-122			4.16	20
Naphthalene	0.0250	0.0232	0.0239	92.9	95.8	69.9-132			3.08	20
n-Propylbenzene	0.0250	0.0251	0.0255	100	102	80.2-124			1.57	20
Styrene	0.0250	0.0264	0.0265	106	106	79.4-124			0.510	20
1,1,1,2-Tetrachloroethane	0.0250	0.0238	0.0248	95.3	99.3	76.7-127			4.10	20
1,1,2,2-Tetrachloroethane	0.0250	0.0238	0.0246	95.2	98.5	78.8-124			3.40	20
Tetrachloroethene	0.0250	0.0250	0.0252	100	101	71.1-133			0.840	20
Toluene	0.0250	0.0240	0.0243	96.1	97.3	76.7-116			1.28	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0227	0.0237	90.9	94.9	62.6-138			4.21	20
1,2,3-Trichlorobenzene	0.0250	0.0243	0.0247	97.1	98.7	72.5-137			1.71	20
1,2,4-Trichlorobenzene	0.0250	0.0245	0.0251	98.1	100	74.0-137			2.27	20
1,1,1-Trichloroethane	0.0250	0.0242	0.0244	96.8	97.8	69.9-127			1.05	20
1,1,2-Trichloroethane	0.0250	0.0249	0.0248	99.8	99.1	81.9-119			0.660	20
Trichloroethene	0.0250	0.0243	0.0252	97.0	101	77.2-122			3.64	20
Trichlorofluoromethane	0.0250	0.0228	0.0235	91.3	93.9	51.5-151			2.82	20
1,2,3-Trichloropropane	0.0250	0.0247	0.0256	98.8	102	74.0-124			3.38	20
1,2,3-Trimethylbenzene	0.0250	0.0246	0.0252	98.4	101	79.4-118			2.44	20
1,2,4-Trimethylbenzene	0.0250	0.0245	0.0251	98.0	101	77.1-124			2.59	20
1,3,5-Trimethylbenzene	0.0250	0.0246	0.0251	98.5	100	79.0-125			1.99	20
Vinyl chloride	0.0250	0.0218	0.0229	87.4	91.5	58.4-134			4.56	20
Xylenes, Total	0.0750	0.0737	0.0742	98.2	99.0	78.1-123			0.800	20
(S) Toluene-d8				*106*	*106*	*88.7-115*				
(S) Dibromofluoromethane				*99.6*	*100*	*76.3-123*				
(S) a,a,a-Trifluorotoluene				*101*	*104*	*87.2-117*				
(S) 4-Bromofluorobenzene				*101*	*100*	*69.7-129*				

L832508-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L832508-01 04/30/16 03:21 • (MS) R3133016-4 04/30/16 02:18 • (MSD) R3133016-5 04/30/16 02:40

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.592			0.000	7.54	5	10.0-130	J6	J6	13.4	31.5
Acrylonitrile	0.125	U			22.6	32.4	5	39.3-152	J6	J3 J6	35.9	27.2
Benzene	0.0250	U			17.4	19.3	5	47.8-131	J6	J6	10.0	22.8
Bromobenzene	0.0250	U			16.8	14.7	5	40.0-130	J6	J6	13.6	27.4
Bromodichloromethane	0.0250	U			18.8	20.4	5	50.6-128	J6	J6	8.54	22.8
Bromoform	0.0250	U			19.3	18.9	5	43.3-139	J6	J6	1.76	25.9
Bromomethane	0.0250	U			18.5	29.5	5	5.00-189		J3	45.4	26.7
n-Butylbenzene	0.0250	U			14.3	12.9	5	23.6-146	J6	J6	9.99	39.2
sec-Butylbenzene	0.0250	U			14.5	13.3	5	31.0-142	J6	J6	8.52	34.7
tert-Butylbenzene	0.0250	U			15.0	13.6	5	36.9-142	J6	J6	9.58	31.7
Carbon tetrachloride	0.0250	U			16.5	15.2	5	46.0-140	J6	J6	8.13	27.2
Chlorobenzene	0.0250	U			17.1	15.4	5	44.1-134	J6	J6	10.6	25.7
Chlorodibromomethane	0.0250	U			19.1	19.8	5	49.7-134	J6	J6	3.13	24
Chloroethane	0.0250	U			16.1	23.3	5	5.00-164		J3	36.5	28.4
2-Chloroethyl vinyl ether	0.125	U			24.3	26.7	5	5.00-159			9.38	40
Chloroform	0.0250	U			19.1	21.6	5	51.2-133	J6	J6	12.1	22.8
Chloromethane	0.0250	U			14.8	23.2	5	31.4-141	J6	J3 J6	44.0	24.6
2-Chlorotoluene	0.0250	U			15.6	13.1	5	36.1-137	J6	J6	16.9	28.9
4-Chlorotoluene	0.0250	U			15.9	13.6	5	35.4-137	J6	J6	15.7	29.8
1,2-Dibromo-3-Chloropropane	0.0250	U			24.1	20.9	5	40.4-138	J6	J6	14.2	30.8
1,2-Dibromoethane	0.0250	U			19.1	21.0	5	50.2-133	J6	J6	9.78	23.6
Dibromomethane	0.0250	U			18.2	21.7	5	52.4-128	J6	J6	17.7	23
1,2-Dichlorobenzene	0.0250	U			16.5	14.3	5	34.6-139	J6	J6	14.3	29.9
1,3-Dichlorobenzene	0.0250	U			15.1	13.1	5	28.4-142	J6	J6	14.2	31.2
1,4-Dichlorobenzene	0.0250	U			15.7	13.5	5	35.0-133	J6	J6	15.0	31.1
Dichlorodifluoromethane	0.0250	U			18.2	18.8	5	31.2-144	J6	J6	3.16	30.2
1,1-Dichloroethane	0.0250	U			18.1	21.7	5	49.1-136	J6	J6	17.8	22.9
1,2-Dichloroethane	0.0250	U			18.6	23.1	5	47.1-129	J6	J6	21.4	22.7
1,1-Dichloroethene	0.0250	U			15.1	17.5	5	36.1-142	J6	J6	14.5	25.6
cis-1,2-Dichloroethene	0.0250	U			18.9	23.0	5	50.6-133	J6	J6	19.4	23
trans-1,2-Dichloroethene	0.0250	U			17.3	21.4	5	43.8-135	J6	J6	21.1	24.8
1,2-Dichloropropane	0.0250	U			18.3	20.1	5	50.3-134	J6	J6	9.29	22.7
1,1-Dichloropropene	0.0250	U			17.3	16.1	5	43.0-137	J6	J6	7.29	26.4
1,3-Dichloropropane	0.0250	U			19.7	21.6	5	51.4-127	J6	J6	9.05	23.1
cis-1,3-Dichloropropene	0.0250	U			18.7	20.8	5	48.4-134	J6	J6	10.5	23.6
trans-1,3-Dichloropropene	0.0250	U			18.7	20.4	5	46.6-135	J6	J6	8.72	25.3

L832508-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L832508-01 04/30/16 03:21 • (MS) R3133016-4 04/30/16 02:18 • (MSD) R3133016-5 04/30/16 02:40

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
2,2-Dichloropropane	0.0250	U			18.6	20.9	5	45.2-141	J6	J6	11.9	26.6
Di-isopropyl ether	0.0250	U			17.8	19.0	5	46.7-140	J6	J6	6.37	23.5
Ethylbenzene	0.0250	U			15.8	13.3	5	44.8-135	J6	J6	17.4	26.9
Hexachloro-1,3-butadiene	0.0250	U			11.7	10.3	5	10.0-149			12.9	40
Isopropylbenzene	0.0250	U			15.4	13.4	5	41.9-139	J6	J6	14.4	29.3
p-Isopropyltoluene	0.0250	U			14.8	13.6	5	27.3-146	J6	J6	8.80	35.1
2-Butanone (MEK)	0.125	U			25.0	28.7	5	23.9-170			13.9	28.3
Methylene Chloride	0.0250	U			17.2	23.8	5	46.7-125	J6	J3 J6	32.2	22.2
4-Methyl-2-pentanone (MIBK)	0.125	U			24.1	25.6	5	42.4-146	J6	J6	6.06	26.7
Methyl tert-butyl ether	0.0250	U			18.9	22.0	5	50.4-131	J6	J6	15.0	24.8
Naphthalene	0.0250	U			17.4	15.1	5	18.4-145	J6	J6	13.9	34
n-Propylbenzene	0.0250	U			15.3	13.5	5	35.2-139	J6	J6	12.8	31.9
Styrene	0.0250	U			17.1	14.4	5	39.7-137	J6	J6	17.2	28.2
1,1,1,2-Tetrachloroethane	0.0250	U			17.6	16.2	5	48.8-136	J6	J6	8.44	25.5
1,1,2,2-Tetrachloroethane	0.0250	U			22.9	21.9	5	45.7-140	J6	J6	4.81	26.4
Tetrachloroethene	0.0250	U			15.2	12.5	5	37.7-140	J6	J6	19.3	29.2
Toluene	0.0250	U			16.9	15.4	5	47.8-127	J6	J6	9.15	24.3
1,1,2-Trichlorotrifluoroethane	0.0250	U			16.2	13.5	5	35.7-146	J6	J6	17.9	28.8
1,2,3-Trichlorobenzene	0.0250	U			14.1	13.1	5	10.0-150			7.71	38.5
1,2,4-Trichlorobenzene	0.0250	U			13.7	12.7	5	10.0-153			7.79	39.3
1,1,1-Trichloroethane	0.0250	U			18.2	17.5	5	49.0-138	J6	J6	3.49	25.3
1,1,2-Trichloroethane	0.0250	U			20.1	21.4	5	52.3-132	J6	J6	6.00	23.4
Trichloroethene	0.0250	U			17.0	16.7	5	48.0-132	J6	J6	1.51	24.8
Trichlorofluoromethane	0.0250	U			14.7	15.3	5	12.8-169			3.51	29.7
1,2,3-Trichloropropane	0.0250	U			23.1	22.5	5	44.4-138	J6	J6	2.83	26.3
1,2,3-Trimethylbenzene	0.0250	U			15.3	13.2	5	41.0-133	J6	J6	15.0	27.6
1,2,4-Trimethylbenzene	0.0250	U			14.6	13.0	5	32.9-139	J6	J6	11.6	30.6
1,3,5-Trimethylbenzene	0.0250	U			14.5	12.9	5	37.1-138	J6	J6	11.7	30.6
Vinyl chloride	0.0250	U			15.1	20.8	5	32.0-146	J6	J3 J6	31.6	26.3
Xylenes, Total	0.0750	U			15.6	13.4	5	42.7-135	J6	J6	15.5	26.6
(S) Toluene-d8					*103*	*104*		*88.7-115*				
(S) Dibromofluoromethane					*104*	*105*		*76.3-123*				
(S) α,α,α-Trifluorotoluene					*101*	*100*		*87.2-117*				
(S) 4-Bromofluorobenzene					*99.7*	*100*		*69.7-129*				

Method Blank (MB)

(MB) R3133212-3 05/03/16 00:58

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
(S) Toluene-d8	*97.6*			*88.7-115*
(S) Dibromofluoromethane	*109*			*76.3-123*
(S) a,a,a-Trifluorotoluene	*98.7*			*87.2-117*
(S) 4-Bromofluorobenzene	*86.5*			*69.7-129*

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

(LCS) R3133212-1 05/02/16 23:33 • (LCSD) R3133212-2 05/02/16 23:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,2,3-Trimethylbenzene	0.0250	0.0226	0.0224	90.5	89.8	79.4-118			0.830	20
1,2,4-Trimethylbenzene	0.0250	0.0210	0.0213	83.9	85.0	77.1-124			1.32	20
(S) Toluene-d8				*100*	*98.1*	*88.7-115*				
(S) Dibromofluoromethane				*109*	*108*	*76.3-123*				
(S) a,a,a-Trifluorotoluene				*95.8*	*96.0*	*87.2-117*				
(S) 4-Bromofluorobenzene				*89.6*	*91.5*	*69.7-129*				

L832145-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L832145-18 05/03/16 02:45 • (MS) R3133212-4 05/03/16 01:41 • (MSD) R3133212-5 05/03/16 02:02

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,2,3-Trimethylbenzene	0.0250	19.9	62.4	63.0	79.4	80.6	2140	41.0-133			1.02	27.6
1,2,4-Trimethylbenzene	0.0250	74.9	110	115	65.7	74.5	2140	32.9-139			4.21	30.6
(S) Toluene-d8					*98.3*	*98.7*		*88.7-115*				
(S) Dibromofluoromethane					*107*	*108*		*76.3-123*				
(S) a,a,a-Trifluorotoluene					*98.0*	*98.6*		*87.2-117*				
(S) 4-Bromofluorobenzene					*90.9*	*90.7*		*69.7-129*				

Method Blank (MB)

(MB) R3133254-1 05/03/16 09:10

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*85.7*			*50.0-150*

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

(LCS) R3133254-2 05/03/16 09:23 • (LCSD) R3133254-3 05/03/16 09:36

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Diesel Range Organics (DRO)	30.0	28.1	27.5	93.5	91.6	50.0-150			2.07	20
Residual Range Organics (RRO)	30.0	24.3	23.6	81.2	78.6	50.0-150			3.14	20
(S) o-Terphenyl				*86.3*	*87.3*	*50.0-150*				

L832311-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L832311-02 05/03/16 09:49 • (MS) R3133254-4 05/03/16 10:02 • (MSD) R3133254-5 05/03/16 10:15

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
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Diesel Range Organics (DRO)	40.1	ND	37.2	34.4	92.6	85.6	1	50.0-150			7.81	20
Residual Range Organics (RRO)	40.1	ND	45.0	29.9	112	74.7	1	50.0-150		J3	40.3	20
(S) o-Terphenyl					*78.8*	*73.9*		*50.0-150*				

Method Blank (MB)

(MB) R3133894-1 05/04/16 16:46

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
(S) o-Terphenyl	*87.5*			*50.0-150*

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

(LCS) R3133894-2 05/04/16 17:00 • (LCSD) R3133894-3 05/04/16 17:15

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 %
Diesel Range Organics (DRO)	30.0	25.7	29.1	85.8	97.0	50.0-150			12.3	20
Residual Range Organics (RRO)	30.0	20.3	23.6	67.7	78.6	50.0-150			14.9	20
(S) o-Terphenyl				*63.6*	*72.9*	*50.0-150*				

L832537-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L832537-07 05/04/16 17:30 • (MS) R3133894-4 05/04/16 17:45 • (MSD) R3133894-5 05/04/16 18:00

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)	37.4	ND	30.3	29.9	79.4	78.2	1	50.0-150			1.49	20
Residual Range Organics (RRO)	37.4	ND	22.8	23.5	60.9	62.8	1	50.0-150			3.10	20
(S) o-Terphenyl					*62.1*	*65.4*		*50.0-150*				

Method Blank (MB)

(MB) R3135882-3 05/11/16 16:54

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
PCB 1016	U		0.00350	0.0170
PCB 1221	U		0.00537	0.0170
PCB 1232	U		0.00417	0.0170
PCB 1242	U		0.00318	0.0170
PCB 1248	U		0.00315	0.0170
PCB 1254	U		0.00472	0.0170
PCB 1260	U		0.00494	0.0170
(S) Decachlorobiphenyl	*80.3*			*10.0-143*
(S) Tetrachloro-m-xylene	*84.6*			*29.2-144*

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

(LCS) R3135882-2 05/11/16 16:41 • (LCSD) R3135882-1 05/11/16 16:29

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 %
PCB 1260	0.167	0.130	0.133	77.8	80.0	46.5-120			2.86	27
PCB 1016	0.167	0.124	0.127	74.3	76.3	46.3-117			2.65	27.5
(S) Decachlorobiphenyl				*72.9*	*77.6*	*10.0-143*				
(S) Tetrachloro-m-xylene				*77.0*	*82.2*	*29.2-144*				

Method Blank (MB)

(MB) R3134253-3 05/05/16 10:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) p-Terphenyl-d14	*83.5*			*32.2-131*
(S) Nitrobenzene-d5	*96.0*			*22.1-146*
(S) 2-Fluorobiphenyl	*91.7*			*40.6-122*

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

(LCS) R3134253-1 05/05/16 09:55 • (LCSD) R3134253-2 05/05/16 10:16

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 %
Anthracene	0.0800	0.0712	0.0714	89.0	89.3	50.3-130			0.290	20
Acenaphthene	0.0800	0.0702	0.0715	87.8	89.4	52.4-120			1.86	20
Acenaphthylene	0.0800	0.0704	0.0718	88.0	89.8	49.6-120			2.08	20
Benzo(a)anthracene	0.0800	0.0641	0.0654	80.2	81.8	46.7-125			2.05	20
Benzo(a)pyrene	0.0800	0.0652	0.0683	81.5	85.4	42.3-119			4.68	20
Benzo(b)fluoranthene	0.0800	0.0652	0.0666	81.5	83.3	43.6-124			2.23	20
Benzo(g,h,i)perylene	0.0800	0.0650	0.0699	81.2	87.4	45.1-132			7.36	20
Benzo(k)fluoranthene	0.0800	0.0690	0.0717	86.3	89.6	46.1-131			3.79	20

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

(LCS) R3134253-1 05/05/16 09:55 • (LCSD) R3134253-2 05/05/16 10:16

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 %
Chrysene	0.0800	0.0679	0.0691	84.8	86.4	49.5-131			1.88	20
Dibenz(a,h)anthracene	0.0800	0.0657	0.0707	82.2	88.4	44.8-133			7.33	20
Fluoranthene	0.0800	0.0688	0.0700	86.0	87.5	49.3-128			1.78	20
Fluorene	0.0800	0.0682	0.0700	85.3	87.5	50.6-121			2.60	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0657	0.0709	82.1	88.6	46.1-135			7.55	20
Naphthalene	0.0800	0.0636	0.0655	79.5	81.9	49.6-115			2.98	20
Phenanthrene	0.0800	0.0679	0.0701	84.9	87.6	48.8-121			3.09	20
Pyrene	0.0800	0.0736	0.0774	92.0	96.8	44.7-130			5.11	20
1-Methylnaphthalene	0.0800	0.0717	0.0751	89.7	93.8	50.6-122			4.58	20
2-Methylnaphthalene	0.0800	0.0700	0.0730	87.5	91.2	50.4-120			4.17	20
2-Chloronaphthalene	0.0800	0.0672	0.0691	84.0	86.4	53.9-121			2.78	20
(S) p-Terphenyl-d14				*76.1*	*80.3*	*32.2-131*				
(S) Nitrobenzene-d5				*90.1*	*93.6*	*22.1-146*				
(S) 2-Fluorobiphenyl				*87.3*	*90.6*	*40.6-122*				

Method Blank (MB)

(MB) R3135935-3 05/12/16 07:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	0.000751	J	0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) p-Terphenyl-d14	*76.7*			*32.2-131*
(S) Nitrobenzene-d5	*85.5*			*22.1-146*
(S) 2-Fluorobiphenyl	*82.7*			*40.6-122*

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

(LCS) R3135935-1 05/12/16 06:39 • (LCSD) R3135935-2 05/12/16 07:01

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 %
Anthracene	0.0800	0.0773	0.0774	96.7	96.7	50.3-130			0.100	20
Acenaphthene	0.0800	0.0725	0.0726	90.6	90.7	52.4-120			0.120	20
Acenaphthylene	0.0800	0.0736	0.0740	91.9	92.5	49.6-120			0.630	20
Benzo(a)anthracene	0.0800	0.0778	0.0760	97.3	94.9	46.7-125			2.42	20
Benzo(a)pyrene	0.0800	0.0774	0.0781	96.8	97.6	42.3-119			0.820	20
Benzo(b)fluoranthene	0.0800	0.0793	0.0795	99.1	99.4	43.6-124			0.350	20
Benzo(g,h,i)perylene	0.0800	0.0756	0.0756	94.6	94.5	45.1-132			0.110	20
Benzo(k)fluoranthene	0.0800	0.0760	0.0772	94.9	96.5	46.1-131			1.60	20

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

(LCS) R3135935-1 05/12/16 06:39 • (LCSD) R3135935-2 05/12/16 07:01

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 %
Chrysene	0.0800	0.0800	0.0769	100	96.2	49.5-131			3.90	20
Dibenz(a,h)anthracene	0.0800	0.0771	0.0770	96.3	96.3	44.8-133			0.0400	20
Fluoranthene	0.0800	0.0790	0.0783	98.8	97.9	49.3-128			0.870	20
Fluorene	0.0800	0.0743	0.0747	92.9	93.4	50.6-121			0.480	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0775	0.0775	96.8	96.9	46.1-135			0.0300	20
Naphthalene	0.0800	0.0684	0.0693	85.5	86.7	49.6-115			1.36	20
Phenanthrene	0.0800	0.0771	0.0765	96.3	95.7	48.8-121			0.690	20
Pyrene	0.0800	0.0872	0.0843	109	105	44.7-130			3.35	20
1-Methylnaphthalene	0.0800	0.0756	0.0753	94.4	94.1	50.6-122			0.320	20
2-Methylnaphthalene	0.0800	0.0720	0.0730	90.0	91.3	50.4-120			1.46	20
2-Chloronaphthalene	0.0800	0.0720	0.0723	90.0	90.4	53.9-121			0.460	20
(S) p-Terphenyl-d14				*79.2*	*77.3*	*32.2-131*				
(S) Nitrobenzene-d5				*89.7*	*91.0*	*22.1-146*				
(S) 2-Fluorobiphenyl				*87.6*	*89.6*	*40.6-122*				

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

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
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.
(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.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

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.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
V3	The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. BDL results will be unaffected.

ESC Lab Sciences 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.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

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

Our Locations

ESC Lab Sciences 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. **ESC Lab Sciences performs all testing at our central laboratory.**

GeoDesign, Inc.
15575 SW Sequoia Parkway Ste. 100
Portland, OR. 97224

Billing Information:
GeoDesign, Inc.
15575 SW Sequoia Parkway
Ste. 100
Portland, OR. 97224

Report To: Andrew Bilotta
Email to: abilotta@geodesigninc.com

Project Description: —
City/State Collected: Portland, OR
Phone: 503-968-8787
FAX:
Client Project # (G-L-S-W) Greenlight-5-01
ESC Key: —
Collected by: Andrew Bilotta
Site/Facility ID#:
P.O.#
Collected by (signature):
Immediately Packed on Ice: N (Y)

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed:
Email? ___No ___Yes
FAX? ___No ___Yes

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	NWTPH-Gx	NWTPH-Dx	BTEX+5 Metals	PAHs	VOCs	PCBs	TA-15	Remarks/Contaminant	Sample # (lab only)
DP-1 (27.0-28.0)	—	SS	—	4/28/16	10:00	5	X	X							LB352557-01
DP-2 (10.0-11.0)	—	SS	—	"	10:15	5	X	X							02
DP-3 (0.5-2.0)	—	SS	—	"	10:25	5	X	X	X	X	X	X			03
DP-4 (3.0-5.0)	—	SS	—	"	10:45	5	X	X							04
DP-5 (7.0-8.0)	—	SS	—	"	11:10	5	X	X			X				05
DP-6 (1.0-2.0)	—	SS	—	"	11:40	5	X	X	X	X	X	X			06
DP-6 (12.0-13.0)	—	SS	—	"	11:50	5	X	X							07
DP-7 (5.0-6.0)	—	SS	—	"	12:15	5	X	X							08
SV-1	—	OT	—	"	10:30	1							X		09

*Matrix: SS - Soil/Solid GW - Groundwater WW - Wastewater DW - Drinking Water OT - Other Vapor

Remarks:

pH ____ Temp ____
Flow ____ Other ____

Chain of Custody Page 1 of 2

ESC LABS
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

J078

OnCore GEODESPO (lab use only)
Template/Prelogin
Shipped Via:

Relinquished by: (Signature)	Date: 4/29/16	Time: FedEx	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ____
Temp: 3.2
Bottles Received:
Date: 4-29-16
Time: 90

Condition: Good (lab use only)
CoC Seals Intact: ___Y ___N ___NA
pH Checked:
NCF:

6573 5220 6336

GeoDesign, Inc.
15575 SW Sequoia
Parkway Ste. 100
Portland, OR. 97224

Billing Information:
GeoDesign, Inc.
15575 SW Sequoia Parkway
Ste. 100
Portland, OR 97224

Report to: Andrew Blake
Email to: ablake@geodesigninc.com

Analysis/Container/Preservative

Chain of Custody Page 2 of 2

ESC
L·A·B S·C·I·E·N·C·E·S
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

Project Description: —
City/State Collected: Portland, OR
Phone: 503-968-8787
FAX:
Client Project #: GL-5-01
ESC Key: —
Collected by: Andrew Blake
Site/Facility ID#:
P.O.#: —
Collected by (signature): [signature]
Immediately Packed on Ice N Ⓨ
Rush? (Lab MUST Be Notified)
___ Same Day.......200%
___ Next Day.......100%
___ Two Day.......50%
___ Three Day.......25%
Date Results Needed:
Email? __No__Yes
FAX? __No__Yes

CoCode GEODESPOR (lab use only)
Template/Prelogin
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TO-15	Remarks/Contaminant	Sample # (lab only)
SV-2	–	OT	–	4/28/16	13:00	1	X		L832...

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other Vapor

pH ______ Temp ______
Remarks:
Flow ______ Other ______

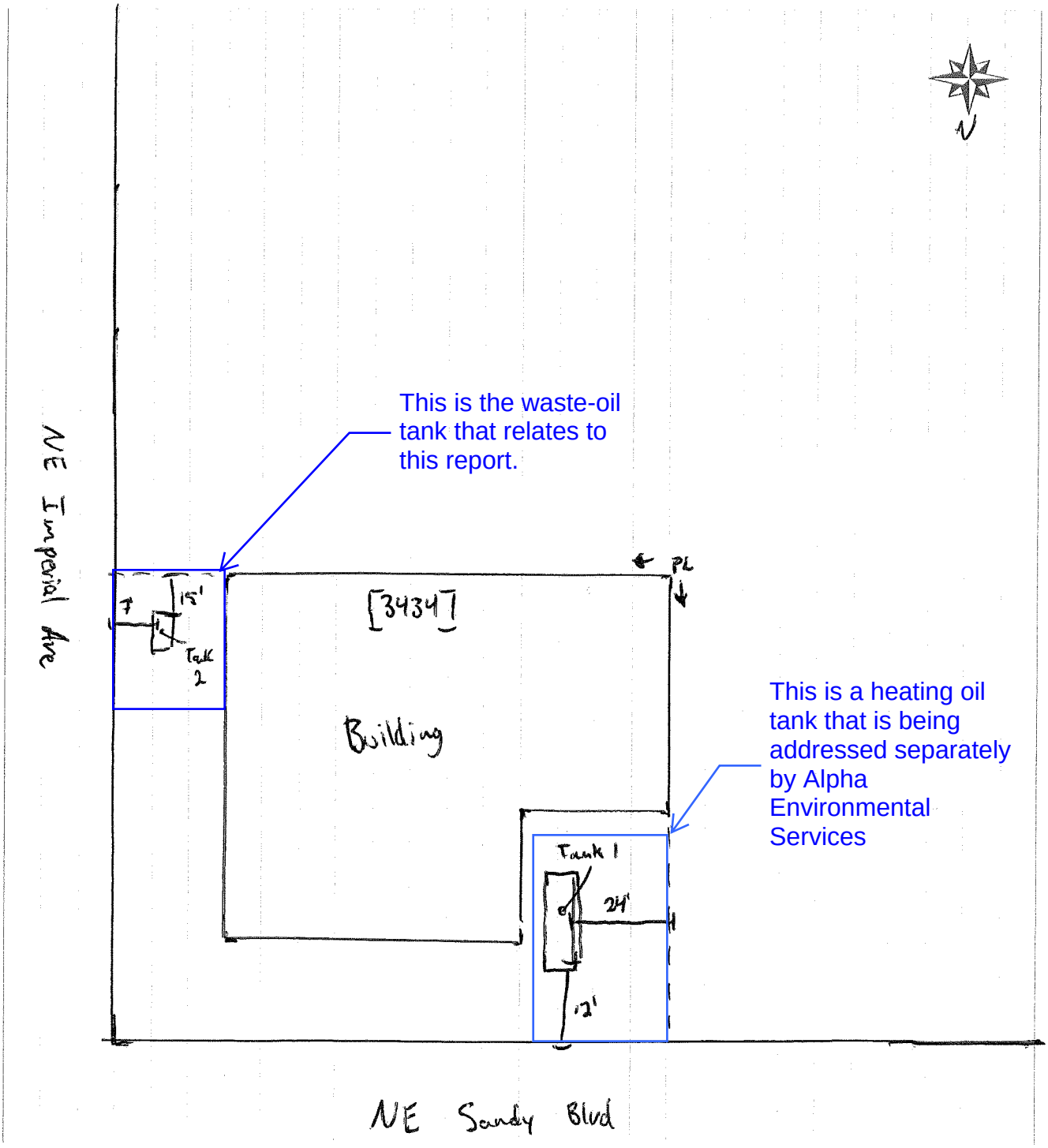
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐UPS ☐FedEx ☐Courier ☐	Condition: (lab use only)
[signature]	4/28/16	FEDEX			OK
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb / Bottles Received:	CoC Seals Intact __Y__N ✓NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 4-29-16 / Time: 9:10	pH Checked: / NCF:

APPENDIX B

Alpha environmental

Site Vicinity Map

Job No: 17-17226 Date: Investigator: <Investigator>

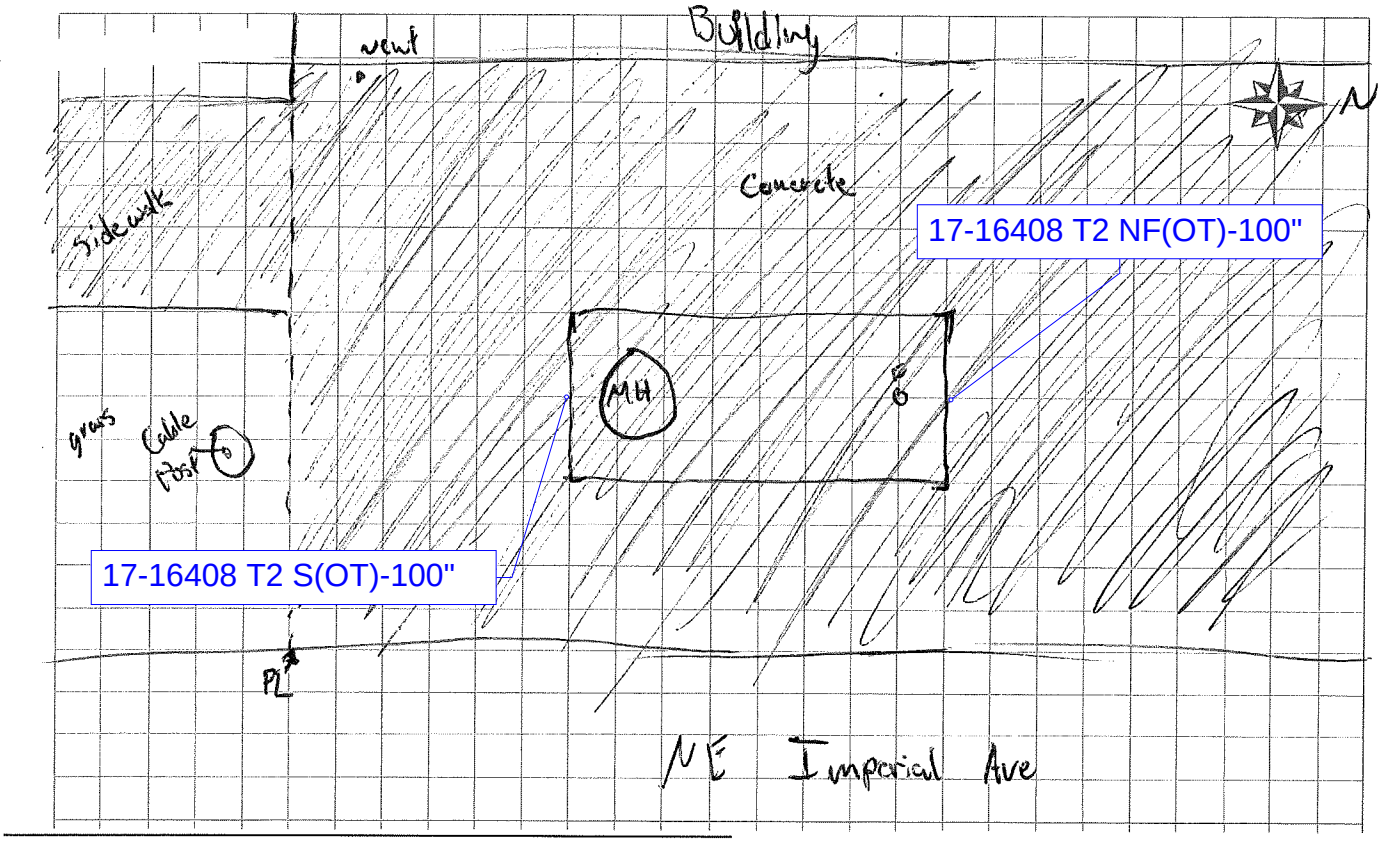


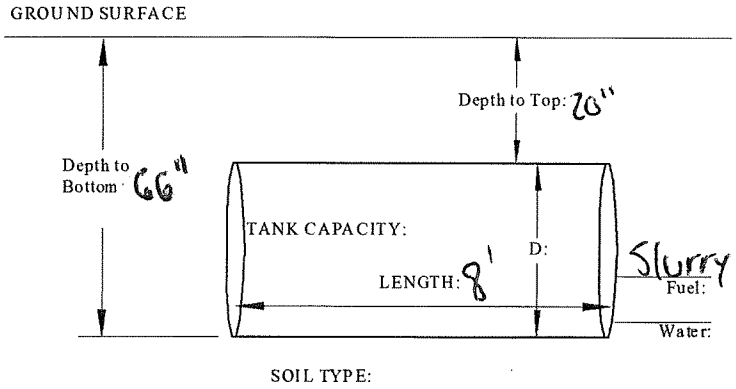
Utilities	Obstacles	Backfill Material	Parking/Access
☐ Gas/ Power	☐ Deck/ Fence	Slurry/Perlite	☐ Drop box
☐ Water/Sewer	☐ Concrete/Asphalt	Sand/Gravel	☐ Conveyer truck
☐ Phone/Cable	☐ Rain Gutter	Drain rock/Pea Gravel	☐ Dump truck/Excavator
☐ Distance to Water?	☐ Trees/Plants/Shrubs	Top Soil	☐ Pump truck
☐ Distance to Power?	☐ Haul overburden?	(mark on-site loc.)	☐ Turn-around access

3434 NE Sandy Blvd

Tank Notes

Job No: 17-16408 Date: Investigator: <Investigator>





Notes: 1-4' 4-12' gravel clay silt sands rocky

Soil Type/depth _____

Groundwater/water?

Contamination within 30 feet of neighbor house?

Foundation Type:

Approximate Vertical:

Fill/Vent Pipes Both

Comments:

Sample ID	Date	Results
17-16408 T2 S(OT)-100"	09/21/17	SEE ATTACHED
17-16408 T2 NF(OT)-100"	09/21/17	SEE ATTACHED

Sample ID Examples
WPF-12' - west pit floor at 12 feet below surface grade (bsg)
WOT-80" - west outside of tank at 80" bsg
WIT-64" - west inside of tank at 64" bsg
WW-112" - west wall inside excavation at 112" bsg
WPF-122" - west pit floor of excavation at 122" bsg
W-INT-12' - west soil/water interface at 12' bsg

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Friday, October 13, 2017

Zachary Goodman
Alpha Environmental
11080 SW Allen Blvd, Suite 100
Beaverton, OR 97005

RE: 3434 NE Sandy Blvd./17-16408

Enclosed are the results of analyses for work order A7I0646, which was received by the laboratory on 9/21/2017 at 6:04:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: KFriscia@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories

Kevin J. Friscia For Darwin Thomas, Business Development Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
17-16408 T2 NF(OT)-100''	A7I0646-01	Soil	09/21/17 13:38	09/21/17 18:04
17-16408 T2 S(OT)-100''	A7I0646-02	Soil	09/21/17 14:15	09/21/17 18:04

Apex Laboratories

Kevin J. Friscia For Darwin Thomas, Business Development Director

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Tigard, OR 97223
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503-718-0333 Fax

Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

ANALYTICAL CASE NARRATIVE

Work Order: A7I0646

Amended Report Revision 1

This report supersedes all previous reports.

The Final Report has been amended to include RCRA 8 Metals and 8082 PCBs results for sample T2 S(OT)-100" (Apex Lab WO A7I0646-02).

Kevin Friscia
Project Manager & Sample Control Supervisor
10/13/2017

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Tigard, OR 97223
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503-718-0333 Fax

Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
17-16408 T2 NF(OT)-100" (A7I0646-01)			**Matrix: Soil**		**Batch: 7090894**			
Diesel	ND	---	235	mg/kg dry	10	09/22/17 11:47	NWTPH-Dx	
Oil	**6320**	---	470	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 95 %*	*Limits: 50-150 %*	"	"	"	*S-05*
17-16408 T2 S(OT)-100" (A7I0646-02)			**Matrix: Soil**		**Batch: 7090895**			
Diesel	ND	---	25.0	mg/kg dry	1	09/22/17 09:38	NWTPH-Dx	
Oil	ND	---	50.0	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 81 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories

Kevin J. Friscia For Darwin Thomas, Business Development Director

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
17-16408 T2 NF(OT)-100" (A7I0646-01)			**Matrix: Soil**		**Batch: 7090949**			
Gasoline Range Organics	**185**	---	6.34	mg/kg dry	50	09/25/17 22:02	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 154 %*	*Limits: 50-150 %*	1	"	"	*S-08*
1,4-Difluorobenzene (Sur)			*98 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories

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Kevin J. Friscia For Darwin Thomas, Business Development Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
17-16408 T2 NF(OT)-100" (A7I0646-01)			**Matrix: Soil**		**Batch: 7090949**			
Acetone	ND	---	1.27	mg/kg dry	50	09/25/17 22:02	5035A/8260C	
Acrylonitrile	ND	---	0.127	"	"	"	"	
Benzene	**0.0862**	---	0.0127	"	"	"	"	
Bromobenzene	ND	---	0.0317	"	"	"	"	
Bromochloromethane	ND	---	0.0634	"	"	"	"	
Bromodichloromethane	ND	---	0.0634	"	"	"	"	
Bromoform	ND	---	0.127	"	"	"	"	
Bromomethane	ND	---	0.634	"	"	"	"	
2-Butanone (MEK)	ND	---	0.634	"	"	"	"	
n-Butylbenzene	**0.0951**	---	0.0634	"	"	"	"	M-02
sec-Butylbenzene	ND	---	0.0634	"	"	"	"	
tert-Butylbenzene	ND	---	0.0634	"	"	"	"	
Carbon disulfide	ND	---	0.634	"	"	"	"	
Carbon tetrachloride	ND	---	0.0634	"	"	"	"	
Chlorobenzene	ND	---	0.0317	"	"	"	"	
Chloroethane	ND	---	0.634	"	"	"	"	
Chloroform	ND	---	0.0634	"	"	"	"	
Chloromethane	ND	---	0.317	"	"	"	"	
2-Chlorotoluene	ND	---	0.0634	"	"	"	"	
4-Chlorotoluene	ND	---	0.0634	"	"	"	"	
Dibromochloromethane	ND	---	0.127	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	0.317	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	0.0634	"	"	"	"	
Dibromomethane	ND	---	0.0634	"	"	"	"	
1,2-Dichlorobenzene	ND	---	0.0317	"	"	"	"	
1,3-Dichlorobenzene	ND	---	0.0317	"	"	"	"	
1,4-Dichlorobenzene	ND	---	0.0317	"	"	"	"	
Dichlorodifluoromethane	ND	---	0.127	"	"	"	"	
1,1-Dichloroethane	ND	---	0.0317	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	0.0317	"	"	"	"	
1,1-Dichloroethene	ND	---	0.0317	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	0.0317	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	0.0317	"	"	"	"	
1,2-Dichloropropane	ND	---	0.0317	"	"	"	"	
1,3-Dichloropropane	ND	---	0.0634	"	"	"	"	

Apex Laboratories

Kevin J. Friscia For Darwin Thomas, Business Development Director

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental
11080 SW Allen Blvd, Suite 100
Beaverton, OR 97005

Project/#: **3434 NE Sandy Blvd./17-16408**

Project Manager: Zachary Goodman

Reported:
10/13/17 12:07

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
17-16408 T2 NF(OT)-100" (A7I0646-01)			**Matrix: Soil**		**Batch: 7090949**			
2,2-Dichloropropane	ND	---	0.0634	mg/kg dry	50	"	5035A/8260C	
1,1-Dichloropropene	ND	---	0.0634	"	"	"	"	
cis-1,3-Dichloropropene	ND	---	0.0634	"	"	"	"	
trans-1,3-Dichloropropene	ND	---	0.0634	"	"	"	"	
Ethylbenzene	**0.258**	---	0.0317	"	"	"	"	
Hexachlorobutadiene	ND	---	0.127	"	"	"	"	
2-Hexanone	ND	---	0.634	"	"	"	"	
Isopropylbenzene	ND	---	0.0634	"	"	"	"	
4-Isopropyltoluene	ND	---	0.0634	"	"	"	"	
Methylene chloride	ND	---	0.317	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	0.634	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	0.0634	"	"	"	"	
Naphthalene	**0.526**	---	0.127	"	"	"	"	
n-Propylbenzene	**0.203**	---	0.0317	"	"	"	"	
Styrene	ND	---	0.0634	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	0.0317	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	0.444	"	"	"	"	R-02
Tetrachloroethene (PCE)	ND	---	0.0317	"	"	"	"	
Toluene	**0.361**	---	0.0634	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	0.317	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	0.317	"	"	"	"	
1,1,1-Trichloroethane	ND	---	0.0317	"	"	"	"	
1,1,2-Trichloroethane	ND	---	0.0317	"	"	"	"	
Trichloroethene (TCE)	ND	---	0.0317	"	"	"	"	
Trichlorofluoromethane	ND	---	0.127	"	"	"	"	
1,2,3-Trichloropropane	ND	---	0.254	"	"	"	"	R-02
1,2,4-Trimethylbenzene	**1.65**	---	0.0634	"	"	"	"	
1,3,5-Trimethylbenzene	**0.557**	---	0.0634	"	"	"	"	
Vinyl chloride	ND	---	0.0317	"	"	"	"	
m,p-Xylene	**1.02**	---	0.0634	"	"	"	"	
o-Xylene	**0.682**	---	0.0317	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*	*Limits: 80-120 %*	1	"	"	
Toluene-d8 (Surr)			*92 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*107 %*	*Limits: 80-120 %*	"	"	"	

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Tigard, OR 97223
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503-718-0333 Fax

Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
17-16408 T2 NF(OT)-100" (A7I0646-01)			**Matrix: Soil**		**Batch: 7091069**			**C-07**
Aroclor 1016	ND	---	11.2	ug/kg dry	1	09/28/17 11:21	EPA 8082A	
Aroclor 1221	ND	---	11.2	"	"	"	"	
Aroclor 1232	ND	---	11.2	"	"	"	"	
Aroclor 1242	**29.7**	---	11.2	"	"	"	"	
Aroclor 1248	ND	---	11.2	"	"	"	"	
Aroclor 1254	ND	---	11.2	"	"	"	"	
Aroclor 1260	**14.1**	---	11.2	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 81 %*	*Limits: 72-126 %*	"	"	"	
17-16408 T2 S(OT)-100" (A7I0646-02)			**Matrix: Soil**		**Batch: 7100568**			**C-07**
Aroclor 1016	ND	---	12.2	ug/kg dry	1	10/10/17 16:58	EPA 8082A	
Aroclor 1221	ND	---	12.2	"	"	"	"	
Aroclor 1232	ND	---	12.2	"	"	"	"	
Aroclor 1242	ND	---	12.2	"	"	"	"	
Aroclor 1248	ND	---	12.2	"	"	"	"	
Aroclor 1254	ND	---	12.2	"	"	"	"	
Aroclor 1260	ND	---	12.2	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 85 %*	*Limits: 72-126 %*	"	"	"	

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Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
17-16408 T2 NF(OT)-100" (A7I0646-01)			**Matrix: Soil**		**Batch: 7091006**			
Acenaphthene	ND	---	0.0613	mg/kg dry	5	09/27/17 03:45	EPA 8270D (SIM)	
Acenaphthylene	ND	---	0.0613	"	"	"	"	
Anthracene	ND	---	0.0613	"	"	"	"	
Benz(a)anthracene	**0.0853**	---	0.0613	"	"	"	"	M-02
Benzo(a)pyrene	ND	---	0.0613	"	"	"	"	
Benzo(b)fluoranthene	**0.0689**	---	0.0613	"	"	"	"	M-02
Benzo(k)fluoranthene	ND	---	0.0613	"	"	"	"	
Benzo(g,h,i)perylene	**0.112**	---	0.0613	"	"	"	"	
Chrysene	**0.0758**	---	0.0613	"	"	"	"	M-02
Dibenz(a,h)anthracene	ND	---	0.0613	"	"	"	"	
Fluoranthene	**0.104**	---	0.0613	"	"	"	"	
Fluorene	ND	---	0.0613	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	0.0613	"	"	"	"	
Naphthalene	**0.282**	---	0.0613	"	"	"	"	
Phenanthrene	**0.117**	---	0.0613	"	"	"	"	
Pyrene	**0.270**	---	0.0613	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 93 %*	*Limits: 44-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*113 %*	*Limits: 54-127 %*	"	"	"	

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Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
17-16408 T2 NF(OT)-100" (A7I0646-01)			**Matrix: Soil**					
Batch: 7091060								
Arsenic	**5.10**	---	1.38	mg/kg dry	10	09/28/17 15:06	EPA 6020A	
Barium	**161**	---	1.38	"	"	"	"	
Cadmium	**0.428**	---	0.276	"	"	"	"	
Chromium	**18.6**	---	1.38	"	"	"	"	
Lead	**82.1**	---	0.276	"	"	"	"	
Mercury	ND	---	0.110	"	"	"	"	
Selenium	ND	---	1.38	"	"	"	"	
Silver	ND	---	0.276	"	"	"	"	
17-16408 T2 S(OT)-100" (A7I0646-02)			**Matrix: Soil**					
Batch: 7100553								
Arsenic	**5.11**	---	1.32	mg/kg dry	10	10/10/17 20:51	EPA 6020A	
Barium	**166**	---	2.63	"	"	"	"	
Cadmium	**0.513**	---	0.263	"	"	"	"	
Chromium	**20.4**	---	1.32	"	"	"	"	
Lead	**11.7**	---	0.263	"	"	"	"	
Mercury	ND	---	0.105	"	"	"	"	
Selenium	ND	---	1.32	"	"	"	"	
Silver	ND	---	0.263	"	"	"	"	

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Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
17-16408 T2 NF(OT)-100" (A7I0646-01)			**Matrix: Soil**		**Batch: 7090887**			
% Solids	**78.6**	---	1.00	% by Weight	1	09/22/17 07:56	EPA 8000C	
17-16408 T2 S(OT)-100" (A7I0646-02)			**Matrix: Soil**		**Batch: 7090887**			
% Solids	**78.8**	---	1.00	% by Weight	1	09/22/17 07:56	EPA 8000C	

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503-718-0333 Fax

Alpha Environmental
11080 SW Allen Blvd, Suite 100
Beaverton, OR 97005

Project/#: **3434 NE Sandy Blvd./17-16408**
Project Manager: Zachary Goodman

Reported:
10/13/17 12:07

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7090894 - EPA 3546 (Fuels)								Soil				
Blank (7090894-BLK1)					Prepared: 09/21/17 19:33 Analyzed: 09/21/17 22:51							
NWTPH-Dx												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 94 %*	*Limits: 50-150 %*			*Dilution: 1x*					
LCS (7090894-BS1)					Prepared: 09/21/17 19:33 Analyzed: 09/21/17 23:10							
NWTPH-Dx												
Diesel	108	---	25.0	mg/kg wet	1	125	---	87	76-115%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 98 %*	*Limits: 50-150 %*			*Dilution: 1x*					
Batch 7090895 - EPA 3546 (Fuels)								Soil				
Blank (7090895-BLK1)					Prepared: 09/21/17 20:27 Analyzed: 09/22/17 08:58							
NWTPH-Dx												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 98 %*	*Limits: 50-150 %*			*Dilution: 1x*					
LCS (7090895-BS1)					Prepared: 09/21/17 20:27 Analyzed: 09/22/17 09:18							
NWTPH-Dx												
Diesel	119	---	25.0	mg/kg wet	1	125	---	95	76-115%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 99 %*	*Limits: 50-150 %*			*Dilution: 1x*					
Duplicate (7090895-DUP1)					Prepared: 09/21/17 20:27 Analyzed: 09/22/17 09:58							
QC Source Sample: 17-16408 T2 S(OT)-100" (A7I0646-02)												
NWTPH-Dx												
Diesel	ND	---	25.0	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	---	50.0	"	"	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)			*Recovery: 81 %*	*Limits: 50-150 %*			*Dilution: 1x*					

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Kevin J. Friscia For Darwin Thomas, Business Development Director

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7090949 - EPA 5035A									Soil			
Blank (7090949-BLK1)					Prepared: 09/25/17 09:00 Analyzed: 09/25/17 12:00							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 104 %*		*Limits: 50-150 %*				*Dilution: 1x*			
1,4-Difluorobenzene (Sur)			*95 %*		*50-150 %*				*"*			
LCS (7090949-BS1)					Prepared: 09/25/17 09:00 Analyzed: 09/25/17 11:07							
NWTPH-Gx (MS)												
Gasoline Range Organics	25.3	---	5.00	mg/kg wet	50	25.0	---	101	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 103 %*		*Limits: 50-150 %*				*Dilution: 1x*			
1,4-Difluorobenzene (Sur)			*97 %*		*50-150 %*				*"*			

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Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7090949 - EPA 5035A							Soil					
Blank (7090949-BLK1)					Prepared: 09/25/17 09:00 Analyzed: 09/25/17 12:00							
5035A/8260C												
Acetone	ND	---	0.667	mg/kg wet	50	---	---	---	---	---	---	
Acrylonitrile	ND	---	0.0667	"	"	---	---	---	---	---	---	
Benzene	ND	---	0.00667	"	"	---	---	---	---	---	---	
Bromobenzene	ND	---	0.0167	"	"	---	---	---	---	---	---	
Bromochloromethane	ND	---	0.0333	"	"	---	---	---	---	---	---	
Bromodichloromethane	ND	---	0.0333	"	"	---	---	---	---	---	---	
Bromoform	ND	---	0.0667	"	"	---	---	---	---	---	---	
Bromomethane	ND	---	0.333	"	"	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	0.333	"	"	---	---	---	---	---	---	
n-Butylbenzene	ND	---	0.0333	"	"	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	0.0333	"	"	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	0.0333	"	"	---	---	---	---	---	---	
Carbon disulfide	ND	---	0.333	"	"	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	0.0333	"	"	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.0167	"	"	---	---	---	---	---	---	
Chloroethane	ND	---	0.333	"	"	---	---	---	---	---	---	
Chloroform	ND	---	0.0333	"	"	---	---	---	---	---	---	
Chloromethane	ND	---	0.167	"	"	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	0.0333	"	"	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	0.0333	"	"	---	---	---	---	---	---	
Dibromochloromethane	ND	---	0.0667	"	"	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	0.167	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.0333	"	"	---	---	---	---	---	---	
Dibromomethane	ND	---	0.0333	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.0167	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.0167	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.0167	"	"	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	0.0667	"	"	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.0167	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.0167	"	"	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.0167	"	"	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.0167	"	"	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.0167	"	"	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.0167	"	"	---	---	---	---	---	---	

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Tigard, OR 97223
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503-718-0333 Fax

Alpha Environmental
11080 SW Allen Blvd, Suite 100
Beaverton, OR 97005

Project/#: **3434 NE Sandy Blvd./17-16408**
Project Manager: Zachary Goodman

Reported:
10/13/17 12:07

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7090949 - EPA 5035A							**Soil**					
Blank (7090949-BLK1)					Prepared: 09/25/17 09:00 Analyzed: 09/25/17 12:00							
5035A/8260C												
1,3-Dichloropropane	ND	---	0.0333	mg/kg wet	"	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	0.0333	"	"	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	0.0333	"	"	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	0.0333	"	"	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	0.0333	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0167	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	0.0667	"	"	---	---	---	---	---	---	
2-Hexanone	ND	---	0.333	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	---	0.0333	"	"	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	0.0333	"	"	---	---	---	---	---	---	
Methylene chloride	ND	---	0.167	"	"	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	0.333	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	0.0333	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	0.0667	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.0167	"	"	---	---	---	---	---	---	
Styrene	ND	---	0.0333	"	"	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.0167	"	"	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.0333	"	"	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.0167	"	"	---	---	---	---	---	---	
Toluene	ND	---	0.0333	"	"	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	0.167	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	0.167	"	"	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.0167	"	"	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.0167	"	"	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.0167	"	"	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	0.0667	"	"	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	0.0333	"	"	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	0.0333	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	0.0333	"	"	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.0167	"	"	---	---	---	---	---	---	
m,p-Xylene	ND	---	0.0333	"	"	---	---	---	---	---	---	
o-Xylene	ND	---	0.0167	"	"	---	---	---	---	---	---	

Surr: 1,4-Difluorobenzene (Surr) *Recovery: 101 %* *Limits: 80-120 %* *Dilution: 1x*
Toluene-d8 (Surr) *98 %* *80-120 %* *"*

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Kevin J. Friscia For Darwin Thomas, Business Development Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental
11080 SW Allen Blvd, Suite 100
Beaverton, OR 97005

Project/#: **3434 NE Sandy Blvd./17-16408**
Project Manager: Zachary Goodman

Reported:
10/13/17 12:07

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7090949 - EPA 5035A									Soil			
Blank (7090949-BLK1)					Prepared: 09/25/17 09:00 Analyzed: 09/25/17 12:00							
5035A/8260C												
Surr: 4-Bromofluorobenzene (Surr)			*Recovery: 103 %*	*Limits: 80-120 %*			*Dilution: 1x*					
LCS (7090949-BS2)					Prepared: 09/25/17 09:00 Analyzed: 09/25/17 11:34							
5035A/8260C												
Acetone	1.64	---	1.00	mg/kg wet	50	2.00	---	82	80-120%	---	---	
Acrylonitrile	0.981	---	0.100	"	"	1.00	---	98	"	---	---	
Benzene	1.04	---	0.0100	"	"	"	---	104	"	---	---	
Bromobenzene	1.07	---	0.0250	"	"	"	---	107	"	---	---	
Bromochloromethane	1.04	---	0.0500	"	"	"	---	104	"	---	---	
Bromodichloromethane	1.04	---	0.0500	"	"	"	---	104	"	---	---	
Bromoform	1.12	---	0.100	"	"	"	---	112	"	---	---	
Bromomethane	1.38	---	0.500	"	"	"	---	138	"	---	---	Q-56
2-Butanone (MEK)	1.78	---	0.500	"	"	2.00	---	89	"	---	---	
n-Butylbenzene	1.02	---	0.0500	"	"	1.00	---	102	"	---	---	
sec-Butylbenzene	1.08	---	0.0500	"	"	"	---	108	"	---	---	
tert-Butylbenzene	1.08	---	0.0500	"	"	"	---	108	"	---	---	
Carbon disulfide	0.940	---	0.500	"	"	"	---	94	"	---	---	
Carbon tetrachloride	1.02	---	0.0500	"	"	"	---	102	"	---	---	
Chlorobenzene	0.953	---	0.0250	"	"	"	---	95	"	---	---	
Chloroethane	1.28	---	0.500	"	"	"	---	128	"	---	---	Q-56
Chloroform	1.01	---	0.0500	"	"	"	---	101	"	---	---	
Chloromethane	1.09	---	0.250	"	"	"	---	109	"	---	---	
2-Chlorotoluene	1.10	---	0.0500	"	"	"	---	110	"	---	---	
4-Chlorotoluene	1.08	---	0.0500	"	"	"	---	108	"	---	---	
Dibromochloromethane	1.06	---	0.100	"	"	"	---	106	"	---	---	
1,2-Dibromo-3-chloropropane	1.02	---	0.250	"	"	"	---	102	"	---	---	
1,2-Dibromoethane (EDB)	1.02	---	0.0500	"	"	"	---	102	"	---	---	
Dibromomethane	0.995	---	0.0500	"	"	"	---	100	"	---	---	
1,2-Dichlorobenzene	0.998	---	0.0250	"	"	"	---	100	"	---	---	
1,3-Dichlorobenzene	1.03	---	0.0250	"	"	"	---	103	"	---	---	
1,4-Dichlorobenzene	0.944	---	0.0250	"	"	"	---	94	"	---	---	
Dichlorodifluoromethane	1.07	---	0.100	"	"	"	---	107	"	---	---	
1,1-Dichloroethane	1.08	---	0.0250	"	"	"	---	108	"	---	---	
1,2-Dichloroethane (EDC)	0.932	---	0.0250	"	"	"	---	93	"	---	---	
1,1-Dichloroethene	1.08	---	0.0250	"	"	"	---	108	"	---	---	

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental
11080 SW Allen Blvd, Suite 100
Beaverton, OR 97005

Project/#: **3434 NE Sandy Blvd./17-16408**
Project Manager: Zachary Goodman

Reported:
10/13/17 12:07

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7090949 - EPA 5035A								Soil				
LCS (7090949-BS2)					Prepared: 09/25/17 09:00 Analyzed: 09/25/17 11:34							
5035A/8260C												
cis-1,2-Dichloroethene	1.05	---	0.0250	mg/kg wet	"	"	---	105	"	---	---	
trans-1,2-Dichloroethene	1.03	---	0.0250	"	"	"	---	103	"	---	---	
1,2-Dichloropropane	1.05	---	0.0250	"	"	"	---	105	"	---	---	
1,3-Dichloropropane	1.01	---	0.0500	"	"	"	---	101	"	---	---	
2,2-Dichloropropane	1.12	---	0.0500	"	"	"	---	112	"	---	---	
1,1-Dichloropropene	1.15	---	0.0500	"	"	"	---	115	"	---	---	
cis-1,3-Dichloropropene	0.930	---	0.0500	"	"	"	---	93	"	---	---	
trans-1,3-Dichloropropene	0.958	---	0.0500	"	"	"	---	96	"	---	---	
Ethylbenzene	1.02	---	0.0250	"	"	"	---	102	"	---	---	
Hexachlorobutadiene	0.828	---	0.100	"	"	"	---	83	"	---	---	
2-Hexanone	1.83	---	0.500	"	"	2.00	---	92	"	---	---	
Isopropylbenzene	1.06	---	0.0500	"	"	1.00	---	106	"	---	---	
4-Isopropyltoluene	0.966	---	0.0500	"	"	"	---	97	"	---	---	
Methylene chloride	0.978	---	0.250	"	"	"	---	98	"	---	---	
4-Methyl-2-pentanone (MiBK)	1.89	---	0.500	"	"	2.00	---	95	"	---	---	
Methyl tert-butyl ether (MTBE)	1.08	---	0.0500	"	"	1.00	---	108	"	---	---	
Naphthalene	0.948	---	0.100	"	"	"	---	95	"	---	---	
n-Propylbenzene	1.05	---	0.0250	"	"	"	---	105	"	---	---	
Styrene	0.969	---	0.0500	"	"	"	---	97	"	---	---	
1,1,1,2-Tetrachloroethane	1.04	---	0.0250	"	"	"	---	104	"	---	---	
1,1,2,2-Tetrachloroethane	1.07	---	0.0500	"	"	"	---	107	"	---	---	
Tetrachloroethene (PCE)	1.01	---	0.0250	"	"	"	---	101	"	---	---	
Toluene	0.952	---	0.0500	"	"	"	---	95	"	---	---	
1,2,3-Trichlorobenzene	1.01	---	0.250	"	"	"	---	101	"	---	---	
1,2,4-Trichlorobenzene	1.01	---	0.250	"	"	"	---	101	"	---	---	
1,1,1-Trichloroethane	0.985	---	0.0250	"	"	"	---	99	"	---	---	
1,1,2-Trichloroethane	0.965	---	0.0250	"	"	"	---	96	"	---	---	
Trichloroethene (TCE)	1.05	---	0.0250	"	"	"	---	105	"	---	---	
Trichlorofluoromethane	1.48	---	0.100	"	"	"	---	148	"	---	---	Q-56
1,2,3-Trichloropropane	0.967	---	0.0500	"	"	"	---	97	"	---	---	
1,2,4-Trimethylbenzene	1.12	---	0.0500	"	"	"	---	112	"	---	---	
1,3,5-Trimethylbenzene	1.11	---	0.0500	"	"	"	---	111	"	---	---	
Vinyl chloride	1.17	---	0.0250	"	"	"	---	117	"	---	---	
m,p-Xylene	2.10	---	0.0500	"	"	2.00	---	105	"	---	---	

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Kevin J. Friscia For Darwin Thomas, Business Development Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7090949 - EPA 5035A												**Soil**
LCS (7090949-BS2)					Prepared: 09/25/17 09:00 Analyzed: 09/25/17 11:34							
5035A/8260C												
o-Xylene	1.08	---	0.0250	mg/kg wet	"	1.00	---	108	"	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*96 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*105 %*		*80-120 %*			*"*				

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental
11080 SW Allen Blvd, Suite 100
Beaverton, OR 97005

Project/#: **3434 NE Sandy Blvd./17-16408**
Project Manager: Zachary Goodman

Reported:
10/13/17 12:07

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7091069 - EPA 3546							Soil					
Blank (7091069-BLK1)					Prepared: 09/27/17 14:53 Analyzed: 09/28/17 08:24							C-07
EPA 8082A												
Aroclor 1016	ND	---	8.33	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1221	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1262	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1268	ND	---	8.33	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 86 %*	*Limits: 72-126 %*		*Dilution: 1x*						
LCS (7091069-BS1)					Prepared: 09/27/17 14:53 Analyzed: 09/28/17 08:41							C-07
EPA 8082A												
Aroclor 1016	195	---	10.0	ug/kg wet	1	250	---	78	47-134%	---	---	
Aroclor 1260	227	---	10.0	"	"	"	---	91	53-140%	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 90 %*	*Limits: 72-126 %*		*Dilution: 1x*						

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100568 - EPA 3546							**Soil**					
Blank (7100568-BLK1)					Prepared: 10/09/17 13:08		Analyzed: 10/10/17 16:22					C-07
EPA 8082A												
Aroclor 1016	ND	---	9.09	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1221	ND	---	9.09	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	---	9.09	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	---	9.09	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	---	9.09	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	---	9.09	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	---	9.09	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 95 %*	*Limits: 72-126 %*			*Dilution: 1x*					
LCS (7100568-BS1)					Prepared: 10/09/17 13:08		Analyzed: 10/10/17 16:40					C-07
EPA 8082A												
Aroclor 1016	176	---	10.0	ug/kg wet	1	250	---	70	47-134%	---	---	
Aroclor 1260	203	---	10.0	"	"	"	---	81	53-140%	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 93 %*	*Limits: 72-126 %*			*Dilution: 1x*					
Duplicate (7100568-DUP1)					Prepared: 10/09/17 13:08		Analyzed: 10/10/17 17:33					C-07
QC Source Sample: 17-16408 T2 S(OT)-100" (A7I0646-02)												
EPA 8082A												
Aroclor 1016	ND	---	12.3	ug/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1221	ND	---	12.3	"	"	---	ND	---	---	---	30%	
Aroclor 1232	ND	---	12.3	"	"	---	ND	---	---	---	30%	
Aroclor 1242	ND	---	12.3	"	"	---	ND	---	---	---	30%	
Aroclor 1248	ND	---	12.3	"	"	---	ND	---	---	---	30%	
Aroclor 1254	ND	---	12.3	"	"	---	ND	---	---	---	30%	
Aroclor 1260	ND	---	12.3	"	"	---	ND	---	---	---	30%	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 84 %*	*Limits: 72-126 %*			*Dilution: 1x*					

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental
11080 SW Allen Blvd, Suite 100
Beaverton, OR 97005

Project/#: **3434 NE Sandy Blvd./17-16408**
Project Manager: Zachary Goodman

Reported:
10/13/17 12:07

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7091006 - EPA 3546							Soil					
Blank (7091006-BLK1)					Prepared: 09/26/17 11:14 Analyzed: 09/27/17 00:44							
EPA 8270D (SIM)												
Acenaphthene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.00909	"	"	---	---	---	---	---	---	
Anthracene	ND	---	0.00909	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.00909	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.00909	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.00909	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.00909	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.00909	"	"	---	---	---	---	---	---	
Chrysene	ND	---	0.00909	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.00909	"	"	---	---	---	---	---	---	
Fluoranthene	ND	---	0.00909	"	"	---	---	---	---	---	---	
Fluorene	ND	---	0.00909	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.00909	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	0.00909	"	"	---	---	---	---	---	---	
Phenanthrene	ND	---	0.00909	"	"	---	---	---	---	---	---	
Pyrene	ND	---	0.00909	"	"	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 95 %*	*Limits: 44-120 %*				*Dilution: 1x*				
p-Terphenyl-d14 (Surr)			*104 %*	*54-127 %*				*"*				
LCS (7091006-BS1)					Prepared: 09/26/17 11:14 Analyzed: 09/27/17 01:10							
EPA 8270D (SIM)												
Acenaphthene	0.755	---	0.0100	mg/kg wet	1	0.800	---	94	40-122%	---	---	
Acenaphthylene	0.713	---	0.0100	"	"	"	---	89	32-132%	---	---	
Anthracene	0.748	---	0.0100	"	"	"	---	93	47-123%	---	---	
Benz(a)anthracene	0.726	---	0.0100	"	"	"	---	91	49-126%	---	---	
Benzo(a)pyrene	0.753	---	0.0100	"	"	"	---	94	45-129%	---	---	
Benzo(b)fluoranthene	0.759	---	0.0100	"	"	"	---	95	45-132%	---	---	
Benzo(k)fluoranthene	0.747	---	0.0100	"	"	"	---	93	47-132%	---	---	
Benzo(g,h,i)perylene	0.672	---	0.0100	"	"	"	---	84	43-134%	---	---	
Chrysene	0.778	---	0.0100	"	"	"	---	97	50-124%	---	---	
Dibenz(a,h)anthracene	0.743	---	0.0100	"	"	"	---	93	45-134%	---	---	
Fluoranthene	0.732	---	0.0100	"	"	"	---	91	50-127%	---	---	
Fluorene	0.737	---	0.0100	"	"	"	---	92	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	0.705	---	0.0100	"	"	"	---	88	45-133%	---	---	
Naphthalene	0.737	---	0.0100	"	"	"	---	92	35-123%	---	---	

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7091006 - EPA 3546									Soil			
LCS (7091006-BS1)					Prepared: 09/26/17 11:14 Analyzed: 09/27/17 01:10							
EPA 8270D (SIM)												
Phenanthrene	0.754	---	0.0100	mg/kg wet	"	"	---	94	50-121%	---	---	
Pyrene	0.720	---	0.0100	"	"	"	---	90	47-127%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 95 %*		*Limits: 44-120 %*				*Dilution: 1x*			
p-Terphenyl-d14 (Surr)			*104 %*		*54-127 %*				*"*			
Matrix Spike (7091006-MS1)					Prepared: 09/26/17 11:14 Analyzed: 09/27/17 04:10							
QC Source Sample: 17-16408 T2 NF(OT)-100'' (A7I0646-01)												
EPA 8270D (SIM)												
Acenaphthene	1.02	---	0.0611	mg/kg dry	5	0.977	ND	104	40-122%	---	---	
Acenaphthylene	0.952	---	0.0611	"	"	"	ND	97	32-132%	---	---	
Anthracene	1.08	---	0.0611	"	"	"	ND	110	47-123%	---	---	
Benz(a)anthracene	1.05	---	0.0611	"	"	"	0.0853	99	49-126%	---	---	
Benzo(a)pyrene	1.03	---	0.0611	"	"	"	0.0601	99	45-129%	---	---	
Benzo(b)fluoranthene	1.03	---	0.0611	"	"	"	0.0689	98	45-132%	---	---	
Benzo(k)fluoranthene	1.02	---	0.0611	"	"	"	ND	105	47-132%	---	---	
Benzo(g,h,i)perylene	1.02	---	0.0611	"	"	"	0.112	93	43-134%	---	---	
Chrysene	1.10	---	0.0611	"	"	"	0.0758	105	50-124%	---	---	
Dibenz(a,h)anthracene	0.957	---	0.0611	"	"	"	ND	98	45-134%	---	---	
Fluoranthene	1.12	---	0.0611	"	"	"	0.104	104	50-127%	---	---	
Fluorene	1.02	---	0.0611	"	"	"	0.0355	101	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	0.939	---	0.0611	"	"	"	0.0344	93	45-133%	---	---	
Naphthalene	1.33	---	0.0611	"	"	"	0.282	107	35-123%	---	---	
Phenanthrene	1.14	---	0.0611	"	"	"	0.117	104	50-121%	---	---	
Pyrene	1.39	---	0.0611	"	"	"	0.270	115	47-127%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 96 %*		*Limits: 44-120 %*				*Dilution: 5x*			
p-Terphenyl-d14 (Surr)			*112 %*		*54-127 %*				*"*			

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Kevin J. Friscia For Darwin Thomas, Business Development Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7091060 - EPA 3051A								Soil				
Blank (7091060-BLK1)					Prepared: 09/27/17 12:31 Analyzed: 09/28/17 13:34							
EPA 6020A												
Arsenic	ND	---	1.00	mg/kg wet	10	---	---	---	---	---	---	
Barium	ND	---	1.00	"	"	---	---	---	---	---	---	
Cadmium	ND	---	0.200	"	"	---	---	---	---	---	---	
Chromium	ND	---	1.00	"	"	---	---	---	---	---	---	
Lead	ND	---	0.200	"	"	---	---	---	---	---	---	
Mercury	ND	---	0.0800	"	"	---	---	---	---	---	---	
Selenium	ND	---	1.00	"	"	---	---	---	---	---	---	
Silver	ND	---	0.200	"	"	---	---	---	---	---	---	
LCS (7091060-BS1)					Prepared: 09/27/17 12:31 Analyzed: 09/28/17 13:40							
EPA 6020A												
Arsenic	51.3	---	1.00	mg/kg wet	10	50.0	---	103	80-120%	---	---	
Barium	52.8	---	1.00	"	"	"	---	106	"	---	---	
Cadmium	51.6	---	0.200	"	"	"	---	103	"	---	---	
Chromium	49.6	---	1.00	"	"	"	---	99	"	---	---	
Lead	53.9	---	0.200	"	"	"	---	108	"	---	---	
Mercury	1.06	---	0.0800	"	"	1.00	---	106	"	---	---	
Selenium	28.3	---	1.00	"	"	25.0	---	113	"	---	---	
Silver	25.0	---	0.200	"	"	"	---	100	"	---	---	

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Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100553 - EPA 3051A								Soil				
Blank (7100553-BLK1)					Prepared: 10/09/17 09:26 Analyzed: 10/10/17 19:41							
EPA 6020A												
Arsenic	ND	---	1.00	mg/kg wet	10	---	---	---	---	---	---	
Barium	ND	---	2.00	"	"	---	---	---	---	---	---	
Cadmium	ND	---	0.200	"	"	---	---	---	---	---	---	
Chromium	ND	---	1.00	"	"	---	---	---	---	---	---	
Lead	ND	---	0.200	"	"	---	---	---	---	---	---	
Mercury	ND	---	0.0800	"	"	---	---	---	---	---	---	
Selenium	ND	---	1.00	"	"	---	---	---	---	---	---	
Silver	ND	---	0.200	"	"	---	---	---	---	---	---	
LCS (7100553-BS1)					Prepared: 10/09/17 09:26 Analyzed: 10/10/17 19:44							
EPA 6020A												
Arsenic	50.0	---	1.00	mg/kg wet	10	50.0	---	100	80-120%	---	---	
Barium	51.2	---	2.00	"	"	"	---	102	"	---	---	
Cadmium	49.9	---	0.200	"	"	"	---	100	"	---	---	
Chromium	50.2	---	1.00	"	"	"	---	100	"	---	---	
Lead	53.2	---	0.200	"	"	"	---	106	"	---	---	
Mercury	1.04	---	0.0800	"	"	1.00	---	104	"	---	---	
Selenium	26.4	---	1.00	"	"	25.0	---	106	"	---	---	
Silver	24.8	---	0.200	"	"	"	---	99	"	---	---	

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Tigard, OR 97223
503-718-2323 Phone
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Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7090887 - Total Solids (Dry Weight)												**Soil**

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503-718-2323 Phone
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Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7090894							
A7I0646-01	Soil	NWTPH-Dx	09/21/17 13:38	09/21/17 20:26	10.81g/5mL	10g/5mL	0.93
Batch: 7090895							
A7I0646-02	Soil	NWTPH-Dx	09/21/17 14:15	09/21/17 20:27	10.34g/5mL	10g/5mL	0.97

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7090949							
A7I0646-01	Soil	NWTPH-Gx (MS)	09/21/17 13:38	09/21/17 13:38	6.38g/5mL	5g/5mL	0.78

Volatile Organic Compounds by EPA 5035A/8260C

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7090949							
A7I0646-01	Soil	5035A/8260C	09/21/17 13:38	09/21/17 13:38	6.38g/5mL	5g/5mL	0.78

Polychlorinated Biphenyls by EPA 8082A

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7091069							
A7I0646-01	Soil	EPA 8082A	09/21/17 13:38	09/27/17 14:53	11.36g/5mL	10g/5mL	0.88
Batch: 7100568							
A7I0646-02	Soil	EPA 8082A	09/21/17 14:15	10/09/17 13:08	10.39g/5mL	10g/5mL	0.96

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7091006							
A7I0646-01	Soil	EPA 8270D (SIM)	09/21/17 13:38	09/26/17 11:14	10.37g/5mL	10g/5mL	0.96

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Sample	Default	RL Prep

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

SAMPLE PREPARATION INFORMATION

Total Metals by EPA 6020 (ICPMS)

Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 7091060							
A7I0646-01	Soil	EPA 6020A	09/21/17 13:38	09/27/17 12:31	0.461g/50mL	0.5g/50mL	1.08
Batch: 7100553							
A7I0646-02	Soil	EPA 6020A	09/21/17 14:15	10/09/17 09:26	0.482g/50mL	0.5g/50mL	1.04

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7090887							
A7I0646-01	Soil	EPA 8000C	09/21/17 13:38	09/21/17 20:42	1N/A/1N/A	1N/A/1N/A	NA
A7I0646-02	Soil	EPA 8000C	09/21/17 14:15	09/21/17 20:42	1N/A/1N/A	1N/A/1N/A	NA

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Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

Notes and Definitions

Qualifiers:

C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
M-02	Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260C
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
S-05	Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
S-08	TPH-Gx Surrogate recovery cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract. See 8260B results for accurate Surrogate recovery.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.
---	QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
***	Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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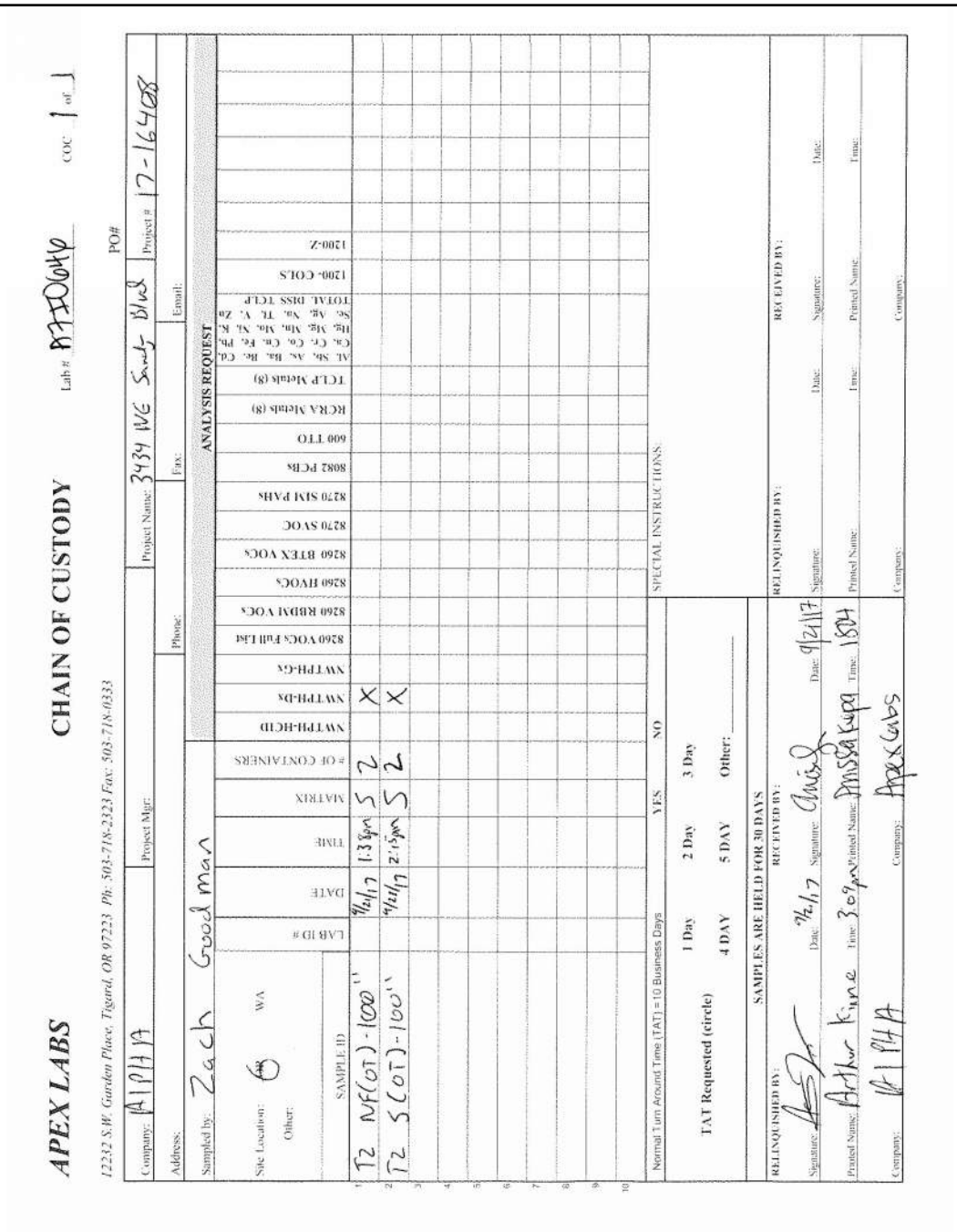
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07



APEX LABS — **CHAIN OF CUSTODY** — Lab # 17100479 — COC 1 of 1

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

PO#

Company: Alpha Project Mgr: Project Name: 3434 NE Sandy Blvd Project # 17-16408

Address: Phone: Fax: Email:

Sampled by: Zach Goodman

Site Location: OR WA Other:

ANALYSIS REQUEST

	SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOCs Full List	8260 RBDM VOCs	8260 HVOCs	8260 BTEX VOCs	8270 SVOC	8270 SIM PAHs	8082 PCBs	600 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200- COLS	1200-Z
1	T2 MW(01)-1000''		9/21/17	1:35pm	S	2		X														
2	T2 SCOT)-1001''		9/21/17	2:15pm	S	2		X														
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

Normal Turn Around Time (TAT) = 10 Business Days — YES / NO

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Date: 9.21.17 Time: 3:07pm

RECEIVED BY: Signature: Printed Name: Company:

RELINQUISHED BY: Signature: Date: 9/21/17

RECEIVED BY: Signature: Date:

Printed Name: Arthur Kline Time: 3:07pm

Printed Name: Jessica Kupp Time: 1800

Company: Alpha

Company: Apex Labs

Apex Laboratories

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Alpha Environmental	Project/#: **3434 NE Sandy Blvd./17-16408**	
11080 SW Allen Blvd, Suite 100		**Reported:**
Beaverton, OR 97005	Project Manager: Zachary Goodman	10/13/17 12:07

APEX LABS COOLER RECEIPT FORM

Client: Alpha Element WO#: A7 ID0416

Project/Project #: 3434 NE Sandy Blvd. /17-16408

Delivery info:

Date/Time Received: 9/21/17 @ 1804 By: AKK

Delivered by: Apex X Client ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Inspected by: AKK : 9/21/17 @ 1825

Chain of Custody Included? Yes X No Custody Seals? Yes No

Signed/Dated by Client? Yes X No

Signed/Dated by Apex? Yes X No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (deg. C)							
Received on Ice? (Y/N)							
Temp. Blanks? (Y/N)	4.9						
Ice Type: (Gel/Real/Other)							
Condition:	good						

Cooler out of temp? (Y/N) Possible reason why:

If some coolers are in temp and some out, were green dot applied to out of temperature samples? Yes/No/NA

Samples Inspection: Inspected by: AKK : 9/21/17 @ 1902

All Samples Intact? Yes X No Comments:

Bottle Labels/COCs agree? Yes X No Comments: No T on cont. No D on jars.

Containers/Volumes Received Appropriate for Analysis? Yes X No Comments:

Do VOA Vials have Visible Headspace? Yes No NA X

Comments

Water Samples: pH Checked and Appropriate (except VOAs): Yes No NA X

Comments:

Additional Information:

Labeled by: AKK Witness: CFH Cooler Inspected by: AKK See Project Contact Form: Y

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APPENDIX C - SUBSURFACE EXPLORATION FIELD PROCEDURES

GENERAL

Seven borings (DP-1 through DP-3) were completed at the project site. The explorations were completed using drilling equipment owned by Pacific Soil & Water of Tigard, Oregon. SEC observed the explorations and obtained soil samples for analysis. The soil encountered in the explorations was visually classified in general accordance with ASTM D 2488.

SOIL SAMPLING

Continuous soil samples were collected from the explorations. Soil samples obtained from the explorations were collected from approximately 3-inch-diameter, 48-inch-long samplers lined with acrylic sleeves. Soil samples were placed in laboratory-supplied containers and immediately placed in an ice chest and kept cool until delivery to the laboratory. Standard chain-of-custody procedures were observed during transport of the samples to the laboratory.

SOIL SAMPLE FIELD SCREENING METHODS

SEC performed field screening tests on selected soil samples collected from the explorations. Field screening results aided in the selection of soil samples for chemical analysis. Screening methods included visual examination, water sheen screening, and headspace vapor screening using a MiniRAE PID.

Visual screening consisted of inspecting the soil for discoloration indicative of the presence of petroleum material in the sample. Water sheen screening involved placing soil in water and observing the water surface for signs of sheen. Sheen classifications are as follows:

No Sheen	No visible sheen on the water surface.
Slight Sheen	Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly. Natural organic matter in the soil may produce a slight sheen.
Moderate Sheen	Light to heavy sheen; may have some color/iridescence; spread is irregular to flowing, may be rapid; few remaining areas of no sheen on water surface.
Heavy Sheen	Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

Headspace vapor screening is performed by placing a soil sample in a plastic bag. Air is captured in the bag, and the bag is shaken to expose the soil to the air trapped in the bag. The probe of a MiniRAE PID is inserted into the bag, and the MiniRAE PID measures VOC vapor concentrations in units of ppm. The MiniRAE PID is calibrated to isobutylene. The MiniRAE PID is designed to quantify VOC vapor concentrations, but it should be noted that field screening results are site and exploration specific. The results may vary with temperature, soil moisture content, soil type, and type of contaminant.

DECONTAMINATION

All sampling equipment used in the collection of samples was decontaminated prior to use.

Logged By:	A.B.	Date	Started:	4/5/18	Drilling Contractor:	Drill Rig Type:
Drill Crew:	C.W.		Completed:	4/5/18	Pacific Soil & Water Tigard, Oregon	Direct Push
Locate Number:			Backfilled:	4/5/18	Bit Type: Macro-Core	Diameter: 3-Inch-Diamater
18078511			Groundwater Depth: Not Encountered		Elevation: Not Measured	Total Depth of Boring: 16 Feet

Depth (feet)	Graphic Log	Drilled Depth	Depth Recovered		PID Result (ppm)	Sheen Test Result	Additional Comments
		4.0	3.0	Asphalt and Concrete (Approximately 6") Brown SILT (ML), moist.	0.0	NS	No Staining or Odor Observed During Drilling
5		4.0	3.0		0.0	NS	
		4.0	3.0	Brown SAND (SM) with silt, moist.			Soil Sample "DP-1(9.0-10.0)" Collected
10		4.0	2.5		0.0	NS	Soil Sample "DP-1(13.0-14.0)" Collected
15				Boring complete at 16.0 feet BGS.			

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GL-3-01	BORING DP-1	
APRIL 2018	ROW NEAR 3434 NE SANDY BLVD, PORTLAND, OREGON	APPENDIX C

Logged By:	A.B.	Date	Started:	4/5/18	Drilling Contractor:	Drill Rig Type:
Drill Crew:	C.W.		Completed:	4/5/18	Pacific Soil & Water Tigard, Oregon	Direct Push
Locate Number:			Backfilled:	4/5/18	Bit Type: Macro-Core	Diameter: 3-Inch-Diamater
18078511			Groundwater Depth: Not Encountered		Elevation: Not Measured	Total Depth of Boring: 16 Feet

Depth (feet)	Graphic Log	Drilled Depth	Depth Recovered		PID Result (ppm)	Sheen Test Result	Additional Comments
		4.0	3.0	Brown to Gray GRAVEL (GP), moist. FILL Brown SILT (ML), moist.	0.0	NS	No Staining or Odor Observed During Drilling
5		4.0	4.0		0.0	NS	
10		4.0	4.0	Brown CLAY (CL) with silt and fine sand, moist.			Soil Sample "DP-2(9.0-10.0)" Collected
		4.0	4.0	Brown SAND (SM) with silt, moist.	0.0	NS	
15				Boring complete at 16.0 feet BGS.			Soil Sample "DP-2(15.0-16.0)" Collected

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GL-3-01	BORING DP-2	
APRIL 2018	ROW NEAR 3434 NE SANDY BLVD, PORTLAND, OREGON	APPENDIX C

Logged By:	A.B.	Date	Started:	4/5/18	Drilling Contractor:	Drill Rig Type:
Drill Crew:	C.W.		Completed:	4/5/18	Pacific Soil & Water Tigard, Oregon	Direct Push
Locate Number:			Backfilled:	4/5/18	Bit Type: Macro-Core	Diameter: 3-Inch-Diamater
18078511			Groundwater Depth: Not Encountered		Elevation: Not Measured	Total Depth of Boring: 16 Feet

Depth (feet)	Graphic Log	Drilled Depth	Depth Recovered		PID Result (ppm)	Sheen Test Result	Additional Comments
		4.0	3.0	Brown to Gray GRAVEL (GP), moist. FILL Brown SILT (ML), moist.	0.0	NS	No Staining or Odor Observed During Drilling
5		4.0	3.0		0.0	NS	
10		4.0	4.0	Brown CLAY (CL) with silt and fine sand, moist.			Soil Sample "DP-3(9.0-10.0)" Collected
		4.0	4.0	Brown SAND (SM) with silt, moist.	0.0	NS	
15				Boring complete at 16.0 feet BGS.			Soil Sample "DP-3(15.0-16.0)" Collected

SUCCEED ENVIRONMENTAL CONSULTING, LLC
6028 NE 49th Avenue, Portland, OR 97218
www.succeed-env.com | 971.371.0404

GL-3-01	BORING DP-3	
APRIL 2018	ROW NEAR 3434 NE SANDY BLVD, PORTLAND, OREGON	APPENDIX C

ANALYTICAL REPORT

April 09, 2018

Succeed Environmental Consulting

Sample Delivery Group:	L983643
Samples Received:	04/06/2018
Project Number:	GL-3-01
Description:	GL-3-01

Report To: Andrew Blake
6028 NE 49th Avenue
Portland, OR 97218

Entire Report Reviewed By:

Brian Ford
Technical Service Representative

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 ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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SV-1 L983643-01 Air

Collected by	Collected date/time	Received date/time
Andrew Blake	04/05/18 10:45	04/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1094752	2	04/07/18 04:40	04/07/18 04:40	MBF

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

Brian Ford
Technical Service Representative

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
TPH (GC/MS) Low Fraction	8006-61-9	101	100	413	225	931		2	WG1094752
Benzene	71-43-2	78.10	0.400	1.28	4.54	14.5		2	WG1094752
Ethylbenzene	100-41-4	106	0.400	1.73	1.70	7.39		2	WG1094752
2-Propanol	67-63-0	60.10	2.50	6.15	107	263	E	2	WG1094752
Toluene	108-88-3	92.10	0.400	1.51	9.08	34.2		2	WG1094752
m&p-Xylene	1330-20-7	106	0.800	3.47	6.02	26.1		2	WG1094752
o-Xylene	95-47-6	106	0.400	1.73	2.21	9.59		2	WG1094752
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.7*				WG1094752

Method Blank (MB)

(MB) R3299844-3 04/06/18 23:30

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.0460	0.200
Ethylbenzene	U		0.0506	0.200
2-Propanol	U		0.0882	1.25
Toluene	U		0.0499	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
TPH (GC/MS) Low Fraction	U		6.91	50.0
(S) 1,4-Bromofluorobenzene	*96.3*			*60.0-140*

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

(LCS) R3299844-1 04/06/18 21:59 • (LCSD) R3299844-2 04/06/18 22:44

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
2-Propanol	3.75	4.07	4.09	108	109	66.0-150			0.645	25
Benzene	3.75	4.00	4.04	107	108	70.0-130			0.985	25
Toluene	3.75	3.96	4.06	106	108	70.0-130			2.37	25
Ethylbenzene	3.75	4.03	4.10	107	109	70.0-130			1.70	25
m&p-Xylene	7.50	7.97	8.07	106	108	70.0-130			1.19	25
o-Xylene	3.75	3.99	4.07	106	109	70.0-130			2.08	25
TPH (GC/MS) Low Fraction	176	182	188	103	107	70.0-130			3.03	25
(S) 1,4-Bromofluorobenzene				*100*	*101*	*60.0-140*				

Guide to Reading and Understanding Your Laboratory Report

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

Abbreviations and Definitions

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

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

ESC Lab Sciences 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 ESC Lab Sciences.

State Accreditations

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

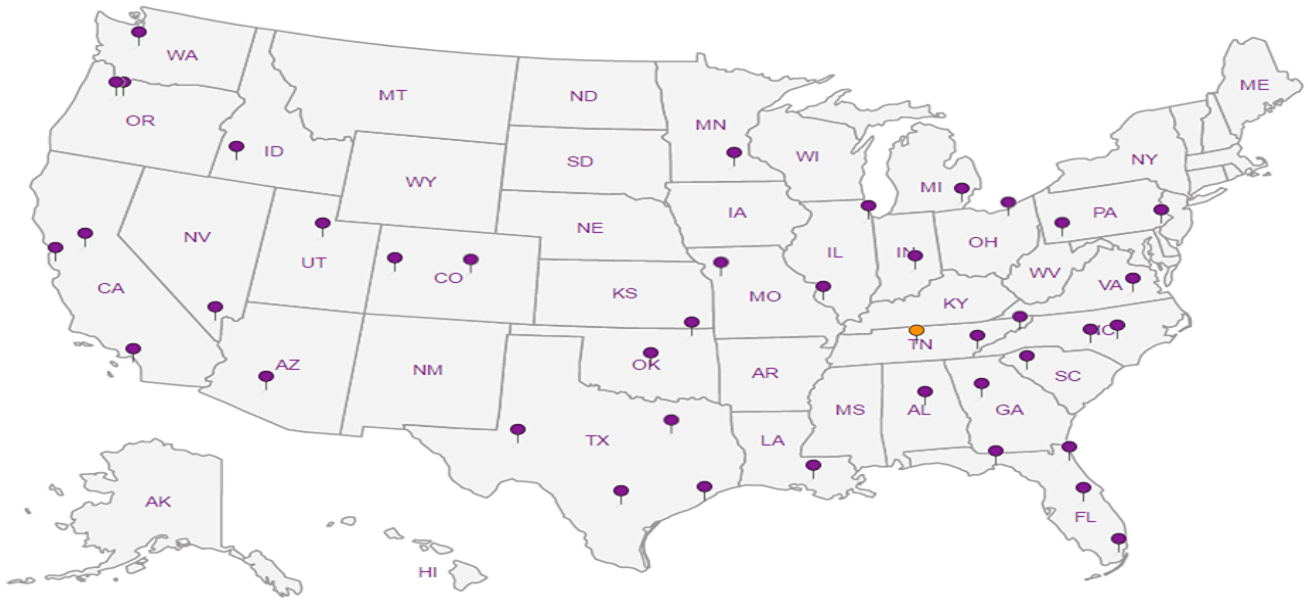
Third Party Federal Accreditations

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

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

Our Locations

ESC Lab Sciences 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. ESC Lab Sciences performs all testing at our central laboratory.



Succeed Environmental Consulting
6028 NE 49th Avenue
Portland, OR 97218

Billing Information:
Andrew Blake
6028 NE 49th Avenue
Portland, OR 97218

Pres Chk

Report to: **Andrew Blake**

Email To: **ablake@succeed-env.com**

Project Description: GL-3-01

City/State Collected: Portland, OR

Phone: **971-371-0404**
Fax:

Client Project # —

Lab Project # **SUCENVPOR**

Collected by (print): **Andrew Blake**

Site/Facility ID # —

P.O. #

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

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

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TO-15 (Gasoline + BTEX) (+ 2-Propanol)	Remarks	Sample # (lab only)
SV-1	—	Air	—	4/5/18	10:45	1	X		-01

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L983643

M049

Acctnum: **SUCENVPOR**
Template:
Prelogin:
TSR:
PB:
Shipped Via:

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

Remarks: Run: Gasoline + BTEX + 2 Propanol

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS _X_ FedEx __ Courier __ _____

Tracking # 7305 8954

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	4/5/18	FEDEX	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			800

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: AmB °C Bottles Received: 1

Date: 4/6/18 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

April 13, 2018

Succeed Environmental Consulting

Sample Delivery Group:	L983823
Samples Received:	04/06/2018
Project Number:	HE-1
Description:	

Report To: Andrew Blake
6028 NE 49th Avenue
Portland, OR 97218

Entire Report Reviewed By:

Brian Ford
Technical Service Representative

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DP-1(9.0-10.0) L983823-01 Solid

Collected by	Collected date/time	Received date/time
	04/05/18 09:30	04/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1095935	1	04/10/18 15:24	04/10/18 15:41	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1096294	1.34	04/05/18 09:30	04/11/18 02:42	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1095357	1	04/05/18 09:30	04/08/18 13:57	LRL

DP-1(13.0-14.0) L983823-02 Solid

Collected by	Collected date/time	Received date/time
	04/05/18 09:40	04/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1095935	1	04/10/18 15:24	04/10/18 15:41	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1096294	1	04/05/18 09:40	04/11/18 03:04	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1095357	1	04/05/18 09:40	04/08/18 14:17	LRL

DP-2(9.0-10.0) L983823-03 Solid

Collected by	Collected date/time	Received date/time
	04/05/18 10:10	04/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1095935	1	04/10/18 15:24	04/10/18 15:41	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1096294	1	04/05/18 10:10	04/11/18 03:26	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1095357	1	04/05/18 10:10	04/08/18 14:38	LRL

DP-2(15.0-16.0) L983823-04 Solid

Collected by	Collected date/time	Received date/time
	04/05/18 10:20	04/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1095935	1	04/10/18 15:24	04/10/18 15:41	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1096294	1	04/05/18 10:20	04/11/18 03:48	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1095357	1	04/05/18 10:20	04/08/18 14:58	LRL

DP-3(9.0-10.0) L983823-05 Solid

Collected by	Collected date/time	Received date/time
	04/05/18 11:00	04/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1095935	1	04/10/18 15:24	04/10/18 15:41	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1096294	1	04/05/18 11:00	04/11/18 04:09	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1095600	1	04/05/18 11:00	04/09/18 13:33	LRL

DP-3(15.0-16.0) L983823-06 Solid

Collected by	Collected date/time	Received date/time
	04/05/18 11:10	04/06/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1095935	1	04/10/18 15:24	04/10/18 15:41	JD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1096294	1	04/05/18 11:10	04/11/18 04:31	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1095600	1.1	04/05/18 11:10	04/09/18 13:53	LRL

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

Brian Ford
Technical Service Representative

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.9		1	04/10/2018 15:41	WG1095935

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.0568	0.168	1.34	04/11/2018 02:42	WG1096294
(S) a,a,a-Trifluorotoluene(FID)	*97.8*			*77.0-120*		*04/11/2018 02:42*	WG1096294

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.00163	0.00313	1	04/08/2018 13:57	WG1095357
Toluene	U		0.00332	0.00626	1	04/08/2018 13:57	WG1095357
Ethylbenzene	U		0.00161	0.00313	1	04/08/2018 13:57	WG1095357
Total Xylenes	0.00374	J	0.00156	0.00938	1	04/08/2018 13:57	WG1095357
(S) Toluene-d8	*104*			*80.0-120*		*04/08/2018 13:57*	WG1095357
(S) Dibromofluoromethane	*78.9*			*74.0-131*		*04/08/2018 13:57*	WG1095357
(S) a,a,a-Trifluorotoluene	*100*			*80.0-120*		*04/08/2018 13:57*	WG1095357
(S) 4-Bromofluorobenzene	*102*			*64.0-132*		*04/08/2018 13:57*	WG1095357

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.7		1	04/10/2018 15:41	WG1095935

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.0410	0.121	1	04/11/2018 03:04	WG1096294
(S) a,a,a-Trifluorotoluene(FID)	*97.1*			*77.0-120*		*04/11/2018 03:04*	WG1096294

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.00157	0.00302	1	04/08/2018 14:17	WG1095357
Toluene	U		0.00321	0.00605	1	04/08/2018 14:17	WG1095357
Ethylbenzene	U		0.00156	0.00302	1	04/08/2018 14:17	WG1095357
Total Xylenes	U		0.00151	0.00907	1	04/08/2018 14:17	WG1095357
(S) Toluene-d8	*99.6*			*80.0-120*		*04/08/2018 14:17*	WG1095357
(S) Dibromofluoromethane	*85.5*			*74.0-131*		*04/08/2018 14:17*	WG1095357
(S) a,a,a-Trifluorotoluene	*95.7*			*80.0-120*		*04/08/2018 14:17*	WG1095357
(S) 4-Bromofluorobenzene	*97.5*			*64.0-132*		*04/08/2018 14:17*	WG1095357

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.0		1	04/10/2018 15:41	WG1095935

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.0424	0.125	1	04/11/2018 03:26	WG1096294
(S) a,a,a-Trifluorotoluene(FID)	*98.7*			*77.0-120*		*04/11/2018 03:26*	WG1096294

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.00162	0.00312	1	04/08/2018 14:38	WG1095357
Toluene	U		0.00331	0.00625	1	04/08/2018 14:38	WG1095357
Ethylbenzene	U		0.00161	0.00312	1	04/08/2018 14:38	WG1095357
Total Xylenes	U		0.00156	0.00937	1	04/08/2018 14:38	WG1095357
(S) Toluene-d8	*103*			*80.0-120*		*04/08/2018 14:38*	WG1095357
(S) Dibromofluoromethane	*82.7*			*74.0-131*		*04/08/2018 14:38*	WG1095357
(S) a,a,a-Trifluorotoluene	*96.9*			*80.0-120*		*04/08/2018 14:38*	WG1095357
(S) 4-Bromofluorobenzene	*99.1*			*64.0-132*		*04/08/2018 14:38*	WG1095357

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.7		1	04/10/2018 15:41	WG1095935

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.0391	0.115	1	04/11/2018 03:48	WG1096294
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*77.0-120*		*04/11/2018 03:48*	WG1096294

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.00150	0.00288	1	04/08/2018 14:58	WG1095357
Toluene	U		0.00306	0.00577	1	04/08/2018 14:58	WG1095357
Ethylbenzene	U		0.00149	0.00288	1	04/08/2018 14:58	WG1095357
Total Xylenes	U		0.00144	0.00865	1	04/08/2018 14:58	WG1095357
(S) Toluene-d8	*99.0*			*80.0-120*		*04/08/2018 14:58*	WG1095357
(S) Dibromofluoromethane	*85.1*			*74.0-131*		*04/08/2018 14:58*	WG1095357
(S) a,a,a-Trifluorotoluene	*94.2*			*80.0-120*		*04/08/2018 14:58*	WG1095357
(S) 4-Bromofluorobenzene	*97.8*			*64.0-132*		*04/08/2018 14:58*	WG1095357

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.0		1	04/10/2018 15:41	WG1095935

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.0413	0.122	1	04/11/2018 04:09	WG1096294
(S) a,a,a-Trifluorotoluene(FID)	*97.0*			*77.0-120*		*04/11/2018 04:09*	WG1096294

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.00159	0.00305	1	04/09/2018 13:33	WG1095600
Toluene	U		0.00323	0.00610	1	04/09/2018 13:33	WG1095600
Ethylbenzene	U		0.00157	0.00305	1	04/09/2018 13:33	WG1095600
Total Xylenes	U		0.00152	0.00915	1	04/09/2018 13:33	WG1095600
(S) Toluene-d8	*103*			*80.0-120*		*04/09/2018 13:33*	WG1095600
(S) Dibromofluoromethane	*82.2*			*74.0-131*		*04/09/2018 13:33*	WG1095600
(S) a,a,a-Trifluorotoluene	*97.8*			*80.0-120*		*04/09/2018 13:33*	WG1095600
(S) 4-Bromofluorobenzene	*96.1*			*64.0-132*		*04/09/2018 13:33*	WG1095600

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.0		1	04/10/2018 15:41	WG1095935

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.0408	0.120	1	04/11/2018 04:31	WG1096294
(S) a,a,a-Trifluorotoluene(FID)	*96.7*			*77.0-120*		*04/11/2018 04:31*	WG1096294

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.00172	0.00331	1.1	04/09/2018 13:53	WG1095600
Toluene	U		0.00352	0.00662	1.1	04/09/2018 13:53	WG1095600
Ethylbenzene	U		0.00171	0.00331	1.1	04/09/2018 13:53	WG1095600
Total Xylenes	U		0.00166	0.00994	1.1	04/09/2018 13:53	WG1095600
(S) Toluene-d8	*103*			*80.0-120*		*04/09/2018 13:53*	WG1095600
(S) Dibromofluoromethane	*83.2*			*74.0-131*		*04/09/2018 13:53*	WG1095600
(S) a,a,a-Trifluorotoluene	*97.1*			*80.0-120*		*04/09/2018 13:53*	WG1095600
(S) 4-Bromofluorobenzene	*98.2*			*64.0-132*		*04/09/2018 13:53*	WG1095600

Method Blank (MB)

(MB) R3300714-1 04/10/18 15:41

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

L983940-01 Original Sample (OS) • Duplicate (DUP)

(OS) L983940-01 04/10/18 15:41 • (DUP) R3300714-3 04/10/18 15:41

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	83.1	82.5	1	0.792		5

Laboratory Control Sample (LCS)

(LCS) R3300714-2 04/10/18 15:41

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) R3301388-3 04/11/18 00:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C6 - C12	0.0722	J	0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	*99.7*			*77.0-120*

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

(LCS) R3301388-1 04/10/18 23:26 • (LCSD) R3301388-2 04/10/18 23:48

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 %
TPHG C6 - C12	5.50	4.94	4.81	89.7	87.5	70.0-133			2.48	20
(S) a,a,a-Trifluorotoluene(FID)				*96.6*	*97.3*	*77.0-120*				

L984342-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L984342-02 04/11/18 07:52 • (MS) R3301388-4 04/11/18 08:14 • (MSD) R3301388-5 04/11/18 08:36

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 %
TPHG C6 - C12	7.14	548	1230	1260	47.5	50.1	200	10.0-146			2.92	30
(S) a,a,a-Trifluorotoluene(FID)					*96.0*	*96.0*		*77.0-120*				

Method Blank (MB)

(MB) R3300376-3 04/08/18 11:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.00130	0.00250
Ethylbenzene	U		0.00129	0.00250
Toluene	U		0.00265	0.00500
Xylenes, Total	U		0.00125	0.00750
(S) Toluene-d8	*98.8*			*80.0-120*
(S) Dibromofluoromethane	*84.7*			*74.0-131*
(S) a,a,a-Trifluorotoluene	*98.2*			*80.0-120*
(S) 4-Bromofluorobenzene	*99.7*			*64.0-132*

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

(LCS) R3300376-1 04/08/18 10:02 • (LCSD) R3300376-2 04/08/18 10:22

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 %
Benzene	0.625	0.567	0.562	90.7	89.9	72.6-120			0.860	20
Ethylbenzene	0.625	0.698	0.710	112	114	78.6-124			1.64	20
Toluene	0.625	0.559	0.564	89.5	90.2	76.7-116			0.779	20
Xylenes, Total	1.88	1.80	1.83	95.8	97.8	78.1-123			2.04	20
(S) Toluene-d8				*92.3*	*94.2*	*80.0-120*				
(S) Dibromofluoromethane				*91.8*	*93.3*	*74.0-131*				
(S) a,a,a-Trifluorotoluene				*94.4*	*94.3*	*80.0-120*				
(S) 4-Bromofluorobenzene				*95.1*	*94.6*	*64.0-132*				

L983886-24 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L983886-24 04/08/18 19:39 • (MS) R3300376-4 04/08/18 12:56 • (MSD) R3300376-5 04/08/18 13:16

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 %
Benzene	0.625	ND	0.225	0.664	36.1	106	1	47.8-131	J6	J3	98.6	22.8
Ethylbenzene	0.625	ND	0.288	0.815	46.0	130	1	44.8-135		J3	95.6	26.9
Toluene	0.625	ND	0.234	0.688	37.4	110	1	47.8-127	J6	J3	98.5	24.3
Xylenes, Total	1.88	ND	0.738	2.05	39.4	109	1	42.7-135	J6	J3	94.2	26.6
(S) Toluene-d8					*95.4*	*94.6*		*80.0-120*				
(S) Dibromofluoromethane					*88.5*	*88.8*		*74.0-131*				
(S) a,a,a-Trifluorotoluene					*95.1*	*95.4*		*80.0-120*				
(S) 4-Bromofluorobenzene					*102*	*102*		*64.0-132*				

Method Blank (MB)

(MB) R3300418-3 04/09/18 11:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.00130	0.00250
Ethylbenzene	U		0.00129	0.00250
Toluene	U		0.00265	0.00500
Xylenes, Total	U		0.00125	0.00750
(S) Toluene-d8	*104*			*80.0-120*
(S) Dibromofluoromethane	*81.4*			*74.0-131*
(S) a,a,a-Trifluorotoluene	*97.6*			*80.0-120*
(S) 4-Bromofluorobenzene	*95.8*			*64.0-132*

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

(LCS) R3300418-1 04/09/18 10:02 • (LCSD) R3300418-2 04/09/18 10:22

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 %
Benzene	0.625	0.563	0.565	90.0	90.4	72.6-120			0.440	20
Ethylbenzene	0.625	0.695	0.701	111	112	78.6-124			0.786	20
Toluene	0.625	0.550	0.560	87.9	89.6	76.7-116			1.91	20
Xylenes, Total	1.88	1.78	1.80	94.9	96.2	78.1-123			1.28	20
(S) Toluene-d8				*93.0*	*94.4*	*80.0-120*				
(S) Dibromofluoromethane				*93.3*	*92.7*	*74.0-131*				
(S) a,a,a-Trifluorotoluene				*94.4*	*94.5*	*80.0-120*				
(S) 4-Bromofluorobenzene				*93.4*	*94.5*	*64.0-132*				

L984114-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L984114-05 04/09/18 18:33 • (MS) R3300418-4 04/09/18 20:14 • (MSD) R3300418-5 04/09/18 20:34

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 %
Benzene	0.625	U	0.185	0.327	29.5	52.4	1	47.8-131	J6	J3	55.8	22.8
Ethylbenzene	0.625		0.258	0.509	40.1	80.3	1	44.8-135	J6	J3	65.4	26.9
Toluene	0.625		0.199	0.410	31.1	64.9	1	47.8-127	J6	J3	69.3	24.3
Xylenes, Total	1.88		0.681	1.27	35.5	67.1	1	42.7-135	J6	J3	60.7	26.6
(S) Toluene-d8					*97.8*	*105*		*80.0-120*				
(S) Dibromofluoromethane					*86.2*	*75.3*		*74.0-131*				
(S) a,a,a-Trifluorotoluene					*98.5*	*99.6*		*80.0-120*				
(S) 4-Bromofluorobenzene					*98.0*	*99.9*		*64.0-132*				

Guide to Reading and Understanding Your Laboratory Report

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

Abbreviations and Definitions

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

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

ESC Lab Sciences 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 ESC Lab Sciences.

State Accreditations

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

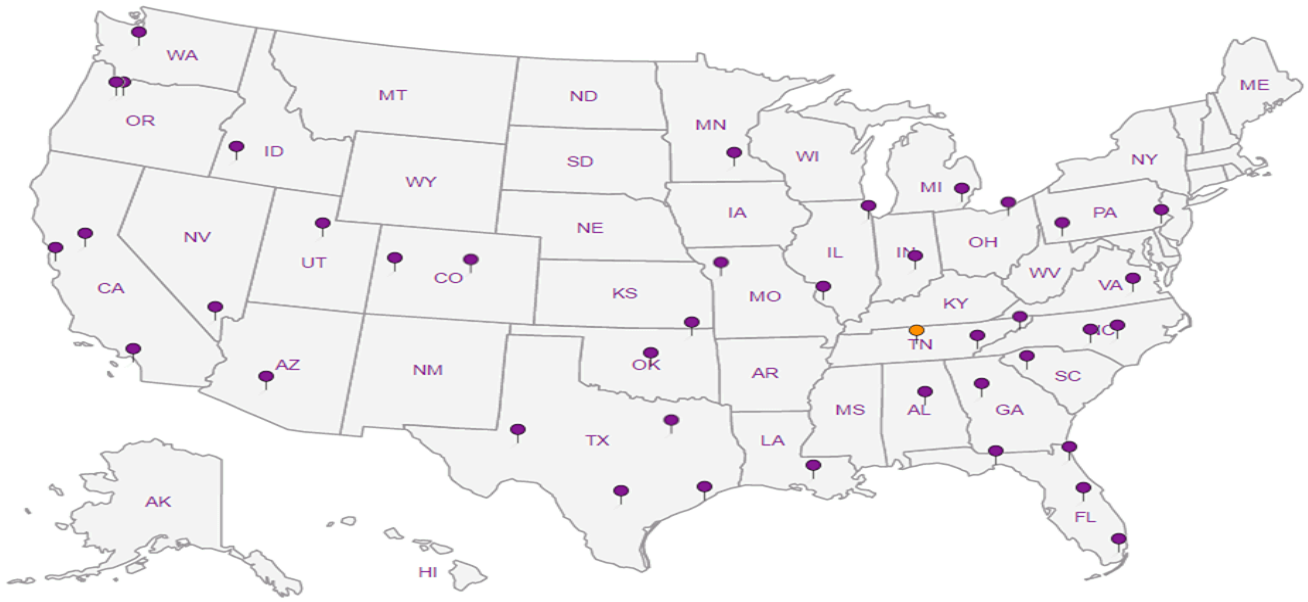
Third Party Federal Accreditations

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

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

Our Locations

ESC Lab Sciences 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. ESC Lab Sciences performs all testing at our central laboratory.



Chain of Custody Page 1 of 1

ESC LAB SCIENCES

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

L# L983823

Table # F123

Acctnum: SUCENVPOR
Template: T132035
Prelogin: P636453
TSR: 110 - Brian Ford
PB: 1/25/18 mb
Shipped Via: FedEX Ground

Succeed Environmental Consulting

6028 NE 49th Avenue
Portland, OR 97218

Billing Information:
Andrew Blake
6028 NE 49th Ave.
Portland, OR 97218

Email To: ablake@succeed-env.com

Report to: Andrew Blake

Project Description:

City/State Collected:

Phone: 971-371-0404
Fax:

Client Project #: HE-1

Lab Project #: SUCENVPOR-HE1

Collected by (print):

Site/Facility ID #:

P.O. #:

Collected by (signature):

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

Quote #

Date Results Needed

Immediately Packed on Ice N___ Y___

Analysis / Container / Preservative: V8260C VOCs 40mlAmb-NaHSO4/SyrMeOH; dry wt, voc screen 2ozClr-NoPres Gx + BTEX

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260C VOCs 40mlAmb-NaHSO4/SyrMeOH	dry wt, voc screen 2ozClr-NoPres Gx + BTEX	Remarks	Sample # (lab only)
DP-1 (9.0-10.0)		SS		4/5/18	9:30	5	X	X		-01
DP-1 (13.0-14.0)		SS		4/5/18	9:40	5	X	X		02
DP-2 (9.0-10.0)		SS		4/5/18	10:10	5	X	X		03
DP-2 (15.0-16.0)		SS		4/5/18	10:20	5	X	X		04
DP-3 (9.0-10.0)		SS		4/5/18	11:00	5	X	X		05
DP-3 (15.0-16.0)		SS		4/5/18	11:10	5	X	X		06
		SS				5	X	X		
		SS				5	X	X		
		SS				5	X	X		
		SS				5	X	X		

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

Remarks: Analyze for Gx + BTEX

pH ___ Temp ___
Flow ___ Other ___

Samples returned via: ___ UPS ✓ FedEx ___ Courier ___

Tracking # 4196 3259 2061

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

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / (No) HCL / MeOH TBR	
[signature]	4/5/18	FEDEX			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.6 °C	Bottles Received: 30
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 4/6/18	Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

ACRONYMS AND ABBREVIATIONS

AES	Alpha Environmental Services, Inc.
ASTM	American Society for Testing and Materials
BGS	below ground surface
BS	blank spike
BSD	blank spike duplicate
CSM	conceptual site model
DEQ	Oregon Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
LUST	Leaking Underground Storage Tank
mg/kg	milligrams per kilogram
MS	matrix spike
MSD	matrix spike duplicate
NA	not applicable
NE	not established
PAHs	polynuclear aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PID	photoionization detector
ppm	parts per million
QC	quality control
RBC	risk-based concentration
RCRA	Resource Conservation and Recovery Act
RDL	reported detection limit
ROW	right-of-way
RPD	relative percent difference
SEC	Succeed Environmental Consulting LLC
µg/m3	micrograms per cubic meter
USGS	U.S. Geological Survey
UST	underground storage tank
VOCs	volatile organic compounds