September 21, 2018

MultiCare Health System, a Washington nonprofit corporation
315 Martin Luther King, Jr. Way
Tacoma, Washington 98415-0299

RE: Limited Phase II ESA Oversight & Split Sampling Event
Proposed Federal Way Hospital
29805 Pacific Highway South
Federal Way, King County, Washington
TGE Project No. R13411.06

To Whom It May Concern,

TGE Resources, Inc., ("TGE") has completed Environmental Consulting Services for the Proposed Federal Way Hospital tract located at 29805 Pacific Highway South in Federal Way, King County, Washington, hereinafter referred to as the "Site" or "Property". Project activities were conducted at the subject building on behalf of MultiCare Health System ("MultiCare" or "Client"), in accordance with TGE Proposal No. P13411.06, dated August 13, 2018.

PROPERTY DESCRIPTION AND PURPOSE

According to King County Appraisal District (CAD) information, the Property is comprised of two parcels comprising a reported 1.72 acres (74,887 square feet) of land. Site improvements consist of a 6,350 square-foot, partial two-story, commercial office and automobile repair facility that was constructed in 1970. At the time of the subject split sampling event, which was undertaken on August 14 and 15, 2018, the Property was in use as improved commercial real estate with automotive repair in two, central service bays. Two eastern service bays were in use for general equipment and automotive storage, and the western bay was vacant.

Access to the service bays was not previously provided to TGE during performance of foregoing subsurface assessments at the Property in 2017. As such, the the Property owner's consultant (Environmental Associates, Inc. or "EAI") was contracted to conduct a "preliminary assessment of current soil conditions in areas underneath the operating auto repair shop, adjacent to sumps, and near exterior material storage areas/surficially stained areas as well as evaluate soil-vapor conditions at the margins of the property." On behalf of Client (as prospective lessor of the Property at the time of field activities), TGE was requested to conduct oversight of EAI, participate in "split" sampling of soil, document EAI field activities, and provide a limited peer review of technical reports (as provided to TGE by Client) generated by EAI. Following completion of field work oversight/sampling activities and document review, TGE was to prepare a summary letter report (included herein) to summarize soil/soil vapor assessment efforts, as well as the veracity of EAI's findings, conclusions and professional opinion, especially given Client's intended use of the Site for re-development/repurposing with a hospital. Please refer to **Figure 1 – Boring Location Map**.

FIELD ACTIVITIES

Prior to the current engagement, TGE completed a Phase I Environmental Site Assessment (ESA) on behalf of PhiloWilke Partnership (Client's architect) in August, 2017. The Phase I ESA identified historic Site use as a retail fueling station with concurrent use of underground petroleum storage tanks (PSTs) and historic/current use for automotive repair as recognized environmental conditions (RECs) for the Property. Based on these findings, TGE conducted soil and soil vapor assessments at the Property in September and November 2017. The subsurface investigations included the completion and sampling of 12 soil borings, one temporary screened borehole (no groundwater encountered) and two temporary vapor monitor points. Findings from the two foregoing subsurface investigations are provided under separate cover (TGE Project No. R13411.02 dated September 12, 2017 and R13411.04 dated November 8, 2017). However, as previously stated access to the service bays within the Site building was not provided to TGE. As such, assessment of these areas was not performed.

On August 14 and 15, 2018, Mr. Timothy E. Crump (WA P.G.), Senior Project Manager with TGE, mobilized to the Site to conduct oversight of EAI field procedures for the soil and soil vapor investigation and collect "split" samples of Site soil. Per the EAI scope of work (prepared by EAI for Cantu Commercial Properties, LLC), areas of investigation for the current split sampling event included "within the auto bays, adjacent to interior sumps, adjacent to waste material storage containers, and at notable exterior surface stained areas" that were previously inaccessible to TGE during previous assessment activities in 2017. No evidence of current/former in-ground hydraulic lifts was observed. Additional soil vapor borings were placed near the northern, eastern and western Property boundaries to "evaluate" the potential for soil vapor encroachment. In general compliance with the scope of work (as directed by purchaser's consultant, EAI), the following borings were completed in the field as tabulated below.

Borehole Name	Depth (fbg)	Borehole Location
B-1	9	Along the exterior perimeter of Bay 3/Bay 4, at an area of surface staining
B-2	8	Within Bay 3
B-3	10	Adjacent to a sump within Bay 3
B-4	6	Within Bay 4
B-5	9	Rear service area of Bay 4
B-6	6	Waste storage area in rear of Bay 3
B-7	9	Within Bay 1
B-8	7	Adjacent to a sump within Bay 5
B-9	20	At surface staining within an exterior service bay area
B-10	20	Within Bay 2
B-11	5	Western portion of the Property
B-12	5	Northern portion of the Property
B-13	5	Eastern portion of the Property, within the approximate location of former underground PSTs

As proposed by EAI, soil vapor samples were collected by EAI using a post-run tubing (PRT) system. Specifically, the drill rig probe rod was inserted to a depth of approximately 5 fbg, withdrawn six inches to create a void (4.5 fbg to 5 fbg), dedicated tubing inserted through the rods and threaded into the drive point for collection of soil vapor into an evacuated Summa canister over a 5-minute sample period. Due to the methodology of PRT soil vapor sampling, "split" soil vapor samples could not be collected by TGE for purposes of the current investigation. While EAI conducted "shut-in" testing at each soil vapor boring to demonstrate "tight" conditions prior to sample collection, per Ecology guidance soil vapor samples "*should not be collected from depths shallower than five feet below ground surface (unless located sub-slab*)" due to the "*possibility of diluting the collected soil gas with atmospheric air*".

SAMPLE COLLECTION AND LABORATORY ANALYSIS

An organic vapor meter (OVM) was used by EAI in an effort to qualitatively identify the presence of total volatile organic compounds (VOCs) in Site soils. In this field screening method, EAI placed soil from each 5-foot section recovered from the borehole into a sealed zip-lock bag. The container was left under ambient conditions to permit any volatile gases present within the soil pore space to equilibrate within the sample container headspace. Following this equilibration period, the OVM obtained a qualitative measurement of volatile gases. This method of field screening is not considered a quantitative analysis, but rather a qualitative indication that VOCs may be present. For the current project, OVM readings were recorded in units of parts per million (ppm) total VOCs and are listed on boring logs contained in **Attachment 4**. OVM responses and olfactory evidence (i.e., a hydrocarbon odor) were not indicated in soil headspace samples. Soil sample locations for laboratory analysis were selected by EAI.

"Spilt" soil samples collected by TGE were placed in sample containers provided by the contract laboratory, sealed, labeled as to sample location, and immediately packed on ice for transportation to the analytical laboratory (Pace Analytical Services, Inc. in Mt. Juliet, Tennessee). Soil samples collected by TGE were analyzed for gasoline petroleum products (NWTPH-Gx), diesel/residual petroleum products (NWTPH-Dx), VOCs, and Resource Conservation and Recovery Act (RCRA) 8 metals. Soil and soil vapor samples collected by EAI were reportedly submitted to ESN Northwest Chemistry Laboratory in Olympia, Washington for soil and Friedman & Bruya, Inc. in Seattle, Washington for soil vapor. Photographic documentation of field activities is provided for reference as **Attachment 3**.

Complete tables showing soil sample data (both TGE and EAI) and soil vapor data (as reported by EAI) are included within **Appendix 1,** with the associated laboratory report and chain-of-custody for TGE data provided as **Appendix 2**.

SOIL SAMPLE ANALYTICAL RESULTS

<u>TGE Analytical Results</u>
NWTPH-Gx, NWTPH-Dx, and select VOC constituents (typical motor fuel-related compounds) within soil samples collected by TGE were reported by the analytical laboratory at concentrations above laboratory detection limits, yet not in excess of respective Washington State Department of Ecology ("Ecology") screening limits, as set forth within the State of Washington Model Toxics Control Act (MTCA) regulation/statute (as applicable). Additionally, relatively low concentrations (below the MTCA screening limit) of the chlorinated solvent tetrachloroethene (PCE) was reported in soil samples collected within Service Bay 2 through Service Bay 5 at depths ranging from 3 fbg to 10 fbg.

RCRA-8 metals were reported by the analytical laboratory at concentrations not in excess of laboratory detection limits and/or respective Ecology screening limits with the exception of arsenic and total chromium. Specifically, arsenic was reported at 81.7 milligrams per kilogram (mg/kg) in Site soil at boring B3 at a depth of 4 fbg, which exceeds the Ecology Method A Unrestricted Land Use Screening Level of 20 mg/kg. Additionally, total chromium was reported in soil samples from borings B-4 and B-6 (both collected at depths of 6 fbg) at concentrations of 44.8 mg/kg and 42.4 mg/kg, respectively, which slightly exceed the Ecology Simplified Terrestrial Eco Evaluation Unrestricted Screening Level of 42 mg/kg for total chromium.

A second aliquot of soil from the B3(4 fbg) sample was analyzed due to an elevated, initial arsenic concentration of 81.7 mg/kg. Secondary analysis of B3(4 fbg) reported arsenic at a lesser concentration of 6.58 mg/kg, which is well below applicable MTCA screening levels; however, the initial arsenic value remains valid. Additionally, TGE's soil samples B4(6 fbg) and B6(6 fbg) were analyzed for chromium speciation. Speciation of total chromium within TGE soil sample B4(6 fbg) reported chromium values of 43.9 mg/kg trivalent chromium (Cr^{+3}) and 0.916 mg/kg hexavalent chromium (Cr^{+6}). For sample B6(6 fbg), total chromium speciation reported 41.7 mg/kg trivalent chromium and 0.670 mg/kg hexavalent chromium. Reported concentrations of both trivalent and hexavalent chromium were not in excess of applicable MTCA screening levels.

For reference, TGE laboratory data is summarized in **Table 1A** and **Table 1B (Attachment 1)**, and laboratory data reports (with chain-of-custody documentation) are provided in **Attachment 2**.

EAI Analytical Results

Per the attached EAI Phase II – Limited Subsurface Sampling and Testing report, NWTPH-Gx, NWTPH-Dx, and VOCs within soil samples were reported by the analytical laboratory at concentrations not in excess of laboratory detection limits. For RCRA-8 Metals, EAI reported elevated concentrations of "chromium" ranging from 14 mg/kg to 57 mg/kg. EAI states that reported chromium concentrations "may (or may not) be above regulatory levels depending upon what species chromium is actually present." As documented by EAI, the MTCA regulation provides a Method A Unrestricted Land Use Screening Level of 2,000 mg/kg for trivalent chromium, and a Screening Level of 19 mg/kg for the carcinogenic hexavalent chromium. Chromium speciation was not conducted by EAI as a component of the current study, yet EAI states that it is "*reasonable to tentatively presume*" that reported chromium concentrations "*are indicative of naturally-occurring 'background' relating to native soil mineralogy*". However, per EAI further laboratory analysis via chromium speciation may be desired.

EAI directed the performance of chromium speciation on three select soil samples (B1-4, B4-6 and B6-6) and prepared a report addendum (dated September 21, 2018 - attached) to present their findings. As reported by EAI, the three samples (inclusive of the sample previously found with the greatest reported total chromium concentration) were submitted by ESN Northwest, Inc. (contract laboratory for EAI) to Spectra Laboratories in Tacoma, Washington for analysis. Sample analysis by Spectra Laboratories reported hexavalent chromium concentrations within a Level 1 report (i.e., no sample/method Quality Assurance/Quality Control documentation was provided). This non-qualified result did not report hexavalent chromium in excess of the laboratory method detection level (MDL).

For reference, EAI laboratory data reports are included within the Phase II – Limited Subsurface Sampling and Testing report provided within **Attachment 4**.

SOIL VAPOR SAMPLE ANALYTICAL RESULTS

Per the EAI report, laboratory analysis of soil vapor samples collected (by EAI) found numerous VOC constituents, inclusive of motor-fuel related compounds and chlorinated solvents, yet at concentrations below respective Ecology MTCA Method B vapor intrusion risk screening levels with the exception of benzene (B-10, B-12 and B-13); 1,3-butadiene (B-10, B-12 and B-13); acrolein (B-10 and B-13); acrylonitrile (B-10); and trichloroethene (B-10, B-11 and B-13). Upon review of laboratory data provided, reported concentrations the VOCs naphthalene (B-13) and ethylene dibromide (B-10, B-11, B-12 and B-13) also exceeded respective MTCA Method B screening levels.

For reference, a soil vapor laboratory data summary and laboratory data reports are included within the EAI Limited Subsurface Sampling and Testing report provided within **Attachment 5**.

FINDINGS

Per findings presented in the attached Limited Subsurface Sampling and Testing report (dated August 31, 2015), EAI concludes that soils *"do not appears to have been impacted by on-site auto repair/service activities".* Soil sample analyses for VOCs by EAI was reported as "*not detected*" (ND) for all VOC analytes; however, as previously stated, the laboratory contracted by TGE utilized lower MDLs and reported low concentrations of a significant number of primarily automotive-related compounds (inclusive of benzene at boring B-3) at all boring locations. While such values are below respective Ecology screening levels, "*impact by on-site auto repair/service activities*" to Site soil is present.

With respect to soil vapor, EAI concludes that based on Site use history that it is "*not surprising*" that reported benzene concentrations exceed the Ecology soil vapor screening level; however, the "*exact source of the soil-vapor detections remains unknown at this time.*" However, EAI provides partitioning model calculations to demonstrate that reported levels of soil vapor VOCs may reflect adsorbed-phase soil impact and do not necessarily contradict findings from soil sample analyses to date.

Based on the "*collective scope and results*" of the current limited investigation with that of foregoing efforts by TGE, EAI states that "*it does not appear that additional soil sampling and testing would be warranted at this time*" and that "*further evaluation of indoor air quality within the current on-site structure*" would provide "*useful data regarding potential soil-vapor migration*".

However, EAI recommended the design and installation of a "*vapor barrier of appropriate composition and material compatibility suitable for use with the contaminants detected*" during "*construction of the proposed medical office*" building to "*reduce the potential for encroachment of subsurface VOC vapors into the indoor air within a finished structure*." Lastly, should contaminated soils in areas not previously investigated be encountered during planned construction activities, EAI recommended that such soils be sampled, tested and disposed as appropriate.

RECOMMDATIONS

As an outcome of findings summarized herein and foregoing subsurface assessments, in addition to current/historical Site use, and intended redevelopment of the property by Client for use in the healthcare industry, the following efforts are recommended.

- Due to elevated concentrations of VOCs detected within Site soil vapor (as documented herein and in a foregoing Phase II ESA completed by TGE in 2017), report soil vapor impact to Ecology, as per WAC 173-340. Soil vapor above regulatory thresholds may necessitate notice (VCP entry) and potential corrective action under agency purview. Typically, soil vapor risk conditions can be mitigated coincident with Property redevelopment (building construction). Vapor mitigation planning, design, and installation is recommended for planned Site redevelopment within areas of proposed improvement, including utility trenches, the building footprint and other below-grade features.

- Removal and the regulated off-Site recycling/disposal of unsuitable fill material on-Site and/or backfill within the two former PST system excavation zones; and the addition of engineered fill, assuming that material as proposed meets required compaction specifications.

- Until Site demolition occurs, the potential presence of additional in-ground features (e.g., sumps) or other buried, historically significant equipment/facilities (PST equipment) remains unknown, yet is suspect. Preparation and implementation of a soil management plan is recommended to specify key components, applicable and relevant operating procedures and control methods, pertinent personnel, and documentation necessary to execute compliant petroleum contaminated soil management during Site demolition/redevelopment.

QUALIFICATIONS

Our professional services have been performed and our findings obtained in accordance with customary principles and practices in the fields of environmental science, geoscience and engineering. This company is not responsible for independent conclusions, opinions or recommendations made by others based on the field exploration and laboratory test data presented in this report. Work performed in conjunction with this assessment and data developed are intended as a description of available information at the dates and locations given. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated.

Conclusions presented in this report are professional opinions based solely upon visual observations and preliminary testing of select soil and soil vapor samples at the Site, as described in this report. This report is intended exclusively for the purpose outlined herein and at the Property indicated. This report is intended for the sole use of Client, and their representatives. The scope of services performed in execution of this investigation may not be appropriate to satisfy the needs of other users, and any use or re-use of this document or its findings, conclusions, or recommendations presented herein is at the sole risk of said user.

It should be recognized that this study was not intended to be a definitive investigation of contamination across the Property. Although the scope of services for this investigation included the collection and analytical testing of soil and soil vapor samples, it is possible that currently unrecognized contamination may exist at the Site and that the levels of this potential contamination may vary across the Property. Opinions and recommendations presented herein apply to Site conditions existing at the time of our investigation and those reasonable foreseeable. They cannot necessarily apply to Site changes of which this company is not aware and has not had the opportunity to evaluate.

We appreciate the opportunity to provide you with these services. Should you have any questions or comments regarding this report or any related matter, please call us at (713) 744-5800. It has been a pleasure working with you on this project.

Sincerely,
TGE Resources, Inc.

TIMOTHY E. CRUMP

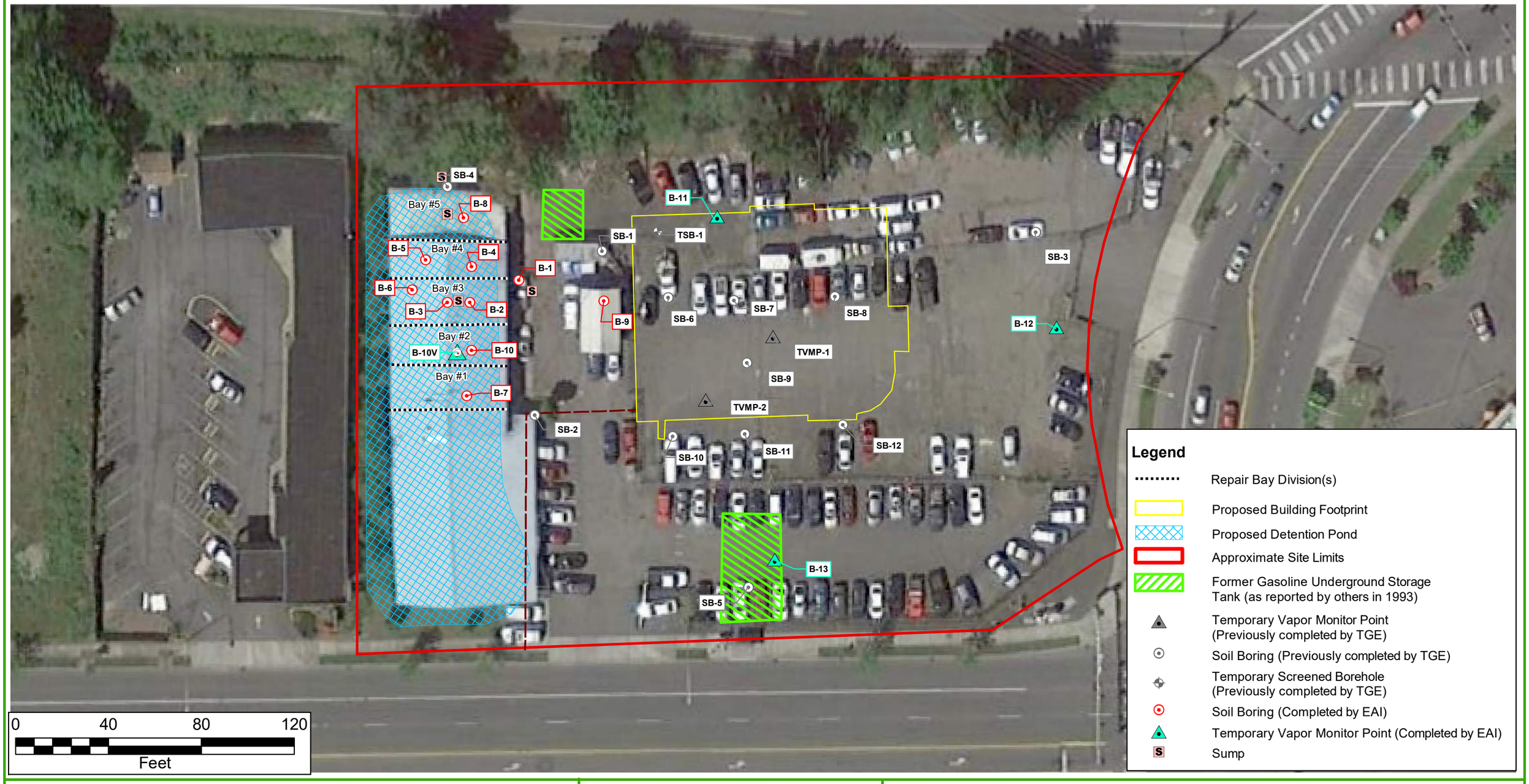
Timothy E. Crump, P.G., CPG
Sr. Project Manager
WA P.G. #3210

Robin D. Franks, TX PG, CHMM, RSO
President

Attachments:

Figure 1 - Sample Location Map
Attachment 1 - Analytical Results Tables
Attachment 2 - Laboratory Report & Chain-of-Custody Documentation
Attachment 3 - Photographic Documentation
Attachment 4 - Boring Logs
Attachment 5 - EAI Limited Phase II ESA and Addendum

FIGURES



Future Federal Way Hospital
29805 Pacific Highway South
Federal Way, King County, Washington
TGE Project No.: R13411.06

TGE RESOURCES, INC.
8048 Northcourt Road
Houston, Texas 77040

Figure 1
Boring Location Map

ATTACHMENT 1

Table # 1A
SOIL ANALYTICAL RESULTS - SPLIT SAMPLING EVENT
Future Federal Way Hospital
Federal Way, WA
TGE Project No.: R13411.06

Station Name	Method A Unrestricted Land Use	Method B Non-cancer	Simplified Terrestrial Eco Evaluation Unrestricted	Reporting Units	B1	B1-4		B1	B1-9	B2	B2-4	B2-4 DUP	B2	B2-8	B3		B3-5
Laboratory Identification					L1017897-01			L1017897-02		L1017897-03			L1017897-04		L1017897-05	L1025391-01	
Sample Date					8/14/2018	8/14/2018		8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018		8/14/2018
Sample Depth					4 ft	4 ft		9 ft	9 ft	4 ft	4 ft	4 ft	8 ft	8 ft	4 ft		4 ft
Consultant					TGE	EAI		TGE	EAI	TGE	EAI		TGE	EAI	TGE		EAI
Hydrocarbon																	
TPH GRO, benzene present	30	NL	200	mg/kg	<0.976	<10	NT	<0.884	<10	<0.933	<10	NT	<0.888	<10	<0.913	NT	<10
Gasoline range organics (Benzene NonDetect)	100	NL	200	mg/kg	<0.976	<10	NT	<0.884	<10	<0.933	<10	NT	<0.888	<10	<0.913	NT	<10
TPH, diesel range organics	2000	NL	460	mg/kg	<1.38	<50	NT	<1.39	<50	<1.41	<50	NT	<1.39	<50	**79**	NT	<50
TPH, heavy oils	2000	NL	NL	mg/kg	<3.46	<100	NT	<3.47	<100	<3.52	<100	NT	<3.49	<100	**127**	NT	<100
Metals																	
Arsenic	20	24	NL	mg/kg	**3.37**	<5	NT	**3.56**	<5	**3.13**	<5	<5	**2.87**	<5	**81.7**	**6.58**	**5.8**
Barium	NL	16000	1320	mg/kg	**76.4**	**51**	NT	**85.7**	**50**	**69.9**	**55**	**72**	**52.3**	<50	**62.9**	NT	**50**
Cadmium	2	80	NL	mg/kg	**0.0811 J**	<1	NT	<0.073	<1	<0.0741	<1	<1	<0.0733	<1	**0.1990 J**	NT	<1
Lead	250	NL	220	mg/kg	**2.35**	<5	NT	**2.16**	<5	**2.06**	<5	<5	**1.56**	<5	**27.2**	NT	**16**
Mercury	2	NL	NL	mg/kg	**0.00633 J**	<0.5	NT	**0.00554 J**	<0.5	**0.01530 J**	<0.5	<0.5	**0.00950 J**	<0.5	**0.02140 J**	NT	<0.5
Selenium	NL	400	0.8	mg/kg	<0.768	<20	NT	<0.772	<20	<0.783	<20	<20	<0.775	<20	<0.797	NT	<20
Silver	NL	400	NL	mg/kg	<0.291	<20	NT	<0.292	<20	<0.296	<20	<20	<0.293	<20	<0.302	NT	<20
Total Chromium	NL	NL	42	mg/kg	**22.4**	**57**		**31**	**14**	**27.9**	**21**	**26**	**31.7**	**21**	**25.2**	**NT**	**24**
Trivalent Chromium (Cr^{+3})	2000	120000	NL	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Hexavalent Chromium (Cr^{+6})	19	240	NL	mg/kg	NT	NT	<0.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Other																	
% Moisture	NL	NL	NL	%	96.3	95		95.9	94	94.5	93	NT	95.5	95	92.8		93

Table # 1A
SOIL ANALYTICAL RESULTS - SPLIT SAMPLING EVENT
Future Federal Way Hospital
Federal Way, WA
TGE Project No.: R13411.06

Station Name	Method A Unrestricted Land Use	Method B Non-cancer	Simplified Terrestrial Eco Evaluation Unrestricted	Reporting Units	B3	B3-10	B4	B4-3	B4		B4-6		B5	B5-4	B5	B5-9
Laboratory Identification					L1017897-06		L1017897-07		L1017897-08	L1025391-02			L1017897-09		L1017897-10	
Sample Date					8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018		8/14/2018		8/14/2018	8/14/2018	8/14/2018	8/14/2018
Sample Depth					10 ft	10 ft	3 ft	3 ft	6 ft		6 ft		4 ft	4 ft	9 ft	9 ft
Consultant					TGE	EAI	TGE	EAI	TGE		EAI		TGE	EAI	TGE	EAI
Hydrocarbon																
TPH GRO, benzene present	30	NL	200	mg/kg	<0.944	<10	<0.899	<10	<0.882	NT	<10	NT	<0.892	<10	<1.04	<10
Gasoline range organics (Benzene NonDetect)	100	NL	200	mg/kg	<0.944	<10	<0.899	<10	<0.882	NT	<10	NT	<0.892	<10	<1.04	<10
TPH, diesel range organics	2000	NL	460	mg/kg	<1.38	<50	<1.41	<50	**6.89**	NT	<50	NT	<1.4	<50	<1.64	<50
TPH, heavy oils	2000	NL	NL	mg/kg	<3.47	<100	<3.53	<100	**10.7**	NT	<100	NT	<3.51	<100	<4.1	<100
Metals																
Arsenic	20	24	NL	mg/kg	**2.68**	<5	**3.4**	<5	**7.93**	NT	<5	NT	**2.51**	<5	**3.3**	<5
Barium	NL	16000	1320	mg/kg	**52.3**	<50	**96.4**	<50	**83.9**	NT	**57**	NT	**63.9**	<50	**184**	<50
Cadmium	2	80	NL	mg/kg	<0.0729	<1	<0.0743	<1	<0.0729	NT	<1	NT	<0.0737	<1	**0.0950 J**	<1
Lead	250	NL	220	mg/kg	**1.8**	<5	**2.13**	<5	**6.73**	NT	<5	NT	**1.9**	<5	**2.7**	<5
Mercury	2	NL	NL	mg/kg	**0.00690 J**	<0.5	**0.01170 J**	<0.5	**0.00538 J**	NT	<0.5	NT	**0.01070 J**	<0.5	**0.00966 J**	<0.5
Selenium	NL	400	0.8	mg/kg	<0.77	<20	<0.785	<20	<0.77	NT	<20	NT	<0.779	<20	<0.911	<20
Silver	NL	400	NL	mg/kg	<0.292	<20	<0.297	<20	<0.292	NT	<20	NT	<0.295	<20	<0.345	<20
Total Chromium	NL	NL	42	mg/kg	**16.3**	**15**	**36.6**	**19**	**44.8**		**34**		**23.8**	**32**	**21.5**	**20**
Trivalent Chromium (Cr^{+3})	2000	120000	NL	mg/kg	NT	NT	NT	NT	NT	**43.9**	NT	NT	NT	NT	NT	NT
Hexavalent Chromium (Cr^{+6})	19	240	NL	mg/kg	NT	NT	NT	NT	NT	**0.916 J**	NT	<0.1	NT	NT	NT	NT
Other																
% Moisture	NL	NL	NL	%	96	96	94.3	94	96.1		93		95	94	81.3	91

Table # 1A
SOIL ANALYTICAL RESULTS - SPLIT SAMPLING EVENT
Future Federal Way Hospital
Federal Way, WA
TGE Project No.: R13411.06

Station Name	Method A Unrestricted Land Use	Method B Non-cancer	Simplified Terrestrial Eco Evaluation Unrestricted	Reporting Units	B6	B6-3	B6		B6-6		B7	B7-4	B7	B7-9	B8	B8-4
Laboratory Identification					L1017897-11		L1017897-12	I1025391-03			L1017897-13		L1017897-14		L1017897-15	
Sample Date					8/14/2018	8/14/2018	8/14/2018		8/14/2018		8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018
Sample Depth					3 ft	3 ft	6 ft		6 ft		4 ft	4 ft	9 ft	9 ft	4 ft	4 ft
Consultant					TGE	EAI	TGE		EAI		TGE	EAI	TGE	EAI	TGE	EAI
Hydrocarbon																
TPH GRO, benzene present	30	NL	200	mg/kg	<0.887	<10	<1.02	NT	<10	NT	<1.03	<10	<0.896	<10	<0.925	<10
Gasoline range organics (Benzene NonDetect)	100	NL	200	mg/kg	<0.887	<10	<1.02	NT	<10	NT	<1.03	<10	<0.896	<10	<0.925	<10
TPH, diesel range organics	2000	NL	460	mg/kg	<1.39	<50	**6.13**	NT	<50	NT	<1.42	<50	<1.41	<50	**2.23 J**	<50
TPH, heavy oils	2000	NL	NL	mg/kg	<3.48	<100	**14.7**	NT	<100	NT	<3.55	<100	<3.52	<100	**12.8**	<100
Metals																
Arsenic	20	24	NL	mg/kg	**3.21**	<5	**6.76**	NT	<5	NT	**2.73**	<5	**2.010 J**	<5	**2.05 J**	<5
Barium	NL	16000	1320	mg/kg	**41.7**	<50	**91**	NT	**63**	NT	**70.7**	<50	**59.1**	**54**	**44.5**	**56**
Cadmium	2	80	NL	mg/kg	<0.0733	<1	<0.0733	NT	<1	NT	<0.0745	<1	<0.074	<1	**0.0822 J**	<1
Lead	250	NL	220	mg/kg	**1.9**	<5	**3.28**	NT	<5	NT	**1.66**	<5	**1.57**	<5	**4.95**	**72**
Mercury	2	NL	NL	mg/kg	**0.01100 J**	<0.5	**0.00800 J**	NT	<0.5	NT	**0.0279**	<0.5	**0.00890 J**	<0.5	**0.00838 J**	<0.5
Selenium	NL	400	0.8	mg/kg	<0.774	<20	<0.774	NT	<20	NT	<0.788	<20	<0.783	<20	<0.808	<20
Silver	NL	400	NL	mg/kg	<0.293	<20	<0.293	NT	<20	NT	<0.298	<20	<0.296	<20	<0.306	<20
Total Chromium	NL	NL	42	mg/kg	**18.2**	**20**	**42.4**		**36**		**26.2**	**32**	**25.5**	**20**	**26.5**	**41**
Trivalent Chromium (Cr^{+3})	2000	120000	NL	mg/kg	NT	NT	NT	**41.7**	NT	NT	NT	NT	NT	NT	NT	NT
Hexavalent Chromium (Cr^{+6})	19	240	NL	mg/kg	NT	NT	NT	**0.670 J**	NT	<0.1	NT	NT	NT	NT	NT	NT
Other																
% Moisture	NL	NL	NL	%	95.6	93	95.6		93		93.9	93	94.5	93	91.6	90

Table # 1A
SOIL ANALYTICAL RESULTS - SPLIT SAMPLING EVENT
Future Federal Way Hospital
Federal Way, WA
TGE Project No.: R13411.06

Station Name	Method A Unrestricted Land Use	Method B Non-cancer	Simplified Terrestrial Eco Evaluation Unrestricted	Reporting Units	B8	B8-7	B8-7 DUP	B9	B9-4	B9-4 DUP	B9	B9-10	B10	B10-3	B10	B10-10
Laboratory Identification					L1017897-16			L1018176-01			L1018176-02		L1018176-03		L1018176-04	
Sample Date					8/14/2018	8/14/2018	8/14/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018
Sample Depth					7 ft	7 ft	7 ft	4 ft	4 ft	4 ft	10 ft	10 ft	3 ft	3 ft	10 ft	10 ft
Consultant					TGE	EAI		TGE	EAI		TGE	EAI	TGE	EAI	TGE	EAI
Hydrocarbon																
TPH GRO, benzene present	30	NL	200	mg/kg	<0.903	<10	NT	<0.879	<10	NT	<0.939	<10	<1.6	<10	<0.888	<10
Gasoline range organics (Benzene NonDetect)	100	NL	200	mg/kg	<0.903	<10	NT	<0.879	<10	NT	<0.939	<10	<1.6	<10	<0.888	<10
TPH, diesel range organics	2000	NL	460	mg/kg	<1.42	<50	NT	<1.38	<50	NT	<1.47	<50	<1.51	<50	<1.39	<50
TPH, heavy oils	2000	NL	NL	mg/kg	<3.55	<100	NT	<3.45	<100	NT	**16.4**	<100	<3.77	<100	<3.49	<100
Metals																
Arsenic	20	24	NL	mg/kg	**2.26**	<5	<5	**2.25**	<5	<5	**2.15 J**	<5	**3.2**	<5	**2.040 J**	<5
Barium	NL	16000	1320	mg/kg	**64.7**	**66**	**51**	**53**	**100**	**87**	**45.8**	**66**	**68.9**	**94**	**38.8**	**59**
Cadmium	2	80	NL	mg/kg	<0.0746	<1	<1	<0.0726	<1	<1	<0.0776	<1	<0.0794	<1	<0.0734	<1
Lead	250	NL	220	mg/kg	**2.37**	<5	<5	**1.54**	<5	<5	**2.05**	<5	**3.43**	<5	**1.67**	<5
Mercury	2	NL	NL	mg/kg	**0.00635 J**	<0.5	<0.5	**0.0141 J**	<0.5	<0.5	**0.0111 J**	<0.5	**0.01110 J**	<0.5	**0.0234**	<0.5
Selenium	NL	400	0.8	mg/kg	<0.788	<20	<20	<0.768	<20	<20	<0.82	<20	<0.839	<20	<0.776	<20
Silver	NL	400	NL	mg/kg	<0.298	<20	<20	<0.29	<20	<20	<0.31	<20	<0.317	<20	<0.293	<20
Total Chromium	NL	NL	42	mg/kg	**20.1**	**16**	**21**	**12.7**	**53**	**51**	**14.8**	**44**	**33.7**	**46**	**18.2**	**37**
Trivalent Chromium (Cr^{+3})	2000	120000	NL	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Hexavalent Chromium (Cr^{+6})	19	240	NL	mg/kg	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Other																
% Moisture	NL	NL	NL	%	93.9	96	NT	96.4	94	NT	90.2	89	88.2	95	95.4	94

Table # 1B
SOIL ANALYTICAL RESULTS - SPLIT SAMPLING EVENT
Future Federal Way Hospital
Federal Way, WA
TGE Project No.: R13411.06

Station Name	Method A Unrestricted Land Use	Method B Cancer Direct Contact	Simplified Terrestrial Eco Evaluation Unrestricted	Reporting Units	B1	B1-4	B1	B1-9	B2	B2-4	B2	B2-8
Laboratory Identification					L1017897-01		L1017897-02		L1017897-03		L1017897-04	
Sample Date					8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018
Sample Depth					4 ft	4 ft	9 ft	9 ft	4 ft	4 ft	8 ft	8 ft
Consultant					TGE	EAI	TGE	EAI	TGE	EAI	TGE	EAI
VOAs												
Acetone	NL	NL	NL	mg/kg	<0.0158	<0.25	<0.0143	<0.25	<0.0151	<0.25	<0.0143	<0.25
Acrylonitrile	NL	1.852	NL	mg/kg	<0.00219	NT	<0.00198	NT	<0.00209	NT	<0.00199	NT
Benzene	0.03	18.182	NL	mg/kg	<0.000461	<0.02	<0.000417	<0.02	<0.00044	<0.02	<0.000419	<0.02
Bromobenzene	NL	NL	NL	mg/kg	<0.00121	<0.05	<0.00109	<0.05	<0.00116	<0.05	<0.0011	<0.05
Bromodichloromethane	NL	16.129	NL	mg/kg	<0.000908	<0.05	<0.000822	<0.05	<0.000867	<0.05	<0.000825	<0.05
Bromoform	NL	126.582	NL	mg/kg	<0.00689	<0.05	<0.00624	<0.05	<0.00658	<0.05	<0.00626	<0.05
Bromomethane	NL	NL	NL	mg/kg	<0.00426	<0.05	<0.00386	<0.05	<0.00407	<0.05	<0.00388	<0.05
Butylbenzene, n-	NL	NL	NL	mg/kg	<0.00442	<0.05	<0.004	<0.05	<0.00423	<0.05	<0.00402	<0.05
Butylbenzene, sec-	NL	NL	NL	mg/kg	<0.00291	<0.05	<0.00264	<0.05	<0.00278	<0.05	<0.00265	<0.05
Butylbenzene, tert-	NL	NL	NL	mg/kg	<0.00179	<0.05	<0.00162	<0.05	<0.00171	<0.05	<0.00162	<0.05
Carbon tetrachloride	NL	14.286	NL	mg/kg	<0.00124	<0.05	<0.00113	<0.05	<0.00119	<0.05	<0.00113	<0.05
Chlorobenzene	NL	NL	NL	mg/kg	<0.00066	<0.05	<0.000598	<0.05	<0.000631	<0.05	<0.0006	<0.05
Chloroethane	NL	NL	NL	mg/kg	<0.00124	<0.05	<0.00113	<0.05	<0.00119	<0.05	<0.00113	<0.05
Chloroform	NL	32.258	NL	mg/kg	<0.000478	<0.05	<0.000433	<0.05	<0.000457	<0.05	<0.000435	<0.05
Chloromethane	NL	NL	NL	mg/kg	<0.0016	<0.05	<0.00145	<0.05	<0.00153	<0.05	<0.00146	<0.05
Chlorotoluene, o-	NL	NL	NL	mg/kg	<0.00106	NT	<0.000959	NT	<0.00101	NT	<0.000964	NT
Chlorotoluene, p-	NL	NL	NL	mg/kg	<0.0013	NT	<0.00118	NT	<0.00124	NT	<0.00118	NT
Cumene (Isopropylbenzene)	NL	NL	NL	mg/kg	<0.000994	<0.05	<0.0009	<0.05	<0.00095	<0.05	<0.000904	<0.05
Cymene (Isopropyltoluene)	NL	NL	NL	mg/kg	<0.00268	<0.05	<0.00243	<0.05	<0.00256	<0.05	<0.00244	<0.05
Dibromo-3-chloropropane, 1,2-	NL	1.25	NL	mg/kg	<0.00588	<0.05	<0.00532	<0.05	<0.00561	<0.05	<0.00534	<0.05
Dibromochloromethane	NL	11.905	NL	mg/kg	<0.000518	<0.05	<0.000469	<0.05	<0.000495	<0.05	<0.000471	<0.05
Dichlorobenzene, 1,2-	NL	NL	NL	mg/kg	<0.00167	<0.05	<0.00151	<0.05	<0.0016	<0.05	<0.00152	<0.05
Dichlorobenzene, 1,3-	NL	NL	NL	mg/kg	<0.00196	<0.05	<0.00177	<0.05	<0.00187	<0.05	<0.00178	<0.05
Dichlorobenzene, 1,4-	NL	185.185	NL	mg/kg	<0.00227	<0.05	<0.00205	<0.05	<0.00217	<0.05	<0.00206	<0.05
Dichlorodifluoromethane	NL	NL	NL	mg/kg	<0.000942	<0.05	<0.000853	<0.05	<0.0009	<0.05	<0.000857	<0.05
Dichloroethane, 1,1-	NL	175.439	NL	mg/kg	<0.000662	<0.05	<0.0006	<0.05	<0.000633	<0.05	<0.000602	<0.05
Dichloroethane, 1,2-	NL	10.989	NL	mg/kg	<0.000547	<0.05	<0.000495	<0.05	<0.000523	<0.05	<0.000497	<0.05
Dichloroethylene, 1,1-	NL	NL	NL	mg/kg	<0.000576	<0.05	<0.000521	<0.05	<0.00055	<0.05	<0.000524	<0.05
Dichloroethylene, cis-1,2-	NL	NL	NL	mg/kg	<0.000795	<0.05	<0.00072	<0.05	<0.000759	<0.05	<0.000723	<0.05
Dichloroethylene, trans-1,2	NL	NL	NL	mg/kg	<0.00165	<0.05	<0.00149	<0.05	<0.00157	<0.05	<0.0015	<0.05
Dichloropropane, 1,2-	NL	27.778	NL	mg/kg	<0.00146	<0.05	<0.00132	<0.05	<0.0014	<0.05	<0.00133	<0.05
Dichloropropane, 1,3-	NL	NL	NL	mg/kg	<0.00202	<0.05	<0.00182	<0.05	<0.00193	<0.05	<0.00183	<0.05
Dichloropropane, 2,2-	NL	NL	NL	mg/kg	<0.000914	<0.05	<0.000827	<0.05	<0.000873	<0.05	<0.000831	<0.05
Dichloropropene, 1,1-	NL	NL	NL	mg/kg	<0.000806	<0.05	<0.00073	<0.05	<0.00077	<0.05	<0.000733	<0.05
Dichloropropene, cis 1,3-	NL	NL	NL	mg/kg	<0.000781	<0.05	<0.000707	<0.05	<0.000746	<0.05	<0.00071	<0.05
Dichloropropene, trans 1,3-	NL	NL	NL	mg/kg	<0.00176	<0.05	<0.0016	<0.05	<0.00168	<0.05	<0.0016	<0.05
Diisopropyl ether	NL	NL	NL	mg/kg	<0.000403	NT	<0.000365	NT	<0.000385	NT	<0.000367	NT
Ethyl benzene	6	NL	NL	mg/kg	<0.000611	<0.05	<0.000553	<0.05	**0.000654 J**	<0.05	<0.000555	<0.05
Ethylene dibromide (EDB)	0.005	0.5	NL	mg/kg	<0.000605	<0.05	<0.000547	<0.05	<0.000578	<0.05	<0.00055	<0.05
Hexachlorobutadiene	NL	12.82	NL	mg/kg	<0.0146	<0.05	<0.0132	<0.05	<0.014	<0.05	<0.0133	<0.05
Methyl ethyl ketone	NL	NL	NL	mg/kg	<0.0144	<0.25	<0.013	<0.25	<0.0138	<0.25	<0.0131	<0.25
Methyl isobutyl ketone	NL	NL	NL	mg/kg	<0.0115	NT	<0.0104	NT	<0.011	NT	<0.0105	NT
Methylene bromide	NL	NL	NL	mg/kg	<0.00115	NT	<0.00104	NT	<0.0011	NT	<0.00105	NT
Methylene chloride	0.02	500	NL	mg/kg	<0.00765	<0.05	<0.00692	<0.05	<0.00731	<0.05	<0.00695	<0.05
MTBE	0.1	555.56	NL	mg/kg	<0.00034	<0.05	<0.000308	<0.05	<0.000325	<0.05	<0.000309	<0.05
Naphthalene	5	NL	NL	mg/kg	<0.00359	<0.05	<0.00325	<0.05	<0.00343	<0.05	<0.00327	<0.05
Propylbenzene, n-	NL	NL	NL	mg/kg	<0.00136	<0.05	<0.00123	<0.05	<0.0013	<0.05	<0.00124	<0.05
Styrene	NL	NL	NL	mg/kg	<0.00315	<0.05	<0.00285	<0.05	<0.003	<0.05	<0.00286	<0.05
Tetrachloroethane, 1,1,1,2-	NL	38.46	NL	mg/kg	<0.000576	<0.05	<0.000521	<0.05	<0.00055	<0.05	<0.000524	<0.05
Tetrachloroethane, 1,1,2,2-	NL	5	NL	mg/kg	<0.000449	<0.05	<0.000407	<0.05	<0.000429	<0.05	<0.000408	<0.05
Tetrachloroethylene	0.05	476.19	NL	mg/kg	<0.000806	<0.02	<0.00073	<0.02	<0.00077	<0.02	<0.000733	<0.02
Toluene	7	NL	NL	mg/kg	**0.00465 J**	<0.05	**0.0020 J**	<0.05	**0.00497 J**	<0.05	**0.00459 J**	<0.05
Trichloro-1,2,2-trifluoroethane, 1,1,2	NL	NL	NL	mg/kg	<0.000778	NT	<0.000704	NT	<0.000743	NT	<0.000707	NT
Trichlorobenzene, 1,2,3-	NL	NL	NL	mg/kg	<0.00072	<0.05	<0.000652	<0.05	<0.000688	<0.05	<0.000655	<0.05
Trichlorobenzene, 1,2,4-	NL	34.48	NL	mg/kg	<0.00555	<0.05	<0.00503	<0.05	<0.00531	<0.05	<0.00505	<0.05
Trichloroethane, 1,1,1-	2	NL	NL	mg/kg	<0.000317	<0.05	<0.000287	<0.05	<0.000303	<0.05	<0.000288	<0.05
Trichloroethane, 1,1,2-	NL	17.54	NL	mg/kg	<0.00102	<0.05	<0.000921	<0.05	<0.000972	<0.05	<0.000925	<0.05
Trichloroethylene	0.03	12	NL	mg/kg	<0.000461	<0.02	<0.000417	<0.02	<0.00044	<0.02	<0.000419	<0.02
Trichlorofluoromethane	NL	NL	NL	mg/kg	<0.000576	<0.05	<0.000521	<0.05	<0.00055	<0.05	<0.000524	<0.05
Trichloropropane, 1,2,3-	NL	0.033	NL	mg/kg	<0.00588	<0.05	<0.00532	<0.05	<0.00561	<0.05	<0.00534	<0.05
Trimethylbenzene, 1,2,3-	NL	NL	NL	mg/kg	<0.00132	NT	<0.0012	NT	<0.00127	NT	<0.0012	NT
Trimethylbenzene, 1,2,4-	NL	NL	NL	mg/kg	<0.00134	<0.05	<0.00121	<0.05	**0.00135 J**	<0.05	<0.00121	<0.05
Trimethylbenzene, 1,3,5-	NL	NL	NL	mg/kg	<0.00124	<0.05	<0.00113	<0.05	<0.00119	<0.05	<0.00113	<0.05
Vinyl chloride	NL	NL	NL	mg/kg	<0.000787	<0.02	<0.000712	<0.02	<0.000752	<0.02	<0.000715	<0.02
Xylenes	9	NL	NL	mg/kg	<0.00551	<0.15	<0.00498	<0.15	<0.00526	<0.15	<0.00501	<0.15
2,2-Dichloropropane	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Bromochloromethane	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Dibromomethane	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
4-Methyl-2-pentanone (MTBK)	NL	NL	NL	mg/kg	NT	<0.25	NT	<0.25	NT	<0.25	NT	<0.25
2-Hexanone	NL	NL	NL	mg/kg	NT	<0.25	NT	<0.25	NT	<0.25	NT	<0.25
2-Chlorotoluene	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
4-Chlorotoluene	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Hexachloro-1,3-butadiene	NL	12.8	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Other												
% Moisture	NL	NL	NL	%	96.3	95	95.9	94	94.5	93	95.5	95

Table # 1B
SOIL ANALYTICAL RESULTS - SPLIT SAMPLING EVENT
Future Federal Way Hospital
Federal Way, WA
TGE Project No.: R13411.06

Station Name	Method A Unrestricted Land Use	Method B Cancer Direct Contact	Simplified Terrestrial Eco Evaluation Unrestricted	Reporting Units	B3	B3-5	B3	B3-10	B4	B4-3	B4	B4-6
Laboratory Identification					L1017897-05		L1017897-06		L1017897-07		L1017897-08	
Sample Date					8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018
Sample Depth					4 ft	4 ft	10 ft	10 ft	3 ft	3 ft	6 ft	6 ft
Consultant					TGE	EAI	TGE	EAI	TGE	EAI	TGE	EAI
VOAs												
Acetone	NL	NL	NL	mg/kg	<0.0148	<0.25	<0.0153	<0.25	<0.0145	<0.25	<0.0143	<0.25
Acrylonitrile	NL	1.852	NL	mg/kg	<0.00205	NT	<0.00212	NT	<0.00202	NT	<0.00198	NT
Benzene	0.03	18.182	NL	mg/kg	<0.000431	<0.02	**0.000521 J**	<0.02	<0.000424	<0.02	<0.000416	<0.02
Bromobenzene	NL	NL	NL	mg/kg	<0.00113	<0.05	<0.00117	<0.05	<0.00111	<0.05	<0.00109	<0.05
Bromodichloromethane	NL	16.129	NL	mg/kg	<0.000849	<0.05	<0.000878	<0.05	<0.000836	<0.05	<0.00082	<0.05
Bromoform	NL	126.582	NL	mg/kg	<0.00644	<0.05	<0.00666	<0.05	<0.00634	<0.05	<0.00623	<0.05
Bromomethane	NL	NL	NL	mg/kg	<0.00399	<0.05	<0.00412	<0.05	<0.00393	<0.05	<0.00385	<0.05
Butylbenzene, n-	NL	NL	NL	mg/kg	<0.00414	<0.05	<0.00428	<0.05	<0.00407	<0.05	<0.004	<0.05
Butylbenzene, sec-	NL	NL	NL	mg/kg	<0.00273	<0.05	<0.00282	<0.05	<0.00268	<0.05	<0.00263	<0.05
Butylbenzene, tert-	NL	NL	NL	mg/kg	<0.00167	<0.05	<0.00173	<0.05	<0.00164	<0.05	<0.00161	<0.05
Carbon tetrachloride	NL	14.286	NL	mg/kg	<0.00116	<0.05	<0.0012	<0.05	<0.00115	<0.05	<0.00112	<0.05
Chlorobenzene	NL	NL	NL	mg/kg	<0.000617	<0.05	<0.000638	<0.05	<0.000608	<0.05	<0.000597	<0.05
Chloroethane	NL	NL	NL	mg/kg	<0.00116	<0.05	<0.0012	<0.05	<0.00115	<0.05	<0.00112	<0.05
Chloroform	NL	32.258	NL	mg/kg	<0.000447	<0.05	<0.000462	<0.05	<0.00044	<0.05	<0.000432	<0.05
Chloromethane	NL	NL	NL	mg/kg	<0.0015	<0.05	<0.00155	<0.05	<0.00147	<0.05	<0.00145	<0.05
Chlorotoluene, o-	NL	NL	NL	mg/kg	<0.000991	NT	<0.00102	NT	<0.000976	NT	<0.000958	NT
Chlorotoluene, p-	NL	NL	NL	mg/kg	<0.00122	NT	<0.00126	NT	<0.0012	NT	<0.00118	NT
Cumene (Isopropylbenzene)	NL	NL	NL	mg/kg	<0.00093	<0.05	<0.000961	<0.05	<0.000916	<0.05	<0.000898	<0.05
Cymene (Isopropyltoluene)	NL	NL	NL	mg/kg	<0.00251	<0.05	<0.0026	<0.05	<0.00247	<0.05	<0.00243	<0.05
Dibromo-3-chloropropane, 1,2-	NL	1.25	NL	mg/kg	<0.00549	<0.05	<0.00568	<0.05	<0.00541	<0.05	<0.00531	<0.05
Dibromochloromethane	NL	11.905	NL	mg/kg	<0.000485	<0.05	<0.000501	<0.05	<0.000477	<0.05	<0.000468	<0.05
Dichlorobenzene, 1,2-	NL	NL	NL	mg/kg	<0.00156	<0.05	<0.00162	<0.05	<0.00154	<0.05	<0.00151	<0.05
Dichlorobenzene, 1,3-	NL	NL	NL	mg/kg	<0.00183	<0.05	<0.00189	<0.05	<0.0018	<0.05	<0.00177	<0.05
Dichlorobenzene, 1,4-	NL	185.185	NL	mg/kg	<0.00212	<0.05	<0.00219	<0.05	<0.00209	<0.05	<0.00205	<0.05
Dichlorodifluoromethane	NL	NL	NL	mg/kg	<0.000881	<0.05	<0.000911	<0.05	<0.000868	<0.05	<0.000852	<0.05
Dichloroethane, 1,1-	NL	175.439	NL	mg/kg	<0.000619	<0.05	<0.000641	<0.05	<0.00061	<0.05	<0.000599	<0.05
Dichloroethane, 1,2-	NL	10.989	NL	mg/kg	<0.000512	<0.05	<0.000529	<0.05	<0.000504	<0.05	<0.000495	<0.05
Dichloroethylene, 1,1-	NL	NL	NL	mg/kg	<0.000539	<0.05	<0.000557	<0.05	<0.00053	<0.05	<0.000521	<0.05
Dichloroethylene, cis-1,2-	NL	NL	NL	mg/kg	<0.000743	<0.05	<0.000769	<0.05	<0.000732	<0.05	<0.000718	<0.05
Dichloroethylene, trans-1,2	NL	NL	NL	mg/kg	<0.00154	<0.05	<0.00159	<0.05	<0.00152	<0.05	<0.00149	<0.05
Dichloropropane, 1,2-	NL	27.778	NL	mg/kg	<0.00137	<0.05	<0.00141	<0.05	<0.00135	<0.05	<0.00132	<0.05
Dichloropropane, 1,3-	NL	NL	NL	mg/kg	<0.00188	<0.05	<0.00195	<0.05	<0.00186	<0.05	<0.00182	<0.05
Dichloropropane, 2,2-	NL	NL	NL	mg/kg	<0.000854	<0.05	<0.000883	<0.05	<0.000841	<0.05	<0.000826	<0.05
Dichloropropene, 1,1-	NL	NL	NL	mg/kg	<0.000754	<0.05	<0.00078	<0.05	<0.000743	<0.05	<0.000729	<0.05
Dichloropropene, cis 1,3-	NL	NL	NL	mg/kg	<0.00073	<0.05	<0.000755	<0.05	<0.000719	<0.05	<0.000706	<0.05
Dichloropropene, trans 1,3-	NL	NL	NL	mg/kg	<0.00165	<0.05	<0.0017	<0.05	<0.00162	<0.05	<0.00159	<0.05
Diisopropyl ether	NL	NL	NL	mg/kg	<0.000377	NT	<0.00039	NT	<0.000371	NT	<0.000364	NT
Ethyl benzene	6	NL	NL	mg/kg	**0.000991 J**	<0.05	<0.00059	<0.05	<0.000562	<0.05	**0.001010 J**	<0.05
Ethylene dibromide (EDB)	0.005	0.5	NL	mg/kg	<0.000565	<0.05	<0.000585	<0.05	<0.000557	<0.05	<0.000547	<0.05
Hexachlorobutadiene	NL	12.82	NL	mg/kg	<0.0137	<0.05	<0.0141	<0.05	<0.0135	<0.05	<0.0132	<0.05
Methyl ethyl ketone	NL	NL	NL	mg/kg	<0.0135	<0.25	<0.0139	<0.25	<0.0133	<0.25	**0.031**	<0.25
Methyl isobutyl ketone	NL	NL	NL	mg/kg	<0.0108	NT	<0.0111	NT	<0.0106	NT	<0.0104	NT
Methylene bromide	NL	NL	NL	mg/kg	<0.00108	NT	<0.00111	NT	<0.00106	NT	<0.00104	NT
Methylene chloride	0.02	500	NL	mg/kg	<0.00715	<0.05	<0.0074	<0.05	<0.00704	<0.05	<0.00691	<0.05
MTBE	0.1	555.56	NL	mg/kg	<0.000318	<0.05	<0.000329	<0.05	<0.000313	<0.05	<0.000307	<0.05
Naphthalene	5	NL	NL	mg/kg	**0.00825 J**	<0.05	<0.00348	<0.05	<0.00331	<0.05	<0.00325	<0.05
Propylbenzene, n-	NL	NL	NL	mg/kg	<0.00127	<0.05	<0.00131	<0.05	<0.00125	<0.05	<0.00123	<0.05
Styrene	NL	NL	NL	mg/kg	<0.00294	<0.05	<0.00304	<0.05	<0.0029	<0.05	<0.00284	<0.05
Tetrachloroethane, 1,1,1,2-	NL	38.46	NL	mg/kg	<0.000539	<0.05	<0.000557	<0.05	<0.00053	<0.05	<0.000521	<0.05
Tetrachloroethane, 1,1,2,2-	NL	5	NL	mg/kg	<0.00042	<0.05	<0.000434	<0.05	<0.000414	<0.05	<0.000406	<0.05
Tetrachloroethylene	0.05	476.19	NL	mg/kg	<0.000754	<0.02	**0.00130 J**	<0.02	**0.001380 J**	<0.02	**0.00463**	<0.02
Toluene	7	NL	NL	mg/kg	**0.00236 J**	<0.05	**0.0114**	<0.05	**0.00638**	<0.05	**0.0067**	<0.05
Trichloro-1,2,2-trifluoroethane, 1,1,2	NL	NL	NL	mg/kg	<0.000727	NT	<0.000752	NT	<0.000716	NT	<0.000703	NT
Trichlorobenzene, 1,2,3-	NL	NL	NL	mg/kg	<0.000673	<0.05	<0.000696	<0.05	<0.000663	<0.05	<0.000651	<0.05
Trichlorobenzene, 1,2,4-	NL	34.48	NL	mg/kg	<0.00519	<0.05	<0.00537	<0.05	<0.00511	<0.05	<0.00502	<0.05
Trichloroethane, 1,1,1-	2	NL	NL	mg/kg	<0.000296	<0.05	<0.000306	<0.05	<0.000292	<0.05	<0.000286	<0.05
Trichloroethane, 1,1,2-	NL	17.54	NL	mg/kg	<0.000951	<0.05	<0.000984	<0.05	<0.000937	<0.05	<0.000919	<0.05
Trichloroethylene	0.03	12	NL	mg/kg	<0.000431	<0.02	<0.000446	<0.02	<0.000424	<0.02	<0.000416	<0.02
Trichlorofluoromethane	NL	NL	NL	mg/kg	<0.000539	<0.05	<0.000557	<0.05	<0.00053	<0.05	<0.000521	<0.05
Trichloropropane, 1,2,3-	NL	0.033	NL	mg/kg	<0.00549	<0.05	<0.00568	<0.05	<0.00541	<0.05	<0.00531	<0.05
Trimethylbenzene, 1,2,3-	NL	NL	NL	mg/kg	**0.00624**	NT	<0.00128	NT	<0.00122	NT	**0.0016 J**	NT
Trimethylbenzene, 1,2,4-	NL	NL	NL	mg/kg	**0.0153**	<0.05	**0.00145 J**	<0.05	<0.00123	<0.05	**0.00394 J**	<0.05
Trimethylbenzene, 1,3,5-	NL	NL	NL	mg/kg	**0.00591**	<0.05	<0.0012	<0.05	<0.00115	<0.05	**0.00181 J**	<0.05
Vinyl chloride	NL	NL	NL	mg/kg	<0.000736	<0.02	<0.000761	<0.02	<0.000725	<0.02	<0.000711	<0.02
Xylenes	9	NL	NL	mg/kg	**0.00700 J**	<0.15	<0.00533	<0.15	<0.00507	<0.15	**0.0118**	<0.15
2,2-Dichloropropane	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Bromochloromethane	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Dibromomethane	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
4-Methyl-2-pentanone (MTBK)	NL	NL	NL	mg/kg	NT	<0.25	NT	<0.25	NT	<0.25	NT	<0.25
2-Hexanone	NL	NL	NL	mg/kg	NT	<0.25	NT	<0.25	NT	<0.25	NT	<0.25
2-Chlorotoluene	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
4-Chlorotoluene	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Hexachloro-1,3-butadiene	NL	12.8	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Other												
% Moisture	NL	NL	NL	%	92.8	93	96	96	94.3	94	96.1	93

Table # 1B
SOIL ANALYTICAL RESULTS - SPLIT SAMPLING EVENT
Future Federal Way Hospital
Federal Way, WA
TGE Project No.: R13411.06

Station Name	Method A Unrestricted Land Use	Method B Cancer Direct Contact	Simplified Terrestrial Eco Evaluation Unrestricted	Reporting Units	B5	B5-4	B5	B5-9	B6	B6-3	B6	B6-6
Laboratory Identification					L1017897-09		L1017897-10		L1017897-11		L1017897-12	
Sample Date					8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018
Sample Depth					4 ft	4 ft	9 ft	9 ft	3 ft	3 ft	6 ft	6 ft
Consultant					TGE	EAI	TGE	EAI	TGE	EAI	TGE	EAI
VOAs												
Acetone	NL	NL	NL	mg/kg	<0.0144	<0.25	<0.0169	<0.25	<0.0143	<0.25	<0.0166	<0.25
Acrylonitrile	NL	1.852	NL	mg/kg	<0.002	NT	<0.00234	NT	<0.00199	NT	<0.00231	NT
Benzene	0.03	18.182	NL	mg/kg	<0.000421	<0.02	<0.000492	<0.02	<0.000419	<0.02	<0.000486	<0.02
Bromobenzene	NL	NL	NL	mg/kg	<0.00111	<0.05	<0.00129	<0.05	<0.0011	<0.05	<0.00127	<0.05
Bromodichloromethane	NL	16.129	NL	mg/kg	<0.00083	<0.05	<0.00097	<0.05	<0.000825	<0.05	<0.000957	<0.05
Bromoform	NL	126.582	NL	mg/kg	<0.0063	<0.05	<0.00736	<0.05	<0.00626	<0.05	<0.00726	<0.05
Bromomethane	NL	NL	NL	mg/kg	<0.0039	<0.05	<0.00455	<0.05	<0.00387	<0.05	<0.00449	<0.05
Butylbenzene, n-	NL	NL	NL	mg/kg	<0.00404	<0.05	<0.00473	<0.05	<0.00402	<0.05	<0.00466	<0.05
Butylbenzene, sec-	NL	NL	NL	mg/kg	<0.00266	<0.05	<0.00311	<0.05	<0.00265	<0.05	<0.00307	<0.05
Butylbenzene, tert-	NL	NL	NL	mg/kg	<0.00163	<0.05	<0.00191	<0.05	<0.00162	<0.05	<0.00188	<0.05
Carbon tetrachloride	NL	14.286	NL	mg/kg	<0.00114	<0.05	<0.00133	<0.05	<0.00113	<0.05	<0.00131	<0.05
Chlorobenzene	NL	NL	NL	mg/kg	<0.000603	<0.05	<0.000705	<0.05	<0.0006	<0.05	<0.000696	<0.05
Chloroethane	NL	NL	NL	mg/kg	<0.00114	<0.05	<0.00133	<0.05	<0.00113	<0.05	<0.00131	<0.05
Chloroform	NL	32.258	NL	mg/kg	<0.000437	<0.05	<0.000511	<0.05	<0.000434	<0.05	<0.000504	<0.05
Chloromethane	NL	NL	NL	mg/kg	<0.00146	<0.05	<0.00171	<0.05	<0.00145	<0.05	<0.00169	<0.05
Chlorotoluene, o-	NL	NL	NL	mg/kg	<0.000969	NT	<0.00113	NT	<0.000963	NT	<0.00112	NT
Chlorotoluene, p-	NL	NL	NL	mg/kg	<0.00119	NT	<0.00139	NT	<0.00118	NT	<0.00137	NT
Cumene (Isopropylbenzene)	NL	NL	NL	mg/kg	<0.000909	<0.05	<0.00106	<0.05	<0.000903	<0.05	<0.00105	<0.05
Cymene (Isopropyltoluene)	NL	NL	NL	mg/kg	<0.00245	<0.05	<0.00287	<0.05	<0.00244	<0.05	<0.00283	<0.05
Dibromo-3-chloropropane, 1,2-	NL	1.25	NL	mg/kg	<0.00537	<0.05	<0.00628	<0.05	<0.00534	<0.05	<0.00619	<0.05
Dibromochloromethane	NL	11.905	NL	mg/kg	<0.000474	<0.05	<0.000554	<0.05	<0.000471	<0.05	<0.000546	<0.05
Dichlorobenzene, 1,2-	NL	NL	NL	mg/kg	<0.00153	<0.05	<0.00178	<0.05	<0.00152	<0.05	<0.00176	<0.05
Dichlorobenzene, 1,3-	NL	NL	NL	mg/kg	<0.00179	<0.05	<0.00209	<0.05	<0.00178	<0.05	<0.00206	<0.05
Dichlorobenzene, 1,4-	NL	185.185	NL	mg/kg	<0.00207	<0.05	<0.00242	<0.05	<0.00206	<0.05	<0.00239	<0.05
Dichlorodifluoromethane	NL	NL	NL	mg/kg	<0.000861	<0.05	<0.00101	<0.05	<0.000856	<0.05	<0.000993	<0.05
Dichloroethane, 1,1-	NL	175.439	NL	mg/kg	<0.000605	<0.05	<0.000708	<0.05	<0.000602	<0.05	<0.000698	<0.05
Dichloroethane, 1,2-	NL	10.989	NL	mg/kg	<0.0005	<0.05	<0.000585	<0.05	<0.000497	<0.05	<0.000577	<0.05
Dichloroethylene, 1,1-	NL	NL	NL	mg/kg	<0.000526	<0.05	<0.000615	<0.05	<0.000523	<0.05	<0.000607	<0.05
Dichloroethylene, cis-1,2-	NL	NL	NL	mg/kg	<0.000727	<0.05	<0.000849	<0.05	<0.000722	<0.05	<0.000838	<0.05
Dichloroethylene, trans-1,2	NL	NL	NL	mg/kg	<0.00151	<0.05	<0.00176	<0.05	<0.0015	<0.05	<0.00174	<0.05
Dichloropropane, 1,2-	NL	27.778	NL	mg/kg	<0.00134	<0.05	<0.00156	<0.05	<0.00133	<0.05	<0.00154	<0.05
Dichloropropane, 1,3-	NL	NL	NL	mg/kg	<0.00184	<0.05	<0.00215	<0.05	<0.00183	<0.05	<0.00212	<0.05
Dichloropropane, 2,2-	NL	NL	NL	mg/kg	<0.000835	<0.05	<0.000976	<0.05	<0.00083	<0.05	<0.000963	<0.05
Dichloropropene, 1,1-	NL	NL	NL	mg/kg	<0.000737	<0.05	<0.000861	<0.05	<0.000733	<0.05	<0.00085	<0.05
Dichloropropene, cis 1,3-	NL	NL	NL	mg/kg	<0.000714	<0.05	<0.000834	<0.05	<0.00071	<0.05	<0.000823	<0.05
Dichloropropene, trans 1,3-	NL	NL	NL	mg/kg	<0.00161	<0.05	<0.00188	<0.05	<0.0016	<0.05	<0.00186	<0.05
Diisopropyl ether	NL	NL	NL	mg/kg	<0.000369	NT	<0.000431	NT	<0.000366	NT	<0.000425	NT
Ethyl benzene	6	NL	NL	mg/kg	<0.000558	<0.05	<0.000652	<0.05	**0.000801 J**	<0.05	**0.001320 J**	<0.05
Ethylene dibromide (EDB)	0.005	0.5	NL	mg/kg	<0.000553	<0.05	<0.000646	<0.05	<0.000549	<0.05	<0.000637	<0.05
Hexachlorobutadiene	NL	12.82	NL	mg/kg	<0.0134	<0.05	<0.0156	<0.05	<0.0133	<0.05	<0.0154	<0.05
Methyl ethyl ketone	NL	NL	NL	mg/kg	<0.0132	<0.25	<0.0154	<0.25	<0.0131	<0.25	<0.0152	<0.25
Methyl isobutyl ketone	NL	NL	NL	mg/kg	<0.0105	NT	<0.0123	NT	<0.0105	NT	<0.0121	NT
Methylene bromide	NL	NL	NL	mg/kg	<0.00105	NT	<0.00123	NT	<0.00105	NT	<0.00121	NT
Methylene chloride	0.02	500	NL	mg/kg	<0.00699	<0.05	<0.00817	<0.05	<0.00695	<0.05	<0.00806	<0.05
MTBE	0.1	555.56	NL	mg/kg	<0.000311	<0.05	<0.000363	<0.05	<0.000309	<0.05	<0.000358	<0.05
Naphthalene	5	NL	NL	mg/kg	<0.00329	<0.05	<0.00384	<0.05	<0.00327	<0.05	<0.00379	<0.05
Propylbenzene, n-	NL	NL	NL	mg/kg	<0.00124	<0.05	<0.00145	<0.05	<0.00123	<0.05	<0.00143	<0.05
Styrene	NL	NL	NL	mg/kg	<0.00287	<0.05	<0.00336	<0.05	<0.00286	<0.05	<0.00331	<0.05
Tetrachloroethane, 1,1,1,2-	NL	38.46	NL	mg/kg	<0.000526	<0.05	<0.000615	<0.05	<0.000523	<0.05	<0.000607	<0.05
Tetrachloroethane, 1,1,2,2-	NL	5	NL	mg/kg	<0.000411	<0.05	<0.00048	<0.05	<0.000408	<0.05	<0.000473	<0.05
Tetrachloroethylene	0.05	476.19	NL	mg/kg	**0.001330 J**	<0.02	**0.002920 J**	<0.02	**0.00267**	<0.02	**0.00190 J**	<0.02
Toluene	7	NL	NL	mg/kg	**0.00420 J**	<0.05	**0.00247 J**	<0.05	**0.00493 J**	<0.05	**0.00912**	<0.05
Trichloro-1,2,2-trifluoroethane, 1,1,2	NL	NL	NL	mg/kg	<0.000711	NT	<0.000831	NT	<0.000706	NT	<0.000819	NT
Trichlorobenzene, 1,2,3-	NL	NL	NL	mg/kg	<0.000658	<0.05	<0.000769	<0.05	<0.000654	<0.05	<0.000759	<0.05
Trichlorobenzene, 1,2,4-	NL	34.48	NL	mg/kg	<0.00508	<0.05	<0.00593	<0.05	<0.00504	<0.05	<0.00585	<0.05
Trichloroethane, 1,1,1-	2	NL	NL	mg/kg	<0.00029	<0.05	<0.000338	<0.05	<0.000288	<0.05	<0.000334	<0.05
Trichloroethane, 1,1,2-	NL	17.54	NL	mg/kg	<0.00093	<0.05	<0.00109	<0.05	<0.000924	<0.05	<0.00107	<0.05
Trichloroethylene	0.03	12	NL	mg/kg	<0.000421	<0.02	<0.000492	<0.02	<0.000419	<0.02	<0.000486	<0.02
Trichlorofluoromethane	NL	NL	NL	mg/kg	<0.000526	<0.05	<0.000615	<0.05	<0.000523	<0.05	<0.000607	<0.05
Trichloropropane, 1,2,3-	NL	0.033	NL	mg/kg	<0.00537	<0.05	<0.00628	<0.05	<0.00534	<0.05	<0.00619	<0.05
Trimethylbenzene, 1,2,3-	NL	NL	NL	mg/kg	<0.00121	NT	<0.00142	NT	<0.0012	NT	<0.0014	NT
Trimethylbenzene, 1,2,4-	NL	NL	NL	mg/kg	**0.00172 J**	<0.05	<0.00143	<0.05	<0.00121	<0.05	<0.00141	<0.05
Trimethylbenzene, 1,3,5-	NL	NL	NL	mg/kg	<0.00114	<0.05	<0.00133	<0.05	<0.00113	<0.05	<0.00131	<0.05
Vinyl chloride	NL	NL	NL	mg/kg	<0.000719	<0.02	<0.00084	<0.02	<0.000715	<0.02	<0.000829	<0.02
Xylenes	9	NL	NL	mg/kg	<0.00503	<0.15	<0.00588	<0.15	<0.005	<0.15	**0.0061 J**	<0.15
2,2-Dichloropropane	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Bromochloromethane	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Dibromomethane	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
4-Methyl-2-pentanone (MTBK)	NL	NL	NL	mg/kg	NT	<0.25	NT	<0.25	NT	<0.25	NT	<0.25
2-Hexanone	NL	NL	NL	mg/kg	NT	<0.25	NT	<0.25	NT	<0.25	NT	<0.25
2-Chlorotoluene	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
4-Chlorotoluene	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Hexachloro-1,3-butadiene	NL	12.8	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Other												
% Moisture	NL	NL	NL	%	95	94	81.3	91	95.6	93	95.6	93

Table # 1B
SOIL ANALYTICAL RESULTS - SPLIT SAMPLING EVENT
Future Federal Way Hospital
Federal Way, WA
TGE Project No.: R13411.06

Station Name	Method A Unrestricted Land Use	Method B Cancer Direct Contact	Simplified Terrestrial Eco Evaluation Unrestricted	Reporting Units	B7	B7-4	B7	B7-9	B8	B8-4	B8	B8-7
Laboratory Identification					L1017897-13		L1017897-14		L1017897-15		L1017897-16	
Sample Date					8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018
Sample Depth					4 ft	4 ft	9 ft	9 ft	4 ft	4 ft	7 ft	7 ft
Consultant					TGE	EAI	TGE	EAI	TGE	EAI	TGE	EAI
VOAs												
Acetone	NL	NL	NL	mg/kg	<0.0166	<0.25	<0.0145	<0.25	<0.015	<0.25	<0.0146	<0.25
Acrylonitrile	NL	1.852	NL	mg/kg	<0.00231	NT	<0.00201	NT	<0.00207	NT	<0.00202	NT
Benzene	0.03	18.182	NL	mg/kg	<0.000485	<0.02	<0.000423	<0.02	<0.000437	<0.02	<0.000426	<0.02
Bromobenzene	NL	NL	NL	mg/kg	<0.00127	<0.05	<0.00111	<0.05	<0.00115	<0.05	<0.00112	<0.05
Bromodichloromethane	NL	16.129	NL	mg/kg	<0.000956	<0.05	<0.000833	<0.05	<0.00086	<0.05	<0.00084	<0.05
Bromoform	NL	126.582	NL	mg/kg	<0.00726	<0.05	<0.00632	<0.05	<0.00653	<0.05	<0.00637	<0.05
Bromomethane	NL	NL	NL	mg/kg	<0.00449	<0.05	<0.00391	<0.05	<0.00404	<0.05	<0.00394	<0.05
Butylbenzene, n-	NL	NL	NL	mg/kg	<0.00466	<0.05	<0.00406	<0.05	<0.00419	<0.05	<0.00409	<0.05
Butylbenzene, sec-	NL	NL	NL	mg/kg	<0.00307	<0.05	<0.00268	<0.05	<0.00276	<0.05	<0.0027	<0.05
Butylbenzene, tert-	NL	NL	NL	mg/kg	<0.00188	<0.05	<0.00164	<0.05	<0.00169	<0.05	<0.00165	<0.05
Carbon tetrachloride	NL	14.286	NL	mg/kg	<0.00131	<0.05	<0.00114	<0.05	<0.00118	<0.05	<0.00115	<0.05
Chlorobenzene	NL	NL	NL	mg/kg	<0.000695	<0.05	<0.000606	<0.05	<0.000626	<0.05	<0.000611	<0.05
Chloroethane	NL	NL	NL	mg/kg	<0.00131	<0.05	<0.00114	<0.05	<0.00118	<0.05	<0.00115	<0.05
Chloroform	NL	32.258	NL	mg/kg	<0.000504	<0.05	<0.000439	<0.05	<0.000453	<0.05	<0.000442	<0.05
Chloromethane	NL	NL	NL	mg/kg	<0.00169	<0.05	<0.00147	<0.05	<0.00152	<0.05	<0.00148	<0.05
Chlorotoluene, o-	NL	NL	NL	mg/kg	<0.00112	NT	<0.000973	NT	<0.001	NT	<0.00098	NT
Chlorotoluene, p-	NL	NL	NL	mg/kg	<0.00137	NT	<0.0012	NT	<0.00123	NT	<0.0012	NT
Cumene (Isopropylbenzene)	NL	NL	NL	mg/kg	<0.00105	<0.05	<0.000913	<0.05	<0.000942	<0.05	<0.00092	<0.05
Cymene (Isopropyltoluene)	NL	NL	NL	mg/kg	<0.00283	<0.05	<0.00246	<0.05	<0.00254	<0.05	<0.00248	<0.05
Dibromo-3-chloropropane, 1,2-	NL	1.25	NL	mg/kg	<0.00619	<0.05	<0.00539	<0.05	<0.00557	<0.05	<0.00543	<0.05
Dibromochloromethane	NL	11.905	NL	mg/kg	<0.000546	<0.05	<0.000476	<0.05	<0.000491	<0.05	<0.000479	<0.05
Dichlorobenzene, 1,2-	NL	NL	NL	mg/kg	<0.00176	<0.05	<0.00153	<0.05	<0.00158	<0.05	<0.00155	<0.05
Dichlorobenzene, 1,3-	NL	NL	NL	mg/kg	<0.00206	<0.05	<0.0018	<0.05	<0.00186	<0.05	<0.00181	<0.05
Dichlorobenzene, 1,4-	NL	185.185	NL	mg/kg	<0.00239	<0.05	<0.00208	<0.05	<0.00215	<0.05	<0.0021	<0.05
Dichlorodifluoromethane	NL	NL	NL	mg/kg	<0.000993	<0.05	<0.000865	<0.05	<0.000893	<0.05	<0.000872	<0.05
Dichloroethane, 1,1-	NL	175.439	NL	mg/kg	<0.000698	<0.05	<0.000608	<0.05	<0.000628	<0.05	<0.000613	<0.05
Dichloroethane, 1,2-	NL	10.989	NL	mg/kg	<0.000577	<0.05	<0.000502	<0.05	<0.000519	<0.05	<0.000506	<0.05
Dichloroethylene, 1,1-	NL	NL	NL	mg/kg	<0.000607	<0.05	<0.000529	<0.05	<0.000546	<0.05	<0.000533	<0.05
Dichloroethylene, cis-1,2-	NL	NL	NL	mg/kg	<0.000837	<0.05	<0.00073	<0.05	<0.000753	<0.05	<0.000735	<0.05
Dichloroethylene, trans-1,2	NL	NL	NL	mg/kg	<0.00174	<0.05	<0.00151	<0.05	<0.00156	<0.05	<0.00152	<0.05
Dichloropropane, 1,2-	NL	27.778	NL	mg/kg	<0.00154	<0.05	<0.00134	<0.05	<0.00139	<0.05	<0.00135	<0.05
Dichloropropane, 1,3-	NL	NL	NL	mg/kg	<0.00212	<0.05	<0.00185	<0.05	<0.00191	<0.05	<0.00186	<0.05
Dichloropropane, 2,2-	NL	NL	NL	mg/kg	<0.000962	<0.05	<0.000839	<0.05	<0.000866	<0.05	<0.000845	<0.05
Dichloropropene, 1,1-	NL	NL	NL	mg/kg	<0.00085	<0.05	<0.00074	<0.05	<0.000764	<0.05	<0.000746	<0.05
Dichloropropene, cis 1,3-	NL	NL	NL	mg/kg	<0.000823	<0.05	<0.000717	<0.05	<0.00074	<0.05	<0.000722	<0.05
Dichloropropene, trans 1,3-	NL	NL	NL	mg/kg	<0.00186	<0.05	<0.00162	<0.05	<0.00167	<0.05	<0.00163	<0.05
Diisopropyl ether	NL	NL	NL	mg/kg	<0.000425	NT	<0.00037	NT	<0.000382	NT	<0.000373	NT
Ethyl benzene	6	NL	NL	mg/kg	<0.000643	<0.05	<0.000561	<0.05	<0.000579	<0.05	<0.000565	<0.05
Ethylene dibromide (EDB)	0.005	0.5	NL	mg/kg	<0.000637	<0.05	<0.000555	<0.05	<0.000573	<0.05	<0.000559	<0.05
Hexachlorobutadiene	NL	12.82	NL	mg/kg	<0.0154	<0.05	<0.0134	<0.05	<0.0139	<0.05	<0.0135	<0.05
Methyl ethyl ketone	NL	NL	NL	mg/kg	<0.0152	<0.25	<0.0132	<0.25	<0.0136	<0.25	<0.0133	<0.25
Methyl isobutyl ketone	NL	NL	NL	mg/kg	<0.0121	NT	<0.0106	NT	<0.0109	NT	<0.0107	NT
Methylene bromide	NL	NL	NL	mg/kg	<0.00121	NT	<0.00106	NT	<0.00109	NT	<0.00107	NT
Methylene chloride	0.02	500	NL	mg/kg	<0.00806	<0.05	<0.00702	<0.05	<0.00725	<0.05	<0.00708	<0.05
MTBE	0.1	555.56	NL	mg/kg	<0.000358	<0.05	<0.000312	<0.05	<0.000322	<0.05	<0.000314	<0.05
Naphthalene	5	NL	NL	mg/kg	<0.00379	<0.05	<0.0033	<0.05	<0.00341	<0.05	<0.00332	<0.05
Propylbenzene, n-	NL	NL	NL	mg/kg	<0.00143	<0.05	<0.00125	<0.05	<0.00129	<0.05	<0.00126	<0.05
Styrene	NL	NL	NL	mg/kg	<0.00331	<0.05	<0.00289	<0.05	<0.00298	<0.05	<0.00291	<0.05
Tetrachloroethane, 1,1,1,2-	NL	38.46	NL	mg/kg	<0.000607	<0.05	<0.000529	<0.05	<0.000546	<0.05	<0.000533	<0.05
Tetrachloroethane, 1,1,2,2-	NL	5	NL	mg/kg	<0.000473	<0.05	<0.000412	<0.05	<0.000426	<0.05	<0.000416	<0.05
Tetrachloroethylene	0.05	476.19	NL	mg/kg	<0.00085	<0.02	<0.00074	<0.02	**0.001750 J**	<0.02	**0.001200 J**	<0.02
Toluene	7	NL	NL	mg/kg	<0.00152	<0.05	**0.00174 J**	<0.05	**0.00288 J**	<0.05	**0.00142 J**	<0.05
Trichloro-1,2,2-trifluoroethane, 1,1,2	NL	NL	NL	mg/kg	<0.000819	NT	<0.000714	NT	<0.000737	NT	<0.000719	NT
Trichlorobenzene, 1,2,3-	NL	NL	NL	mg/kg	<0.000759	<0.05	<0.000661	<0.05	<0.000682	<0.05	<0.000666	<0.05
Trichlorobenzene, 1,2,4-	NL	34.48	NL	mg/kg	<0.00585	<0.05	<0.0051	<0.05	<0.00526	<0.05	<0.00514	<0.05
Trichloroethane, 1,1,1-	2	NL	NL	mg/kg	<0.000334	<0.05	<0.000291	<0.05	<0.0003	<0.05	<0.000293	<0.05
Trichloroethane, 1,1,2-	NL	17.54	NL	mg/kg	<0.00107	<0.05	<0.000934	<0.05	<0.000964	<0.05	<0.000941	<0.05
Trichloroethylene	0.03	12	NL	mg/kg	<0.000485	<0.02	<0.000423	<0.02	<0.000437	<0.02	<0.000426	<0.02
Trichlorofluoromethane	NL	NL	NL	mg/kg	<0.000607	<0.05	<0.000529	<0.05	<0.000546	<0.05	<0.000533	<0.05
Trichloropropane, 1,2,3-	NL	0.033	NL	mg/kg	<0.00619	<0.05	<0.00539	<0.05	<0.00557	<0.05	<0.00543	<0.05
Trimethylbenzene, 1,2,3-	NL	NL	NL	mg/kg	<0.0014	NT	<0.00122	NT	<0.00126	NT	<0.00123	NT
Trimethylbenzene, 1,2,4-	NL	NL	NL	mg/kg	<0.00141	<0.05	<0.00123	<0.05	<0.00127	<0.05	<0.00124	<0.05
Trimethylbenzene, 1,3,5-	NL	NL	NL	mg/kg	<0.00131	<0.05	<0.00114	<0.05	<0.00118	<0.05	<0.00115	<0.05
Vinyl chloride	NL	NL	NL	mg/kg	<0.000829	<0.02	<0.000722	<0.02	<0.000746	<0.02	<0.000728	<0.02
Xylenes	9	NL	NL	mg/kg	<0.0058	<0.15	<0.00506	<0.15	<0.00522	<0.15	<0.00509	<0.15
2,2-Dichloropropane	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Bromochloromethane	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Dibromomethane	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
4-Methyl-2-pentanone (MTBK)	NL	NL	NL	mg/kg	NT	<0.25	NT	<0.25	NT	<0.25	NT	<0.25
2-Hexanone	NL	NL	NL	mg/kg	NT	<0.25	NT	<0.25	NT	<0.25	NT	<0.25
2-Chlorotoluene	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
4-Chlorotoluene	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Hexachloro-1,3-butadiene	NL	12.8	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Other												
% Moisture	NL	NL	NL	%	93.9	93	94.5	93	91.6	90	93.9	96

Table # 1B
SOIL ANALYTICAL RESULTS - SPLIT SAMPLING EVENT
Future Federal Way Hospital
Federal Way, WA
TGE Project No.: R13411.06

Station Name	Method A Unrestricted Land Use	Method B Cancer Direct Contact	Simplified Terrestrial Eco Evaluation Unrestricted	Reporting Units	B9	B9-4	B9	B9-10	B10	B10-3	B10	B10-10
Laboratory Identification					L1018176-01		L1018176-02		L1018176-03		L1018176-04	
Sample Date					8/15/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018
Sample Depth					4 ft	4 ft	10 ft	10 ft	3 ft	3 ft	10 ft	10 ft
Consultant					TGE	EAI	TGE	EAI	TGE	EAI	TGE	EAI
VOAs												
Acetone	NL	NL	NL	mg/kg	<0.0142	<0.25	<0.0152	<0.25	<0.0261	<0.25	<0.0144	<0.25
Acrylonitrile	NL	1.852	NL	mg/kg	<0.00197	NT	<0.00211	NT	<0.00362	NT	<0.00199	NT
Benzene	0.03	18.182	NL	mg/kg	<0.000415	<0.02	<0.000443	<0.02	<0.000762	<0.02	<0.000419	<0.02
Bromobenzene	NL	NL	NL	mg/kg	<0.00109	<0.05	<0.00116	<0.05	<0.002	<0.05	<0.0011	<0.05
Bromodichloromethane	NL	16.129	NL	mg/kg	<0.000817	<0.05	<0.000873	<0.05	<0.0015	<0.05	<0.000826	<0.05
Bromoform	NL	126.582	NL	mg/kg	<0.0062	<0.05	<0.00663	<0.05	<0.0114	<0.05	<0.00627	<0.05
Bromomethane	NL	NL	NL	mg/kg	<0.00384	<0.05	<0.0041	<0.05	<0.00705	<0.05	<0.00388	<0.05
Butylbenzene, n-	NL	NL	NL	mg/kg	<0.00398	<0.05	<0.00426	<0.05	<0.00731	<0.05	<0.00402	<0.05
Butylbenzene, sec-	NL	NL	NL	mg/kg	<0.00262	<0.05	<0.0028	<0.05	<0.00482	<0.05	<0.00265	<0.05
Butylbenzene, tert-	NL	NL	NL	mg/kg	<0.00161	<0.05	<0.00172	<0.05	<0.00295	<0.05	<0.00162	<0.05
Carbon tetrachloride	NL	14.286	NL	mg/kg	<0.00112	<0.05	<0.0012	<0.05	<0.00206	<0.05	<0.00113	<0.05
Chlorobenzene	NL	NL	NL	mg/kg	<0.000594	<0.05	<0.000635	<0.05	<0.00109	<0.05	<0.000601	<0.05
Chloroethane	NL	NL	NL	mg/kg	<0.00112	<0.05	<0.0012	<0.05	<0.00206	<0.05	<0.00113	<0.05
Chloroform	NL	32.258	NL	mg/kg	<0.00043	<0.05	<0.00046	<0.05	<0.00079	<0.05	<0.000435	<0.05
Chloromethane	NL	NL	NL	mg/kg	<0.00144	<0.05	<0.00154	<0.05	<0.00265	<0.05	<0.00146	<0.05
Chlorotoluene, o-	NL	NL	NL	mg/kg	<0.000954	NT	<0.00102	NT	<0.00175	NT	<0.000964	NT
Chlorotoluene, p-	NL	NL	NL	mg/kg	<0.00117	NT	<0.00125	NT	<0.00215	NT	<0.00118	NT
Cumene (Isopropylbenzene)	NL	NL	NL	mg/kg	<0.000895	<0.05	<0.000956	<0.05	<0.00164	<0.05	<0.000905	<0.05
Cymene (Isopropyltoluene)	NL	NL	NL	mg/kg	<0.00242	<0.05	<0.00258	<0.05	<0.00444	<0.05	<0.00244	<0.05
Dibromo-3-chloropropane, 1,2-	NL	1.25	NL	mg/kg	<0.00529	<0.05	<0.00565	<0.05	<0.00971	<0.05	<0.00535	<0.05
Dibromochloromethane	NL	11.905	NL	mg/kg	<0.000467	<0.05	<0.000499	<0.05	<0.000857	<0.05	<0.000472	<0.05
Dichlorobenzene, 1,2-	NL	NL	NL	mg/kg	<0.0015	<0.05	<0.00161	<0.05	<0.00276	<0.05	<0.00152	<0.05
Dichlorobenzene, 1,3-	NL	NL	NL	mg/kg	<0.00176	<0.05	<0.00188	<0.05	<0.00324	<0.05	<0.00178	<0.05
Dichlorobenzene, 1,4-	NL	185.185	NL	mg/kg	<0.00204	<0.05	<0.00218	<0.05	<0.00375	<0.05	<0.00206	<0.05
Dichlorodifluoromethane	NL	NL	NL	mg/kg	<0.000848	<0.05	<0.000907	<0.05	<0.00156	<0.05	<0.000857	<0.05
Dichloroethane, 1,1-	NL	175.439	NL	mg/kg	<0.000596	<0.05	<0.000637	<0.05	<0.0011	<0.05	<0.000603	<0.05
Dichloroethane, 1,2-	NL	10.989	NL	mg/kg	<0.000493	<0.05	<0.000526	<0.05	<0.000905	<0.05	<0.000498	<0.05
Dichloroethylene, 1,1-	NL	NL	NL	mg/kg	<0.000519	<0.05	<0.000554	<0.05	<0.000952	<0.05	<0.000524	<0.05
Dichloroethylene, cis-1,2-	NL	NL	NL	mg/kg	<0.000716	<0.05	<0.000765	<0.05	<0.00131	<0.05	<0.000723	<0.05
Dichloroethylene, trans-1,2	NL	NL	NL	mg/kg	<0.00148	<0.05	<0.00158	<0.05	<0.00272	<0.05	<0.0015	<0.05
Dichloropropane, 1,2-	NL	27.778	NL	mg/kg	<0.00132	<0.05	<0.00141	<0.05	<0.00242	<0.05	<0.00133	<0.05
Dichloropropane, 1,3-	NL	NL	NL	mg/kg	<0.00182	<0.05	<0.00194	<0.05	<0.00333	<0.05	<0.00183	<0.05
Dichloropropane, 2,2-	NL	NL	NL	mg/kg	<0.000823	<0.05	<0.000879	<0.05	<0.00151	<0.05	<0.000831	<0.05
Dichloropropene, 1,1-	NL	NL	NL	mg/kg	<0.000726	<0.05	<0.000776	<0.05	<0.00133	<0.05	<0.000734	<0.05
Dichloropropene, cis 1,3-	NL	NL	NL	mg/kg	<0.000703	<0.05	<0.000751	<0.05	<0.00129	<0.05	<0.000711	<0.05
Dichloropropene, trans 1,3-	NL	NL	NL	mg/kg	<0.00159	<0.05	<0.0017	<0.05	<0.00291	<0.05	<0.0016	<0.05
Diisopropyl ether	NL	NL	NL	mg/kg	<0.000363	NT	<0.000388	NT	<0.000667	NT	<0.000367	NT
Ethyl benzene	6	NL	NL	mg/kg	<0.00055	<0.05	<0.000587	<0.05	**0.00132 J**	<0.05	<0.000555	<0.05
Ethylene dibromide (EDB)	0.005	0.5	NL	mg/kg	<0.000545	<0.05	<0.000582	<0.05	<0.001	<0.05	<0.00055	<0.05
Hexachlorobutadiene	NL	12.82	NL	mg/kg	<0.0132	<0.05	<0.0141	<0.05	<0.0242	<0.05	<0.0133	<0.05
Methyl ethyl ketone	NL	NL	NL	mg/kg	<0.013	<0.25	<0.0139	<0.25	<0.0238	<0.25	<0.0131	<0.25
Methyl isobutyl ketone	NL	NL	NL	mg/kg	<0.0104	NT	<0.0111	NT	<0.019	NT	<0.0105	NT
Methylene bromide	NL	NL	NL	mg/kg	<0.00104	NT	<0.00111	NT	<0.0019	NT	<0.00105	NT
Methylene chloride	0.02	500	NL	mg/kg	<0.00689	<0.05	<0.00736	<0.05	<0.0126	<0.05	<0.00696	<0.05
MTBE	0.1	555.56	NL	mg/kg	<0.000306	<0.05	<0.000327	<0.05	<0.000562	<0.05	<0.000309	<0.05
Naphthalene	5	NL	NL	mg/kg	<0.00324	<0.05	<0.00346	<0.05	<0.00594	<0.05	<0.00327	<0.05
Propylbenzene, n-	NL	NL	NL	mg/kg	<0.00122	<0.05	<0.00131	<0.05	<0.00225	<0.05	<0.00124	<0.05
Styrene	NL	NL	NL	mg/kg	<0.00283	<0.05	<0.00303	<0.05	<0.0052	<0.05	<0.00286	<0.05
Tetrachloroethane, 1,1,1,2-	NL	38.46	NL	mg/kg	<0.000519	<0.05	<0.000554	<0.05	<0.000952	<0.05	<0.000524	<0.05
Tetrachloroethane, 1,1,2,2-	NL	5	NL	mg/kg	<0.000405	<0.05	<0.000432	<0.05	<0.000743	<0.05	<0.000409	<0.05
Tetrachloroethylene	0.05	476.19	NL	mg/kg	<0.000726	<0.02	<0.000776	<0.02	<0.00133	<0.02	**0.002150 J**	<0.02
Toluene	7	NL	NL	mg/kg	<0.0013	<0.05	<0.00139	<0.05	**0.00939 J**	<0.05	<0.00131	<0.05
Trichloro-1,2,2-trifluoroethane, 1,1,2	NL	NL	NL	mg/kg	<0.0007	NT	<0.000748	NT	<0.00129	NT	<0.000707	NT
Trichlorobenzene, 1,2,3-	NL	NL	NL	mg/kg	<0.000648	<0.05	<0.000693	<0.05	<0.00119	<0.05	<0.000655	<0.05
Trichlorobenzene, 1,2,4-	NL	34.48	NL	mg/kg	<0.005	<0.05	<0.00534	<0.05	<0.00918	<0.05	<0.00505	<0.05
Trichloroethane, 1,1,1-	2	NL	NL	mg/kg	<0.000285	<0.05	<0.000305	<0.05	<0.000524	<0.05	<0.000288	<0.05
Trichloroethane, 1,1,2-	NL	17.54	NL	mg/kg	<0.000916	<0.05	<0.000979	<0.05	<0.00168	<0.05	<0.000925	<0.05
Trichloroethylene	0.03	12	NL	mg/kg	<0.000415	<0.02	<0.000443	<0.02	<0.000762	<0.02	<0.000419	<0.02
Trichlorofluoromethane	NL	NL	NL	mg/kg	<0.000519	<0.05	<0.000554	<0.05	<0.000952	<0.05	<0.000524	<0.05
Trichloropropane, 1,2,3-	NL	0.033	NL	mg/kg	<0.00529	<0.05	<0.00565	<0.05	<0.00971	<0.05	<0.00535	<0.05
Trimethylbenzene, 1,2,3-	NL	NL	NL	mg/kg	**0.00132 J**	NT	<0.00127	NT	**0.00258 J**	NT	<0.00121	NT
Trimethylbenzene, 1,2,4-	NL	NL	NL	mg/kg	**0.0012 J**	<0.05	**0.00142 J**	<0.05	**0.00405 J**	<0.05	**0.00130 J**	<0.05
Trimethylbenzene, 1,3,5-	NL	NL	NL	mg/kg	<0.00112	<0.05	<0.0012	<0.05	<0.00206	<0.05	<0.00113	<0.05
Vinyl chloride	NL	NL	NL	mg/kg	<0.000708	<0.02	<0.000757	<0.02	<0.0013	<0.02	<0.000716	<0.02
Xylenes	9	NL	NL	mg/kg	<0.00496	<0.15	<0.0053	<0.15	<0.0091	<0.15	<0.00501	<0.15
2,2-Dichloropropane	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Bromochloromethane	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Dibromomethane	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
4-Methyl-2-pentanone (MTBK)	NL	NL	NL	mg/kg	NT	<0.25	NT	<0.25	NT	<0.25	NT	<0.25
2-Hexanone	NL	NL	NL	mg/kg	NT	<0.25	NT	<0.25	NT	<0.25	NT	<0.25
2-Chlorotoluene	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
4-Chlorotoluene	NL	NL	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Hexachloro-1,3-butadiene	NL	12.8	NL	mg/kg	NT	<0.05	NT	<0.05	NT	<0.05	NT	<0.05
Other												
% Moisture	NL	NL	NL	%	96.4	94	90.2	89	88.2	95	95.4	94

Table # 2
SOIL GAS ANALYTICAL RESULTS
Future Federal Way Hospital
Federal Way, WA
TGE Project No.: R13411.06

Station Name	2015 SubSlab Soil Gas Screening Level Method B Noncancer (THQ=1)	2015 SubSlab Soil Gas Screening Level Method B Cancer (TR=1E-6)	Reporting Units	B-10	B-11	B-12	B-13
Sample Date				8/15/2018	8/15/2018	8/15/2018	8/15/2018
LabSampleID				808364-01	808364-02	808364-03	808364-04
Sample Depth				4.5 - 5 feet	4.5 - 5 feet	4.5 - 5 feet	4.5 - 5 feet
				Reported Concentration	Reported Concentration	Reported Concentration	Reported Concentration
1,2-Dichlorotetrafluoroethane (F-114)	NL	NL	ug/m3	<2.3	<2.3	<2.3	<2.3
Acetonitrile	914	NL	ug/m3	42	<5.5	<5.5	<5.5
Acetone	NL	NL	ug/m3	190	100	400 (ve)	250
Acetaldehyde	137	37.9	ug/m3	<30	<30	<30	<30
Acrolein	0.305	NL	ug/m3	18	<3	<3	12
Acrylonitrile	30.5	1.23	ug/m3	<5.5	<0.72	<0.72	<0.72
Benzene	457	10.68	ug/m3	150	3	180	130
Benzyl chloride	15.2	1.70	ug/m3	<0.17	<0.17	<0.17	<0.17
Bromodichloromethane	NL	2.25	ug/m3	<0.22	<0.22	<0.22	<0.22
Bromoform	NL	75.76	ug/m3	<6.8	<6.8	<6.8	<6.8
Bromomethane	76.2	NL	ug/m3	<5.1	<5.1	<5.1	<5.1
Butadiene, 1,3-	30.5	2.78	ug/m3	260	0.72	210	340
1-Butanol	NL	NL	ug/m3	35	<20	32	<20
Butanal	NL	NL	ug/m3	20	<9.7	45	38
Carbon disulfide	10700	NL	ug/m3	28	<21	160	<21
Carbon tetrachloride	1520	13.89	ug/m3	<2.1	<2.1	<2.1	<2.1
Chlorobenzene	762	NL	ug/m3	<1.5	<1.5	<1.5	<1.5
Chloroethane (ethyl chloride)	15200	NL	ug/m3	<0.87	<0.87	<0.87	<0.87
Chloroform	1490	3.62	ug/m3	0.61	0.52	0.32	0.44
Chloromethane	1370	NL	ug/m3	3	2.1	6.7	4.6
Chlorodifluoromethane	762000	NL	ug/m3	<1.2	<1.2	<1.2	<1.2
Cyclopentane	NL	NL	ug/m3	<0.95	1.8	39	34
Cyclohexane	NL	NL	ug/m3	170	<23	140	130
Dibromochloromethane	NL	3.09	ug/m3	<0.28	<0.28	<0.28	<0.28
Dichlorobenzene, 1,2-	3050	NL	ug/m3	<2	<2	<2	<2
Dichlorobenzene, 1,3-	NL	NL	ug/m3	<2	2.9	6.6	4
Dichlorobenzene, 1,4-	12200	7.58	ug/m3	<0.79	<0.79	<0.79	<0.79
Dichlorodifluoromethane	1520	NL	ug/m3	2.6	2.9	<1.6	2.4
Dichloroethane, 1,1-	NL	52.08	ug/m3	<1.3	<1.3	<1.3	<1.3
Dichloroethane, 1,2-	107	3.2	ug/m3	<0.13	<0.13	<0.13	0.6
Dichloroethylene, 1,1-	3050	NL	ug/m3	<1.3	<1.3	<1.3	<1.3
Dichloroethylene, cis-1,2-	NL	NL	ug/m3	<1.3	<1.3	<1.3	<1.3
Dichloroethylene, trans-1,2	NL	NL	ug/m3	<1.3	<1.3	<1.3	<1.3
Dichloropropane, 1,2-	61	8.33	ug/m3	<0.76	<0.76	<0.76	<0.76
Dichloropropene, cis 1,3-	NL	NL	ug/m3	<1.5	<1.5	<1.5	<1.5
Dichloropropene, trans 1,3-	NL	NL	ug/m3	<1.5	<1.5	<1.5	<1.5
Dioxane 1,4-	NL	NL	ug/m3	<1.2	<1.2	<1.2	<1.2
Ethanol	NL	NL	ug/m3	90	<25	42	26
Ethyl benzene	15200	NL	ug/m3	28	2.1	22	25
Ethylene dibromide (EDB)	137	0.14	ug/m3	<0.25	<0.25	<0.25	<0.25
Isoprene	NL	NL	ug/m3	36	<0.92	89	130
Iodomethane	NL	NL	ug/m3	2.6	<1.9	<1.9	<1.9
Isobutene	NL	NL	ug/m3	360	<3	670 (ve)	1000 (ve)
Hexachlorobutadiene	NL	3.79	ug/m3	<0.7	<0.7	<0.7	<0.7
Hexane, n-	10700	NL	ug/m3	340	<12	340	190
Hexanal	NL	NL	ug/m3	220	<14	32	27
Hexanone, 2-	NL	NL	ug/m3	<14	<14	<14	<14
Hexanone, 3-	NL	NL	ug/m3	<14	<14	<14	<14
Isopropyl alcohol	NL	NL	ug/m3	<28	<28	<28	<28
Methyl ethyl ketone	76200	NL	ug/m3	40	13	110	73
Methyl isobutyl ketone	45700	NL	ug/m3	<14	<14	<14	<14
Methacrolein	NL	NL	ug/m3	18	<9.5	17	<9.5
Methyl vinyl ketone	NL	NL	ug/m3	<9.5	<9.5	22	<9.5
Pentane	NL	NL	ug/m3	480	<9.7	530 (ve)	250
2-Pentanone	NL	NL	ug/m3	<12	<12	<12	<12
3-Pentanone	NL	NL	ug/m3	<12	<12	<12	<12
Pentanal	NL	NL	ug/m3	20	<12	33	28
Methylene chloride	9140	8333	ug/m3	330	<290	290	880 (ve)
MTBE	45700	321	ug/m3	<5.9	<5.9	<5.9	<5.9
Naphthalene	45.7	2.45	ug/m3	1.4 (nb)	1.3 (fb)	2.4 (fb)	2.7 (fb)
Propene	NL	NL	ug/m3	700 (ve)	<2.3	1800 (ve)	1800 (ve)
Styrene	15200	NL	ug/m3	44	<2.8	8.5	9.6
Tetrachloroethane, 1,1,2,2-	NL	1.44	ug/m3	<0.45	<0.45	<0.45	<0.45
Tetrachloroethylene	610	321	ug/m3	35	2.7	<2.2	5.7
Toluene	76200	NL	ug/m3	360	11	150	130
Trichloro-1,2,2-trifluoroethane, 1,1,2-	457000	NL	ug/m3	<2.5	<2.5	<2.5	<2.5
Trichlorobenzene, 1,2,4-	30.5	NL	ug/m3	<2.4	<2.4	<2.4	<2.4
Trichloroethane, 1,1,1-	76200	NL	ug/m3	<1.8	<1.8	<1.8	2.6
Trichloroethane, 1,1,2-	3.05	5.21	ug/m3	<0.18	<0.18	<0.18	<0.18
Trichloroethylene	30.5	12.33	ug/m3	13	15	1.7	18
Trichlorofluoromethane	10700	NL	ug/m3	<1.9	1.9	<1.9	4.2
Trimethylbenzene, 1,2,4-	107	NL	ug/m3	<8.1	<8.1	9	30
Trimethylbenzene, 1,3,5-	NL	NL	ug/m3	<8.1	<8.1	<8.1	9
Vinyl acetate	3050	NL	ug/m3	<23	<23	<23	<23
Vinyl chloride	1520	9.33	ug/m3	<0.84	<0.84	<0.84	<0.84
Xylene, o-	1520	NL	ug/m3	25	2.6	24	24
Xylenes	1520	NL	ug/m3	103	7.4	58	83

TR = $1E^{-6}$	Incremental Lifetime Cancer Risk target value of 1 : 1,000,000
THQ = 1	Target hazard quotient for potential non-cancer effects
1.8	Concentration in blue indicates a level above the method detection limit (MDL), for Reported Concentrations, and below the MTCA screening levels (if established).
NL	Not Listed with a target Screening Level per MTCA
ve	The analyte concentration indicated exceeded the valid instrument calibration range - the reported value is estimated.
fb	The analyte indicated was detected within the associated field blank.
ug/m^3	Micrograms per cubic meter Micrograms per cubic meter Micrograms p Micrograms Micrograms Micrograms per cubic me Micrograms per cubic meter
0.1242	Concentration exceeds the Washington State Department of Ecology 2015 Subslab Soil Gas Screening Levels using the "Method B" health risk model.

ATTACHMENT 2

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

August 21, 2018

TGE Resources

Sample Delivery Group:	L1017897
Samples Received:	08/15/2018
Project Number:	R13411.06
Description:	Future Federal Way Hospital

Report To: Kristi Barnette
8048 Northcourt Road
Houston, TX 77040

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

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B-1 (4) L1017897-01 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 08:50 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154707	1	08/20/18 14:08	08/20/18 14:20	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 11:46	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 11:52	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153541	27.75	08/14/18 08:50	08/17/18 05:48	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1153795	1.11	08/14/18 08:50	08/17/18 16:29	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154430	1.11	08/14/18 08:50	08/19/18 15:51	JAH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 16:26	MTJ

B-1 (9) L1017897-02 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 09:00 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154707	1	08/20/18 14:08	08/20/18 14:20	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 11:49	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 11:55	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153541	25	08/14/18 09:00	08/17/18 06:09	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1153795	1	08/14/18 09:00	08/17/18 16:50	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154430	1	08/14/18 09:00	08/19/18 16:10	JAH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 16:39	MTJ

B-2 (4) L1017897-03 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 09:30 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154707	1	08/20/18 14:08	08/20/18 14:20	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 11:57	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 12:02	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153735	26	08/14/18 09:30	08/17/18 12:59	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1153795	1.04	08/14/18 09:30	08/17/18 17:10	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154430	1.04	08/14/18 09:30	08/19/18 16:30	JAH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 16:52	MTJ

B-2 (8) L1017897-04 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 09:40 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154707	1	08/20/18 14:08	08/20/18 14:20	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 11:59	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 12:05	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153735	25	08/14/18 09:40	08/17/18 13:21	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1153795	1	08/14/18 09:40	08/17/18 17:31	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154430	1	08/14/18 09:40	08/19/18 16:49	JAH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 17:05	MTJ

B-3 (4) L1017897-05 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 09:55 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154707	1	08/20/18 14:08	08/20/18 14:20	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 12:02	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 12:07	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153735	25	08/14/18 09:55	08/17/18 13:43	DWR

B-3 (4) L1017897-05 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 09:55 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1153795	1	08/14/18 09:55	08/17/18 17:51	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154430	1	08/14/18 09:55	08/19/18 17:08	JAH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 19:14	MTJ

B-3 (10) L1017897-06 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 10:10 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154707	1	08/20/18 14:08	08/20/18 14:20	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 12:04	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 12:10	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153735	26.75	08/14/18 10:10	08/17/18 14:05	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1153795	1.07	08/14/18 10:10	08/17/18 18:12	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154430	1.07	08/14/18 10:10	08/19/18 17:28	JAH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 17:17	MTJ

B-4 (3) L1017897-07 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 10:30 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154707	1	08/20/18 14:08	08/20/18 14:20	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 12:07	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 12:12	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153735	25	08/14/18 10:30	08/17/18 14:26	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1153795	1	08/14/18 10:30	08/17/18 18:33	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154430	1	08/14/18 10:30	08/19/18 17:48	JAH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 15:47	MTJ

B-4 (6) L1017897-08 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 10:35 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154707	1	08/20/18 14:08	08/20/18 14:20	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 12:09	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 12:15	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153735	25	08/14/18 10:35	08/17/18 14:48	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154260	1	08/14/18 10:35	08/18/18 14:16	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154491	1	08/14/18 10:35	08/19/18 12:50	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 17:30	MTJ

B-5 (4) L1017897-09 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 11:05 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154708	1	08/20/18 11:06	08/20/18 11:13	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 12:12	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 12:17	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153735	25	08/14/18 11:05	08/17/18 15:10	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154260	1	08/14/18 11:05	08/18/18 14:36	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154491	1	08/14/18 11:05	08/19/18 13:08	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 17:43	MTJ

B-5 (9) L1017897-10 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 11:30 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154708	1	08/20/18 11:06	08/20/18 11:13	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 12:14	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 11:40	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153735	25	08/14/18 11:30	08/17/18 15:32	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154260	1	08/14/18 11:30	08/18/18 14:57	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154491	1	08/14/18 11:30	08/19/18 13:27	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 17:57	MTJ

B-6 (3) L1017897-11 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 11:45 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154708	1	08/20/18 11:06	08/20/18 11:13	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 12:17	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 12:20	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153735	25	08/14/18 11:45	08/17/18 15:53	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154260	1	08/14/18 11:45	08/18/18 15:17	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154491	1	08/14/18 11:45	08/19/18 13:46	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 18:09	MTJ

B-6 (6) L1017897-12 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 11:55 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154708	1	08/20/18 11:06	08/20/18 11:13	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 12:20	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 12:22	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153735	28.75	08/14/18 11:55	08/17/18 16:15	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154260	1.16	08/14/18 11:55	08/18/18 15:37	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154491	1.16	08/14/18 11:55	08/19/18 14:05	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 18:22	MTJ

B-7 (4) L1017897-13 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 12:30 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154708	1	08/20/18 11:06	08/20/18 11:13	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 12:27	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 12:25	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153735	28.5	08/14/18 12:30	08/17/18 16:37	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154260	1.14	08/14/18 12:30	08/18/18 15:57	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154491	1.14	08/14/18 12:30	08/19/18 14:23	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 18:35	MTJ

B-7 (9) L1017897-14 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 12:40 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154708	1	08/20/18 11:06	08/20/18 11:13	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 12:30	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 12:33	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153735	25	08/14/18 12:40	08/17/18 16:58	DWR

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

B-7 (9) L1017897-14 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 12:40 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154260	1	08/14/18 12:40	08/18/18 16:18	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154491	1	08/14/18 12:40	08/19/18 14:42	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 18:47	MTJ

B-8 (4) L1017897-15 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 12:50 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154708	1	08/20/18 11:06	08/20/18 11:13	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 12:32	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 12:35	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153735	25	08/14/18 12:50	08/17/18 17:20	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154260	1	08/14/18 12:50	08/18/18 16:38	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154491	1	08/14/18 12:50	08/19/18 15:01	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 19:39	MTJ

B-8 (7) L1017897-16 Solid

Collected by: Tim Crump | Collected date/time: 08/14/18 13:00 | Received date/time: 08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154708	1	08/20/18 11:06	08/20/18 11:13	JD
Mercury by Method 7471A	WG1153486	1	08/16/18 17:27	08/17/18 12:35	TRB
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 12:38	WBD
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1153735	25	08/14/18 13:00	08/17/18 17:41	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154260	1	08/14/18 13:00	08/18/18 16:58	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154491	1	08/14/18 13:00	08/19/18 15:20	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1153557	1	08/20/18 07:24	08/20/18 19:01	MTJ

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

Mark W. Beasley
Project Manager

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

a. LCS spiking amounts,

b. Calculated %R for each analyte, and

c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a. Samples associated with the MS/MSD clearly identified,

b. MS/MSD spiking amounts,

c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

d. Calculated %Rs and relative percent differences (RPDs), and

e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

a. The amount of analyte measured in the duplicate,

b. The calculated RPD, and

c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Mark W. Beasley
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences	LRC Date: 08/21/2018 18:03
Project Name: Future Federal Way Hospital	Laboratory Job Number: L1017897-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1153486, WG1153795, WG1154260, WG1153541, WG1153735, WG1153500, WG1154491, WG1154430, WG1153557, WG1154708 and WG1154707

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	X				
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Were MS/MSD RPDs within laboratory QC limits?		X			4
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: ESC Lab Sciences	LRC Date: 08/21/2018 18:03
Project Name: Future Federal Way Hospital	Laboratory Job Number: L1017897-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1153486, WG1153795, WG1154260, WG1153541, WG1153735, WG1153500, WG1154491, WG1154430, WG1153557, WG1154708 and WG1154707

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		X			5
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
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4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences	LRC Date: 08/21/2018 18:03
Project Name: Future Federal Way Hospital	Laboratory Job Number: L1017897-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1153486, WG1153795, WG1154260, WG1153541, WG1153735, WG1153500, WG1154491, WG1154430, WG1153557, WG1154708 and WG1154707

ER #[1]	Description
1	WG1154260 Toluene-d8 R3334775-3 and 4: Percent Recovery is outside of established control limits.
2	8260C WG1153795 1,3-Dichloropropane: Percent Recovery is outside of established control limits.
3	8260C WG1153795 Benzene, Bromodichloromethane, sec-Butylbenzene, tert-Butylbenzene, Carbon tetrachloride, Chlorobenzene, Chlorodibromomethane, Chloroform, Chloromethane, Dibromomethane, Dichlorodifluoromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethene, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, 1,2-Dichloropropane, 1,1-Dichloropropene, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, Di-isopropyl ether, Ethylbenzene, Isopropylbenzene, Methylene Chloride, Methyl tert-butyl ether, n-Propylbenzene, 1,1,1,2-Tetrachloroethane, Tetrachloroethene, Toluene, 1,1,2-Trichlorotrifluoroethane, 1,1,1-Trichloroethane, Trichloroethene, Trichlorofluoromethane, 1,3,5-Trimethylbenzene, Xylenes, Total: Percent Recovery is outside of established control limits. 8260C WG1154260 Acetone, Acrylonitrile, Benzene, Bromobenzene, Bromodichloromethane, Bromoform, n-Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, Carbon tetrachloride, Chlorobenzene, Chlorodibromomethane, Chloroform, 2-Chlorotoluene, 4-Chlorotoluene, 1,2-Dibromo-3-Chloropropane, 1,2-Dibromoethane, Dibromomethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dichlorodifluoromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethene, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, 1,1-Dichloropropene, 1,3-Dichloropropane, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, 2,2-Dichloropropane, Di-isopropyl ether, Ethylbenzene, Isopropylbenzene, p-Isopropyltoluene, Methylene Chloride, 4-Methyl-2-pentanone (MIBK), Methyl tert-butyl ether, Naphthalene, n-Propylbenzene, Styrene, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, Toluene, 1,1,2-Trichlorotrifluoroethane, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethene, Trichlorofluoromethane, 1,2,3-Trichloropropane, 1,2,3-Trimethylbenzene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Xylenes, Total: Percent Recovery is outside of established control limits. 6010C WG1153500 Barium: Percent Recovery is outside of established control limits.
4	8260C WG1153795 Benzene, Bromobenzene, Bromodichloromethane, Bromomethane, n-Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, Carbon tetrachloride, Chlorobenzene, Chloroethane, Chloroform, Chloromethane, 2-Chlorotoluene, 4-Chlorotoluene, Dibromomethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dichlorodifluoromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethene, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, 1,2-Dichloropropane, 1,1-Dichloropropene, 1,3-Dichloropropane, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, Di-isopropyl ether, Ethylbenzene, Hexachloro-1,3-butadiene, Isopropylbenzene, p-Isopropyltoluene, Methylene Chloride, n-Propylbenzene, Styrene, 1,1,1,2-Tetrachloroethane, Tetrachloroethene, Toluene, 1,1,2-Trichlorotrifluoroethane, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethene, Trichlorofluoromethane, 1,2,4-Trimethylbenzene, 1,2,3-Trimethylbenzene, 1,3,5-Trimethylbenzene, Xylenes, Total: Relative Percent Difference is outside of established control limits.
5	6010C WG1153500 Barium, Chromium: Post Spike Percent Recovery and/or Serial Dilution Relative Percent Difference was outside of established control limits.

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
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3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.3		1	08/20/2018 14:20	WG1154707

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.00633	J	0.00291	0.0200	0.0208	1	08/17/2018 11:46	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	3.37		0.675	2.00	2.08	1	08/19/2018 11:52	WG1153500
Barium	76.4		0.176	0.500	0.519	1	08/19/2018 11:52	WG1153500
Cadmium	0.0811	J	0.0727	0.500	0.519	1	08/19/2018 11:52	WG1153500
Chromium	22.4		0.145	1.00	1.04	1	08/19/2018 11:52	WG1153500
Lead	2.35		0.197	0.500	0.519	1	08/19/2018 11:52	WG1153500
Selenium	U		0.768	2.00	2.08	1	08/19/2018 11:52	WG1153500
Silver	U		0.291	1.00	1.04	1	08/19/2018 11:52	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.976	0.100	2.88	27.75	08/17/2018 05:48	WG1153541
(S) a,a,a-Trifluorotoluene(FID)	*107*				*77.0-120*		*08/17/2018 05:48*	WG1153541

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0158	0.0250	0.0288	1.11	08/19/2018 15:51	WG1154430
Acrylonitrile	U		0.00219	0.0125	0.0144	1.11	08/17/2018 16:29	WG1153795
Benzene	U		0.000461	0.00100	0.00115	1.11	08/17/2018 16:29	WG1153795
Bromobenzene	U		0.00121	0.0125	0.0144	1.11	08/17/2018 16:29	WG1153795
Bromodichloromethane	U		0.000908	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
Bromoform	U		0.00689	0.0250	0.0288	1.11	08/17/2018 16:29	WG1153795
Bromomethane	U		0.00426	0.0125	0.0144	1.11	08/17/2018 16:29	WG1153795
n-Butylbenzene	U		0.00442	0.0125	0.0144	1.11	08/17/2018 16:29	WG1153795
sec-Butylbenzene	U		0.00291	0.0125	0.0144	1.11	08/17/2018 16:29	WG1153795
tert-Butylbenzene	U		0.00179	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
Carbon tetrachloride	U		0.00124	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
Chlorobenzene	U		0.000660	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
Chlorodibromomethane	U		0.000518	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
Chloroethane	U		0.00124	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
Chloroform	U		0.000478	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
Chloromethane	U		0.00160	0.0125	0.0144	1.11	08/17/2018 16:29	WG1153795
2-Chlorotoluene	U		0.00106	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
4-Chlorotoluene	U		0.00130	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
1,2-Dibromo-3-Chloropropane	U		0.00588	0.0250	0.0288	1.11	08/17/2018 16:29	WG1153795
1,2-Dibromoethane	U		0.000605	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
Dibromomethane	U		0.00115	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
1,2-Dichlorobenzene	U		0.00167	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
1,3-Dichlorobenzene	U		0.00196	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
1,4-Dichlorobenzene	U		0.00227	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
Dichlorodifluoromethane	U		0.000942	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
1,1-Dichloroethane	U		0.000662	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
1,2-Dichloroethane	U		0.000547	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000576	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
cis-1,2-Dichloroethene	U		0.000795	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
trans-1,2-Dichloroethene	U		0.00165	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
1,2-Dichloropropane	U		0.00146	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
1,1-Dichloropropene	U		0.000806	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
1,3-Dichloropropane	U	J4	0.00202	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
cis-1,3-Dichloropropene	U		0.000781	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
trans-1,3-Dichloropropene	U		0.00176	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
2,2-Dichloropropane	U		0.000914	0.00250	0.00288	1.11	08/19/2018 15:51	WG1154430
Di-isopropyl ether	U		0.000403	0.00100	0.00115	1.11	08/17/2018 16:29	WG1153795
Ethylbenzene	U		0.000611	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
Hexachloro-1,3-butadiene	U		0.0146	0.0250	0.0288	1.11	08/17/2018 16:29	WG1153795
Isopropylbenzene	U		0.000994	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
p-Isopropyltoluene	U		0.00268	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
2-Butanone (MEK)	U		0.0144	0.0250	0.0288	1.11	08/19/2018 15:51	WG1154430
Methylene Chloride	U		0.00765	0.0250	0.0288	1.11	08/17/2018 16:29	WG1153795
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0250	0.0288	1.11	08/17/2018 16:29	WG1153795
Methyl tert-butyl ether	U		0.000340	0.00100	0.00115	1.11	08/17/2018 16:29	WG1153795
Naphthalene	U		0.00359	0.0125	0.0144	1.11	08/17/2018 16:29	WG1153795
n-Propylbenzene	U		0.00136	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
Styrene	U		0.00315	0.0125	0.0144	1.11	08/17/2018 16:29	WG1153795
1,1,1,2-Tetrachloroethane	U		0.000576	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
1,1,2,2-Tetrachloroethane	U		0.000449	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
1,1,2-Trichlorotrifluoroethane	U		0.000778	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
Tetrachloroethene	U		0.000806	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
Toluene	0.00465	J	0.00144	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
1,2,3-Trichlorobenzene	U		0.000720	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
1,2,4-Trichlorobenzene	U		0.00555	0.0125	0.0144	1.11	08/17/2018 16:29	WG1153795
1,1,1-Trichloroethane	U		0.000317	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
1,1,2-Trichloroethane	U		0.00102	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
Trichloroethene	U		0.000461	0.00100	0.00115	1.11	08/17/2018 16:29	WG1153795
Trichlorofluoromethane	U		0.000576	0.00250	0.00288	1.11	08/17/2018 16:29	WG1153795
1,2,3-Trichloropropane	U		0.00588	0.0125	0.0144	1.11	08/17/2018 16:29	WG1153795
1,2,4-Trimethylbenzene	U		0.00134	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
1,2,3-Trimethylbenzene	U		0.00132	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
Vinyl chloride	U		0.000787	0.00250	0.00288	1.11	08/19/2018 15:51	WG1154430
1,3,5-Trimethylbenzene	U		0.00124	0.00500	0.00576	1.11	08/17/2018 16:29	WG1153795
Xylenes, Total	U		0.00551	0.00650	0.00749	1.11	08/17/2018 16:29	WG1153795
(S) Toluene-d8	*117*				*80.0-120*		*08/17/2018 16:29*	WG1153795
(S) Toluene-d8	*114*				*80.0-120*		*08/19/2018 15:51*	WG1154430
(S) Dibromofluoromethane	*94.5*				*74.0-131*		*08/17/2018 16:29*	WG1153795
(S) Dibromofluoromethane	*92.9*				*74.0-131*		*08/19/2018 15:51*	WG1154430
(S) 4-Bromofluorobenzene	*103*				*64.0-132*		*08/17/2018 16:29*	WG1153795
(S) 4-Bromofluorobenzene	*101*				*64.0-132*		*08/19/2018 15:51*	WG1154430

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.38	4.00	4.15	1	08/20/2018 16:26	WG1153557
Residual Range Organics (RRO)	U		3.46	10.0	10.4	1	08/20/2018 16:26	WG1153557
(S) o-Terphenyl	*69.8*				*18.0-148*		*08/20/2018 16:26*	WG1153557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.9		1	08/20/2018 14:20	WG1154707

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.00554	J	0.00292	0.0200	0.0209	1	08/17/2018 11:49	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	3.56		0.678	2.00	2.09	1	08/19/2018 11:55	WG1153500
Barium	85.7		0.177	0.500	0.521	1	08/19/2018 11:55	WG1153500
Cadmium	U		0.0730	0.500	0.521	1	08/19/2018 11:55	WG1153500
Chromium	31.0		0.146	1.00	1.04	1	08/19/2018 11:55	WG1153500
Lead	2.16		0.198	0.500	0.521	1	08/19/2018 11:55	WG1153500
Selenium	U		0.772	2.00	2.09	1	08/19/2018 11:55	WG1153500
Silver	U		0.292	1.00	1.04	1	08/19/2018 11:55	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.884	0.100	2.61	25	08/17/2018 06:09	WG1153541
(S) a,a,a-Trifluorotoluene(FID)	*109*				*77.0-120*		*08/17/2018 06:09*	WG1153541

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0143	0.0250	0.0261	1	08/19/2018 16:10	WG1154430
Acrylonitrile	U		0.00198	0.0125	0.0130	1	08/17/2018 16:50	WG1153795
Benzene	U		0.000417	0.00100	0.00104	1	08/17/2018 16:50	WG1153795
Bromobenzene	U		0.00109	0.0125	0.0130	1	08/17/2018 16:50	WG1153795
Bromodichloromethane	U		0.000822	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
Bromoform	U		0.00624	0.0250	0.0261	1	08/17/2018 16:50	WG1153795
Bromomethane	U		0.00386	0.0125	0.0130	1	08/17/2018 16:50	WG1153795
n-Butylbenzene	U		0.00400	0.0125	0.0130	1	08/17/2018 16:50	WG1153795
sec-Butylbenzene	U		0.00264	0.0125	0.0130	1	08/17/2018 16:50	WG1153795
tert-Butylbenzene	U		0.00162	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
Carbon tetrachloride	U		0.00113	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
Chlorobenzene	U		0.000598	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
Chlorodibromomethane	U		0.000469	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
Chloroethane	U		0.00113	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
Chloroform	U		0.000433	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
Chloromethane	U		0.00145	0.0125	0.0130	1	08/17/2018 16:50	WG1153795
2-Chlorotoluene	U		0.000959	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
4-Chlorotoluene	U		0.00118	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
1,2-Dibromo-3-Chloropropane	U		0.00532	0.0250	0.0261	1	08/17/2018 16:50	WG1153795
1,2-Dibromoethane	U		0.000547	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
Dibromomethane	U		0.00104	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
1,2-Dichlorobenzene	U		0.00151	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
1,3-Dichlorobenzene	U		0.00177	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
1,4-Dichlorobenzene	U		0.00205	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
Dichlorodifluoromethane	U		0.000853	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
1,1-Dichloroethane	U		0.000600	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
1,2-Dichloroethane	U		0.000495	0.00250	0.00261	1	08/17/2018 16:50	WG1153795

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000521	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
cis-1,2-Dichloroethene	U		0.000720	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
trans-1,2-Dichloroethene	U		0.00149	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
1,2-Dichloropropane	U		0.00132	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
1,1-Dichloropropene	U		0.000730	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
1,3-Dichloropropane	U	J4	0.00182	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
cis-1,3-Dichloropropene	U		0.000707	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
trans-1,3-Dichloropropene	U		0.00160	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
2,2-Dichloropropane	U		0.000827	0.00250	0.00261	1	08/19/2018 16:10	WG1154430
Di-isopropyl ether	U		0.000365	0.00100	0.00104	1	08/17/2018 16:50	WG1153795
Ethylbenzene	U		0.000553	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
Hexachloro-1,3-butadiene	U		0.0132	0.0250	0.0261	1	08/17/2018 16:50	WG1153795
Isopropylbenzene	U		0.000900	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
p-Isopropyltoluene	U		0.00243	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
2-Butanone (MEK)	U		0.0130	0.0250	0.0261	1	08/19/2018 16:10	WG1154430
Methylene Chloride	U		0.00692	0.0250	0.0261	1	08/17/2018 16:50	WG1153795
4-Methyl-2-pentanone (MIBK)	U		0.0104	0.0250	0.0261	1	08/17/2018 16:50	WG1153795
Methyl tert-butyl ether	U		0.000308	0.00100	0.00104	1	08/17/2018 16:50	WG1153795
Naphthalene	U		0.00325	0.0125	0.0130	1	08/17/2018 16:50	WG1153795
n-Propylbenzene	U		0.00123	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
Styrene	U		0.00285	0.0125	0.0130	1	08/17/2018 16:50	WG1153795
1,1,1,2-Tetrachloroethane	U		0.000521	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
1,1,2,2-Tetrachloroethane	U		0.000407	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
1,1,2-Trichlorotrifluoroethane	U		0.000704	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
Tetrachloroethene	U		0.000730	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
Toluene	0.00197	J	0.00130	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
1,2,3-Trichlorobenzene	U		0.000652	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
1,2,4-Trichlorobenzene	U		0.00503	0.0125	0.0130	1	08/17/2018 16:50	WG1153795
1,1,1-Trichloroethane	U		0.000287	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
1,1,2-Trichloroethane	U		0.000921	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
Trichloroethene	U		0.000417	0.00100	0.00104	1	08/17/2018 16:50	WG1153795
Trichlorofluoromethane	U		0.000521	0.00250	0.00261	1	08/17/2018 16:50	WG1153795
1,2,3-Trichloropropane	U		0.00532	0.0125	0.0130	1	08/17/2018 16:50	WG1153795
1,2,4-Trimethylbenzene	U		0.00121	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
1,2,3-Trimethylbenzene	U		0.00120	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
Vinyl chloride	U		0.000712	0.00250	0.00261	1	08/19/2018 16:10	WG1154430
1,3,5-Trimethylbenzene	U		0.00113	0.00500	0.00521	1	08/17/2018 16:50	WG1153795
Xylenes, Total	U		0.00498	0.00650	0.00678	1	08/17/2018 16:50	WG1153795
(S) Toluene-d8	*112*				*80.0-120*		*08/17/2018 16:50*	WG1153795
(S) Toluene-d8	*115*				*80.0-120*		*08/19/2018 16:10*	WG1154430
(S) Dibromofluoromethane	*92.1*				*74.0-131*		*08/17/2018 16:50*	WG1153795
(S) Dibromofluoromethane	*93.2*				*74.0-131*		*08/19/2018 16:10*	WG1154430
(S) 4-Bromofluorobenzene	*101*				*64.0-132*		*08/17/2018 16:50*	WG1153795
(S) 4-Bromofluorobenzene	*94.5*				*64.0-132*		*08/19/2018 16:10*	WG1154430

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.39	4.00	4.17	1	08/20/2018 16:39	WG1153557
Residual Range Organics (RRO)	U		3.47	10.0	10.4	1	08/20/2018 16:39	WG1153557
(S) o-Terphenyl	*76.3*				*18.0-148*		*08/20/2018 16:39*	WG1153557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.5		1	08/20/2018 14:20	WG1154707

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0153	J	0.00296	0.0200	0.0212	1	08/17/2018 11:57	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	3.13		0.688	2.00	2.12	1	08/19/2018 12:02	WG1153500
Barium	69.9		0.180	0.500	0.529	1	08/19/2018 12:02	WG1153500
Cadmium	U		0.0741	0.500	0.529	1	08/19/2018 12:02	WG1153500
Chromium	27.9		0.148	1.00	1.06	1	08/19/2018 12:02	WG1153500
Lead	2.06		0.201	0.500	0.529	1	08/19/2018 12:02	WG1153500
Selenium	U		0.783	2.00	2.12	1	08/19/2018 12:02	WG1153500
Silver	U		0.296	1.00	1.06	1	08/19/2018 12:02	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.933	0.100	2.75	26	08/17/2018 12:59	WG1153735
(S) a,a,a-Trifluorotoluene(FID)	*102*				*77.0-120*		*08/17/2018 12:59*	WG1153735

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0151	0.0250	0.0275	1.04	08/19/2018 16:30	WG1154430
Acrylonitrile	U		0.00209	0.0125	0.0138	1.04	08/17/2018 17:10	WG1153795
Benzene	U		0.000440	0.00100	0.00110	1.04	08/17/2018 17:10	WG1153795
Bromobenzene	U		0.00116	0.0125	0.0138	1.04	08/17/2018 17:10	WG1153795
Bromodichloromethane	U		0.000867	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
Bromoform	U		0.00658	0.0250	0.0275	1.04	08/17/2018 17:10	WG1153795
Bromomethane	U		0.00407	0.0125	0.0138	1.04	08/17/2018 17:10	WG1153795
n-Butylbenzene	U		0.00423	0.0125	0.0138	1.04	08/17/2018 17:10	WG1153795
sec-Butylbenzene	U		0.00278	0.0125	0.0138	1.04	08/17/2018 17:10	WG1153795
tert-Butylbenzene	U		0.00171	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
Carbon tetrachloride	U		0.00119	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
Chlorobenzene	U		0.000631	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
Chlorodibromomethane	U		0.000495	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
Chloroethane	U		0.00119	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
Chloroform	U		0.000457	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
Chloromethane	U		0.00153	0.0125	0.0138	1.04	08/17/2018 17:10	WG1153795
2-Chlorotoluene	U		0.00101	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
4-Chlorotoluene	U		0.00124	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
1,2-Dibromo-3-Chloropropane	U		0.00561	0.0250	0.0275	1.04	08/17/2018 17:10	WG1153795
1,2-Dibromoethane	U		0.000578	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
Dibromomethane	U		0.00110	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
1,2-Dichlorobenzene	U		0.00160	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
1,3-Dichlorobenzene	U		0.00187	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
1,4-Dichlorobenzene	U		0.00217	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
Dichlorodifluoromethane	U		0.000900	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
1,1-Dichloroethane	U		0.000633	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
1,2-Dichloroethane	U		0.000523	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000550	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
cis-1,2-Dichloroethene	U		0.000759	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
trans-1,2-Dichloroethene	U		0.00157	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
1,2-Dichloropropane	U		0.00140	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
1,1-Dichloropropene	U		0.000770	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
1,3-Dichloropropane	U	J4	0.00193	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
cis-1,3-Dichloropropene	U		0.000746	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
trans-1,3-Dichloropropene	U		0.00168	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
2,2-Dichloropropane	U		0.000873	0.00250	0.00275	1.04	08/19/2018 16:30	WG1154430
Di-isopropyl ether	U		0.000385	0.00100	0.00110	1.04	08/17/2018 17:10	WG1153795
Ethylbenzene	0.000654	J	0.000583	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
Hexachloro-1,3-butadiene	U		0.0140	0.0250	0.0275	1.04	08/17/2018 17:10	WG1153795
Isopropylbenzene	U		0.000950	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
p-Isopropyltoluene	U		0.00256	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
2-Butanone (MEK)	U		0.0138	0.0250	0.0275	1.04	08/19/2018 16:30	WG1154430
Methylene Chloride	U		0.00731	0.0250	0.0275	1.04	08/17/2018 17:10	WG1153795
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0250	0.0275	1.04	08/17/2018 17:10	WG1153795
Methyl tert-butyl ether	U		0.000325	0.00100	0.00110	1.04	08/17/2018 17:10	WG1153795
Naphthalene	U		0.00343	0.0125	0.0138	1.04	08/17/2018 17:10	WG1153795
n-Propylbenzene	U		0.00130	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
Styrene	U		0.00300	0.0125	0.0138	1.04	08/17/2018 17:10	WG1153795
1,1,1,2-Tetrachloroethane	U		0.000550	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
1,1,2,2-Tetrachloroethane	U		0.000429	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
1,1,2-Trichlorotrifluoroethane	U		0.000743	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
Tetrachloroethene	U		0.000770	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
Toluene	0.00497	J	0.00138	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
1,2,3-Trichlorobenzene	U		0.000688	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
1,2,4-Trichlorobenzene	U		0.00531	0.0125	0.0138	1.04	08/17/2018 17:10	WG1153795
1,1,1-Trichloroethane	U		0.000303	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
1,1,2-Trichloroethane	U		0.000972	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
Trichloroethene	U		0.000440	0.00100	0.00110	1.04	08/17/2018 17:10	WG1153795
Trichlorofluoromethane	U		0.000550	0.00250	0.00275	1.04	08/17/2018 17:10	WG1153795
1,2,3-Trichloropropane	U		0.00561	0.0125	0.0138	1.04	08/17/2018 17:10	WG1153795
1,2,4-Trimethylbenzene	0.00135	J	0.00128	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
1,2,3-Trimethylbenzene	U		0.00127	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
Vinyl chloride	U		0.000752	0.00250	0.00275	1.04	08/19/2018 16:30	WG1154430
1,3,5-Trimethylbenzene	U		0.00119	0.00500	0.00550	1.04	08/17/2018 17:10	WG1153795
Xylenes, Total	U		0.00526	0.00650	0.00715	1.04	08/17/2018 17:10	WG1153795
(S) Toluene-d8	*113*				*80.0-120*		*08/17/2018 17:10*	WG1153795
(S) Toluene-d8	*114*				*80.0-120*		*08/19/2018 16:30*	WG1154430
(S) Dibromofluoromethane	*94.1*				*74.0-131*		*08/17/2018 17:10*	WG1153795
(S) Dibromofluoromethane	*93.4*				*74.0-131*		*08/19/2018 16:30*	WG1154430
(S) 4-Bromofluorobenzene	*103*				*64.0-132*		*08/17/2018 17:10*	WG1153795
(S) 4-Bromofluorobenzene	*96.2*				*64.0-132*		*08/19/2018 16:30*	WG1154430

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.41	4.00	4.23	1	08/20/2018 16:52	WG1153557
Residual Range Organics (RRO)	U		3.52	10.0	10.6	1	08/20/2018 16:52	WG1153557
(S) o-Terphenyl	*65.8*				*18.0-148*		*08/20/2018 16:52*	WG1153557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.5		1	08/20/2018 14:20	WG1154707

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.00950	J	0.00293	0.0200	0.0209	1	08/17/2018 11:59	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	2.87		0.681	2.00	2.09	1	08/19/2018 12:05	WG1153500
Barium	52.3		0.178	0.500	0.524	1	08/19/2018 12:05	WG1153500
Cadmium	U		0.0733	0.500	0.524	1	08/19/2018 12:05	WG1153500
Chromium	31.7		0.147	1.00	1.05	1	08/19/2018 12:05	WG1153500
Lead	1.56		0.199	0.500	0.524	1	08/19/2018 12:05	WG1153500
Selenium	U		0.775	2.00	2.09	1	08/19/2018 12:05	WG1153500
Silver	U		0.293	1.00	1.05	1	08/19/2018 12:05	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.888	0.100	2.62	25	08/17/2018 13:21	WG1153735
(S) a,a,a-Trifluorotoluene(FID)	*101*				*77.0-120*		*08/17/2018 13:21*	WG1153735

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0143	0.0250	0.0262	1	08/19/2018 16:49	WG1154430
Acrylonitrile	U		0.00199	0.0125	0.0131	1	08/17/2018 17:31	WG1153795
Benzene	U		0.000419	0.00100	0.00105	1	08/17/2018 17:31	WG1153795
Bromobenzene	U		0.00110	0.0125	0.0131	1	08/17/2018 17:31	WG1153795
Bromodichloromethane	U		0.000825	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
Bromoform	U		0.00626	0.0250	0.0262	1	08/17/2018 17:31	WG1153795
Bromomethane	U		0.00388	0.0125	0.0131	1	08/17/2018 17:31	WG1153795
n-Butylbenzene	U		0.00402	0.0125	0.0131	1	08/17/2018 17:31	WG1153795
sec-Butylbenzene	U		0.00265	0.0125	0.0131	1	08/17/2018 17:31	WG1153795
tert-Butylbenzene	U		0.00162	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
Carbon tetrachloride	U		0.00113	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
Chlorobenzene	U		0.000600	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
Chlorodibromomethane	U		0.000471	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
Chloroethane	U		0.00113	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
Chloroform	U		0.000435	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
Chloromethane	U		0.00146	0.0125	0.0131	1	08/17/2018 17:31	WG1153795
2-Chlorotoluene	U		0.000964	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
4-Chlorotoluene	U		0.00118	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
1,2-Dibromo-3-Chloropropane	U		0.00534	0.0250	0.0262	1	08/17/2018 17:31	WG1153795
1,2-Dibromoethane	U		0.000550	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
Dibromomethane	U		0.00105	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
1,2-Dichlorobenzene	U		0.00152	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
1,3-Dichlorobenzene	U		0.00178	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
1,4-Dichlorobenzene	U		0.00206	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
Dichlorodifluoromethane	U		0.000857	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
1,1-Dichloroethane	U		0.000602	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
1,2-Dichloroethane	U		0.000497	0.00250	0.00262	1	08/17/2018 17:31	WG1153795

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000524	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
cis-1,2-Dichloroethene	U		0.000723	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
trans-1,2-Dichloroethene	U		0.00150	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
1,2-Dichloropropane	U		0.00133	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
1,1-Dichloropropene	U		0.000733	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
1,3-Dichloropropane	U	J4	0.00183	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
cis-1,3-Dichloropropene	U		0.000710	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
trans-1,3-Dichloropropene	U		0.00160	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
2,2-Dichloropropane	U		0.000831	0.00250	0.00262	1	08/19/2018 16:49	WG1154430
Di-isopropyl ether	U		0.000367	0.00100	0.00105	1	08/17/2018 17:31	WG1153795
Ethylbenzene	U		0.000555	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
Hexachloro-1,3-butadiene	U		0.0133	0.0250	0.0262	1	08/17/2018 17:31	WG1153795
Isopropylbenzene	U		0.000904	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
p-Isopropyltoluene	U		0.00244	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
2-Butanone (MEK)	U		0.0131	0.0250	0.0262	1	08/19/2018 16:49	WG1154430
Methylene Chloride	U		0.00695	0.0250	0.0262	1	08/17/2018 17:31	WG1153795
4-Methyl-2-pentanone (MIBK)	U		0.0105	0.0250	0.0262	1	08/17/2018 17:31	WG1153795
Methyl tert-butyl ether	U		0.000309	0.00100	0.00105	1	08/17/2018 17:31	WG1153795
Naphthalene	U		0.00327	0.0125	0.0131	1	08/17/2018 17:31	WG1153795
n-Propylbenzene	U		0.00124	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
Styrene	U		0.00286	0.0125	0.0131	1	08/17/2018 17:31	WG1153795
1,1,1,2-Tetrachloroethane	U		0.000524	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
1,1,2,2-Tetrachloroethane	U		0.000408	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
1,1,2-Trichlorotrifluoroethane	U		0.000707	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
Tetrachloroethene	U		0.000733	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
Toluene	0.00459	J	0.00131	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
1,2,3-Trichlorobenzene	U		0.000655	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
1,2,4-Trichlorobenzene	U		0.00505	0.0125	0.0131	1	08/17/2018 17:31	WG1153795
1,1,1-Trichloroethane	U		0.000288	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
1,1,2-Trichloroethane	U		0.000925	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
Trichloroethene	U		0.000419	0.00100	0.00105	1	08/17/2018 17:31	WG1153795
Trichlorofluoromethane	U		0.000524	0.00250	0.00262	1	08/17/2018 17:31	WG1153795
1,2,3-Trichloropropane	U		0.00534	0.0125	0.0131	1	08/17/2018 17:31	WG1153795
1,2,4-Trimethylbenzene	U		0.00121	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
1,2,3-Trimethylbenzene	U		0.00120	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
Vinyl chloride	U		0.000715	0.00250	0.00262	1	08/19/2018 16:49	WG1154430
1,3,5-Trimethylbenzene	U		0.00113	0.00500	0.00524	1	08/17/2018 17:31	WG1153795
Xylenes, Total	U		0.00501	0.00650	0.00681	1	08/17/2018 17:31	WG1153795
(S) Toluene-d8	*111*				*80.0-120*		*08/17/2018 17:31*	WG1153795
(S) Toluene-d8	*113*				*80.0-120*		*08/19/2018 16:49*	WG1154430
(S) Dibromofluoromethane	*93.9*				*74.0-131*		*08/17/2018 17:31*	WG1153795
(S) Dibromofluoromethane	*95.2*				*74.0-131*		*08/19/2018 16:49*	WG1154430
(S) 4-Bromofluorobenzene	*103*				*64.0-132*		*08/17/2018 17:31*	WG1153795
(S) 4-Bromofluorobenzene	*90.8*				*64.0-132*		*08/19/2018 16:49*	WG1154430

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.39	4.00	4.19	1	08/20/2018 17:05	WG1153557
Residual Range Organics (RRO)	U		3.49	10.0	10.5	1	08/20/2018 17:05	WG1153557
(S) o-Terphenyl	*79.8*				*18.0-148*		*08/20/2018 17:05*	WG1153557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.8		1	08/20/2018 14:20	WG1154707

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0214	J	0.00302	0.0200	0.0215	1	08/17/2018 12:02	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	81.7		0.700	2.00	2.15	1	08/19/2018 12:07	WG1153500
Barium	62.9		0.183	0.500	0.539	1	08/19/2018 12:07	WG1153500
Cadmium	0.199	J	0.0754	0.500	0.539	1	08/19/2018 12:07	WG1153500
Chromium	25.2		0.151	1.00	1.08	1	08/19/2018 12:07	WG1153500
Lead	27.2		0.205	0.500	0.539	1	08/19/2018 12:07	WG1153500
Selenium	U		0.797	2.00	2.15	1	08/19/2018 12:07	WG1153500
Silver	U		0.302	1.00	1.08	1	08/19/2018 12:07	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.913	0.100	2.69	25	08/17/2018 13:43	WG1153735
(S) a,a,a-Trifluorotoluene(FID)	*102*				*77.0-120*		*08/17/2018 13:43*	WG1153735

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0148	0.0250	0.0269	1	08/19/2018 17:08	WG1154430
Acrylonitrile	U		0.00205	0.0125	0.0135	1	08/17/2018 17:51	WG1153795
Benzene	U		0.000431	0.00100	0.00108	1	08/17/2018 17:51	WG1153795
Bromobenzene	U		0.00113	0.0125	0.0135	1	08/17/2018 17:51	WG1153795
Bromodichloromethane	U		0.000849	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
Bromoform	U		0.00644	0.0250	0.0269	1	08/17/2018 17:51	WG1153795
Bromomethane	U		0.00399	0.0125	0.0135	1	08/17/2018 17:51	WG1153795
n-Butylbenzene	U		0.00414	0.0125	0.0135	1	08/17/2018 17:51	WG1153795
sec-Butylbenzene	U		0.00273	0.0125	0.0135	1	08/17/2018 17:51	WG1153795
tert-Butylbenzene	U		0.00167	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
Carbon tetrachloride	U		0.00116	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
Chlorobenzene	U		0.000617	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
Chlorodibromomethane	U		0.000485	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
Chloroethane	U		0.00116	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
Chloroform	U		0.000447	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
Chloromethane	U		0.00150	0.0125	0.0135	1	08/17/2018 17:51	WG1153795
2-Chlorotoluene	U		0.000991	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
4-Chlorotoluene	U		0.00122	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
1,2-Dibromo-3-Chloropropane	U		0.00549	0.0250	0.0269	1	08/17/2018 17:51	WG1153795
1,2-Dibromoethane	U		0.000565	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
Dibromomethane	U		0.00108	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
1,2-Dichlorobenzene	U		0.00156	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
1,3-Dichlorobenzene	U		0.00183	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
1,4-Dichlorobenzene	U		0.00212	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
Dichlorodifluoromethane	U		0.000881	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
1,1-Dichloroethane	U		0.000619	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
1,2-Dichloroethane	U		0.000512	0.00250	0.00269	1	08/17/2018 17:51	WG1153795

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000539	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
cis-1,2-Dichloroethene	U		0.000743	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
trans-1,2-Dichloroethene	U		0.00154	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
1,2-Dichloropropane	U		0.00137	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
1,1-Dichloropropene	U		0.000754	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
1,3-Dichloropropane	U	J4	0.00188	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
cis-1,3-Dichloropropene	U		0.000730	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
trans-1,3-Dichloropropene	U		0.00165	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
2,2-Dichloropropane	U		0.000854	0.00250	0.00269	1	08/19/2018 17:08	WG1154430
Di-isopropyl ether	U		0.000377	0.00100	0.00108	1	08/17/2018 17:51	WG1153795
Ethylbenzene	0.000991	J	0.000571	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
Hexachloro-1,3-butadiene	U		0.0137	0.0250	0.0269	1	08/17/2018 17:51	WG1153795
Isopropylbenzene	U		0.000930	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
p-Isopropyltoluene	U		0.00251	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
2-Butanone (MEK)	U		0.0135	0.0250	0.0269	1	08/19/2018 17:08	WG1154430
Methylene Chloride	U		0.00715	0.0250	0.0269	1	08/17/2018 17:51	WG1153795
4-Methyl-2-pentanone (MIBK)	U		0.0108	0.0250	0.0269	1	08/17/2018 17:51	WG1153795
Methyl tert-butyl ether	U		0.000318	0.00100	0.00108	1	08/17/2018 17:51	WG1153795
Naphthalene	0.00825	J	0.00336	0.0125	0.0135	1	08/17/2018 17:51	WG1153795
n-Propylbenzene	U		0.00127	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
Styrene	U		0.00294	0.0125	0.0135	1	08/17/2018 17:51	WG1153795
1,1,1,2-Tetrachloroethane	U		0.000539	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
1,1,2,2-Tetrachloroethane	U		0.000420	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
1,1,2-Trichlorotrifluoroethane	U		0.000727	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
Tetrachloroethene	U		0.000754	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
Toluene	0.00236	J	0.00135	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
1,2,3-Trichlorobenzene	U		0.000673	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
1,2,4-Trichlorobenzene	U		0.00519	0.0125	0.0135	1	08/17/2018 17:51	WG1153795
1,1,1-Trichloroethane	U		0.000296	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
1,1,2-Trichloroethane	U		0.000951	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
Trichloroethene	U		0.000431	0.00100	0.00108	1	08/17/2018 17:51	WG1153795
Trichlorofluoromethane	U		0.000539	0.00250	0.00269	1	08/17/2018 17:51	WG1153795
1,2,3-Trichloropropane	U		0.00549	0.0125	0.0135	1	08/17/2018 17:51	WG1153795
1,2,4-Trimethylbenzene	0.0153		0.00125	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
1,2,3-Trimethylbenzene	0.00624		0.00124	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
Vinyl chloride	U		0.000736	0.00250	0.00269	1	08/19/2018 17:08	WG1154430
1,3,5-Trimethylbenzene	0.00591		0.00116	0.00500	0.00539	1	08/17/2018 17:51	WG1153795
Xylenes, Total	0.00700	J	0.00515	0.00650	0.00700	1	08/17/2018 17:51	WG1153795
(S) Toluene-d8	*111*				*80.0-120*		*08/17/2018 17:51*	WG1153795
(S) Toluene-d8	*113*				*80.0-120*		*08/19/2018 17:08*	WG1154430
(S) Dibromofluoromethane	*93.6*				*74.0-131*		*08/17/2018 17:51*	WG1153795
(S) Dibromofluoromethane	*95.6*				*74.0-131*		*08/19/2018 17:08*	WG1154430
(S) 4-Bromofluorobenzene	*104*				*64.0-132*		*08/17/2018 17:51*	WG1153795
(S) 4-Bromofluorobenzene	*99.1*				*64.0-132*		*08/19/2018 17:08*	WG1154430

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	79.0		1.43	4.00	4.31	1	08/20/2018 19:14	WG1153557
Residual Range Organics (RRO)	127		3.59	10.0	10.8	1	08/20/2018 19:14	WG1153557
(S) o-Terphenyl	*78.8*				*18.0-148*		*08/20/2018 19:14*	WG1153557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.0		1	08/20/2018 14:20	WG1154707

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.00690	J	0.00292	0.0200	0.0208	1	08/17/2018 12:04	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	2.68		0.677	2.00	2.08	1	08/19/2018 12:10	WG1153500
Barium	52.3		0.177	0.500	0.521	1	08/19/2018 12:10	WG1153500
Cadmium	U		0.0729	0.500	0.521	1	08/19/2018 12:10	WG1153500
Chromium	16.3		0.146	1.00	1.04	1	08/19/2018 12:10	WG1153500
Lead	1.80		0.198	0.500	0.521	1	08/19/2018 12:10	WG1153500
Selenium	U		0.770	2.00	2.08	1	08/19/2018 12:10	WG1153500
Silver	U		0.292	1.00	1.04	1	08/19/2018 12:10	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.944	0.100	2.79	26.75	08/17/2018 14:05	WG1153735
(S) a,a,a-Trifluorotoluene(FID)	*102*				*77.0-120*		*08/17/2018 14:05*	WG1153735

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0153	0.0250	0.0279	1.07	08/19/2018 17:28	WG1154430
Acrylonitrile	U		0.00212	0.0125	0.0139	1.07	08/17/2018 18:12	WG1153795
Benzene	0.000521	J	0.000446	0.00100	0.00111	1.07	08/17/2018 18:12	WG1153795
Bromobenzene	U		0.00117	0.0125	0.0139	1.07	08/17/2018 18:12	WG1153795
Bromodichloromethane	U		0.000878	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
Bromoform	U		0.00666	0.0250	0.0279	1.07	08/17/2018 18:12	WG1153795
Bromomethane	U		0.00412	0.0125	0.0139	1.07	08/17/2018 18:12	WG1153795
n-Butylbenzene	U		0.00428	0.0125	0.0139	1.07	08/17/2018 18:12	WG1153795
sec-Butylbenzene	U		0.00282	0.0125	0.0139	1.07	08/17/2018 18:12	WG1153795
tert-Butylbenzene	U		0.00173	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
Carbon tetrachloride	U		0.00120	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
Chlorobenzene	U		0.000638	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
Chlorodibromomethane	U		0.000501	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
Chloroethane	U		0.00120	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
Chloroform	U		0.000462	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
Chloromethane	U		0.00155	0.0125	0.0139	1.07	08/17/2018 18:12	WG1153795
2-Chlorotoluene	U		0.00102	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
4-Chlorotoluene	U		0.00126	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
1,2-Dibromo-3-Chloropropane	U		0.00568	0.0250	0.0279	1.07	08/17/2018 18:12	WG1153795
1,2-Dibromoethane	U		0.000585	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
Dibromomethane	U		0.00111	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
1,2-Dichlorobenzene	U		0.00162	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
1,3-Dichlorobenzene	U		0.00189	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
1,4-Dichlorobenzene	U		0.00219	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
Dichlorodifluoromethane	U		0.000911	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
1,1-Dichloroethane	U		0.000641	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
1,2-Dichloroethane	U		0.000529	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000557	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
cis-1,2-Dichloroethene	U		0.000769	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
trans-1,2-Dichloroethene	U		0.00159	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
1,2-Dichloropropane	U		0.00141	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
1,1-Dichloropropene	U		0.000780	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
1,3-Dichloropropane	U	J4	0.00195	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
cis-1,3-Dichloropropene	U		0.000755	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
trans-1,3-Dichloropropene	U		0.00170	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
2,2-Dichloropropane	U		0.000883	0.00250	0.00279	1.07	08/19/2018 17:28	WG1154430
Di-isopropyl ether	U		0.000390	0.00100	0.00111	1.07	08/17/2018 18:12	WG1153795
Ethylbenzene	U		0.000590	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
Hexachloro-1,3-butadiene	U		0.0141	0.0250	0.0279	1.07	08/17/2018 18:12	WG1153795
Isopropylbenzene	U		0.000961	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
p-Isopropyltoluene	U		0.00260	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
2-Butanone (MEK)	U		0.0139	0.0250	0.0279	1.07	08/19/2018 17:28	WG1154430
Methylene Chloride	U		0.00740	0.0250	0.0279	1.07	08/17/2018 18:12	WG1153795
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0250	0.0279	1.07	08/17/2018 18:12	WG1153795
Methyl tert-butyl ether	U		0.000329	0.00100	0.00111	1.07	08/17/2018 18:12	WG1153795
Naphthalene	U		0.00348	0.0125	0.0139	1.07	08/17/2018 18:12	WG1153795
n-Propylbenzene	U		0.00131	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
Styrene	U		0.00304	0.0125	0.0139	1.07	08/17/2018 18:12	WG1153795
1,1,1,2-Tetrachloroethane	U		0.000557	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
1,1,2,2-Tetrachloroethane	U		0.000434	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
1,1,2-Trichlorotrifluoroethane	U		0.000752	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
Tetrachloroethene	0.00130	J	0.000780	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
Toluene	0.0114		0.00139	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
1,2,3-Trichlorobenzene	U		0.000696	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
1,2,4-Trichlorobenzene	U		0.00537	0.0125	0.0139	1.07	08/17/2018 18:12	WG1153795
1,1,1-Trichloroethane	U		0.000306	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
1,1,2-Trichloroethane	U		0.000984	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
Trichloroethene	U		0.000446	0.00100	0.00111	1.07	08/17/2018 18:12	WG1153795
Trichlorofluoromethane	U		0.000557	0.00250	0.00279	1.07	08/17/2018 18:12	WG1153795
1,2,3-Trichloropropane	U		0.00568	0.0125	0.0139	1.07	08/17/2018 18:12	WG1153795
1,2,4-Trimethylbenzene	0.00145	J	0.00129	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
1,2,3-Trimethylbenzene	U		0.00128	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
Vinyl chloride	U		0.000761	0.00250	0.00279	1.07	08/19/2018 17:28	WG1154430
1,3,5-Trimethylbenzene	U		0.00120	0.00500	0.00557	1.07	08/17/2018 18:12	WG1153795
Xylenes, Total	U		0.00533	0.00650	0.00724	1.07	08/17/2018 18:12	WG1153795
(S) Toluene-d8	*114*				*80.0-120*		*08/17/2018 18:12*	WG1153795
(S) Toluene-d8	*114*				*80.0-120*		*08/19/2018 17:28*	WG1154430
(S) Dibromofluoromethane	*93.2*				*74.0-131*		*08/17/2018 18:12*	WG1153795
(S) Dibromofluoromethane	*94.2*				*74.0-131*		*08/19/2018 17:28*	WG1154430
(S) 4-Bromofluorobenzene	*106*				*64.0-132*		*08/17/2018 18:12*	WG1153795
(S) 4-Bromofluorobenzene	*102*				*64.0-132*		*08/19/2018 17:28*	WG1154430

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.38	4.00	4.16	1	08/20/2018 17:17	WG1153557
Residual Range Organics (RRO)	U		3.47	10.0	10.4	1	08/20/2018 17:17	WG1153557
(S) o-Terphenyl	*71.0*				*18.0-148*		*08/20/2018 17:17*	WG1153557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.3		1	08/20/2018 14:20	WG1154707

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0117	J	0.00297	0.0200	0.0212	1	08/17/2018 12:07	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	3.40		0.690	2.00	2.12	1	08/19/2018 12:12	WG1153500
Barium	96.4		0.180	0.500	0.530	1	08/19/2018 12:12	WG1153500
Cadmium	U		0.0743	0.500	0.530	1	08/19/2018 12:12	WG1153500
Chromium	36.6		0.149	1.00	1.06	1	08/19/2018 12:12	WG1153500
Lead	2.13		0.202	0.500	0.530	1	08/19/2018 12:12	WG1153500
Selenium	U		0.785	2.00	2.12	1	08/19/2018 12:12	WG1153500
Silver	U		0.297	1.00	1.06	1	08/19/2018 12:12	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.899	0.100	2.65	25	08/17/2018 14:26	WG1153735
(S) a,a,a-Trifluorotoluene(FID)	*102*				*77.0-120*		*08/17/2018 14:26*	WG1153735

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0145	0.0250	0.0265	1	08/19/2018 17:48	WG1154430
Acrylonitrile	U		0.00202	0.0125	0.0133	1	08/17/2018 18:33	WG1153795
Benzene	U		0.000424	0.00100	0.00106	1	08/17/2018 18:33	WG1153795
Bromobenzene	U		0.00111	0.0125	0.0133	1	08/17/2018 18:33	WG1153795
Bromodichloromethane	U		0.000836	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
Bromoform	U		0.00634	0.0250	0.0265	1	08/17/2018 18:33	WG1153795
Bromomethane	U		0.00393	0.0125	0.0133	1	08/17/2018 18:33	WG1153795
n-Butylbenzene	U		0.00407	0.0125	0.0133	1	08/17/2018 18:33	WG1153795
sec-Butylbenzene	U		0.00268	0.0125	0.0133	1	08/17/2018 18:33	WG1153795
tert-Butylbenzene	U		0.00164	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
Carbon tetrachloride	U		0.00115	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
Chlorobenzene	U		0.000608	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
Chlorodibromomethane	U		0.000477	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
Chloroethane	U		0.00115	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
Chloroform	U		0.000440	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
Chloromethane	U		0.00147	0.0125	0.0133	1	08/17/2018 18:33	WG1153795
2-Chlorotoluene	U		0.000976	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
4-Chlorotoluene	U		0.00120	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
1,2-Dibromo-3-Chloropropane	U		0.00541	0.0250	0.0265	1	08/17/2018 18:33	WG1153795
1,2-Dibromoethane	U		0.000557	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
Dibromomethane	U		0.00106	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
1,2-Dichlorobenzene	U		0.00154	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
1,3-Dichlorobenzene	U		0.00180	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
1,4-Dichlorobenzene	U		0.00209	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
Dichlorodifluoromethane	U		0.000868	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
1,1-Dichloroethane	U		0.000610	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
1,2-Dichloroethane	U		0.000504	0.00250	0.00265	1	08/17/2018 18:33	WG1153795

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000530	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
cis-1,2-Dichloroethene	U		0.000732	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
trans-1,2-Dichloroethene	U		0.00152	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
1,2-Dichloropropane	U		0.00135	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
1,1-Dichloropropene	U		0.000743	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
1,3-Dichloropropane	U	J4	0.00186	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
cis-1,3-Dichloropropene	U		0.000719	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
trans-1,3-Dichloropropene	U		0.00162	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
2,2-Dichloropropane	U		0.000841	0.00250	0.00265	1	08/19/2018 17:48	WG1154430
Di-isopropyl ether	U		0.000371	0.00100	0.00106	1	08/17/2018 18:33	WG1153795
Ethylbenzene	U		0.000562	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
Hexachloro-1,3-butadiene	U		0.0135	0.0250	0.0265	1	08/17/2018 18:33	WG1153795
Isopropylbenzene	U		0.000916	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
p-Isopropyltoluene	U		0.00247	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
2-Butanone (MEK)	U		0.0133	0.0250	0.0265	1	08/19/2018 17:48	WG1154430
Methylene Chloride	U		0.00704	0.0250	0.0265	1	08/17/2018 18:33	WG1153795
4-Methyl-2-pentanone (MIBK)	U		0.0106	0.0250	0.0265	1	08/17/2018 18:33	WG1153795
Methyl tert-butyl ether	U		0.000313	0.00100	0.00106	1	08/17/2018 18:33	WG1153795
Naphthalene	U		0.00331	0.0125	0.0133	1	08/17/2018 18:33	WG1153795
n-Propylbenzene	U		0.00125	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
Styrene	U		0.00290	0.0125	0.0133	1	08/17/2018 18:33	WG1153795
1,1,1,2-Tetrachloroethane	U		0.000530	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
1,1,2,2-Tetrachloroethane	U		0.000414	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
1,1,2-Trichlorotrifluoroethane	U		0.000716	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
Tetrachloroethene	0.00138	J	0.000743	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
Toluene	0.00638		0.00133	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
1,2,3-Trichlorobenzene	U		0.000663	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
1,2,4-Trichlorobenzene	U		0.00511	0.0125	0.0133	1	08/17/2018 18:33	WG1153795
1,1,1-Trichloroethane	U		0.000292	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
1,1,2-Trichloroethane	U		0.000937	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
Trichloroethene	U		0.000424	0.00100	0.00106	1	08/17/2018 18:33	WG1153795
Trichlorofluoromethane	U		0.000530	0.00250	0.00265	1	08/17/2018 18:33	WG1153795
1,2,3-Trichloropropane	U		0.00541	0.0125	0.0133	1	08/17/2018 18:33	WG1153795
1,2,4-Trimethylbenzene	U		0.00123	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
1,2,3-Trimethylbenzene	U		0.00122	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
Vinyl chloride	U		0.000725	0.00250	0.00265	1	08/19/2018 17:48	WG1154430
1,3,5-Trimethylbenzene	U		0.00115	0.00500	0.00530	1	08/17/2018 18:33	WG1153795
Xylenes, Total	U		0.00507	0.00650	0.00690	1	08/17/2018 18:33	WG1153795
(S) Toluene-d8	*115*				*80.0-120*		*08/17/2018 18:33*	WG1153795
(S) Toluene-d8	*113*				*80.0-120*		*08/19/2018 17:48*	WG1154430
(S) Dibromofluoromethane	*90.6*				*74.0-131*		*08/17/2018 18:33*	WG1153795
(S) Dibromofluoromethane	*95.4*				*74.0-131*		*08/19/2018 17:48*	WG1154430
(S) 4-Bromofluorobenzene	*103*				*64.0-132*		*08/17/2018 18:33*	WG1153795
(S) 4-Bromofluorobenzene	*89.1*				*64.0-132*		*08/19/2018 17:48*	WG1154430

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.41	4.00	4.24	1	08/20/2018 15:47	WG1153557
Residual Range Organics (RRO)	U		3.53	10.0	10.6	1	08/20/2018 15:47	WG1153557
(S) o-Terphenyl	*68.4*				*18.0-148*		*08/20/2018 15:47*	WG1153557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.1		1	08/20/2018 14:20	WG1154707

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.00538	J	0.00292	0.0200	0.0208	1	08/17/2018 12:09	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	7.93		0.677	2.00	2.08	1	08/19/2018 12:15	WG1153500
Barium	83.9		0.177	0.500	0.521	1	08/19/2018 12:15	WG1153500
Cadmium	U		0.0729	0.500	0.521	1	08/19/2018 12:15	WG1153500
Chromium	44.8		0.146	1.00	1.04	1	08/19/2018 12:15	WG1153500
Lead	6.73		0.198	0.500	0.521	1	08/19/2018 12:15	WG1153500
Selenium	U		0.770	2.00	2.08	1	08/19/2018 12:15	WG1153500
Silver	U		0.292	1.00	1.04	1	08/19/2018 12:15	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.882	0.100	2.60	25	08/17/2018 14:48	WG1153735
(S) a,a,a-Trifluorotoluene(FID)	*101*				*77.0-120*		*08/17/2018 14:48*	WG1153735

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0143	0.0250	0.0260	1	08/18/2018 14:16	WG1154260
Acrylonitrile	U		0.00198	0.0125	0.0130	1	08/18/2018 14:16	WG1154260
Benzene	U		0.000416	0.00100	0.00104	1	08/18/2018 14:16	WG1154260
Bromobenzene	U		0.00109	0.0125	0.0130	1	08/18/2018 14:16	WG1154260
Bromodichloromethane	U		0.000820	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
Bromoform	U		0.00623	0.0250	0.0260	1	08/18/2018 14:16	WG1154260
Bromomethane	U		0.00385	0.0125	0.0130	1	08/18/2018 14:16	WG1154260
n-Butylbenzene	U		0.00400	0.0125	0.0130	1	08/18/2018 14:16	WG1154260
sec-Butylbenzene	U		0.00263	0.0125	0.0130	1	08/18/2018 14:16	WG1154260
tert-Butylbenzene	U		0.00161	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
Carbon tetrachloride	U		0.00112	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
Chlorobenzene	U		0.000597	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
Chlorodibromomethane	U		0.000468	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
Chloroethane	U		0.00112	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
Chloroform	U		0.000432	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
Chloromethane	U		0.00145	0.0125	0.0130	1	08/18/2018 14:16	WG1154260
2-Chlorotoluene	U		0.000958	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
4-Chlorotoluene	U		0.00118	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
1,2-Dibromo-3-Chloropropane	U		0.00531	0.0250	0.0260	1	08/18/2018 14:16	WG1154260
1,2-Dibromoethane	U		0.000547	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
Dibromomethane	U		0.00104	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
1,2-Dichlorobenzene	U		0.00151	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
1,3-Dichlorobenzene	U		0.00177	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
1,4-Dichlorobenzene	U		0.00205	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
Dichlorodifluoromethane	U		0.000852	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
1,1-Dichloroethane	U		0.000599	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
1,2-Dichloroethane	U		0.000495	0.00250	0.00260	1	08/18/2018 14:16	WG1154260

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000521	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
cis-1,2-Dichloroethene	U		0.000718	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
trans-1,2-Dichloroethene	U		0.00149	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
1,2-Dichloropropane	U		0.00132	0.00500	0.00521	1	08/19/2018 12:50	WG1154491
1,1-Dichloropropene	U		0.000729	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
1,3-Dichloropropane	U		0.00182	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
cis-1,3-Dichloropropene	U		0.000706	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
trans-1,3-Dichloropropene	U		0.00159	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
2,2-Dichloropropane	U		0.000826	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
Di-isopropyl ether	U		0.000364	0.00100	0.00104	1	08/18/2018 14:16	WG1154260
Ethylbenzene	0.00101	J	0.000552	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
Hexachloro-1,3-butadiene	U		0.0132	0.0250	0.0260	1	08/19/2018 12:50	WG1154491
Isopropylbenzene	U		0.000898	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
p-Isopropyltoluene	U		0.00243	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
2-Butanone (MEK)	0.0306		0.0130	0.0250	0.0260	1	08/19/2018 12:50	WG1154491
Methylene Chloride	U		0.00691	0.0250	0.0260	1	08/18/2018 14:16	WG1154260
4-Methyl-2-pentanone (MIBK)	U		0.0104	0.0250	0.0260	1	08/18/2018 14:16	WG1154260
Methyl tert-butyl ether	U		0.000307	0.00100	0.00104	1	08/18/2018 14:16	WG1154260
Naphthalene	U		0.00325	0.0125	0.0130	1	08/18/2018 14:16	WG1154260
n-Propylbenzene	U		0.00123	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
Styrene	U		0.00284	0.0125	0.0130	1	08/18/2018 14:16	WG1154260
1,1,1,2-Tetrachloroethane	U		0.000521	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
1,1,2,2-Tetrachloroethane	U		0.000406	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
1,1,2-Trichlorotrifluoroethane	U		0.000703	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
Tetrachloroethene	0.00463		0.000729	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
Toluene	0.00668		0.00130	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
1,2,3-Trichlorobenzene	U		0.000651	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
1,2,4-Trichlorobenzene	U		0.00502	0.0125	0.0130	1	08/18/2018 14:16	WG1154260
1,1,1-Trichloroethane	U		0.000286	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
1,1,2-Trichloroethane	U		0.000919	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
Trichloroethene	U		0.000416	0.00100	0.00104	1	08/18/2018 14:16	WG1154260
Trichlorofluoromethane	U		0.000521	0.00250	0.00260	1	08/18/2018 14:16	WG1154260
1,2,3-Trichloropropane	U		0.00531	0.0125	0.0130	1	08/18/2018 14:16	WG1154260
1,2,4-Trimethylbenzene	0.00394	J	0.00121	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
1,2,3-Trimethylbenzene	0.00161	J	0.00120	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
Vinyl chloride	U		0.000711	0.00250	0.00260	1	08/19/2018 12:50	WG1154491
1,3,5-Trimethylbenzene	0.00181	J	0.00112	0.00500	0.00521	1	08/18/2018 14:16	WG1154260
Xylenes, Total	0.0118		0.00498	0.00650	0.00677	1	08/18/2018 14:16	WG1154260
(S) Toluene-d8	*107*				*80.0-120*		*08/18/2018 14:16*	WG1154260
(S) Toluene-d8	*109*				*80.0-120*		*08/19/2018 12:50*	WG1154491
(S) Dibromofluoromethane	*99.2*				*74.0-131*		*08/18/2018 14:16*	WG1154260
(S) Dibromofluoromethane	*105*				*74.0-131*		*08/19/2018 12:50*	WG1154491
(S) 4-Bromofluorobenzene	*97.6*				*64.0-132*		*08/18/2018 14:16*	WG1154260
(S) 4-Bromofluorobenzene	*98.7*				*64.0-132*		*08/19/2018 12:50*	WG1154491

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	6.89		1.38	4.00	4.16	1	08/20/2018 17:30	WG1153557
Residual Range Organics (RRO)	10.7		3.47	10.0	10.4	1	08/20/2018 17:30	WG1153557
(S) o-Terphenyl	*68.8*				*18.0-148*		*08/20/2018 17:30*	WG1153557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.0		1	08/20/2018 11:13	WG1154708

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0107	J	0.00295	0.0200	0.0211	1	08/17/2018 12:12	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	2.51		0.684	2.00	2.11	1	08/19/2018 12:17	WG1153500
Barium	63.9		0.179	0.500	0.526	1	08/19/2018 12:17	WG1153500
Cadmium	U		0.0737	0.500	0.526	1	08/19/2018 12:17	WG1153500
Chromium	23.8		0.147	1.00	1.05	1	08/19/2018 12:17	WG1153500
Lead	1.90		0.200	0.500	0.526	1	08/19/2018 12:17	WG1153500
Selenium	U		0.779	2.00	2.11	1	08/19/2018 12:17	WG1153500
Silver	U		0.295	1.00	1.05	1	08/19/2018 12:17	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.892	0.100	2.63	25	08/17/2018 15:10	WG1153735
(S) a,a,a-Trifluorotoluene(FID)	*101*				*77.0-120*		*08/17/2018 15:10*	WG1153735

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0144	0.0250	0.0263	1	08/18/2018 14:36	WG1154260
Acrylonitrile	U		0.00200	0.0125	0.0132	1	08/18/2018 14:36	WG1154260
Benzene	U		0.000421	0.00100	0.00105	1	08/18/2018 14:36	WG1154260
Bromobenzene	U		0.00111	0.0125	0.0132	1	08/18/2018 14:36	WG1154260
Bromodichloromethane	U		0.000830	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
Bromoform	U		0.00630	0.0250	0.0263	1	08/18/2018 14:36	WG1154260
Bromomethane	U		0.00390	0.0125	0.0132	1	08/18/2018 14:36	WG1154260
n-Butylbenzene	U		0.00404	0.0125	0.0132	1	08/18/2018 14:36	WG1154260
sec-Butylbenzene	U		0.00266	0.0125	0.0132	1	08/18/2018 14:36	WG1154260
tert-Butylbenzene	U		0.00163	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
Carbon tetrachloride	U		0.00114	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
Chlorobenzene	U		0.000603	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
Chlorodibromomethane	U		0.000474	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
Chloroethane	U		0.00114	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
Chloroform	U		0.000437	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
Chloromethane	U		0.00146	0.0125	0.0132	1	08/18/2018 14:36	WG1154260
2-Chlorotoluene	U		0.000969	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
4-Chlorotoluene	U		0.00119	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
1,2-Dibromo-3-Chloropropane	U		0.00537	0.0250	0.0263	1	08/18/2018 14:36	WG1154260
1,2-Dibromoethane	U		0.000553	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
Dibromomethane	U		0.00105	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
1,2-Dichlorobenzene	U		0.00153	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
1,3-Dichlorobenzene	U		0.00179	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
1,4-Dichlorobenzene	U		0.00207	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
Dichlorodifluoromethane	U		0.000861	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
1,1-Dichloroethane	U		0.000605	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
1,2-Dichloroethane	U		0.000500	0.00250	0.00263	1	08/18/2018 14:36	WG1154260

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000526	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
cis-1,2-Dichloroethene	U		0.000727	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
trans-1,2-Dichloroethene	U		0.00151	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
1,2-Dichloropropane	U		0.00134	0.00500	0.00526	1	08/19/2018 13:08	WG1154491
1,1-Dichloropropene	U		0.000737	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
1,3-Dichloropropane	U		0.00184	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
cis-1,3-Dichloropropene	U		0.000714	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
trans-1,3-Dichloropropene	U		0.00161	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
2,2-Dichloropropane	U		0.000835	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
Di-isopropyl ether	U		0.000369	0.00100	0.00105	1	08/18/2018 14:36	WG1154260
Ethylbenzene	U		0.000558	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
Hexachloro-1,3-butadiene	U		0.0134	0.0250	0.0263	1	08/19/2018 13:08	WG1154491
Isopropylbenzene	U		0.000909	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
p-Isopropyltoluene	U		0.00245	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
2-Butanone (MEK)	U		0.0132	0.0250	0.0263	1	08/19/2018 13:08	WG1154491
Methylene Chloride	U		0.00699	0.0250	0.0263	1	08/18/2018 14:36	WG1154260
4-Methyl-2-pentanone (MIBK)	U		0.0105	0.0250	0.0263	1	08/18/2018 14:36	WG1154260
Methyl tert-butyl ether	U		0.000311	0.00100	0.00105	1	08/18/2018 14:36	WG1154260
Naphthalene	U		0.00329	0.0125	0.0132	1	08/18/2018 14:36	WG1154260
n-Propylbenzene	U		0.00124	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
Styrene	U		0.00287	0.0125	0.0132	1	08/18/2018 14:36	WG1154260
1,1,1,2-Tetrachloroethane	U		0.000526	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
1,1,2,2-Tetrachloroethane	U		0.000411	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
1,1,2-Trichlorotrifluoroethane	U		0.000711	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
Tetrachloroethene	0.00133	J	0.000737	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
Toluene	0.00420	J	0.00132	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
1,2,3-Trichlorobenzene	U		0.000658	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
1,2,4-Trichlorobenzene	U		0.00508	0.0125	0.0132	1	08/18/2018 14:36	WG1154260
1,1,1-Trichloroethane	U		0.000290	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
1,1,2-Trichloroethane	U		0.000930	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
Trichloroethene	U		0.000421	0.00100	0.00105	1	08/18/2018 14:36	WG1154260
Trichlorofluoromethane	U		0.000526	0.00250	0.00263	1	08/18/2018 14:36	WG1154260
1,2,3-Trichloropropane	U		0.00537	0.0125	0.0132	1	08/18/2018 14:36	WG1154260
1,2,4-Trimethylbenzene	0.00172	J	0.00122	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
1,2,3-Trimethylbenzene	U		0.00121	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
Vinyl chloride	U		0.000719	0.00250	0.00263	1	08/19/2018 13:08	WG1154491
1,3,5-Trimethylbenzene	U		0.00114	0.00500	0.00526	1	08/18/2018 14:36	WG1154260
Xylenes, Total	U		0.00503	0.00650	0.00684	1	08/18/2018 14:36	WG1154260
(S) Toluene-d8	*108*				*80.0-120*		*08/18/2018 14:36*	WG1154260
(S) Toluene-d8	*109*				*80.0-120*		*08/19/2018 13:08*	WG1154491
(S) Dibromofluoromethane	*97.2*				*74.0-131*		*08/18/2018 14:36*	WG1154260
(S) Dibromofluoromethane	*96.2*				*74.0-131*		*08/19/2018 13:08*	WG1154491
(S) 4-Bromofluorobenzene	*105*				*64.0-132*		*08/18/2018 14:36*	WG1154260
(S) 4-Bromofluorobenzene	*99.9*				*64.0-132*		*08/19/2018 13:08*	WG1154491

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.40	4.00	4.21	1	08/20/2018 17:43	WG1153557
Residual Range Organics (RRO)	U		3.51	10.0	10.5	1	08/20/2018 17:43	WG1153557
(S) o-Terphenyl	*80.3*				*18.0-148*		*08/20/2018 17:43*	WG1153557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.3		1	08/20/2018 11:13	WG1154708

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.00966	J	0.00345	0.0200	0.0246	1	08/17/2018 12:14	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	3.35		0.800	2.00	2.46	1	08/19/2018 11:40	WG1153500
Barium	184	J5 O1	0.209	0.500	0.615	1	08/19/2018 11:40	WG1153500
Cadmium	0.0950	J	0.0861	0.500	0.615	1	08/19/2018 11:40	WG1153500
Chromium	21.5	O1	0.172	1.00	1.23	1	08/19/2018 11:40	WG1153500
Lead	2.70		0.234	0.500	0.615	1	08/19/2018 11:40	WG1153500
Selenium	U		0.911	2.00	2.46	1	08/19/2018 11:40	WG1153500
Silver	U		0.345	1.00	1.23	1	08/19/2018 11:40	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.04	0.100	3.08	25	08/17/2018 15:32	WG1153735
(S) a,a,a-Trifluorotoluene(FID)	*101*				*77.0-120*		*08/17/2018 15:32*	WG1153735

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0169	0.0250	0.0308	1	08/18/2018 14:57	WG1154260
Acrylonitrile	U		0.00234	0.0125	0.0154	1	08/18/2018 14:57	WG1154260
Benzene	U		0.000492	0.00100	0.00123	1	08/18/2018 14:57	WG1154260
Bromobenzene	U		0.00129	0.0125	0.0154	1	08/18/2018 14:57	WG1154260
Bromodichloromethane	U		0.000970	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
Bromoform	U		0.00736	0.0250	0.0308	1	08/18/2018 14:57	WG1154260
Bromomethane	U		0.00455	0.0125	0.0154	1	08/18/2018 14:57	WG1154260
n-Butylbenzene	U		0.00473	0.0125	0.0154	1	08/18/2018 14:57	WG1154260
sec-Butylbenzene	U		0.00311	0.0125	0.0154	1	08/18/2018 14:57	WG1154260
tert-Butylbenzene	U		0.00191	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
Carbon tetrachloride	U		0.00133	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
Chlorobenzene	U		0.000705	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
Chlorodibromomethane	U		0.000554	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
Chloroethane	U		0.00133	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
Chloroform	U		0.000511	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
Chloromethane	U		0.00171	0.0125	0.0154	1	08/18/2018 14:57	WG1154260
2-Chlorotoluene	U		0.00113	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
4-Chlorotoluene	U		0.00139	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
1,2-Dibromo-3-Chloropropane	U		0.00628	0.0250	0.0308	1	08/18/2018 14:57	WG1154260
1,2-Dibromoethane	U		0.000646	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
Dibromomethane	U		0.00123	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
1,2-Dichlorobenzene	U		0.00178	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
1,3-Dichlorobenzene	U		0.00209	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
1,4-Dichlorobenzene	U		0.00242	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
Dichlorodifluoromethane	U		0.00101	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
1,1-Dichloroethane	U		0.000708	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
1,2-Dichloroethane	U		0.000585	0.00250	0.00308	1	08/18/2018 14:57	WG1154260

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000615	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
cis-1,2-Dichloroethene	U		0.000849	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
trans-1,2-Dichloroethene	U		0.00176	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
1,2-Dichloropropane	U		0.00156	0.00500	0.00615	1	08/19/2018 13:27	WG1154491
1,1-Dichloropropene	U		0.000861	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
1,3-Dichloropropane	U		0.00215	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
cis-1,3-Dichloropropene	U		0.000834	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
trans-1,3-Dichloropropene	U		0.00188	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
2,2-Dichloropropane	U		0.000976	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
Di-isopropyl ether	U		0.000431	0.00100	0.00123	1	08/18/2018 14:57	WG1154260
Ethylbenzene	U		0.000652	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
Hexachloro-1,3-butadiene	U		0.0156	0.0250	0.0308	1	08/19/2018 13:27	WG1154491
Isopropylbenzene	U		0.00106	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
p-Isopropyltoluene	U		0.00287	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
2-Butanone (MEK)	U		0.0154	0.0250	0.0308	1	08/19/2018 13:27	WG1154491
Methylene Chloride	U		0.00817	0.0250	0.0308	1	08/18/2018 14:57	WG1154260
4-Methyl-2-pentanone (MIBK)	U		0.0123	0.0250	0.0308	1	08/18/2018 14:57	WG1154260
Methyl tert-butyl ether	U		0.000363	0.00100	0.00123	1	08/18/2018 14:57	WG1154260
Naphthalene	U		0.00384	0.0125	0.0154	1	08/18/2018 14:57	WG1154260
n-Propylbenzene	U		0.00145	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
Styrene	U		0.00336	0.0125	0.0154	1	08/18/2018 14:57	WG1154260
1,1,1,2-Tetrachloroethane	U		0.000615	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
1,1,2,2-Tetrachloroethane	U		0.000480	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
1,1,2-Trichlorotrifluoroethane	U		0.000831	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
Tetrachloroethene	0.00292	J	0.000861	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
Toluene	0.00247	J	0.00154	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
1,2,3-Trichlorobenzene	U		0.000769	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
1,2,4-Trichlorobenzene	U		0.00593	0.0125	0.0154	1	08/18/2018 14:57	WG1154260
1,1,1-Trichloroethane	U		0.000338	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
1,1,2-Trichloroethane	U		0.00109	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
Trichloroethene	U		0.000492	0.00100	0.00123	1	08/18/2018 14:57	WG1154260
Trichlorofluoromethane	U		0.000615	0.00250	0.00308	1	08/18/2018 14:57	WG1154260
1,2,3-Trichloropropane	U		0.00628	0.0125	0.0154	1	08/18/2018 14:57	WG1154260
1,2,4-Trimethylbenzene	U		0.00143	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
1,2,3-Trimethylbenzene	U		0.00142	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
Vinyl chloride	U		0.000840	0.00250	0.00308	1	08/19/2018 13:27	WG1154491
1,3,5-Trimethylbenzene	U		0.00133	0.00500	0.00615	1	08/18/2018 14:57	WG1154260
Xylenes, Total	U		0.00588	0.00650	0.00800	1	08/18/2018 14:57	WG1154260
(S) Toluene-d8	*106*				*80.0-120*		*08/18/2018 14:57*	WG1154260
(S) Toluene-d8	*108*				*80.0-120*		*08/19/2018 13:27*	WG1154491
(S) Dibromofluoromethane	*97.2*				*74.0-131*		*08/18/2018 14:57*	WG1154260
(S) Dibromofluoromethane	*96.9*				*74.0-131*		*08/19/2018 13:27*	WG1154491
(S) 4-Bromofluorobenzene	*106*				*64.0-132*		*08/18/2018 14:57*	WG1154260
(S) 4-Bromofluorobenzene	*98.1*				*64.0-132*		*08/19/2018 13:27*	WG1154491

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.64	4.00	4.92	1	08/20/2018 17:57	WG1153557
Residual Range Organics (RRO)	U		4.10	10.0	12.3	1	08/20/2018 17:57	WG1153557
(S) o-Terphenyl	*52.8*				*18.0-148*		*08/20/2018 17:57*	WG1153557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.6		1	08/20/2018 11:13	WG1154708

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0110	J	0.00293	0.0200	0.0209	1	08/17/2018 12:17	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	3.21		0.680	2.00	2.09	1	08/19/2018 12:20	WG1153500
Barium	41.7		0.178	0.500	0.523	1	08/19/2018 12:20	WG1153500
Cadmium	U		0.0733	0.500	0.523	1	08/19/2018 12:20	WG1153500
Chromium	18.2		0.147	1.00	1.05	1	08/19/2018 12:20	WG1153500
Lead	1.90		0.199	0.500	0.523	1	08/19/2018 12:20	WG1153500
Selenium	U		0.774	2.00	2.09	1	08/19/2018 12:20	WG1153500
Silver	U		0.293	1.00	1.05	1	08/19/2018 12:20	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.887	0.100	2.62	25	08/17/2018 15:53	WG1153735
(S) a,a,a-Trifluorotoluene(FID)	*101*				*77.0-120*		*08/17/2018 15:53*	WG1153735

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0143	0.0250	0.0262	1	08/18/2018 15:17	WG1154260
Acrylonitrile	U		0.00199	0.0125	0.0131	1	08/18/2018 15:17	WG1154260
Benzene	U		0.000419	0.00100	0.00105	1	08/18/2018 15:17	WG1154260
Bromobenzene	U		0.00110	0.0125	0.0131	1	08/18/2018 15:17	WG1154260
Bromodichloromethane	U		0.000825	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
Bromoform	U		0.00626	0.0250	0.0262	1	08/18/2018 15:17	WG1154260
Bromomethane	U		0.00387	0.0125	0.0131	1	08/18/2018 15:17	WG1154260
n-Butylbenzene	U		0.00402	0.0125	0.0131	1	08/18/2018 15:17	WG1154260
sec-Butylbenzene	U		0.00265	0.0125	0.0131	1	08/18/2018 15:17	WG1154260
tert-Butylbenzene	U		0.00162	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
Carbon tetrachloride	U		0.00113	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
Chlorobenzene	U		0.000600	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
Chlorodibromomethane	U		0.000471	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
Chloroethane	U		0.00113	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
Chloroform	U		0.000434	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
Chloromethane	U		0.00145	0.0125	0.0131	1	08/18/2018 15:17	WG1154260
2-Chlorotoluene	U		0.000963	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
4-Chlorotoluene	U		0.00118	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
1,2-Dibromo-3-Chloropropane	U		0.00534	0.0250	0.0262	1	08/18/2018 15:17	WG1154260
1,2-Dibromoethane	U		0.000549	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
Dibromomethane	U		0.00105	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
1,2-Dichlorobenzene	U		0.00152	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
1,3-Dichlorobenzene	U		0.00178	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
1,4-Dichlorobenzene	U		0.00206	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
Dichlorodifluoromethane	U		0.000856	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
1,1-Dichloroethane	U		0.000602	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
1,2-Dichloroethane	U		0.000497	0.00250	0.00262	1	08/18/2018 15:17	WG1154260

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000523	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
cis-1,2-Dichloroethene	U		0.000722	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
trans-1,2-Dichloroethene	U		0.00150	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
1,2-Dichloropropane	U		0.00133	0.00500	0.00523	1	08/19/2018 13:46	WG1154491
1,1-Dichloropropene	U		0.000733	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
1,3-Dichloropropane	U		0.00183	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
cis-1,3-Dichloropropene	U		0.000710	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
trans-1,3-Dichloropropene	U		0.00160	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
2,2-Dichloropropane	U		0.000830	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
Di-isopropyl ether	U		0.000366	0.00100	0.00105	1	08/18/2018 15:17	WG1154260
Ethylbenzene	0.000801	J	0.000555	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
Hexachloro-1,3-butadiene	U		0.0133	0.0250	0.0262	1	08/19/2018 13:46	WG1154491
Isopropylbenzene	U		0.000903	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
p-Isopropyltoluene	U		0.00244	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
2-Butanone (MEK)	U		0.0131	0.0250	0.0262	1	08/19/2018 13:46	WG1154491
Methylene Chloride	U		0.00695	0.0250	0.0262	1	08/18/2018 15:17	WG1154260
4-Methyl-2-pentanone (MIBK)	U		0.0105	0.0250	0.0262	1	08/18/2018 15:17	WG1154260
Methyl tert-butyl ether	U		0.000309	0.00100	0.00105	1	08/18/2018 15:17	WG1154260
Naphthalene	U		0.00327	0.0125	0.0131	1	08/18/2018 15:17	WG1154260
n-Propylbenzene	U		0.00123	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
Styrene	U		0.00286	0.0125	0.0131	1	08/18/2018 15:17	WG1154260
1,1,1,2-Tetrachloroethane	U		0.000523	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
1,1,2,2-Tetrachloroethane	U		0.000408	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
1,1,2-Trichlorotrifluoroethane	U		0.000706	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
Tetrachloroethene	0.00267		0.000733	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
Toluene	0.00493	J	0.00131	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
1,2,3-Trichlorobenzene	U		0.000654	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
1,2,4-Trichlorobenzene	U		0.00504	0.0125	0.0131	1	08/18/2018 15:17	WG1154260
1,1,1-Trichloroethane	U		0.000288	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
1,1,2-Trichloroethane	U		0.000924	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
Trichloroethene	U		0.000419	0.00100	0.00105	1	08/18/2018 15:17	WG1154260
Trichlorofluoromethane	U		0.000523	0.00250	0.00262	1	08/18/2018 15:17	WG1154260
1,2,3-Trichloropropane	U		0.00534	0.0125	0.0131	1	08/18/2018 15:17	WG1154260
1,2,4-Trimethylbenzene	U		0.00121	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
1,2,3-Trimethylbenzene	U		0.00120	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
Vinyl chloride	U		0.000715	0.00250	0.00262	1	08/19/2018 13:46	WG1154491
1,3,5-Trimethylbenzene	U		0.00113	0.00500	0.00523	1	08/18/2018 15:17	WG1154260
Xylenes, Total	U		0.00500	0.00650	0.00680	1	08/18/2018 15:17	WG1154260
(S) Toluene-d8	*109*				*80.0-120*		*08/18/2018 15:17*	WG1154260
(S) Toluene-d8	*108*				*80.0-120*		*08/19/2018 13:46*	WG1154491
(S) Dibromofluoromethane	*97.4*				*74.0-131*		*08/18/2018 15:17*	WG1154260
(S) Dibromofluoromethane	*96.4*				*74.0-131*		*08/19/2018 13:46*	WG1154491
(S) 4-Bromofluorobenzene	*103*				*64.0-132*		*08/18/2018 15:17*	WG1154260
(S) 4-Bromofluorobenzene	*101*				*64.0-132*		*08/19/2018 13:46*	WG1154491

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.39	4.00	4.19	1	08/20/2018 18:09	WG1153557
Residual Range Organics (RRO)	U		3.48	10.0	10.5	1	08/20/2018 18:09	WG1153557
(S) o-Terphenyl	*84.3*				*18.0-148*		*08/20/2018 18:09*	WG1153557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.6		1	08/20/2018 11:13	WG1154708

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.00800	J	0.00293	0.0200	0.0209	1	08/17/2018 12:20	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	6.76		0.680	2.00	2.09	1	08/19/2018 12:22	WG1153500
Barium	91.0		0.178	0.500	0.523	1	08/19/2018 12:22	WG1153500
Cadmium	U		0.0733	0.500	0.523	1	08/19/2018 12:22	WG1153500
Chromium	42.4		0.147	1.00	1.05	1	08/19/2018 12:22	WG1153500
Lead	3.28		0.199	0.500	0.523	1	08/19/2018 12:22	WG1153500
Selenium	U		0.774	2.00	2.09	1	08/19/2018 12:22	WG1153500
Silver	U		0.293	1.00	1.05	1	08/19/2018 12:22	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.02	0.100	3.01	28.75	08/17/2018 16:15	WG1153735
(S) a,a,a-Trifluorotoluene(FID)	*102*				*77.0-120*		*08/17/2018 16:15*	WG1153735

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0166	0.0250	0.0304	1.16	08/18/2018 15:37	WG1154260
Acrylonitrile	U		0.00231	0.0125	0.0152	1.16	08/18/2018 15:37	WG1154260
Benzene	U		0.000486	0.00100	0.00121	1.16	08/18/2018 15:37	WG1154260
Bromobenzene	U		0.00127	0.0125	0.0152	1.16	08/18/2018 15:37	WG1154260
Bromodichloromethane	U		0.000957	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
Bromoform	U		0.00726	0.0250	0.0304	1.16	08/18/2018 15:37	WG1154260
Bromomethane	U		0.00449	0.0125	0.0152	1.16	08/18/2018 15:37	WG1154260
n-Butylbenzene	U		0.00466	0.0125	0.0152	1.16	08/18/2018 15:37	WG1154260
sec-Butylbenzene	U		0.00307	0.0125	0.0152	1.16	08/18/2018 15:37	WG1154260
tert-Butylbenzene	U		0.00188	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
Carbon tetrachloride	U		0.00131	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
Chlorobenzene	U		0.000696	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
Chlorodibromomethane	U		0.000546	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
Chloroethane	U		0.00131	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
Chloroform	U		0.000504	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
Chloromethane	U		0.00169	0.0125	0.0152	1.16	08/18/2018 15:37	WG1154260
2-Chlorotoluene	U		0.00112	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
4-Chlorotoluene	U		0.00137	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
1,2-Dibromo-3-Chloropropane	U		0.00619	0.0250	0.0304	1.16	08/18/2018 15:37	WG1154260
1,2-Dibromoethane	U		0.000637	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
Dibromomethane	U		0.00121	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
1,2-Dichlorobenzene	U		0.00176	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
1,3-Dichlorobenzene	U		0.00206	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
1,4-Dichlorobenzene	U		0.00239	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
Dichlorodifluoromethane	U		0.000993	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
1,1-Dichloroethane	U		0.000698	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
1,2-Dichloroethane	U		0.000577	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000607	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
cis-1,2-Dichloroethene	U		0.000838	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
trans-1,2-Dichloroethene	U		0.00174	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
1,2-Dichloropropane	U		0.00154	0.00500	0.00607	1.16	08/19/2018 14:05	WG1154491
1,1-Dichloropropene	U		0.000850	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
1,3-Dichloropropane	U		0.00212	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
cis-1,3-Dichloropropene	U		0.000823	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
trans-1,3-Dichloropropene	U		0.00186	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
2,2-Dichloropropane	U		0.000963	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
Di-isopropyl ether	U		0.000425	0.00100	0.00121	1.16	08/18/2018 15:37	WG1154260
Ethylbenzene	0.00132	J	0.000643	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
Hexachloro-1,3-butadiene	U		0.0154	0.0250	0.0304	1.16	08/19/2018 14:05	WG1154491
Isopropylbenzene	U		0.00105	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
p-Isopropyltoluene	U		0.00283	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
2-Butanone (MEK)	U		0.0152	0.0250	0.0304	1.16	08/19/2018 14:05	WG1154491
Methylene Chloride	U		0.00806	0.0250	0.0304	1.16	08/18/2018 15:37	WG1154260
4-Methyl-2-pentanone (MIBK)	U		0.0121	0.0250	0.0304	1.16	08/18/2018 15:37	WG1154260
Methyl tert-butyl ether	U		0.000358	0.00100	0.00121	1.16	08/18/2018 15:37	WG1154260
Naphthalene	U		0.00379	0.0125	0.0152	1.16	08/18/2018 15:37	WG1154260
n-Propylbenzene	U		0.00143	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
Styrene	U		0.00331	0.0125	0.0152	1.16	08/18/2018 15:37	WG1154260
1,1,1,2-Tetrachloroethane	U		0.000607	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
1,1,2,2-Tetrachloroethane	U		0.000473	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
1,1,2-Trichlorotrifluoroethane	U		0.000819	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
Tetrachloroethene	0.00190	J	0.000850	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
Toluene	0.00912		0.00152	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
1,2,3-Trichlorobenzene	U		0.000759	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
1,2,4-Trichlorobenzene	U		0.00585	0.0125	0.0152	1.16	08/18/2018 15:37	WG1154260
1,1,1-Trichloroethane	U		0.000334	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
1,1,2-Trichloroethane	U		0.00107	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
Trichloroethene	U		0.000486	0.00100	0.00121	1.16	08/18/2018 15:37	WG1154260
Trichlorofluoromethane	U		0.000607	0.00250	0.00304	1.16	08/18/2018 15:37	WG1154260
1,2,3-Trichloropropane	U		0.00619	0.0125	0.0152	1.16	08/18/2018 15:37	WG1154260
1,2,4-Trimethylbenzene	U		0.00141	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
1,2,3-Trimethylbenzene	U		0.00140	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
Vinyl chloride	U		0.000829	0.00250	0.00304	1.16	08/19/2018 14:05	WG1154491
1,3,5-Trimethylbenzene	U		0.00131	0.00500	0.00607	1.16	08/18/2018 15:37	WG1154260
Xylenes, Total	0.00612	J	0.00580	0.00650	0.00789	1.16	08/18/2018 15:37	WG1154260
(S) Toluene-d8	*103*				*80.0-120*		*08/18/2018 15:37*	WG1154260
(S) Toluene-d8	*108*				*80.0-120*		*08/19/2018 14:05*	WG1154491
(S) Dibromofluoromethane	*99.6*				*74.0-131*		*08/18/2018 15:37*	WG1154260
(S) Dibromofluoromethane	*94.7*				*74.0-131*		*08/19/2018 14:05*	WG1154491
(S) 4-Bromofluorobenzene	*104*				*64.0-132*		*08/18/2018 15:37*	WG1154260
(S) 4-Bromofluorobenzene	*99.2*				*64.0-132*		*08/19/2018 14:05*	WG1154491

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	6.13		1.39	4.00	4.19	1	08/20/2018 18:22	WG1153557
Residual Range Organics (RRO)	14.7		3.49	10.0	10.5	1	08/20/2018 18:22	WG1153557
(S) o-Terphenyl	*67.2*				*18.0-148*		*08/20/2018 18:22*	WG1153557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.9		1	08/20/2018 11:13	WG1154708

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0279		0.00298	0.0200	0.0213	1	08/17/2018 12:27	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	2.73		0.692	2.00	2.13	1	08/19/2018 12:25	WG1153500
Barium	70.7		0.181	0.500	0.532	1	08/19/2018 12:25	WG1153500
Cadmium	U		0.0745	0.500	0.532	1	08/19/2018 12:25	WG1153500
Chromium	26.2		0.149	1.00	1.06	1	08/19/2018 12:25	WG1153500
Lead	1.66		0.202	0.500	0.532	1	08/19/2018 12:25	WG1153500
Selenium	U		0.788	2.00	2.13	1	08/19/2018 12:25	WG1153500
Silver	U		0.298	1.00	1.06	1	08/19/2018 12:25	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.03	0.100	3.03	28.5	08/17/2018 16:37	WG1153735
(S) a,a,a-Trifluorotoluene(FID)	*102*				*77.0-120*		*08/17/2018 16:37*	WG1153735

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0166	0.0250	0.0303	1.14	08/18/2018 15:57	WG1154260
Acrylonitrile	U		0.00231	0.0125	0.0152	1.14	08/18/2018 15:57	WG1154260
Benzene	U		0.000485	0.00100	0.00121	1.14	08/18/2018 15:57	WG1154260
Bromobenzene	U		0.00127	0.0125	0.0152	1.14	08/18/2018 15:57	WG1154260
Bromodichloromethane	U		0.000956	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
Bromoform	U		0.00726	0.0250	0.0303	1.14	08/18/2018 15:57	WG1154260
Bromomethane	U		0.00449	0.0125	0.0152	1.14	08/18/2018 15:57	WG1154260
n-Butylbenzene	U		0.00466	0.0125	0.0152	1.14	08/18/2018 15:57	WG1154260
sec-Butylbenzene	U		0.00307	0.0125	0.0152	1.14	08/18/2018 15:57	WG1154260
tert-Butylbenzene	U		0.00188	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
Carbon tetrachloride	U		0.00131	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
Chlorobenzene	U		0.000695	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
Chlorodibromomethane	U		0.000546	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
Chloroethane	U		0.00131	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
Chloroform	U		0.000504	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
Chloromethane	U		0.00169	0.0125	0.0152	1.14	08/18/2018 15:57	WG1154260
2-Chlorotoluene	U		0.00112	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
4-Chlorotoluene	U		0.00137	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
1,2-Dibromo-3-Chloropropane	U		0.00619	0.0250	0.0303	1.14	08/18/2018 15:57	WG1154260
1,2-Dibromoethane	U		0.000637	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
Dibromomethane	U		0.00121	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
1,2-Dichlorobenzene	U		0.00176	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
1,3-Dichlorobenzene	U		0.00206	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
1,4-Dichlorobenzene	U		0.00239	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
Dichlorodifluoromethane	U		0.000993	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
1,1-Dichloroethane	U		0.000698	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
1,2-Dichloroethane	U		0.000577	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000607	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
cis-1,2-Dichloroethene	U		0.000837	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
trans-1,2-Dichloroethene	U		0.00174	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
1,2-Dichloropropane	U		0.00154	0.00500	0.00607	1.14	08/19/2018 14:23	WG1154491
1,1-Dichloropropene	U		0.000850	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
1,3-Dichloropropane	U		0.00212	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
cis-1,3-Dichloropropene	U		0.000823	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
trans-1,3-Dichloropropene	U		0.00186	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
2,2-Dichloropropane	U		0.000962	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
Di-isopropyl ether	U		0.000425	0.00100	0.00121	1.14	08/18/2018 15:57	WG1154260
Ethylbenzene	U		0.000643	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
Hexachloro-1,3-butadiene	U		0.0154	0.0250	0.0303	1.14	08/19/2018 14:23	WG1154491
Isopropylbenzene	U		0.00105	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
p-Isopropyltoluene	U		0.00283	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
2-Butanone (MEK)	U		0.0152	0.0250	0.0303	1.14	08/19/2018 14:23	WG1154491
Methylene Chloride	U		0.00806	0.0250	0.0303	1.14	08/18/2018 15:57	WG1154260
4-Methyl-2-pentanone (MIBK)	U		0.0121	0.0250	0.0303	1.14	08/18/2018 15:57	WG1154260
Methyl tert-butyl ether	U		0.000358	0.00100	0.00121	1.14	08/18/2018 15:57	WG1154260
Naphthalene	U		0.00379	0.0125	0.0152	1.14	08/18/2018 15:57	WG1154260
n-Propylbenzene	U		0.00143	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
Styrene	U		0.00331	0.0125	0.0152	1.14	08/18/2018 15:57	WG1154260
1,1,1,2-Tetrachloroethane	U		0.000607	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
1,1,2,2-Tetrachloroethane	U		0.000473	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
1,1,2-Trichlorotrifluoroethane	U		0.000819	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
Tetrachloroethene	U		0.000850	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
Toluene	U		0.00152	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
1,2,3-Trichlorobenzene	U		0.000759	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
1,2,4-Trichlorobenzene	U		0.00585	0.0125	0.0152	1.14	08/18/2018 15:57	WG1154260
1,1,1-Trichloroethane	U		0.000334	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
1,1,2-Trichloroethane	U		0.00107	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
Trichloroethene	U		0.000485	0.00100	0.00121	1.14	08/18/2018 15:57	WG1154260
Trichlorofluoromethane	U		0.000607	0.00250	0.00303	1.14	08/18/2018 15:57	WG1154260
1,2,3-Trichloropropane	U		0.00619	0.0125	0.0152	1.14	08/18/2018 15:57	WG1154260
1,2,4-Trimethylbenzene	U		0.00141	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
1,2,3-Trimethylbenzene	U		0.00140	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
Vinyl chloride	U		0.000829	0.00250	0.00303	1.14	08/19/2018 14:23	WG1154491
1,3,5-Trimethylbenzene	U		0.00131	0.00500	0.00607	1.14	08/18/2018 15:57	WG1154260
Xylenes, Total	U		0.00580	0.00650	0.00789	1.14	08/18/2018 15:57	WG1154260
(S) Toluene-d8	*108*				*80.0-120*		*08/18/2018 15:57*	WG1154260
(S) Toluene-d8	*107*				*80.0-120*		*08/19/2018 14:23*	WG1154491
(S) Dibromofluoromethane	*100*				*74.0-131*		*08/18/2018 15:57*	WG1154260
(S) Dibromofluoromethane	*97.2*				*74.0-131*		*08/19/2018 14:23*	WG1154491
(S) 4-Bromofluorobenzene	*103*				*64.0-132*		*08/18/2018 15:57*	WG1154260
(S) 4-Bromofluorobenzene	*98.5*				*64.0-132*		*08/19/2018 14:23*	WG1154491

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.42	4.00	4.26	1	08/20/2018 18:35	WG1153557
Residual Range Organics (RRO)	U		3.55	10.0	10.6	1	08/20/2018 18:35	WG1153557
(S) o-Terphenyl	*78.1*				*18.0-148*		*08/20/2018 18:35*	WG1153557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.5		1	08/20/2018 11:13	WG1154708

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.00890	J	0.00296	0.0200	0.0212	1	08/17/2018 12:30	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	2.01	J	0.687	2.00	2.12	1	08/19/2018 12:33	WG1153500
Barium	59.1		0.180	0.500	0.529	1	08/19/2018 12:33	WG1153500
Cadmium	U		0.0740	0.500	0.529	1	08/19/2018 12:33	WG1153500
Chromium	25.5		0.148	1.00	1.06	1	08/19/2018 12:33	WG1153500
Lead	1.57		0.201	0.500	0.529	1	08/19/2018 12:33	WG1153500
Selenium	U		0.783	2.00	2.12	1	08/19/2018 12:33	WG1153500
Silver	U		0.296	1.00	1.06	1	08/19/2018 12:33	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.896	0.100	2.64	25	08/17/2018 16:58	WG1153735
(S) a,a,a-Trifluorotoluene(FID)	*102*				*77.0-120*		*08/17/2018 16:58*	WG1153735

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0145	0.0250	0.0264	1	08/18/2018 16:18	WG1154260
Acrylonitrile	U		0.00201	0.0125	0.0132	1	08/18/2018 16:18	WG1154260
Benzene	U		0.000423	0.00100	0.00106	1	08/18/2018 16:18	WG1154260
Bromobenzene	U		0.00111	0.0125	0.0132	1	08/18/2018 16:18	WG1154260
Bromodichloromethane	U		0.000833	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
Bromoform	U		0.00632	0.0250	0.0264	1	08/18/2018 16:18	WG1154260
Bromomethane	U		0.00391	0.0125	0.0132	1	08/18/2018 16:18	WG1154260
n-Butylbenzene	U		0.00406	0.0125	0.0132	1	08/18/2018 16:18	WG1154260
sec-Butylbenzene	U		0.00268	0.0125	0.0132	1	08/18/2018 16:18	WG1154260
tert-Butylbenzene	U		0.00164	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
Carbon tetrachloride	U		0.00114	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
Chlorobenzene	U		0.000606	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
Chlorodibromomethane	U		0.000476	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
Chloroethane	U		0.00114	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
Chloroform	U		0.000439	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
Chloromethane	U		0.00147	0.0125	0.0132	1	08/18/2018 16:18	WG1154260
2-Chlorotoluene	U		0.000973	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
4-Chlorotoluene	U		0.00120	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
1,2-Dibromo-3-Chloropropane	U		0.00539	0.0250	0.0264	1	08/18/2018 16:18	WG1154260
1,2-Dibromoethane	U		0.000555	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
Dibromomethane	U		0.00106	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
1,2-Dichlorobenzene	U		0.00153	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
1,3-Dichlorobenzene	U		0.00180	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
1,4-Dichlorobenzene	U		0.00208	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
Dichlorodifluoromethane	U		0.000865	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
1,1-Dichloroethane	U		0.000608	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
1,2-Dichloroethane	U		0.000502	0.00250	0.00264	1	08/18/2018 16:18	WG1154260

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000529	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
cis-1,2-Dichloroethene	U		0.000730	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
trans-1,2-Dichloroethene	U		0.00151	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
1,2-Dichloropropane	U		0.00134	0.00500	0.00529	1	08/19/2018 14:42	WG1154491
1,1-Dichloropropene	U		0.000740	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
1,3-Dichloropropane	U		0.00185	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
cis-1,3-Dichloropropene	U		0.000717	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
trans-1,3-Dichloropropene	U		0.00162	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
2,2-Dichloropropane	U		0.000839	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
Di-isopropyl ether	U		0.000370	0.00100	0.00106	1	08/18/2018 16:18	WG1154260
Ethylbenzene	U		0.000561	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
Hexachloro-1,3-butadiene	U		0.0134	0.0250	0.0264	1	08/19/2018 14:42	WG1154491
Isopropylbenzene	U		0.000913	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
p-Isopropyltoluene	U		0.00246	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
2-Butanone (MEK)	U		0.0132	0.0250	0.0264	1	08/19/2018 14:42	WG1154491
Methylene Chloride	U		0.00702	0.0250	0.0264	1	08/18/2018 16:18	WG1154260
4-Methyl-2-pentanone (MIBK)	U		0.0106	0.0250	0.0264	1	08/18/2018 16:18	WG1154260
Methyl tert-butyl ether	U		0.000312	0.00100	0.00106	1	08/18/2018 16:18	WG1154260
Naphthalene	U		0.00330	0.0125	0.0132	1	08/18/2018 16:18	WG1154260
n-Propylbenzene	U		0.00125	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
Styrene	U		0.00289	0.0125	0.0132	1	08/18/2018 16:18	WG1154260
1,1,1,2-Tetrachloroethane	U		0.000529	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
1,1,2,2-Tetrachloroethane	U		0.000412	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
1,1,2-Trichlorotrifluoroethane	U		0.000714	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
Tetrachloroethene	U		0.000740	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
Toluene	0.00174	J	0.00132	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
1,2,3-Trichlorobenzene	U		0.000661	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
1,2,4-Trichlorobenzene	U		0.00510	0.0125	0.0132	1	08/18/2018 16:18	WG1154260
1,1,1-Trichloroethane	U		0.000291	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
1,1,2-Trichloroethane	U		0.000934	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
Trichloroethene	U		0.000423	0.00100	0.00106	1	08/18/2018 16:18	WG1154260
Trichlorofluoromethane	U		0.000529	0.00250	0.00264	1	08/18/2018 16:18	WG1154260
1,2,3-Trichloropropane	U		0.00539	0.0125	0.0132	1	08/18/2018 16:18	WG1154260
1,2,4-Trimethylbenzene	U		0.00123	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
1,2,3-Trimethylbenzene	U		0.00122	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
Vinyl chloride	U		0.000722	0.00250	0.00264	1	08/19/2018 14:42	WG1154491
1,3,5-Trimethylbenzene	U		0.00114	0.00500	0.00529	1	08/18/2018 16:18	WG1154260
Xylenes, Total	U		0.00506	0.00650	0.00687	1	08/18/2018 16:18	WG1154260
(S) Toluene-d8	*109*				*80.0-120*		*08/18/2018 16:18*	WG1154260
(S) Toluene-d8	*108*				*80.0-120*		*08/19/2018 14:42*	WG1154491
(S) Dibromofluoromethane	*97.0*				*74.0-131*		*08/18/2018 16:18*	WG1154260
(S) Dibromofluoromethane	*98.2*				*74.0-131*		*08/19/2018 14:42*	WG1154491
(S) 4-Bromofluorobenzene	*104*				*64.0-132*		*08/18/2018 16:18*	WG1154260
(S) 4-Bromofluorobenzene	*99.5*				*64.0-132*		*08/19/2018 14:42*	WG1154491

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.41	4.00	4.23	1	08/20/2018 18:47	WG1153557
Residual Range Organics (RRO)	U		3.52	10.0	10.6	1	08/20/2018 18:47	WG1153557
(S) o-Terphenyl	*74.1*				*18.0-148*		*08/20/2018 18:47*	WG1153557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.6		1	08/20/2018 11:13	WG1154708

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.00838	J	0.00306	0.0200	0.0218	1	08/17/2018 12:32	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	2.05	J	0.710	2.00	2.18	1	08/19/2018 12:35	WG1153500
Barium	44.5		0.186	0.500	0.546	1	08/19/2018 12:35	WG1153500
Cadmium	0.0822	J	0.0764	0.500	0.546	1	08/19/2018 12:35	WG1153500
Chromium	26.5		0.153	1.00	1.09	1	08/19/2018 12:35	WG1153500
Lead	4.95		0.207	0.500	0.546	1	08/19/2018 12:35	WG1153500
Selenium	U		0.808	2.00	2.18	1	08/19/2018 12:35	WG1153500
Silver	U		0.306	1.00	1.09	1	08/19/2018 12:35	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.925	0.100	2.73	25	08/17/2018 17:20	WG1153735
(S) a,a,a-Trifluorotoluene(FID)	*102*				*77.0-120*		*08/17/2018 17:20*	WG1153735

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0150	0.0250	0.0273	1	08/18/2018 16:38	WG1154260
Acrylonitrile	U		0.00207	0.0125	0.0136	1	08/18/2018 16:38	WG1154260
Benzene	U		0.000437	0.00100	0.00109	1	08/18/2018 16:38	WG1154260
Bromobenzene	U		0.00115	0.0125	0.0136	1	08/18/2018 16:38	WG1154260
Bromodichloromethane	U		0.000860	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
Bromoform	U		0.00653	0.0250	0.0273	1	08/18/2018 16:38	WG1154260
Bromomethane	U		0.00404	0.0125	0.0136	1	08/18/2018 16:38	WG1154260
n-Butylbenzene	U		0.00419	0.0125	0.0136	1	08/18/2018 16:38	WG1154260
sec-Butylbenzene	U		0.00276	0.0125	0.0136	1	08/18/2018 16:38	WG1154260
tert-Butylbenzene	U		0.00169	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
Carbon tetrachloride	U		0.00118	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
Chlorobenzene	U		0.000626	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
Chlorodibromomethane	U		0.000491	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
Chloroethane	U		0.00118	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
Chloroform	U		0.000453	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
Chloromethane	U		0.00152	0.0125	0.0136	1	08/18/2018 16:38	WG1154260
2-Chlorotoluene	U		0.00100	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
4-Chlorotoluene	U		0.00123	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
1,2-Dibromo-3-Chloropropane	U		0.00557	0.0250	0.0273	1	08/18/2018 16:38	WG1154260
1,2-Dibromoethane	U		0.000573	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
Dibromomethane	U		0.00109	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
1,2-Dichlorobenzene	U		0.00158	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
1,3-Dichlorobenzene	U		0.00186	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
1,4-Dichlorobenzene	U		0.00215	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
Dichlorodifluoromethane	U		0.000893	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
1,1-Dichloroethane	U		0.000628	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
1,2-Dichloroethane	U		0.000519	0.00250	0.00273	1	08/18/2018 16:38	WG1154260

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000546	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
cis-1,2-Dichloroethene	U		0.000753	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
trans-1,2-Dichloroethene	U		0.00156	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
1,2-Dichloropropane	U		0.00139	0.00500	0.00546	1	08/19/2018 15:01	WG1154491
1,1-Dichloropropene	U		0.000764	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
1,3-Dichloropropane	U		0.00191	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
cis-1,3-Dichloropropene	U		0.000740	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
trans-1,3-Dichloropropene	U		0.00167	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
2,2-Dichloropropane	U		0.000866	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
Di-isopropyl ether	U		0.000382	0.00100	0.00109	1	08/18/2018 16:38	WG1154260
Ethylbenzene	U		0.000579	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
Hexachloro-1,3-butadiene	U		0.0139	0.0250	0.0273	1	08/19/2018 15:01	WG1154491
Isopropylbenzene	U		0.000942	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
p-Isopropyltoluene	U		0.00254	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
2-Butanone (MEK)	U		0.0136	0.0250	0.0273	1	08/19/2018 15:01	WG1154491
Methylene Chloride	U		0.00725	0.0250	0.0273	1	08/18/2018 16:38	WG1154260
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0250	0.0273	1	08/18/2018 16:38	WG1154260
Methyl tert-butyl ether	U		0.000322	0.00100	0.00109	1	08/18/2018 16:38	WG1154260
Naphthalene	U		0.00341	0.0125	0.0136	1	08/18/2018 16:38	WG1154260
n-Propylbenzene	U		0.00129	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
Styrene	U		0.00298	0.0125	0.0136	1	08/18/2018 16:38	WG1154260
1,1,1,2-Tetrachloroethane	U		0.000546	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
1,1,2,2-Tetrachloroethane	U		0.000426	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
1,1,2-Trichlorotrifluoroethane	U		0.000737	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
Tetrachloroethene	0.00175	J	0.000764	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
Toluene	0.00288	J	0.00136	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
1,2,3-Trichlorobenzene	U		0.000682	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
1,2,4-Trichlorobenzene	U		0.00526	0.0125	0.0136	1	08/18/2018 16:38	WG1154260
1,1,1-Trichloroethane	U		0.000300	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
1,1,2-Trichloroethane	U		0.000964	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
Trichloroethene	U		0.000437	0.00100	0.00109	1	08/18/2018 16:38	WG1154260
Trichlorofluoromethane	U		0.000546	0.00250	0.00273	1	08/18/2018 16:38	WG1154260
1,2,3-Trichloropropane	U		0.00557	0.0125	0.0136	1	08/18/2018 16:38	WG1154260
1,2,4-Trimethylbenzene	U		0.00127	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
1,2,3-Trimethylbenzene	U		0.00126	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
Vinyl chloride	U		0.000746	0.00250	0.00273	1	08/19/2018 15:01	WG1154491
1,3,5-Trimethylbenzene	U		0.00118	0.00500	0.00546	1	08/18/2018 16:38	WG1154260
Xylenes, Total	U		0.00522	0.00650	0.00710	1	08/18/2018 16:38	WG1154260
(S) Toluene-d8	*107*				*80.0-120*		*08/18/2018 16:38*	WG1154260
(S) Toluene-d8	*107*				*80.0-120*		*08/19/2018 15:01*	WG1154491
(S) Dibromofluoromethane	*99.4*				*74.0-131*		*08/18/2018 16:38*	WG1154260
(S) Dibromofluoromethane	*97.3*				*74.0-131*		*08/19/2018 15:01*	WG1154491
(S) 4-Bromofluorobenzene	*102*				*64.0-132*		*08/18/2018 16:38*	WG1154260
(S) 4-Bromofluorobenzene	*99.7*				*64.0-132*		*08/19/2018 15:01*	WG1154491

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	2.23	J	1.45	4.00	4.37	1	08/20/2018 19:39	WG1153557
Residual Range Organics (RRO)	12.8		3.64	10.0	10.9	1	08/20/2018 19:39	WG1153557
(S) o-Terphenyl	*72.9*				*18.0-148*		*08/20/2018 19:39*	WG1153557

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.9		1	08/20/2018 11:13	WG1154708

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.00635	J	0.00298	0.0200	0.0213	1	08/17/2018 12:35	WG1153486

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	2.26		0.693	2.00	2.13	1	08/19/2018 12:38	WG1153500
Barium	64.7		0.181	0.500	0.533	1	08/19/2018 12:38	WG1153500
Cadmium	U		0.0746	0.500	0.533	1	08/19/2018 12:38	WG1153500
Chromium	20.1		0.149	1.00	1.07	1	08/19/2018 12:38	WG1153500
Lead	2.37		0.202	0.500	0.533	1	08/19/2018 12:38	WG1153500
Selenium	U		0.788	2.00	2.13	1	08/19/2018 12:38	WG1153500
Silver	U		0.298	1.00	1.07	1	08/19/2018 12:38	WG1153500

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.903	0.100	2.66	25	08/17/2018 17:41	WG1153735
(S) a,a,a-Trifluorotoluene(FID)	*101*				*77.0-120*		*08/17/2018 17:41*	WG1153735

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0146	0.0250	0.0266	1	08/18/2018 16:58	WG1154260
Acrylonitrile	U		0.00202	0.0125	0.0133	1	08/18/2018 16:58	WG1154260
Benzene	U		0.000426	0.00100	0.00107	1	08/18/2018 16:58	WG1154260
Bromobenzene	U		0.00112	0.0125	0.0133	1	08/18/2018 16:58	WG1154260
Bromodichloromethane	U		0.000840	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
Bromoform	U		0.00637	0.0250	0.0266	1	08/18/2018 16:58	WG1154260
Bromomethane	U		0.00394	0.0125	0.0133	1	08/18/2018 16:58	WG1154260
n-Butylbenzene	U		0.00409	0.0125	0.0133	1	08/18/2018 16:58	WG1154260
sec-Butylbenzene	U		0.00270	0.0125	0.0133	1	08/18/2018 16:58	WG1154260
tert-Butylbenzene	U		0.00165	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
Carbon tetrachloride	U		0.00115	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
Chlorobenzene	U		0.000611	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
Chlorodibromomethane	U		0.000479	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
Chloroethane	U		0.00115	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
Chloroform	U		0.000442	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
Chloromethane	U		0.00148	0.0125	0.0133	1	08/18/2018 16:58	WG1154260
2-Chlorotoluene	U		0.000980	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
4-Chlorotoluene	U		0.00120	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
1,2-Dibromo-3-Chloropropane	U		0.00543	0.0250	0.0266	1	08/18/2018 16:58	WG1154260
1,2-Dibromoethane	U		0.000559	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
Dibromomethane	U		0.00107	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
1,2-Dichlorobenzene	U		0.00155	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
1,3-Dichlorobenzene	U		0.00181	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
1,4-Dichlorobenzene	U		0.00210	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
Dichlorodifluoromethane	U		0.000872	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
1,1-Dichloroethane	U		0.000613	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
1,2-Dichloroethane	U		0.000506	0.00250	0.00266	1	08/18/2018 16:58	WG1154260

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000533	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
cis-1,2-Dichloroethene	U		0.000735	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
trans-1,2-Dichloroethene	U		0.00152	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
1,2-Dichloropropane	U		0.00135	0.00500	0.00533	1	08/19/2018 15:20	WG1154491
1,1-Dichloropropene	U		0.000746	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
1,3-Dichloropropane	U		0.00186	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
cis-1,3-Dichloropropene	U		0.000722	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
trans-1,3-Dichloropropene	U		0.00163	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
2,2-Dichloropropane	U		0.000845	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
Di-isopropyl ether	U		0.000373	0.00100	0.00107	1	08/18/2018 16:58	WG1154260
Ethylbenzene	U		0.000565	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
Hexachloro-1,3-butadiene	U		0.0135	0.0250	0.0266	1	08/19/2018 15:20	WG1154491
Isopropylbenzene	U		0.000920	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
p-Isopropyltoluene	U		0.00248	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
2-Butanone (MEK)	U		0.0133	0.0250	0.0266	1	08/19/2018 15:20	WG1154491
Methylene Chloride	U		0.00708	0.0250	0.0266	1	08/18/2018 16:58	WG1154260
4-Methyl-2-pentanone (MIBK)	U		0.0107	0.0250	0.0266	1	08/18/2018 16:58	WG1154260
Methyl tert-butyl ether	U		0.000314	0.00100	0.00107	1	08/18/2018 16:58	WG1154260
Naphthalene	U		0.00332	0.0125	0.0133	1	08/18/2018 16:58	WG1154260
n-Propylbenzene	U		0.00126	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
Styrene	U		0.00291	0.0125	0.0133	1	08/18/2018 16:58	WG1154260
1,1,1,2-Tetrachloroethane	U		0.000533	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
1,1,2,2-Tetrachloroethane	U		0.000416	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
1,1,2-Trichlorotrifluoroethane	U		0.000719	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
Tetrachloroethene	0.00120	J	0.000746	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
Toluene	0.00142	J	0.00133	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
1,2,3-Trichlorobenzene	U		0.000666	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
1,2,4-Trichlorobenzene	U		0.00514	0.0125	0.0133	1	08/18/2018 16:58	WG1154260
1,1,1-Trichloroethane	U		0.000293	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
1,1,2-Trichloroethane	U		0.000941	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
Trichloroethene	U		0.000426	0.00100	0.00107	1	08/18/2018 16:58	WG1154260
Trichlorofluoromethane	U		0.000533	0.00250	0.00266	1	08/18/2018 16:58	WG1154260
1,2,3-Trichloropropane	U		0.00543	0.0125	0.0133	1	08/18/2018 16:58	WG1154260
1,2,4-Trimethylbenzene	U		0.00124	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
1,2,3-Trimethylbenzene	U		0.00123	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
Vinyl chloride	U		0.000728	0.00250	0.00266	1	08/19/2018 15:20	WG1154491
1,3,5-Trimethylbenzene	U		0.00115	0.00500	0.00533	1	08/18/2018 16:58	WG1154260
Xylenes, Total	U		0.00509	0.00650	0.00693	1	08/18/2018 16:58	WG1154260
(S) Toluene-d8	*107*				*80.0-120*		*08/18/2018 16:58*	WG1154260
(S) Toluene-d8	*109*				*80.0-120*		*08/19/2018 15:20*	WG1154491
(S) Dibromofluoromethane	*102*				*74.0-131*		*08/18/2018 16:58*	WG1154260
(S) Dibromofluoromethane	*99.7*				*74.0-131*		*08/19/2018 15:20*	WG1154491
(S) 4-Bromofluorobenzene	*103*				*64.0-132*		*08/18/2018 16:58*	WG1154260
(S) 4-Bromofluorobenzene	*98.0*				*64.0-132*		*08/19/2018 15:20*	WG1154491

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.42	4.00	4.26	1	08/20/2018 19:01	WG1153557
Residual Range Organics (RRO)	U		3.55	10.0	10.7	1	08/20/2018 19:01	WG1153557
(S) o-Terphenyl	*77.4*				*18.0-148*		*08/20/2018 19:01*	WG1153557

Method Blank (MB)

(MB) R3335233-1 08/20/18 14:20

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

L1017897-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1017897-03 08/20/18 14:20 • (DUP) R3335233-3 08/20/18 14:20

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	94.5	94.1	1	0.376		10

Laboratory Control Sample (LCS)

(LCS) R3335233-2 08/20/18 14:20

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) R3335227-1 08/20/18 11:13

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

L1017897-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1017897-11 08/20/18 11:13 • (DUP) R3335227-3 08/20/18 11:13

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	95.6	95.5	1	0.0205		10

Laboratory Control Sample (LCS)

(LCS) R3335227-2 08/20/18 11:13

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) R3334561-1 08/17/18 11:26

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.00280	0.0200

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

(LCS) R3334561-2 08/17/18 11:29 • (LCSD) R3334561-3 08/17/18 11:31

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	0.267	0.268	88.9	89.4	80.0-120			0.575	20

L1017695-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1017695-01 08/17/18 11:34 • (MS) R3334561-4 08/17/18 11:36 • (MSD) R3334561-5 08/17/18 11:39

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	0.283	0.258	90.4	82.1	1	75.0-125			9.22	20

Method Blank (MB)

(MB) R3334886-1 08/19/18 11:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.650	2.00
Barium	U		0.170	0.500
Cadmium	U		0.0700	0.500
Chromium	U		0.140	1.00
Lead	U		0.190	0.500
Selenium	U		0.740	2.00
Silver	U		0.280	1.00

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

(LCS) R3334886-2 08/19/18 11:35 • (LCSD) R3334886-3 08/19/18 11:37

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	94.4	103	94.4	103	80.0-120			8.52	20
Barium	100	97.5	107	97.5	107	80.0-120			8.99	20
Cadmium	100	93.7	102	93.7	102	80.0-120			8.63	20
Chromium	100	95.1	104	95.1	104	80.0-120			8.57	20
Lead	100	96.1	105	96.1	105	80.0-120			8.76	20
Selenium	100	93.9	102	93.9	102	80.0-120			8.64	20
Silver	20.0	17.7	19.1	88.7	95.7	80.0-120			7.52	20

L1017897-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1017897-10 08/19/18 11:40 • (MS) R3334886-6 08/19/18 11:47 • (MSD) R3334886-7 08/19/18 11:50

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 %
Arsenic	123	3.35	118	125	93.5	98.8	1	75.0-125			5.29	20
Barium	123	184	316	340	108	127	1	75.0-125		J5	7.18	20
Cadmium	123	0.0950	116	123	94.2	99.5	1	75.0-125			5.50	20
Chromium	123	21.5	132	138	89.5	94.5	1	75.0-125			4.55	20
Lead	123	2.70	126	134	100	106	1	75.0-125			5.75	20
Selenium	123	U	110	117	89.7	95.0	1	75.0-125			5.74	20
Silver	24.6	U	20.7	22.1	84.2	89.7	1	75.0-125			6.27	20

Method Blank (MB)

(MB) R3334815-3 08/16/18 22:46

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)	*106*			*77.0-120*

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

(LCS) R3334815-1 08/16/18 21:41 • (LCSD) R3334815-2 08/16/18 22:02

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	5.38	100	97.7	70.0-133			2.41	20
(S) a,a,a-Trifluorotoluene(FID)				*92.0*	*93.3*	*77.0-120*				

L1017897-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1017897-02 08/17/18 06:09 • (MS) R3334815-4 08/17/18 06:30 • (MSD) R3334815-5 08/17/18 06:51

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	5.74	U	96.8	92.2	67.5	64.3	25	10.0-146			4.89	30
(S) a,a,a-Trifluorotoluene(FID)					*104*	*104*		*77.0-120*				

Method Blank (MB)

(MB) R3334819-3 08/17/18 11:32

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

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

(LCS) R3334819-1 08/17/18 10:27 • (LCSD) R3334819-2 08/17/18 10:48

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 %
Gasoline Range Organics-NWTPH	5.50	4.89	4.89	88.8	88.9	70.0-133			0.0463	20
(S) a,a,a-Trifluorotoluene(FID)				*101*	*101*	*77.0-120*				

L1017897-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1017897-03 08/17/18 12:59 • (MS) R3334819-4 08/17/18 19:29 • (MSD) R3334819-5 08/17/18 19:51

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 %
Gasoline Range Organics-NWTPH	5.82	U	140	126	92.7	83.6	26	10.0-146			10.3	30
(S) a,a,a-Trifluorotoluene(FID)					*103*	*102*		*77.0-120*				

Method Blank (MB)

(MB) R3334767-2 08/17/18 12:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
Methylene Chloride	U		0.00664	0.0250

Method Blank (MB)

(MB) R3334767-2 08/17/18 12:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*117*			*80.0-120*
(S) Dibromofluoromethane	*92.9*			*74.0-131*
(S) 4-Bromofluorobenzene	*98.8*			*64.0-132*

Laboratory Control Sample (LCS)

(LCS) R3334767-1 08/17/18 10:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acrylonitrile	0.625	0.554	88.6	57.8-143	
Benzene	0.125	0.122	98.0	72.6-120	
Bromobenzene	0.125	0.122	97.4	80.3-115	
Bromodichloromethane	0.125	0.144	115	75.3-119	
Bromoform	0.125	0.126	101	69.1-135	
Bromomethane	0.125	0.117	93.5	23.0-191	
n-Butylbenzene	0.125	0.122	97.9	74.2-134	
sec-Butylbenzene	0.125	0.131	104	77.8-129	
tert-Butylbenzene	0.125	0.122	97.9	77.2-129	

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

Laboratory Control Sample (LCS)

(LCS) R3334767-1 08/17/18 10:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Carbon tetrachloride	0.125	0.130	104	69.4-129	
Chlorobenzene	0.125	0.126	101	78.9-122	
Chlorodibromomethane	0.125	0.115	92.0	76.4-126	
Chloroethane	0.125	0.123	98.2	47.2-147	
Chloroform	0.125	0.129	103	73.3-122	
Chloromethane	0.125	0.126	101	53.1-135	
2-Chlorotoluene	0.125	0.129	103	74.6-127	
4-Chlorotoluene	0.125	0.123	98.7	79.5-123	
1,2-Dibromo-3-Chloropropane	0.125	0.126	101	64.9-131	
1,2-Dibromoethane	0.125	0.131	105	78.7-123	
Dibromomethane	0.125	0.137	109	78.5-117	
1,2-Dichlorobenzene	0.125	0.122	97.7	83.6-119	
1,3-Dichlorobenzene	0.125	0.127	101	75.9-129	
1,4-Dichlorobenzene	0.125	0.116	93.0	81.0-115	
Dichlorodifluoromethane	0.125	0.121	96.5	50.9-139	
1,1-Dichloroethane	0.125	0.128	103	71.7-125	
1,2-Dichloroethane	0.125	0.121	97.0	67.2-121	
1,1-Dichloroethene	0.125	0.121	97.2	60.6-133	
cis-1,2-Dichloroethene	0.125	0.121	96.9	76.1-121	
trans-1,2-Dichloroethene	0.125	0.135	108	70.7-124	
1,2-Dichloropropane	0.125	0.112	89.8	76.9-123	
1,1-Dichloropropene	0.125	0.125	99.9	71.2-126	
1,3-Dichloropropane	0.125	0.148	119	80.3-114	J4
cis-1,3-Dichloropropene	0.125	0.130	104	77.3-123	
trans-1,3-Dichloropropene	0.125	0.130	104	73.0-127	
Di-isopropyl ether	0.125	0.111	88.6	67.2-131	
Ethylbenzene	0.125	0.130	104	78.6-124	
Hexachloro-1,3-butadiene	0.125	0.126	101	69.2-136	
Isopropylbenzene	0.125	0.104	83.0	79.4-126	
p-Isopropyltoluene	0.125	0.124	99.1	75.4-132	
Methylene Chloride	0.125	0.117	93.7	68.2-119	
4-Methyl-2-pentanone (MIBK)	0.625	0.638	102	61.1-138	
Methyl tert-butyl ether	0.125	0.120	96.0	70.2-122	
Naphthalene	0.125	0.119	95.1	69.9-132	
n-Propylbenzene	0.125	0.119	94.9	80.2-124	
Styrene	0.125	0.131	104	79.4-124	
1,1,1,2-Tetrachloroethane	0.125	0.111	88.8	76.7-127	
1,1,2,2-Tetrachloroethane	0.125	0.136	109	78.8-124	
Tetrachloroethene	0.125	0.113	90.3	71.1-133	
Toluene	0.125	0.127	101	76.7-116	

Laboratory Control Sample (LCS)

(LCS) R3334767-1 08/17/18 10:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,1,2-Trichlorotrifluoroethane	0.125	0.127	102	62.6-138	
1,2,3-Trichlorobenzene	0.125	0.120	96.2	72.5-137	
1,2,4-Trichlorobenzene	0.125	0.118	94.1	74.0-137	
1,1,1-Trichloroethane	0.125	0.132	105	69.9-127	
1,1,2-Trichloroethane	0.125	0.142	114	81.9-119	
Trichloroethene	0.125	0.128	102	77.2-122	
Trichlorofluoromethane	0.125	0.110	87.7	51.5-151	
1,2,3-Trichloropropane	0.125	0.126	101	74.0-124	
1,2,3-Trimethylbenzene	0.125	0.125	100	79.4-118	
1,2,4-Trimethylbenzene	0.125	0.126	100	77.1-124	
1,3,5-Trimethylbenzene	0.125	0.130	104	79.0-125	
Xylenes, Total	0.375	0.373	99.5	78.1-123	
(S) Toluene-d8			*105*	*80.0-120*	
(S) Dibromofluoromethane			*99.5*	*74.0-131*	
(S) 4-Bromofluorobenzene			*104*	*64.0-132*	

L1017857-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1017857-02 08/17/18 14:25 • (MS) R3334767-3 08/17/18 20:57 • (MSD) R3334767-4 08/17/18 21:18

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 %
Acrylonitrile	0.625	ND	0.356	0.319	57.0	51.0	1	39.3-152			11.1	27.2
Benzene	0.125	ND	0.0582	0.0268	46.5	21.5	1	47.8-131	J6	J3 J6	73.7	22.8
Bromobenzene	0.125	ND	0.0803	0.0590	64.3	47.2	1	40.0-130		J3	30.6	27.4
Bromodichloromethane	0.125	ND	0.0879	0.0548	70.3	43.9	1	50.6-128		J3 J6	46.4	22.8
Bromoform	0.125	ND	0.0775	0.0630	62.0	50.4	1	43.3-139			20.7	25.9
Bromomethane	0.125	ND	0.0264	0.0140	21.1	11.2	1	5.00-189		J3	61.4	26.7
n-Butylbenzene	0.125	ND	0.0886	0.0385	70.9	30.8	1	23.6-146		J3	78.9	39.2
sec-Butylbenzene	0.125	ND	0.0912	0.0383	72.9	30.6	1	31.0-142		J3 J6	81.7	34.7
tert-Butylbenzene	0.125	ND	0.0861	0.0383	68.9	30.7	1	36.9-142		J3 J6	76.8	31.7
Carbon tetrachloride	0.125	ND	0.0602	0.0191	48.2	15.2	1	46.0-140		J3 J6	104	27.2
Chlorobenzene	0.125	ND	0.0862	0.0494	68.9	39.5	1	44.1-134		J3 J6	54.2	25.7
Chlorodibromomethane	0.125	ND	0.0739	0.0597	59.1	47.8	1	49.7-134		J6	21.2	24
Chloroethane	0.125	ND	0.0337	0.0161	27.0	12.9	1	5.00-164		J3	70.6	28.4
Chloroform	0.125	ND	0.0820	0.0436	65.6	34.9	1	51.2-133		J3 J6	61.1	22.8
Chloromethane	0.125	ND	0.0231	0.0108	18.5	8.62	1	31.4-141	J6	J3 J6	72.7	24.6
2-Chlorotoluene	0.125	ND	0.0821	0.0474	65.7	37.9	1	36.1-137		J3	53.7	28.9
4-Chlorotoluene	0.125	ND	0.0836	0.0490	66.8	39.2	1	35.4-137		J3	52.1	29.8
1,2-Dibromo-3-Chloropropane	0.125	ND	0.0817	0.0749	65.4	59.9	1	40.4-138			8.78	30.8

L1017857-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1017857-02 08/17/18 14:25 • (MS) R3334767-3 08/17/18 20:57 • (MSD) R3334767-4 08/17/18 21:18

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-Dibromoethane	0.125	ND	0.0811	0.0651	64.9	52.1	1	50.2-133			21.8	23.6
Dibromomethane	0.125	ND	0.0784	0.0542	62.7	43.3	1	52.4-128		J3 J6	36.5	23
1,2-Dichlorobenzene	0.125	ND	0.0875	0.0625	70.0	50.0	1	34.6-139		J3	33.3	29.9
1,3-Dichlorobenzene	0.125	ND	0.0880	0.0558	70.4	44.7	1	28.4-142		J3	44.8	31.2
1,4-Dichlorobenzene	0.125	ND	0.0812	0.0586	65.0	46.9	1	35.0-133		J3	32.3	31.1
Dichlorodifluoromethane	0.125	ND	0.0411	0.00877	32.9	7.02	1	31.2-144		J3 J6	130	30.2
1,1-Dichloroethane	0.125	ND	0.0735	0.0333	58.8	26.7	1	49.1-136		J3 J6	75.2	22.9
1,2-Dichloroethane	0.125	ND	0.0698	0.0498	55.8	39.8	1	47.1-129		J3 J6	33.4	22.7
1,1-Dichloroethene	0.125	ND	0.0405	0.0137	32.4	11.0	1	36.1-142	J6	J3 J6	98.8	25.6
cis-1,2-Dichloroethene	0.125	ND	0.0639	0.0348	51.1	27.8	1	50.6-133		J3 J6	59.0	23
trans-1,2-Dichloroethene	0.125	ND	0.0393	0.0181	31.5	14.5	1	43.8-135	J6	J3 J6	73.9	24.8
1,2-Dichloropropane	0.125	ND	0.0708	0.0411	56.6	32.9	1	50.3-134		J3 J6	52.9	22.7
1,1-Dichloropropene	0.125	ND	0.0487	0.0171	38.9	13.7	1	43.0-137	J6	J3 J6	95.8	26.4
1,3-Dichloropropane	0.125	ND	0.0962	0.0722	76.9	57.7	1	51.4-127		J3	28.5	23.1
cis-1,3-Dichloropropene	0.125	ND	0.0873	0.0561	69.8	44.9	1	48.4-134		J3 J6	43.6	23.6
trans-1,3-Dichloropropene	0.125	ND	0.0742	0.0560	59.3	44.8	1	46.6-135		J3 J6	27.9	25.3
Di-isopropyl ether	0.125	ND	0.0696	0.0474	55.7	37.9	1	46.7-140		J3 J6	37.8	23.5
Ethylbenzene	0.125	ND	0.0808	0.0402	64.7	32.2	1	44.8-135		J3 J6	67.1	26.9
Hexachloro-1,3-butadiene	0.125	ND	0.0947	0.0480	75.8	38.4	1	10.0-149		J3	65.5	40
Isopropylbenzene	0.125	ND	0.0656	0.0307	52.5	24.5	1	41.9-139		J3 J6	72.6	29.3
p-Isopropyltoluene	0.125	ND	0.0833	0.0394	66.6	31.6	1	27.3-146		J3	71.4	35.1
Methylene Chloride	0.125	ND	0.0566	0.0340	45.3	27.2	1	46.7-125	J6	J3 J6	49.8	22.2
4-Methyl-2-pentanone (MIBK)	0.625	ND	0.451	0.410	72.2	65.6	1	42.4-146			9.48	26.7
Methyl tert-butyl ether	0.125	ND	0.0706	0.0573	56.5	45.8	1	50.4-131		J6	20.8	24.8
Naphthalene	0.125	ND	0.0808	0.0761	64.6	60.9	1	18.4-145			5.92	34
n-Propylbenzene	0.125	ND	0.0718	0.0326	57.5	26.1	1	35.2-139		J3 J6	75.0	31.9
Styrene	0.125	ND	0.0822	0.0515	65.7	41.2	1	39.7-137		J3	45.9	28.2
1,1,1,2-Tetrachloroethane	0.125	ND	0.0826	0.0519	66.1	41.6	1	48.8-136		J3 J6	45.6	25.5
1,1,2,2-Tetrachloroethane	0.125	ND	0.0781	0.0765	62.5	61.2	1	45.7-140			2.11	26.4
Tetrachloroethene	0.125	ND	0.0528	0.0240	42.2	19.2	1	37.7-140		J3 J6	74.9	29.2
Toluene	0.125	ND	0.0706	0.0354	54.6	26.5	1	47.8-127		J3 J6	66.4	24.3
1,2,3-Trichlorobenzene	0.125	ND	0.0911	0.0750	72.9	60.0	1	10.0-150			19.4	38.5
1,1,2-Trichlorotrifluoroethane	0.125	ND	0.0589	0.0151	47.1	12.1	1	35.7-146		J3 J6	118	28.8
1,2,4-Trichlorobenzene	0.125	ND	0.0853	0.0645	68.2	51.6	1	10.0-153			27.7	39.3
1,1,1-Trichloroethane	0.125	ND	0.0737	0.0254	58.9	20.3	1	49.0-138		J3 J6	97.6	25.3
1,1,2-Trichloroethane	0.125	ND	0.103	0.0735	82.5	58.8	1	52.3-132		J3	33.5	23.4
Trichloroethene	0.125	ND	0.0735	0.0324	58.8	25.9	1	48.0-132		J3 J6	77.6	24.8
Trichlorofluoromethane	0.125	ND	0.0465	0.0121	37.2	9.72	1	12.8-169		J3 J6	117	29.7
1,2,3-Trichloropropane	0.125	ND	0.0969	0.0796	77.5	63.6	1	44.4-138			19.7	26.3
1,2,4-Trimethylbenzene	0.125	ND	0.0823	0.0486	65.9	38.9	1	32.9-139		J3	51.5	30.6

L1017857-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1017857-02 08/17/18 14:25 • (MS) R3334767-3 08/17/18 20:57 • (MSD) R3334767-4 08/17/18 21:18

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	0.125	ND	0.0866	0.0533	69.3	42.6	1	41.0-133		J3	47.7	27.6
1,3,5-Trimethylbenzene	0.125	ND	0.0839	0.0416	67.1	33.3	1	37.1-138		J3 J6	67.5	30.6
Xylenes, Total	0.375	ND	0.235	0.116	62.6	30.9	1	42.7-135		J3 J6	67.9	26.6
(S) Toluene-d8					*112*	*113*		*80.0-120*				
(S) Dibromofluoromethane					*95.5*	*96.7*		*74.0-131*				
(S) 4-Bromofluorobenzene					*102*	*106*		*64.0-132*				

Method Blank (MB)

(MB) R3334775-2 08/18/18 13:42

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
Methylene Chloride	U		0.00664	0.0250

Method Blank (MB)

(MB) R3334775-2 08/18/18 13:42

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*110*			*80.0-120*
(S) Dibromofluoromethane	*94.6*			*74.0-131*
(S) 4-Bromofluorobenzene	*104*			*64.0-132*

Laboratory Control Sample (LCS)

(LCS) R3334775-1 08/18/18 11:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.769	123	25.3-178	
Acrylonitrile	0.625	0.676	108	57.8-143	
Benzene	0.125	0.117	93.8	72.6-120	
Bromobenzene	0.125	0.121	96.8	80.3-115	
Bromodichloromethane	0.125	0.125	100	75.3-119	
Bromoform	0.125	0.120	95.8	69.1-135	
Bromomethane	0.125	0.127	102	23.0-191	
n-Butylbenzene	0.125	0.139	111	74.2-134	
sec-Butylbenzene	0.125	0.125	99.6	77.8-129	

Laboratory Control Sample (LCS)

(LCS) R3334775-1 08/18/18 11:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butylbenzene	0.125	0.125	99.8	77.2-129	
Carbon tetrachloride	0.125	0.130	104	69.4-129	
Chlorobenzene	0.125	0.124	99.3	78.9-122	
Chlorodibromomethane	0.125	0.115	91.8	76.4-126	
Chloroethane	0.125	0.127	101	47.2-147	
Chloroform	0.125	0.121	97.1	73.3-122	
Chloromethane	0.125	0.145	116	53.1-135	
2-Chlorotoluene	0.125	0.136	109	74.6-127	
4-Chlorotoluene	0.125	0.124	98.9	79.5-123	
1,2-Dibromo-3-Chloropropane	0.125	0.131	104	64.9-131	
1,2-Dibromoethane	0.125	0.124	99.0	78.7-123	
Dibromomethane	0.125	0.127	102	78.5-117	
1,2-Dichlorobenzene	0.125	0.118	94.4	83.6-119	
1,3-Dichlorobenzene	0.125	0.117	93.8	75.9-129	
1,4-Dichlorobenzene	0.125	0.119	95.3	81.0-115	
Dichlorodifluoromethane	0.125	0.128	103	50.9-139	
1,1-Dichloroethane	0.125	0.129	104	71.7-125	
1,2-Dichloroethane	0.125	0.131	105	67.2-121	
1,1-Dichloroethene	0.125	0.136	109	60.6-133	
cis-1,2-Dichloroethene	0.125	0.0952	76.1	76.1-121	
trans-1,2-Dichloroethene	0.125	0.122	97.2	70.7-124	
1,1-Dichloropropene	0.125	0.140	112	71.2-126	
1,3-Dichloropropane	0.125	0.126	101	80.3-114	
cis-1,3-Dichloropropene	0.125	0.111	88.5	77.3-123	
trans-1,3-Dichloropropene	0.125	0.125	99.7	73.0-127	
2,2-Dichloropropane	0.125	0.136	109	61.9-132	
Di-isopropyl ether	0.125	0.121	96.9	67.2-131	
Ethylbenzene	0.125	0.131	105	78.6-124	
Isopropylbenzene	0.125	0.115	92.2	79.4-126	
p-Isopropyltoluene	0.125	0.126	101	75.4-132	
Methylene Chloride	0.125	0.125	100	68.2-119	
4-Methyl-2-pentanone (MIBK)	0.625	0.672	108	61.1-138	
Methyl tert-butyl ether	0.125	0.147	117	70.2-122	
Naphthalene	0.125	0.137	109	69.9-132	
n-Propylbenzene	0.125	0.118	94.7	80.2-124	
Styrene	0.125	0.126	101	79.4-124	
1,1,1,2-Tetrachloroethane	0.125	0.109	87.0	76.7-127	
1,1,2,2-Tetrachloroethane	0.125	0.103	82.2	78.8-124	
Tetrachloroethene	0.125	0.129	103	71.1-133	
Toluene	0.125	0.126	100	76.7-116	

Laboratory Control Sample (LCS)

(LCS) R3334775-1 08/18/18 11:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,1,2-Trichlorotrifluoroethane	0.125	0.138	110	62.6-138	
1,2,3-Trichlorobenzene	0.125	0.155	124	72.5-137	
1,2,4-Trichlorobenzene	0.125	0.129	103	74.0-137	
1,1,1-Trichloroethane	0.125	0.133	106	69.9-127	
1,1,2-Trichloroethane	0.125	0.111	88.9	81.9-119	
Trichloroethene	0.125	0.138	110	77.2-122	
Trichlorofluoromethane	0.125	0.135	108	51.5-151	
1,2,3-Trichloropropane	0.125	0.130	104	74.0-124	
1,2,3-Trimethylbenzene	0.125	0.127	102	79.4-118	
1,2,4-Trimethylbenzene	0.125	0.121	96.6	77.1-124	
1,3,5-Trimethylbenzene	0.125	0.122	97.6	79.0-125	
Xylenes, Total	0.375	0.362	96.5	78.1-123	
(S) Toluene-d8			*104*	*80.0-120*	
(S) Dibromofluoromethane			*102*	*74.0-131*	
(S) 4-Bromofluorobenzene			*100*	*64.0-132*	

L1018606-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1018606-01 08/18/18 18:40 • (MS) R3334775-3 08/18/18 21:00 • (MSD) R3334775-4 08/18/18 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 %
Acetone	3.13	U	1.10	1.08	35.2	34.5	1	10.0-130	J5	J5	2.12	31.5
Acrylonitrile	3.13	U	1.57	1.53	50.4	49.1	1	39.3-152	J5	J5	2.56	27.2
Benzene	0.625	U	0.295	0.290	47.2	46.3	1	47.8-131	J5	J5	1.76	22.8
Bromobenzene	0.625	U	0.389	0.390	62.2	62.4	1	40.0-130	J5	J5	0.364	27.4
Bromodichloromethane	0.625	U	0.475	0.469	76.0	75.1	1	50.6-128	J5	J5	1.14	22.8
Bromoform	0.625	U	0.471	0.480	75.4	76.9	1	43.3-139	J5	J5	1.89	25.9
Bromomethane	0.625	U	0.121	0.128	19.4	20.5	1	5.00-189			5.25	26.7
n-Butylbenzene	0.625	U	0.368	0.405	58.8	64.8	1	23.6-146	J5	J5	9.67	39.2
sec-Butylbenzene	0.625	U	0.340	0.370	54.4	59.2	1	31.0-142	J5	J5	8.48	34.7
tert-Butylbenzene	0.625	U	0.365	0.400	58.5	64.0	1	36.9-142	J5	J5	9.01	31.7
Carbon tetrachloride	0.625	U	0.343	0.348	54.9	55.6	1	46.0-140	J5	J5	1.25	27.2
Chlorobenzene	0.625	U	0.236	0.233	37.7	37.3	1	44.1-134	J5	J5	1.16	25.7
Chlorodibromomethane	0.625	U	0.267	0.261	42.7	41.8	1	49.7-134	J5	J5	1.96	24
Chloroethane	0.625	U	0.156	0.165	24.9	26.4	1	5.00-164			5.80	28.4
Chloroform	0.625	U	0.402	0.399	64.3	63.8	1	51.2-133	J5	J5	0.676	22.8
Chloromethane	0.625	U	0.146	0.144	23.3	23.0	1	31.4-141			1.35	24.6
2-Chlorotoluene	0.625	U	0.415	0.424	66.4	67.9	1	36.1-137	J5	J5	2.09	28.9
4-Chlorotoluene	0.625	U	0.405	0.354	64.8	56.7	1	35.4-137	J5	J5	13.3	29.8

L1018606-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1018606-01 08/18/18 18:40 • (MS) R3334775-3 08/18/18 21:00 • (MSD) R3334775-4 08/18/18 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 %
1,2-Dibromo-3-Chloropropane	0.625	U	0.339	0.389	54.3	62.2	1	40.4-138	J5	J5	13.6	30.8
1,2-Dibromoethane	0.625	U	0.240	0.237	38.4	37.9	1	50.2-133	J5	J5	1.33	23.6
Dibromomethane	0.625	U	0.376	0.349	60.1	55.8	1	52.4-128	J5	J5	7.43	23
1,2-Dichlorobenzene	0.625	U	0.392	0.409	62.7	65.4	1	34.6-139	J5	J5	4.16	29.9
1,3-Dichlorobenzene	0.625	U	0.389	0.412	62.2	65.9	1	28.4-142	J5	J5	5.72	31.2
1,4-Dichlorobenzene	0.625	U	0.391	0.407	62.6	65.1	1	35.0-133	J5	J5	3.78	31.1
Dichlorodifluoromethane	0.625	U	0.307	0.289	49.1	46.3	1	31.2-144	J5	J5	5.85	30.2
1,1-Dichloroethane	0.625	U	0.395	0.388	63.2	62.1	1	49.1-136	J5	J5	1.82	22.9
1,2-Dichloroethane	0.625	U	0.364	0.353	58.2	56.5	1	47.1-129	J5	J5	2.94	22.7
1,1-Dichloroethene	0.625	U	0.250	0.242	40.1	38.7	1	36.1-142	J5	J5	3.47	25.6
cis-1,2-Dichloroethene	0.625	U	0.272	0.271	43.5	43.3	1	50.6-133	J5	J5	0.371	23
trans-1,2-Dichloroethene	0.625	U	0.196	0.189	31.3	30.2	1	43.8-135	J5	J5	3.49	24.8
1,1-Dichloropropene	0.625	U	0.260	0.264	41.6	42.3	1	43.0-137	J5	J5	1.59	26.4
1,3-Dichloropropane	0.625	U	0.275	0.271	44.0	43.3	1	51.4-127	J5	J5	1.63	23.1
cis-1,3-Dichloropropene	0.625	U	0.216	0.212	34.6	34.0	1	48.4-134	J5	J5	1.70	23.6
trans-1,3-Dichloropropene	0.625	U	0.263	0.258	42.1	41.3	1	46.6-135	J5	J5	2.09	25.3
2,2-Dichloropropane	0.625	U	0.290	0.297	46.4	47.6	1	45.2-141	J5	J5	2.55	26.6
Di-isopropyl ether	0.625	U	0.429	0.438	68.6	70.1	1	46.7-140	J5	J5	2.15	23.5
Ethylbenzene	0.625	U	0.238	0.234	38.1	37.5	1	44.8-135	J5	J5	1.77	26.9
Isopropylbenzene	0.625	U	0.373	0.390	59.7	62.4	1	41.9-139	J5	J5	4.40	29.3
p-Isopropyltoluene	0.625	U	0.358	0.390	57.2	62.5	1	27.3-146	J5	J5	8.71	35.1
Methylene Chloride	0.625	U	0.316	0.322	50.6	51.5	1	46.7-125	J5	J5	1.83	22.2
4-Methyl-2-pentanone (MIBK)	3.13	U	1.22	1.24	39.1	39.8	1	42.4-146	J5	J5	1.73	26.7
Methyl tert-butyl ether	0.625	U	0.409	0.458	65.4	73.2	1	50.4-131	J5	J5	11.3	24.8
Naphthalene	0.625	U	0.339	0.409	54.2	65.5	1	18.4-145	J5	J5	18.9	34
n-Propylbenzene	0.625	U	0.343	0.363	54.8	58.1	1	35.2-139	J5	J5	5.87	31.9
Styrene	0.625	U	0.451	0.465	72.2	74.4	1	39.7-137	J5	J5	3.07	28.2
1,1,1,2-Tetrachloroethane	0.625	U	0.231	0.229	37.0	36.7	1	48.8-136	J5	J5	0.709	25.5
1,1,2,2-Tetrachloroethane	0.625	U	0.353	0.370	56.5	59.2	1	45.7-140	J5	J5	4.68	26.4
Tetrachloroethene	0.625	U	0.174	0.169	27.9	27.1	1	37.7-140			3.07	29.2
Toluene	0.625	U	0.209	0.202	33.4	32.3	1	47.8-127	J5	J5	3.36	24.3
1,1,2-Trichlorotrifluoroethane	0.625	U	0.341	0.341	54.6	54.6	1	35.7-146	J5	J5	0.130	28.8
1,2,3-Trichlorobenzene	0.625	U	0.412	0.502	66.0	80.3	1	10.0-150	J5	J5	19.5	38.5
1,2,4-Trichlorobenzene	0.625	U	0.355	0.406	56.8	65.0	1	10.0-153	J5	J5	13.5	39.3
1,1,1-Trichloroethane	0.625	U	0.380	0.380	60.9	60.8	1	49.0-138	J5	J5	0.0352	25.3
1,1,2-Trichloroethane	0.625	U	0.254	0.252	40.6	40.3	1	52.3-132	J5	J5	0.886	23.4
Trichloroethene	0.625	U	0.332	0.335	53.1	53.7	1	48.0-132	J5	J5	0.994	24.8
Trichlorofluoromethane	0.625	U	0.217	0.212	34.7	33.9	1	12.8-169	J5	J5	2.38	29.7
1,2,3-Trichloropropane	0.625	U	0.423	0.441	67.7	70.6	1	44.4-138	J5	J5	4.08	26.3
1,2,3-Trimethylbenzene	0.625	U	0.385	0.409	61.6	65.5	1	41.0-133	J5	J5	6.03	27.6

L1018606-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1018606-01 08/18/18 18:40 • (MS) R3334775-3 08/18/18 21:00 • (MSD) R3334775-4 08/18/18 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 %
1,2,4-Trimethylbenzene	0.625	U	0.370	0.393	59.3	62.9	1	32.9-139	J5	J5	5.91	30.6
1,3,5-Trimethylbenzene	0.625	U	0.360	0.378	57.6	60.6	1	37.1-138	J5	J5	5.09	30.6
Xylenes, Total	1.88	U	0.644	0.644	34.3	34.3	1	42.7-135	J5	J5	0.000	26.6
(S) Toluene-d8					*64.9*	*63.2*		*80.0-120*	J2	J2		
(S) Dibromofluoromethane					*97.4*	*96.9*		*74.0-131*				
(S) 4-Bromofluorobenzene					*100*	*102*		*64.0-132*				

Method Blank (MB)

(MB) R3335060-2 08/19/18 10:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
2,2-Dichloropropane	U		0.000793	0.00250
2-Butanone (MEK)	U		0.0125	0.0250
Vinyl chloride	U		0.000683	0.00250
(S) Toluene-d8	*113*			*80.0-120*
(S) Dibromofluoromethane	*94.0*			*74.0-131*
(S) 4-Bromofluorobenzene	*97.7*			*64.0-132*

Laboratory Control Sample (LCS)

(LCS) R3335060-1 08/19/18 09:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.659	105	25.3-178	
2,2-Dichloropropane	0.125	0.0971	77.7	61.9-132	
2-Butanone (MEK)	0.625	0.957	153	44.5-154	
Vinyl chloride	0.125	0.149	119	58.4-134	
(S) Toluene-d8			*105*	*80.0-120*	
(S) Dibromofluoromethane			*103*	*74.0-131*	
(S) 4-Bromofluorobenzene			*93.3*	*64.0-132*	

Method Blank (MB)

(MB) R3335028-2 08/19/18 12:11

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
1,2-Dichloropropane	U		0.00127	0.00500
Hexachloro-1,3-butadiene	U		0.0127	0.0250
2-Butanone (MEK)	U		0.0125	0.0250
Vinyl chloride	U		0.000683	0.00250
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*95.0*			*74.0-131*
(S) 4-Bromofluorobenzene	*97.9*			*64.0-132*

Laboratory Control Sample (LCS)

(LCS) R3335028-1 08/19/18 11:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,2-Dichloropropane	0.125	0.129	103	76.9-123	
Hexachloro-1,3-butadiene	0.125	0.124	99.0	69.2-136	
2-Butanone (MEK)	0.625	0.805	129	44.5-154	
Vinyl chloride	0.125	0.105	83.9	58.4-134	
(S) Toluene-d8			*109*	*80.0-120*	
(S) Dibromofluoromethane			*91.5*	*74.0-131*	
(S) 4-Bromofluorobenzene			*98.7*	*64.0-132*	

Method Blank (MB)

(MB) R3335144-1 08/20/18 13:42

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	*75.7*			*18.0-148*

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

(LCS) R3335144-2 08/20/18 13:56 • (LCSD) R3335144-3 08/20/18 14:47

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)	25.0	20.6	21.1	82.4	84.4	50.0-150			2.40	20
Residual Range Organics (RRO)	25.0	17.4	16.7	69.6	66.8	50.0-150			4.11	20
(S) o-Terphenyl				*74.6*	*77.6*	*18.0-148*				

L1017897-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1017897-07 08/20/18 15:47 • (MS) R3335144-4 08/20/18 16:01 • (MSD) R3335144-5 08/20/18 16:14

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)	26.5	U	20.6	23.1	77.6	87.2	1	50.0-150			11.7	20
Residual Range Organics (RRO)	26.5	U	18.6	18.7	70.0	70.4	1	50.0-150			0.570	20
(S) o-Terphenyl					*70.0*	*76.4*		*18.0-148*				

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

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

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

State Accreditations

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

Third Party Federal Accreditations

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

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

Our Locations

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

TGE Resources

8048 Northcourt Road
Houston, TX 77040

Billing Information:
Accounts Payable
8048 Northcourt Road
Houston, TX 77040

Report to: Kristi Barnette

Email To: kristib@tgeresources.com, tecrump@tgeresources.com,

Project Description: Future Federal Way Hospital

City/State Collected:

Phone: 713-744-5800
Fax: 713-744-5888

Client Project # R13411.06

Lab Project # TGERESHTX-R13411

Collected by (print): TIM CRUMP

Site/Facility ID #

P.O. # 8162

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Date Results Needed

Quote #

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	MRCRA8 4ozClr-NoPres	NWTPHDXNOSGT,TS 4ozClr-NoPres	SV8082,SV8270PAHSIMD 4ozClr-NoPres	V8260C, Gx 40ml/NaHSO4/Syr/MeOH	Remarks	Sample # (lab only)
B-1 (4)	Grab	SS	4	8/14/18	0850	5	X	X		X		-01
B-1 (9)	Grab	SS	9	8/14/18	0900	5	X	X		X		02
B-2 (4)	Grab	SS	4	8/14/18	0930	5	X	X		X		03
B-2 (8)	Grab	SS	8	8/14/18	0940	5	X	X		X		04
B-3 (4)	Grab	SS	4	8/14/18	0955	5	X	X		X		05
B-3 (10)	Grab	SS	10	8/14/18	1010	5	X	X		X		06
B-4 (3)	Grab	SS	3	8/14/18	1030	5	X	X		X		07
B-4 (6)	Grab	SS	6	8/14/18	1035	5	X	X		X		08
B-5 (4)	Grab	SS	4	8/14/18	1105	5	X	X		X		09
B-5 (9)	Grab	SS	9	8/14/18	1130	5	X	X		X		10

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

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4492 6220 9340/9351

Relinquished by: (Signature) — Date: 8/14/18 — Time: 1440 — Received by: (Signature)

Relinquished by: (Signature) — Date: — Time: — Received by: (Signature)

Relinquished by: (Signature) — Date: — Time: — Received for lab by: (Signature) 861 — Date: 8/15/18 — Time: 8:45

Trip Blank Received: (Yes) / No
2 (HCl) / MeoH TBR

Temp: 1.5°C Bottles Received: 80

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

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
L0.5 MR 1142

Chain of Custody Page 1 of 3

Pace Analytical®
National Center for Testing & Innovation

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

L# L1617897
E240

Acctnum: TGERESHTX
Template: T139025
Prelogin: P665046
TSR: 134 - Mark W. Beasley
PB: D 8-2-18
Shipped Via: FedEx Ground

TGE Resources

8048 Northcourt Road
Houston, TX 77040

Billing Information:
Accounts Payable
8048 Northcourt Road
Houston, TX 77040

Report to: **Kristi Barnette**

Email To: **kristib@tgeresources.com, tecrump@tgeresources.com,**

Project Description: **Future Federal Way Hospital**

City/State Collected:

Phone: **713-744-5800**
Fax: **713-744-5888**

Client Project # **R13411.06**

Lab Project # **TGERESHTX-R13411**

Collected by (print): TIM CRUMP

Site/Facility ID #

P.O. # **8162**

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	MRCRA8 4ozClr-NoPres	NWTPHDXNOSGT,TS 4ozClr-NoPres	SV8082,SV8270PAHSIMD 4ozClr-NoPres	V8260C, Gx 40ml/NaHSO4/Syr/MeOH	Remarks	Sample # (lab only)
B-6 (3)	Grab	SS	3	8/14/18	1145	5	X	X		X		-11
B-6 (6)	Grab	SS	6	8/14/18	1155	5	X	X		X		12
B-7 (4)	Grab	SS	4	8/14/18	1230	5	X	X		X		13
B-7 (9)	Grab	SS	9	8/14/18	1240	5	X	X		X		14
B-8 (4)	Grab	SS	4	8/14/18	1250	5	X	X		X		15
B-8 (7)	Grab	SS	7	8/14/18	1300	5	X	X		X		16
		SS										
		SS										
		SS										
		SS										

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

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

Tracking #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	08/14/18	1440	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			801

Trip Blank Received: (Yes) No
2 HCl / MeoH
TBR

Temp: 6.5 °C Bottles Received: 80

Date: 8/15/18 Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

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
LOT MRIHR

Chain of Custody Page 2 of 2

Pace Analytical®
National Center for Testing & Innovation

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

L# L1017897

Table #

Acctnum: **TGERESHTX**
Template: **T139025**
Prelogin: **P665046**
TSR: **134 - Mark W. Beasley**
PB: TD 8-2-18
Shipped Via: **FedEx Ground**

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

August 22, 2018

TGE Resources

Sample Delivery Group:	L1018176
Samples Received:	08/16/2018
Project Number:	R13411.06
Description:	Future Federal Way Hospital

Report To: Kristi Barnette
8048 Northcourt Road
Houston, TX 77040

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

TABLE OF CONTENTS

B-9(4) L1018176-01 Solid

Collected by: Tim Crump | Collected date/time: 08/15/18 08:40 | Received date/time: 08/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154901	1	08/21/18 09:24	08/21/18 09:35	JD
Mercury by Method 7471A	WG1154469	1	08/21/18 08:35	08/21/18 14:35	ABL
Metals (ICP) by Method 6010C	WG1154959	1	08/20/18 18:05	08/21/18 09:34	CCE
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1154557	25	08/15/18 08:40	08/19/18 21:45	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154260	1	08/15/18 08:40	08/18/18 17:19	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154491	1	08/15/18 08:40	08/19/18 15:38	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1154904	1	08/20/18 21:24	08/21/18 10:29	MG

B-9(10) L1018176-02 Solid

Collected by: Tim Crump | Collected date/time: 08/15/18 08:50 | Received date/time: 08/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154901	1	08/21/18 09:24	08/21/18 09:35	JD
Mercury by Method 7471A	WG1154469	1	08/21/18 08:35	08/21/18 15:20	ABL
Metals (ICP) by Method 6010C	WG1154959	1	08/20/18 18:05	08/21/18 09:36	CCE
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1154557	25	08/15/18 08:50	08/19/18 22:06	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154260	1	08/15/18 08:50	08/18/18 18:00	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154491	1	08/15/18 08:50	08/19/18 15:57	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1154904	1	08/20/18 21:24	08/21/18 11:23	MG

B-10 (3) L1018176-03 Solid

Collected by: Tim Crump | Collected date/time: 08/15/18 10:30 | Received date/time: 08/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154901	1	08/21/18 09:24	08/21/18 09:35	JD
Mercury by Method 7471A	WG1154469	1	08/21/18 08:35	08/21/18 15:23	ABL
Metals (ICP) by Method 6010C	WG1154959	1	08/20/18 18:05	08/21/18 09:44	CCE
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1154557	41.75	08/15/18 10:30	08/19/18 22:27	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154260	1.68	08/15/18 10:30	08/18/18 17:39	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154491	1.68	08/15/18 10:30	08/19/18 16:15	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1154904	1	08/20/18 21:24	08/21/18 10:42	MG

B-10(10) L1018176-04 Solid

Collected by: Tim Crump | Collected date/time: 08/15/18 10:35 | Received date/time: 08/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154901	1	08/21/18 09:24	08/21/18 09:35	JD
Mercury by Method 7471A	WG1154469	1	08/21/18 08:35	08/21/18 15:25	ABL
Metals (ICP) by Method 6010C	WG1154959	1	08/20/18 18:05	08/21/18 09:46	CCE
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1154557	25	08/15/18 10:35	08/19/18 22:48	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154260	1	08/15/18 10:35	08/18/18 18:20	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1154491	1	08/15/18 10:35	08/19/18 16:34	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1154904	1	08/20/18 21:24	08/21/18 10:56	MG

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

Mark W. Beasley
Project Manager

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

a. LCS spiking amounts,

b. Calculated %R for each analyte, and

c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a. Samples associated with the MS/MSD clearly identified,

b. MS/MSD spiking amounts,

c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

d. Calculated %Rs and relative percent differences (RPDs), and

e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

a. The amount of analyte measured in the duplicate,

b. The calculated RPD, and

c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Mark W. Beasley
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences	LRC Date: 08/22/2018 13:21
Project Name: Future Federal Way Hospital	Laboratory Job Number: L1018176-01, 02, 03 and 04
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1154260, WG1154491, WG1154557, WG1154904, WG1154959, WG1154469 and WG1154901

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	X				
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: ESC Lab Sciences	LRC Date: 08/22/2018 13:21
Project Name: Future Federal Way Hospital	Laboratory Job Number: L1018176-01, 02, 03 and 04
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1154260, WG1154491, WG1154557, WG1154904, WG1154959, WG1154469 and WG1154901

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		X			3
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences	LRC Date: 08/22/2018 13:21
Project Name: Future Federal Way Hospital	Laboratory Job Number: L1018176-01, 02, 03 and 04
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1154260, WG1154491, WG1154557, WG1154904, WG1154959, WG1154469 and WG1154901

ER #[1]	Description
1	WG1154260 Toluene-d8 R3334775-3 and 4: Percent Recovery is outside of established control limits.
2	8260C WG1154260 Acetone, Acrylonitrile, Benzene, Bromobenzene, Bromodichloromethane, Bromoform, n-Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, Carbon tetrachloride, Chlorobenzene, Chlorodibromomethane, Chloroform, 2-Chlorotoluene, 4-Chlorotoluene, 1,2-Dibromo-3-Chloropropane, 1,2-Dibromoethane, Dibromomethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dichlorodifluoromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethene, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, 1,1-Dichloropropene, 1,3-Dichloropropane, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, 2,2-Dichloropropane, Di-isopropyl ether, Ethylbenzene, Isopropylbenzene, p-Isopropyltoluene, Methylene Chloride, 4-Methyl-2-pentanone (MIBK), Methyl tert-butyl ether, Naphthalene, n-Propylbenzene, Styrene, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, Toluene, 1,1,2-Trichlorotrifluoroethane, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethene, Trichlorofluoromethane, 1,2,3-Trichloropropane, 1,2,3-Trimethylbenzene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Xylenes, Total: Percent Recovery is outside of established control limits.
3	6010C WG1154959 Barium, Lead: Post Spike Percent Recovery and/or Serial Dilution Relative Percent Difference was outside of established control limits.

1. Items identified by the letter “R” must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter “S” should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked).

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.4		1	08/21/2018 09:35	WG1154901

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0141	J	0.00290	0.0200	0.0207	1	08/21/2018 14:35	WG1154469

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	2.25		0.674	2.00	2.07	1	08/21/2018 09:34	WG1154959
Barium	53.0		0.176	0.500	0.519	1	08/21/2018 09:34	WG1154959
Cadmium	U		0.0726	0.500	0.519	1	08/21/2018 09:34	WG1154959
Chromium	12.7		0.145	1.00	1.04	1	08/21/2018 09:34	WG1154959
Lead	1.54		0.197	0.500	0.519	1	08/21/2018 09:34	WG1154959
Selenium	U		0.768	2.00	2.07	1	08/21/2018 09:34	WG1154959
Silver	U		0.290	1.00	1.04	1	08/21/2018 09:34	WG1154959

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.879	0.100	2.59	25	08/19/2018 21:45	WG1154557
(S) a,a,a-Trifluorotoluene(FID)	*113*				*77.0-120*		*08/19/2018 21:45*	WG1154557

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0142	0.0250	0.0259	1	08/18/2018 17:19	WG1154260
Acrylonitrile	U		0.00197	0.0125	0.0130	1	08/18/2018 17:19	WG1154260
Benzene	U		0.000415	0.00100	0.00104	1	08/18/2018 17:19	WG1154260
Bromobenzene	U		0.00109	0.0125	0.0130	1	08/18/2018 17:19	WG1154260
Bromodichloromethane	U		0.000817	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
Bromoform	U		0.00620	0.0250	0.0259	1	08/18/2018 17:19	WG1154260
Bromomethane	U		0.00384	0.0125	0.0130	1	08/18/2018 17:19	WG1154260
n-Butylbenzene	U		0.00398	0.0125	0.0130	1	08/18/2018 17:19	WG1154260
sec-Butylbenzene	U		0.00262	0.0125	0.0130	1	08/18/2018 17:19	WG1154260
tert-Butylbenzene	U		0.00161	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
Carbon tetrachloride	U		0.00112	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
Chlorobenzene	U		0.000594	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
Chlorodibromomethane	U		0.000467	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
Chloroethane	U		0.00112	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
Chloroform	U		0.000430	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
Chloromethane	U		0.00144	0.0125	0.0130	1	08/18/2018 17:19	WG1154260
2-Chlorotoluene	U		0.000954	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
4-Chlorotoluene	U		0.00117	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
1,2-Dibromo-3-Chloropropane	U		0.00529	0.0250	0.0259	1	08/18/2018 17:19	WG1154260
1,2-Dibromoethane	U		0.000545	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
Dibromomethane	U		0.00104	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
1,2-Dichlorobenzene	U		0.00150	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
1,3-Dichlorobenzene	U		0.00176	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
1,4-Dichlorobenzene	U		0.00204	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
Dichlorodifluoromethane	U		0.000848	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
1,1-Dichloroethane	U		0.000596	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
1,2-Dichloroethane	U		0.000493	0.00250	0.00259	1	08/18/2018 17:19	WG1154260

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000519	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
cis-1,2-Dichloroethene	U		0.000716	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
trans-1,2-Dichloroethene	U		0.00148	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
1,2-Dichloropropane	U		0.00132	0.00500	0.00519	1	08/19/2018 15:38	WG1154491
1,1-Dichloropropene	U		0.000726	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
1,3-Dichloropropane	U		0.00182	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
cis-1,3-Dichloropropene	U		0.000703	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
trans-1,3-Dichloropropene	U		0.00159	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
2,2-Dichloropropane	U		0.000823	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
Di-isopropyl ether	U		0.000363	0.00100	0.00104	1	08/18/2018 17:19	WG1154260
Ethylbenzene	U		0.000550	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
Hexachloro-1,3-butadiene	U		0.0132	0.0250	0.0259	1	08/19/2018 15:38	WG1154491
Isopropylbenzene	U		0.000895	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
p-Isopropyltoluene	U		0.00242	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
2-Butanone (MEK)	U		0.0130	0.0250	0.0259	1	08/19/2018 15:38	WG1154491
Methylene Chloride	U		0.00689	0.0250	0.0259	1	08/18/2018 17:19	WG1154260
4-Methyl-2-pentanone (MIBK)	U		0.0104	0.0250	0.0259	1	08/18/2018 17:19	WG1154260
Methyl tert-butyl ether	U		0.000306	0.00100	0.00104	1	08/18/2018 17:19	WG1154260
Naphthalene	U		0.00324	0.0125	0.0130	1	08/18/2018 17:19	WG1154260
n-Propylbenzene	U		0.00122	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
Styrene	U		0.00283	0.0125	0.0130	1	08/18/2018 17:19	WG1154260
1,1,1,2-Tetrachloroethane	U		0.000519	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
1,1,2,2-Tetrachloroethane	U		0.000405	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
1,1,2-Trichlorotrifluoroethane	U		0.000700	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
Tetrachloroethene	U		0.000726	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
Toluene	U		0.00130	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
1,2,3-Trichlorobenzene	U		0.000648	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
1,2,4-Trichlorobenzene	U		0.00500	0.0125	0.0130	1	08/18/2018 17:19	WG1154260
1,1,1-Trichloroethane	U		0.000285	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
1,1,2-Trichloroethane	U		0.000916	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
Trichloroethene	U		0.000415	0.00100	0.00104	1	08/18/2018 17:19	WG1154260
Trichlorofluoromethane	U		0.000519	0.00250	0.00259	1	08/18/2018 17:19	WG1154260
1,2,3-Trichloropropane	U		0.00529	0.0125	0.0130	1	08/18/2018 17:19	WG1154260
1,2,4-Trimethylbenzene	0.00124	J	0.00120	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
1,2,3-Trimethylbenzene	0.00132	J	0.00119	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
Vinyl chloride	U		0.000708	0.00250	0.00259	1	08/19/2018 15:38	WG1154491
1,3,5-Trimethylbenzene	U		0.00112	0.00500	0.00519	1	08/18/2018 17:19	WG1154260
Xylenes, Total	U		0.00496	0.00650	0.00674	1	08/18/2018 17:19	WG1154260
(S) Toluene-d8	*106*				*80.0-120*		*08/18/2018 17:19*	WG1154260
(S) Toluene-d8	*108*				*80.0-120*		*08/19/2018 15:38*	WG1154491
(S) Dibromofluoromethane	*96.3*				*74.0-131*		*08/18/2018 17:19*	WG1154260
(S) Dibromofluoromethane	*95.3*				*74.0-131*		*08/19/2018 15:38*	WG1154491
(S) 4-Bromofluorobenzene	*103*				*64.0-132*		*08/18/2018 17:19*	WG1154260
(S) 4-Bromofluorobenzene	*100*				*64.0-132*		*08/19/2018 15:38*	WG1154491

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.38	4.00	4.15	1	08/21/2018 10:29	WG1154904
Residual Range Organics (RRO)	U		3.45	10.0	10.4	1	08/21/2018 10:29	WG1154904
(S) o-Terphenyl	*83.9*				*18.0-148*		*08/21/2018 10:29*	WG1154904

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.2		1	08/21/2018 09:35	WG1154901

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0111	J	0.00310	0.0200	0.0222	1	08/21/2018 15:20	WG1154469

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	2.15	J	0.720	2.00	2.22	1	08/21/2018 09:36	WG1154959
Barium	45.8		0.188	0.500	0.554	1	08/21/2018 09:36	WG1154959
Cadmium	U		0.0776	0.500	0.554	1	08/21/2018 09:36	WG1154959
Chromium	14.8		0.155	1.00	1.11	1	08/21/2018 09:36	WG1154959
Lead	2.05		0.211	0.500	0.554	1	08/21/2018 09:36	WG1154959
Selenium	U		0.820	2.00	2.22	1	08/21/2018 09:36	WG1154959
Silver	U		0.310	1.00	1.11	1	08/21/2018 09:36	WG1154959

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.939	0.100	2.77	25	08/19/2018 22:06	WG1154557
(S) a,a,a-Trifluorotoluene(FID)	*115*				*77.0-120*		*08/19/2018 22:06*	WG1154557

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0152	0.0250	0.0277	1	08/18/2018 18:00	WG1154260
Acrylonitrile	U		0.00211	0.0125	0.0139	1	08/18/2018 18:00	WG1154260
Benzene	U		0.000443	0.00100	0.00111	1	08/18/2018 18:00	WG1154260
Bromobenzene	U		0.00116	0.0125	0.0139	1	08/18/2018 18:00	WG1154260
Bromodichloromethane	U		0.000873	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
Bromoform	U		0.00663	0.0250	0.0277	1	08/18/2018 18:00	WG1154260
Bromomethane	U		0.00410	0.0125	0.0139	1	08/18/2018 18:00	WG1154260
n-Butylbenzene	U		0.00426	0.0125	0.0139	1	08/18/2018 18:00	WG1154260
sec-Butylbenzene	U		0.00280	0.0125	0.0139	1	08/18/2018 18:00	WG1154260
tert-Butylbenzene	U		0.00172	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
Carbon tetrachloride	U		0.00120	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
Chlorobenzene	U		0.000635	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
Chlorodibromomethane	U		0.000499	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
Chloroethane	U		0.00120	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
Chloroform	U		0.000460	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
Chloromethane	U		0.00154	0.0125	0.0139	1	08/18/2018 18:00	WG1154260
2-Chlorotoluene	U		0.00102	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
4-Chlorotoluene	U		0.00125	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
1,2-Dibromo-3-Chloropropane	U		0.00565	0.0250	0.0277	1	08/18/2018 18:00	WG1154260
1,2-Dibromoethane	U		0.000582	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
Dibromomethane	U		0.00111	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
1,2-Dichlorobenzene	U		0.00161	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
1,3-Dichlorobenzene	U		0.00188	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
1,4-Dichlorobenzene	U		0.00218	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
Dichlorodifluoromethane	U		0.000907	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
1,1-Dichloroethane	U		0.000637	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
1,2-Dichloroethane	U		0.000526	0.00250	0.00277	1	08/18/2018 18:00	WG1154260

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000554	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
cis-1,2-Dichloroethene	U		0.000765	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
trans-1,2-Dichloroethene	U		0.00158	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
1,2-Dichloropropane	U		0.00141	0.00500	0.00554	1	08/19/2018 15:57	WG1154491
1,1-Dichloropropene	U		0.000776	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
1,3-Dichloropropane	U		0.00194	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
cis-1,3-Dichloropropene	U		0.000751	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
trans-1,3-Dichloropropene	U		0.00170	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
2,2-Dichloropropane	U		0.000879	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
Di-isopropyl ether	U		0.000388	0.00100	0.00111	1	08/18/2018 18:00	WG1154260
Ethylbenzene	U		0.000587	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
Hexachloro-1,3-butadiene	U		0.0141	0.0250	0.0277	1	08/19/2018 15:57	WG1154491
Isopropylbenzene	U		0.000956	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
p-Isopropyltoluene	U		0.00258	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
2-Butanone (MEK)	U		0.0139	0.0250	0.0277	1	08/19/2018 15:57	WG1154491
Methylene Chloride	U		0.00736	0.0250	0.0277	1	08/18/2018 18:00	WG1154260
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0250	0.0277	1	08/18/2018 18:00	WG1154260
Methyl tert-butyl ether	U		0.000327	0.00100	0.00111	1	08/18/2018 18:00	WG1154260
Naphthalene	U		0.00346	0.0125	0.0139	1	08/18/2018 18:00	WG1154260
n-Propylbenzene	U		0.00131	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
Styrene	U		0.00303	0.0125	0.0139	1	08/18/2018 18:00	WG1154260
1,1,1,2-Tetrachloroethane	U		0.000554	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
1,1,2,2-Tetrachloroethane	U		0.000432	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
1,1,2-Trichlorotrifluoroethane	U		0.000748	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
Tetrachloroethene	U		0.000776	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
Toluene	U		0.00139	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
1,2,3-Trichlorobenzene	U		0.000693	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
1,2,4-Trichlorobenzene	U		0.00534	0.0125	0.0139	1	08/18/2018 18:00	WG1154260
1,1,1-Trichloroethane	U		0.000305	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
1,1,2-Trichloroethane	U		0.000979	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
Trichloroethene	U		0.000443	0.00100	0.00111	1	08/18/2018 18:00	WG1154260
Trichlorofluoromethane	U		0.000554	0.00250	0.00277	1	08/18/2018 18:00	WG1154260
1,2,3-Trichloropropane	U		0.00565	0.0125	0.0139	1	08/18/2018 18:00	WG1154260
1,2,4-Trimethylbenzene	0.00142	J	0.00129	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
1,2,3-Trimethylbenzene	U		0.00127	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
Vinyl chloride	U		0.000757	0.00250	0.00277	1	08/19/2018 15:57	WG1154491
1,3,5-Trimethylbenzene	U		0.00120	0.00500	0.00554	1	08/18/2018 18:00	WG1154260
Xylenes, Total	U		0.00530	0.00650	0.00720	1	08/18/2018 18:00	WG1154260
(S) Toluene-d8	*107*				*80.0-120*		*08/18/2018 18:00*	WG1154260
(S) Toluene-d8	*110*				*80.0-120*		*08/19/2018 15:57*	WG1154491
(S) Dibromofluoromethane	*97.8*				*74.0-131*		*08/18/2018 18:00*	WG1154260
(S) Dibromofluoromethane	*95.3*				*74.0-131*		*08/19/2018 15:57*	WG1154491
(S) 4-Bromofluorobenzene	*104*				*64.0-132*		*08/18/2018 18:00*	WG1154260
(S) 4-Bromofluorobenzene	*100*				*64.0-132*		*08/19/2018 15:57*	WG1154491

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.47	4.00	4.43	1	08/21/2018 11:23	WG1154904
Residual Range Organics (RRO)	16.4		3.69	10.0	11.1	1	08/21/2018 11:23	WG1154904
(S) o-Terphenyl	*82.4*				*18.0-148*		*08/21/2018 11:23*	WG1154904

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.2		1	08/21/2018 09:35	WG1154901

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0111	J	0.00317	0.0200	0.0227	1	08/21/2018 15:23	WG1154469

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	3.20		0.737	2.00	2.27	1	08/21/2018 09:44	WG1154959
Barium	68.9		0.193	0.500	0.567	1	08/21/2018 09:44	WG1154959
Cadmium	U		0.0794	0.500	0.567	1	08/21/2018 09:44	WG1154959
Chromium	33.7		0.159	1.00	1.13	1	08/21/2018 09:44	WG1154959
Lead	3.43		0.215	0.500	0.567	1	08/21/2018 09:44	WG1154959
Selenium	U		0.839	2.00	2.27	1	08/21/2018 09:44	WG1154959
Silver	U		0.317	1.00	1.13	1	08/21/2018 09:44	WG1154959

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.60	0.100	4.73	41.75	08/19/2018 22:27	WG1154557
(S) a,a,a-Trifluorotoluene(FID)	*116*				*77.0-120*		*08/19/2018 22:27*	WG1154557

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0261	0.0250	0.0476	1.68	08/18/2018 17:39	WG1154260
Acrylonitrile	U		0.00362	0.0125	0.0238	1.68	08/18/2018 17:39	WG1154260
Benzene	U		0.000762	0.00100	0.00190	1.68	08/18/2018 17:39	WG1154260
Bromobenzene	U		0.00200	0.0125	0.0238	1.68	08/18/2018 17:39	WG1154260
Bromodichloromethane	U		0.00150	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
Bromoform	U		0.0114	0.0250	0.0476	1.68	08/18/2018 17:39	WG1154260
Bromomethane	U		0.00705	0.0125	0.0238	1.68	08/18/2018 17:39	WG1154260
n-Butylbenzene	U		0.00731	0.0125	0.0238	1.68	08/18/2018 17:39	WG1154260
sec-Butylbenzene	U		0.00482	0.0125	0.0238	1.68	08/18/2018 17:39	WG1154260
tert-Butylbenzene	U		0.00295	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
Carbon tetrachloride	U		0.00206	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
Chlorobenzene	U		0.00109	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
Chlorodibromomethane	U		0.000857	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
Chloroethane	U		0.00206	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
Chloroform	U		0.000790	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
Chloromethane	U		0.00265	0.0125	0.0238	1.68	08/18/2018 17:39	WG1154260
2-Chlorotoluene	U		0.00175	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
4-Chlorotoluene	U		0.00215	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
1,2-Dibromo-3-Chloropropane	U		0.00971	0.0250	0.0476	1.68	08/18/2018 17:39	WG1154260
1,2-Dibromoethane	U		0.00100	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
Dibromomethane	U		0.00190	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
1,2-Dichlorobenzene	U		0.00276	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
1,3-Dichlorobenzene	U		0.00324	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
1,4-Dichlorobenzene	U		0.00375	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
Dichlorodifluoromethane	U		0.00156	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
1,1-Dichloroethane	U		0.00110	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
1,2-Dichloroethane	U		0.000905	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000952	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
cis-1,2-Dichloroethene	U		0.00131	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
trans-1,2-Dichloroethene	U		0.00272	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
1,2-Dichloropropane	U		0.00242	0.00500	0.00952	1.68	08/19/2018 16:15	WG1154491
1,1-Dichloropropene	U		0.00133	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
1,3-Dichloropropane	U		0.00333	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
cis-1,3-Dichloropropene	U		0.00129	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
trans-1,3-Dichloropropene	U		0.00291	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
2,2-Dichloropropane	U		0.00151	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
Di-isopropyl ether	U		0.000667	0.00100	0.00190	1.68	08/18/2018 17:39	WG1154260
Ethylbenzene	0.00132	J	0.00101	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
Hexachloro-1,3-butadiene	U		0.0242	0.0250	0.0476	1.68	08/19/2018 16:15	WG1154491
Isopropylbenzene	U		0.00164	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
p-Isopropyltoluene	U		0.00444	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
2-Butanone (MEK)	U		0.0238	0.0250	0.0476	1.68	08/19/2018 16:15	WG1154491
Methylene Chloride	U		0.0126	0.0250	0.0476	1.68	08/18/2018 17:39	WG1154260
4-Methyl-2-pentanone (MIBK)	U		0.0190	0.0250	0.0476	1.68	08/18/2018 17:39	WG1154260
Methyl tert-butyl ether	U		0.000562	0.00100	0.00190	1.68	08/18/2018 17:39	WG1154260
Naphthalene	U		0.00594	0.0125	0.0238	1.68	08/18/2018 17:39	WG1154260
n-Propylbenzene	U		0.00225	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
Styrene	U		0.00520	0.0125	0.0238	1.68	08/18/2018 17:39	WG1154260
1,1,1,2-Tetrachloroethane	U		0.000952	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
1,1,2,2-Tetrachloroethane	U		0.000743	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
1,1,2-Trichlorotrifluoroethane	U		0.00129	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
Tetrachloroethene	U		0.00133	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
Toluene	0.00939	J	0.00238	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
1,2,3-Trichlorobenzene	U		0.00119	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
1,2,4-Trichlorobenzene	U		0.00918	0.0125	0.0238	1.68	08/18/2018 17:39	WG1154260
1,1,1-Trichloroethane	U		0.000524	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
1,1,2-Trichloroethane	U		0.00168	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
Trichloroethene	U		0.000762	0.00100	0.00190	1.68	08/18/2018 17:39	WG1154260
Trichlorofluoromethane	U		0.000952	0.00250	0.00476	1.68	08/18/2018 17:39	WG1154260
1,2,3-Trichloropropane	U		0.00971	0.0125	0.0238	1.68	08/18/2018 17:39	WG1154260
1,2,4-Trimethylbenzene	0.00405	J	0.00221	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
1,2,3-Trimethylbenzene	0.00258	J	0.00219	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
Vinyl chloride	U		0.00130	0.00250	0.00476	1.68	08/19/2018 16:15	WG1154491
1,3,5-Trimethylbenzene	U		0.00206	0.00500	0.00952	1.68	08/18/2018 17:39	WG1154260
Xylenes, Total	U		0.00910	0.00650	0.0124	1.68	08/18/2018 17:39	WG1154260
(S) Toluene-d8	*108*				*80.0-120*		*08/18/2018 17:39*	WG1154260
(S) Toluene-d8	*109*				*80.0-120*		*08/19/2018 16:15*	WG1154491
(S) Dibromofluoromethane	*98.4*				*74.0-131*		*08/18/2018 17:39*	WG1154260
(S) Dibromofluoromethane	*93.0*				*74.0-131*		*08/19/2018 16:15*	WG1154491
(S) 4-Bromofluorobenzene	*107*				*64.0-132*		*08/18/2018 17:39*	WG1154260
(S) 4-Bromofluorobenzene	*100*				*64.0-132*		*08/19/2018 16:15*	WG1154491

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.51	4.00	4.53	1	08/21/2018 10:42	WG1154904
Residual Range Organics (RRO)	U		3.77	10.0	11.3	1	08/21/2018 10:42	WG1154904
(S) o-Terphenyl	*50.0*				*18.0-148*		*08/21/2018 10:42*	WG1154904

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.4		1	08/21/2018 09:35	WG1154901

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0234		0.00293	0.0200	0.0210	1	08/21/2018 15:25	WG1154469

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	2.04	J	0.681	2.00	2.10	1	08/21/2018 09:46	WG1154959
Barium	38.8		0.178	0.500	0.524	1	08/21/2018 09:46	WG1154959
Cadmium	U		0.0734	0.500	0.524	1	08/21/2018 09:46	WG1154959
Chromium	18.2		0.147	1.00	1.05	1	08/21/2018 09:46	WG1154959
Lead	1.67		0.199	0.500	0.524	1	08/21/2018 09:46	WG1154959
Selenium	U		0.776	2.00	2.10	1	08/21/2018 09:46	WG1154959
Silver	U		0.293	1.00	1.05	1	08/21/2018 09:46	WG1154959

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.888	0.100	2.62	25	08/19/2018 22:48	WG1154557
(S) a,a,a-Trifluorotoluene(FID)	*107*				*77.0-120*		*08/19/2018 22:48*	WG1154557

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0144	0.0250	0.0262	1	08/18/2018 18:20	WG1154260
Acrylonitrile	U		0.00199	0.0125	0.0131	1	08/18/2018 18:20	WG1154260
Benzene	U		0.000419	0.00100	0.00105	1	08/18/2018 18:20	WG1154260
Bromobenzene	U		0.00110	0.0125	0.0131	1	08/18/2018 18:20	WG1154260
Bromodichloromethane	U		0.000826	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
Bromoform	U		0.00627	0.0250	0.0262	1	08/18/2018 18:20	WG1154260
Bromomethane	U		0.00388	0.0125	0.0131	1	08/18/2018 18:20	WG1154260
n-Butylbenzene	U		0.00402	0.0125	0.0131	1	08/18/2018 18:20	WG1154260
sec-Butylbenzene	U		0.00265	0.0125	0.0131	1	08/18/2018 18:20	WG1154260
tert-Butylbenzene	U		0.00162	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
Carbon tetrachloride	U		0.00113	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
Chlorobenzene	U		0.000601	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
Chlorodibromomethane	U		0.000472	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
Chloroethane	U		0.00113	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
Chloroform	U		0.000435	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
Chloromethane	U		0.00146	0.0125	0.0131	1	08/18/2018 18:20	WG1154260
2-Chlorotoluene	U		0.000964	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
4-Chlorotoluene	U		0.00118	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
1,2-Dibromo-3-Chloropropane	U		0.00535	0.0250	0.0262	1	08/18/2018 18:20	WG1154260
1,2-Dibromoethane	U		0.000550	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
Dibromomethane	U		0.00105	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
1,2-Dichlorobenzene	U		0.00152	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
1,3-Dichlorobenzene	U		0.00178	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
1,4-Dichlorobenzene	U		0.00206	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
Dichlorodifluoromethane	U		0.000857	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
1,1-Dichloroethane	U		0.000603	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
1,2-Dichloroethane	U		0.000498	0.00250	0.00262	1	08/18/2018 18:20	WG1154260

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000524	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
cis-1,2-Dichloroethene	U		0.000723	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
trans-1,2-Dichloroethene	U		0.00150	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
1,2-Dichloropropane	U		0.00133	0.00500	0.00524	1	08/19/2018 16:34	WG1154491
1,1-Dichloropropene	U		0.000734	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
1,3-Dichloropropane	U		0.00183	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
cis-1,3-Dichloropropene	U		0.000711	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
trans-1,3-Dichloropropene	U		0.00160	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
2,2-Dichloropropane	U		0.000831	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
Di-isopropyl ether	U		0.000367	0.00100	0.00105	1	08/18/2018 18:20	WG1154260
Ethylbenzene	U		0.000555	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
Hexachloro-1,3-butadiene	U		0.0133	0.0250	0.0262	1	08/19/2018 16:34	WG1154491
Isopropylbenzene	U		0.000905	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
p-Isopropyltoluene	U		0.00244	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
2-Butanone (MEK)	U		0.0131	0.0250	0.0262	1	08/19/2018 16:34	WG1154491
Methylene Chloride	U		0.00696	0.0250	0.0262	1	08/18/2018 18:20	WG1154260
4-Methyl-2-pentanone (MIBK)	U		0.0105	0.0250	0.0262	1	08/18/2018 18:20	WG1154260
Methyl tert-butyl ether	U		0.000309	0.00100	0.00105	1	08/18/2018 18:20	WG1154260
Naphthalene	U		0.00327	0.0125	0.0131	1	08/18/2018 18:20	WG1154260
n-Propylbenzene	U		0.00124	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
Styrene	U		0.00286	0.0125	0.0131	1	08/18/2018 18:20	WG1154260
1,1,1,2-Tetrachloroethane	U		0.000524	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
1,1,2,2-Tetrachloroethane	U		0.000409	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
1,1,2-Trichlorotrifluoroethane	U		0.000707	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
Tetrachloroethene	0.00215	J	0.000734	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
Toluene	U		0.00131	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
1,2,3-Trichlorobenzene	U		0.000655	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
1,2,4-Trichlorobenzene	U		0.00505	0.0125	0.0131	1	08/18/2018 18:20	WG1154260
1,1,1-Trichloroethane	U		0.000288	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
1,1,2-Trichloroethane	U		0.000925	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
Trichloroethene	U		0.000419	0.00100	0.00105	1	08/18/2018 18:20	WG1154260
Trichlorofluoromethane	U		0.000524	0.00250	0.00262	1	08/18/2018 18:20	WG1154260
1,2,3-Trichloropropane	U		0.00535	0.0125	0.0131	1	08/18/2018 18:20	WG1154260
1,2,4-Trimethylbenzene	0.00130	J	0.00122	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
1,2,3-Trimethylbenzene	U		0.00121	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
Vinyl chloride	U		0.000716	0.00250	0.00262	1	08/19/2018 16:34	WG1154491
1,3,5-Trimethylbenzene	U		0.00113	0.00500	0.00524	1	08/18/2018 18:20	WG1154260
Xylenes, Total	U		0.00501	0.00650	0.00681	1	08/18/2018 18:20	WG1154260
(S) Toluene-d8	*110*				*80.0-120*		*08/18/2018 18:20*	WG1154260
(S) Toluene-d8	*108*				*80.0-120*		*08/19/2018 16:34*	WG1154491
(S) Dibromofluoromethane	*98.8*				*74.0-131*		*08/18/2018 18:20*	WG1154260
(S) Dibromofluoromethane	*97.4*				*74.0-131*		*08/19/2018 16:34*	WG1154491
(S) 4-Bromofluorobenzene	*103*				*64.0-132*		*08/18/2018 18:20*	WG1154260
(S) 4-Bromofluorobenzene	*100*				*64.0-132*		*08/19/2018 16:34*	WG1154491

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.39	4.00	4.19	1	08/21/2018 10:56	WG1154904
Residual Range Organics (RRO)	U		3.49	10.0	10.5	1	08/21/2018 10:56	WG1154904
(S) o-Terphenyl	*83.0*				*18.0-148*		*08/21/2018 10:56*	WG1154904

Method Blank (MB)

(MB) R3335520-1 08/21/18 09:35

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

L1018176-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1018176-02 08/21/18 09:35 • (DUP) R3335520-3 08/21/18 09:35

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	90.2	91.8	1	1.76		10

Laboratory Control Sample (LCS)

(LCS) R3335520-2 08/21/18 09:35

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) R3335493-1 08/21/18 14:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.00280	0.0200

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

(LCS) R3335493-2 08/21/18 14:25 • (LCSD) R3335493-3 08/21/18 14:27

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	0.307	0.306	102	102	80.0-120			0.411	20

L1018176-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1018176-01 08/21/18 14:35 • (MS) R3335493-4 08/21/18 14:38 • (MSD) R3335493-5 08/21/18 14:40

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 %
Mercury	0.311	0.0141	0.315	0.326	96.6	100	1	75.0-125			3.60	20

Method Blank (MB)

(MB) R3335273-1 08/21/18 09:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.650	2.00
Barium	U		0.170	0.500
Cadmium	U		0.0700	0.500
Chromium	U		0.140	1.00
Lead	U		0.190	0.500
Selenium	U		0.740	2.00
Silver	U		0.280	1.00

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

(LCS) R3335273-2 08/21/18 09:16 • (LCSD) R3335273-3 08/21/18 09:18

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	94.9	96.0	94.9	96.0	80.0-120			1.18	20
Barium	100	101	103	101	103	80.0-120			1.85	20
Cadmium	100	94.6	96.8	94.6	96.8	80.0-120			2.33	20
Chromium	100	93.6	96.3	93.6	96.3	80.0-120			2.90	20
Lead	100	92.8	96.0	92.8	96.0	80.0-120			3.40	20
Selenium	100	97.6	99.9	97.6	99.9	80.0-120			2.41	20
Silver	20.0	18.0	18.5	90.1	92.3	80.0-120			2.34	20

L1018667-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1018667-01 08/21/18 09:21 • (MS) R3335273-6 08/21/18 09:29 • (MSD) R3335273-7 08/21/18 09:31

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	3.62	101	103	97.8	99.1	1	75.0-125			1.28	20
Barium	100	79.9	174	191	93.7	111	1	75.0-125			9.72	20
Cadmium	100	ND	99.6	101	99.4	100	1	75.0-125			0.911	20
Chromium	100	5.18	99.4	102	94.3	96.5	1	75.0-125			2.22	20
Lead	100	15.9	108	111	92.0	95.1	1	75.0-125			2.81	20
Selenium	100	ND	104	105	104	105	1	75.0-125			1.11	20
Silver	20.0	ND	19.1	19.3	95.6	96.5	1	75.0-125			0.927	20

Method Blank (MB)

(MB) R3335034-3 08/19/18 20:55

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID)	*103*			*77.0-120*

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

(LCS) R3335034-1 08/19/18 19:51 • (LCSD) R3335034-2 08/19/18 20:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5.50	5.66	5.68	103	103	70.0-133			0.338	20
(S) a,a,a-Trifluorotoluene(FID)				*91.0*	*91.7*	*77.0-120*				

Method Blank (MB)

(MB) R3334775-2 08/18/18 13:42

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
Methylene Chloride	U		0.00664	0.0250

Method Blank (MB)

(MB) R3334775-2 08/18/18 13:42

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*110*			*80.0-120*
(S) Dibromofluoromethane	*94.6*			*74.0-131*
(S) 4-Bromofluorobenzene	*104*			*64.0-132*

Laboratory Control Sample (LCS)

(LCS) R3334775-1 08/18/18 11:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.769	123	25.3-178	
Acrylonitrile	0.625	0.676	108	57.8-143	
Benzene	0.125	0.117	93.8	72.6-120	
Bromobenzene	0.125	0.121	96.8	80.3-115	
Bromodichloromethane	0.125	0.125	100	75.3-119	
Bromoform	0.125	0.120	95.8	69.1-135	
Bromomethane	0.125	0.127	102	23.0-191	
n-Butylbenzene	0.125	0.139	111	74.2-134	
sec-Butylbenzene	0.125	0.125	99.6	77.8-129	

Laboratory Control Sample (LCS)

(LCS) R3334775-1 08/18/18 11:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
tert-Butylbenzene	0.125	0.125	99.8	77.2-129	
Carbon tetrachloride	0.125	0.130	104	69.4-129	
Chlorobenzene	0.125	0.124	99.3	78.9-122	
Chlorodibromomethane	0.125	0.115	91.8	76.4-126	
Chloroethane	0.125	0.127	101	47.2-147	
Chloroform	0.125	0.121	97.1	73.3-122	
Chloromethane	0.125	0.145	116	53.1-135	
2-Chlorotoluene	0.125	0.136	109	74.6-127	
4-Chlorotoluene	0.125	0.124	98.9	79.5-123	
1,2-Dibromo-3-Chloropropane	0.125	0.131	104	64.9-131	
1,2-Dibromoethane	0.125	0.124	99.0	78.7-123	
Dibromomethane	0.125	0.127	102	78.5-117	
1,2-Dichlorobenzene	0.125	0.118	94.4	83.6-119	
1,3-Dichlorobenzene	0.125	0.117	93.8	75.9-129	
1,4-Dichlorobenzene	0.125	0.119	95.3	81.0-115	
Dichlorodifluoromethane	0.125	0.128	103	50.9-139	
1,1-Dichloroethane	0.125	0.129	104	71.7-125	
1,2-Dichloroethane	0.125	0.131	105	67.2-121	
1,1-Dichloroethene	0.125	0.136	109	60.6-133	
cis-1,2-Dichloroethene	0.125	0.0952	76.1	76.1-121	
trans-1,2-Dichloroethene	0.125	0.122	97.2	70.7-124	
1,1-Dichloropropene	0.125	0.140	112	71.2-126	
1,3-Dichloropropane	0.125	0.126	101	80.3-114	
cis-1,3-Dichloropropene	0.125	0.111	88.5	77.3-123	
trans-1,3-Dichloropropene	0.125	0.125	99.7	73.0-127	
2,2-Dichloropropane	0.125	0.136	109	61.9-132	
Di-isopropyl ether	0.125	0.121	96.9	67.2-131	
Ethylbenzene	0.125	0.131	105	78.6-124	
Isopropylbenzene	0.125	0.115	92.2	79.4-126	
p-Isopropyltoluene	0.125	0.126	101	75.4-132	
Methylene Chloride	0.125	0.125	100	68.2-119	
4-Methyl-2-pentanone (MIBK)	0.625	0.672	108	61.1-138	
Methyl tert-butyl ether	0.125	0.147	117	70.2-122	
Naphthalene	0.125	0.137	109	69.9-132	
n-Propylbenzene	0.125	0.118	94.7	80.2-124	
Styrene	0.125	0.126	101	79.4-124	
1,1,1,2-Tetrachloroethane	0.125	0.109	87.0	76.7-127	
1,1,2,2-Tetrachloroethane	0.125	0.103	82.2	78.8-124	
Tetrachloroethene	0.125	0.129	103	71.1-133	
Toluene	0.125	0.126	100	76.7-116	

Laboratory Control Sample (LCS)

(LCS) R3334775-1 08/18/18 11:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,1,2-Trichlorotrifluoroethane	0.125	0.138	110	62.6-138	
1,2,3-Trichlorobenzene	0.125	0.155	124	72.5-137	
1,2,4-Trichlorobenzene	0.125	0.129	103	74.0-137	
1,1,1-Trichloroethane	0.125	0.133	106	69.9-127	
1,1,2-Trichloroethane	0.125	0.111	88.9	81.9-119	
Trichloroethene	0.125	0.138	110	77.2-122	
Trichlorofluoromethane	0.125	0.135	108	51.5-151	
1,2,3-Trichloropropane	0.125	0.130	104	74.0-124	
1,2,3-Trimethylbenzene	0.125	0.127	102	79.4-118	
1,2,4-Trimethylbenzene	0.125	0.121	96.6	77.1-124	
1,3,5-Trimethylbenzene	0.125	0.122	97.6	79.0-125	
Xylenes, Total	0.375	0.362	96.5	78.1-123	
(S) Toluene-d8			*104*	*80.0-120*	
(S) Dibromofluoromethane			*102*	*74.0-131*	
(S) 4-Bromofluorobenzene			*100*	*64.0-132*	

L1018606-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1018606-01 08/18/18 18:40 • (MS) R3334775-3 08/18/18 21:00 • (MSD) R3334775-4 08/18/18 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 %
Acetone	3.13	U	1.10	1.08	35.2	34.5	1	10.0-130	J5	J5	2.12	31.5
Acrylonitrile	3.13	U	1.57	1.53	50.4	49.1	1	39.3-152	J5	J5	2.56	27.2
Benzene	0.625	U	0.295	0.290	47.2	46.3	1	47.8-131	J5	J5	1.76	22.8
Bromobenzene	0.625	U	0.389	0.390	62.2	62.4	1	40.0-130	J5	J5	0.364	27.4
Bromodichloromethane	0.625	U	0.475	0.469	76.0	75.1	1	50.6-128	J5	J5	1.14	22.8
Bromoform	0.625	U	0.471	0.480	75.4	76.9	1	43.3-139	J5	J5	1.89	25.9
Bromomethane	0.625	U	0.121	0.128	19.4	20.5	1	5.00-189			5.25	26.7
n-Butylbenzene	0.625	U	0.368	0.405	58.8	64.8	1	23.6-146	J5	J5	9.67	39.2
sec-Butylbenzene	0.625	U	0.340	0.370	54.4	59.2	1	31.0-142	J5	J5	8.48	34.7
tert-Butylbenzene	0.625	U	0.365	0.400	58.5	64.0	1	36.9-142	J5	J5	9.01	31.7
Carbon tetrachloride	0.625	U	0.343	0.348	54.9	55.6	1	46.0-140	J5	J5	1.25	27.2
Chlorobenzene	0.625	U	0.236	0.233	37.7	37.3	1	44.1-134	J5	J5	1.16	25.7
Chlorodibromomethane	0.625	U	0.267	0.261	42.7	41.8	1	49.7-134	J5	J5	1.96	24
Chloroethane	0.625	U	0.156	0.165	24.9	26.4	1	5.00-164			5.80	28.4
Chloroform	0.625	U	0.402	0.399	64.3	63.8	1	51.2-133	J5	J5	0.676	22.8
Chloromethane	0.625	U	0.146	0.144	23.3	23.0	1	31.4-141			1.35	24.6
2-Chlorotoluene	0.625	U	0.415	0.424	66.4	67.9	1	36.1-137	J5	J5	2.09	28.9
4-Chlorotoluene	0.625	U	0.405	0.354	64.8	56.7	1	35.4-137	J5	J5	13.3	29.8

L1018606-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1018606-01 08/18/18 18:40 • (MS) R3334775-3 08/18/18 21:00 • (MSD) R3334775-4 08/18/18 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 %
1,2-Dibromo-3-Chloropropane	0.625	U	0.339	0.389	54.3	62.2	1	40.4-138	J5	J5	13.6	30.8
1,2-Dibromoethane	0.625	U	0.240	0.237	38.4	37.9	1	50.2-133	J5	J5	1.33	23.6
Dibromomethane	0.625	U	0.376	0.349	60.1	55.8	1	52.4-128	J5	J5	7.43	23
1,2-Dichlorobenzene	0.625	U	0.392	0.409	62.7	65.4	1	34.6-139	J5	J5	4.16	29.9
1,3-Dichlorobenzene	0.625	U	0.389	0.412	62.2	65.9	1	28.4-142	J5	J5	5.72	31.2
1,4-Dichlorobenzene	0.625	U	0.391	0.407	62.6	65.1	1	35.0-133	J5	J5	3.78	31.1
Dichlorodifluoromethane	0.625	U	0.307	0.289	49.1	46.3	1	31.2-144	J5	J5	5.85	30.2
1,1-Dichloroethane	0.625	U	0.395	0.388	63.2	62.1	1	49.1-136	J5	J5	1.82	22.9
1,2-Dichloroethane	0.625	U	0.364	0.353	58.2	56.5	1	47.1-129	J5	J5	2.94	22.7
1,1-Dichloroethene	0.625	U	0.250	0.242	40.1	38.7	1	36.1-142	J5	J5	3.47	25.6
cis-1,2-Dichloroethene	0.625	U	0.272	0.271	43.5	43.3	1	50.6-133	J5	J5	0.371	23
trans-1,2-Dichloroethene	0.625	U	0.196	0.189	31.3	30.2	1	43.8-135	J5	J5	3.49	24.8
1,1-Dichloropropene	0.625	U	0.260	0.264	41.6	42.3	1	43.0-137	J5	J5	1.59	26.4
1,3-Dichloropropane	0.625	U	0.275	0.271	44.0	43.3	1	51.4-127	J5	J5	1.63	23.1
cis-1,3-Dichloropropene	0.625	U	0.216	0.212	34.6	34.0	1	48.4-134	J5	J5	1.70	23.6
trans-1,3-Dichloropropene	0.625	U	0.263	0.258	42.1	41.3	1	46.6-135	J5	J5	2.09	25.3
2,2-Dichloropropane	0.625	U	0.290	0.297	46.4	47.6	1	45.2-141	J5	J5	2.55	26.6
Di-isopropyl ether	0.625	U	0.429	0.438	68.6	70.1	1	46.7-140	J5	J5	2.15	23.5
Ethylbenzene	0.625	U	0.238	0.234	38.1	37.5	1	44.8-135	J5	J5	1.77	26.9
Isopropylbenzene	0.625	U	0.373	0.390	59.7	62.4	1	41.9-139	J5	J5	4.40	29.3
p-Isopropyltoluene	0.625	U	0.358	0.390	57.2	62.5	1	27.3-146	J5	J5	8.71	35.1
Methylene Chloride	0.625	U	0.316	0.322	50.6	51.5	1	46.7-125	J5	J5	1.83	22.2
4-Methyl-2-pentanone (MIBK)	3.13	U	1.22	1.24	39.1	39.8	1	42.4-146	J5	J5	1.73	26.7
Methyl tert-butyl ether	0.625	U	0.409	0.458	65.4	73.2	1	50.4-131	J5	J5	11.3	24.8
Naphthalene	0.625	U	0.339	0.409	54.2	65.5	1	18.4-145	J5	J5	18.9	34
n-Propylbenzene	0.625	U	0.343	0.363	54.8	58.1	1	35.2-139	J5	J5	5.87	31.9
Styrene	0.625	U	0.451	0.465	72.2	74.4	1	39.7-137	J5	J5	3.07	28.2
1,1,1,2-Tetrachloroethane	0.625	U	0.231	0.229	37.0	36.7	1	48.8-136	J5	J5	0.709	25.5
1,1,2,2-Tetrachloroethane	0.625	U	0.353	0.370	56.5	59.2	1	45.7-140	J5	J5	4.68	26.4
Tetrachloroethene	0.625	U	0.174	0.169	27.9	27.1	1	37.7-140			3.07	29.2
Toluene	0.625	U	0.209	0.202	33.4	32.3	1	47.8-127	J5	J5	3.36	24.3
1,1,2-Trichlorotrifluoroethane	0.625	U	0.341	0.341	54.6	54.6	1	35.7-146	J5	J5	0.130	28.8
1,2,3-Trichlorobenzene	0.625	U	0.412	0.502	66.0	80.3	1	10.0-150	J5	J5	19.5	38.5
1,2,4-Trichlorobenzene	0.625	U	0.355	0.406	56.8	65.0	1	10.0-153	J5	J5	13.5	39.3
1,1,1-Trichloroethane	0.625	U	0.380	0.380	60.9	60.8	1	49.0-138	J5	J5	0.0352	25.3
1,1,2-Trichloroethane	0.625	U	0.254	0.252	40.6	40.3	1	52.3-132	J5	J5	0.886	23.4
Trichloroethene	0.625	U	0.332	0.335	53.1	53.7	1	48.0-132	J5	J5	0.994	24.8
Trichlorofluoromethane	0.625	U	0.217	0.212	34.7	33.9	1	12.8-169	J5	J5	2.38	29.7
1,2,3-Trichloropropane	0.625	U	0.423	0.441	67.7	70.6	1	44.4-138	J5	J5	4.08	26.3
1,2,3-Trimethylbenzene	0.625	U	0.385	0.409	61.6	65.5	1	41.0-133	J5	J5	6.03	27.6

L1018606-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1018606-01 08/18/18 18:40 • (MS) R3334775-3 08/18/18 21:00 • (MSD) R3334775-4 08/18/18 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 %
1,2,4-Trimethylbenzene	0.625	U	0.370	0.393	59.3	62.9	1	32.9-139	J5	J5	5.91	30.6
1,3,5-Trimethylbenzene	0.625	U	0.360	0.378	57.6	60.6	1	37.1-138	J5	J5	5.09	30.6
Xylenes, Total	1.88	U	0.644	0.644	34.3	34.3	1	42.7-135	J5	J5	0.000	26.6
(S) Toluene-d8					*64.9*	*63.2*		*80.0-120*	J2	J2		
(S) Dibromofluoromethane					*97.4*	*96.9*		*74.0-131*				
(S) 4-Bromofluorobenzene					*100*	*102*		*64.0-132*				

Method Blank (MB)

(MB) R3335028-2 08/19/18 12:11

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
1,2-Dichloropropane	U		0.00127	0.00500
Hexachloro-1,3-butadiene	U		0.0127	0.0250
2-Butanone (MEK)	U		0.0125	0.0250
Vinyl chloride	U		0.000683	0.00250
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*95.0*			*74.0-131*
(S) 4-Bromofluorobenzene	*97.9*			*64.0-132*

Laboratory Control Sample (LCS)

(LCS) R3335028-1 08/19/18 11:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,2-Dichloropropane	0.125	0.129	103	76.9-123	
Hexachloro-1,3-butadiene	0.125	0.124	99.0	69.2-136	
2-Butanone (MEK)	0.625	0.805	129	44.5-154	
Vinyl chloride	0.125	0.105	83.9	58.4-134	
(S) Toluene-d8			*109*	*80.0-120*	
(S) Dibromofluoromethane			*91.5*	*74.0-131*	
(S) 4-Bromofluorobenzene			*98.7*	*64.0-132*	

Method Blank (MB)

(MB) R3335260-1 08/21/18 08:54

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	*77.9*			*18.0-148*

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

(LCS) R3335260-2 08/21/18 09:07 • (LCSD) R3335260-3 08/21/18 09:21

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)	25.0	19.1	20.2	76.4	80.8	50.0-150			5.60	20
Residual Range Organics (RRO)	25.0	21.8	21.9	87.2	87.6	50.0-150			0.458	20
(S) o-Terphenyl				*74.5*	*78.7*	*18.0-148*				

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

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.

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

State Accreditations

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

Third Party Federal Accreditations

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

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

Our Locations

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

Chain of Custody Page 1 of 1

Pace Analytical® National Center for Testing & Innovation

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

L# L1018176

E018

Acctnum: TGERESHTX
Template: T139025
Prelogin: P665046
TSR: 134 - Mark W. Beasley
PB: TD 8-2-18
Shipped Via: FedEX Ground

TGE Resources

8048 Northcourt Road
Houston, TX 77040

Billing Information:
Accounts Payable
8048 Northcourt Road
Houston, TX 77040

Pres Chk

Report to:
Kristi Barnette

Email To: kristib@tgeresources.com, tecrump@tgeresources.com,

Project Description: Future Federal Way Hospital

City/State Collected:

Phone: 713-744-5800
Fax: 713-744-5888

Client Project #: R13411.06

Lab Project #: TGERESHTX-R13411

Collected by (print): Tim Crump

Site/Facility ID #:

P.O. #: 8162

Collected by (signature): [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:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	MRCRA8 4ozClr-NoPres	NWTPHDXNOSGT,TS 4ozClr-NoPres	SV8082,SV8270PAHSIMD 4ozClr-NoPres	V8260C, Gx 40ml/NaHSO4/Syr/MeOH						Remarks	Sample # (lab only)
B-9(4)	Grab	SS	4	8/15/18	0840	5	X	X		X							-01
B-9(10)	Grab	SS	10	8/15/18	0850	5	X	X		X							02
B-9(15)	Grab	SS	15	8/15/18	0855	5											
B-9(20)	Grab	SS	20	8/15/18	0910	5											
B-10(3)	Grab	SS	3	8/15/18	1030	5	X	X		X							03
B-10(10)	Grab	SS	10	8/15/18	1035	5	X	X		X							04
B-10(15)	Grab	SS	15	8/15/18	1045	5											
B-10(20)	Grab	SS	20	8/15/18	1055	5											

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

Remarks:

pH ______ Temp ______
Flow ______ Other ______

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

Samples returned via: __ UPS __ FedEx __ Courier ______

Tracking # 4492 6220 9362

Relinquished by: (Signature) [signature] | Date: 08/15/18 | Time: 1310
Received by: (Signature)

Trip Blank Received: Yes / No
HCL / MeOH
TBR

L.5mg/HR

Relinquished by: (Signature) | Date: | Time:
Received by: (Signature)

Temp: 0.3 °C Bottles Received: 40

If preservation required by Login: Date/Time

Relinquished by: (Signature) | Date: | Time:
Received for lab by: (Signature) [signature] 801

Date: 8/16/18 Time: 0845

8-113

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

Login #: L1018176	Client: TGERESHTX	Date: 8/16/18	Evaluated by: Jeremy

Non-Conformance (check applicable items)

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

Login Comments: Analysis not marked for B-9(15), B-9(20), B-10(15) or B-10(20). Currently placed on Hold.

Client informed by:		Call		Email		Voice Mail		Date: 8/16/18	Time: 1530
TSR Initials: MB	Client Contact:								

Login Instructions:

Correct, place on hold

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

September 17, 2018

TGE Resources

Sample Delivery Group:	L1025391
Samples Received:	08/15/2018
Project Number:	R13411.06
Description:	Future Federal Way Hospital

Report To: Kristi Barnette
8048 Northcourt Road
Houston, TX 77040

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

TABLE OF CONTENTS

B-3 (4) L1025391-01 Solid

Collected by	Collected date/time	Received date/time
Tim Crump	08/14/18 09:55	08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1154707	1	08/20/18 14:08	08/20/18 14:20	JAV
Metals (ICP) by Method 6010C	WG1167056	1	09/16/18 09:03	09/16/18 21:11	ST

B-4 (6) L1025391-02 Solid

Collected by	Collected date/time	Received date/time
Tim Crump	08/14/18 10:35	08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Calculated Results	WG1153500	1	08/18/18 09:18	09/14/18 13:14	MLW
Total Solids by Method 2540 G-2011	WG1154707	1	08/20/18 14:08	08/20/18 14:20	JAV
Wet Chemistry by Method 3060A/7196A	WG1165460	1	09/13/18 12:13	09/14/18 13:14	MLW
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 12:15	TRB

B-6 (6) L1025391-03 Solid

Collected by	Collected date/time	Received date/time
Tim Crump	08/14/18 11:55	08/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Calculated Results	WG1153500	1	08/18/18 09:18	09/14/18 13:15	MLW
Total Solids by Method 2540 G-2011	WG1154708	1	08/20/18 11:06	08/20/18 11:13	JAV
Wet Chemistry by Method 3060A/7196A	WG1165460	1	09/13/18 12:13	09/14/18 13:15	MLW
Metals (ICP) by Method 6010C	WG1153500	1	08/18/18 09:18	08/19/18 12:22	TRB

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

Mark W. Beasley
Project Manager

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

a. LCS spiking amounts,

b. Calculated %R for each analyte, and

c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a. Samples associated with the MS/MSD clearly identified,

b. MS/MSD spiking amounts,

c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

d. Calculated %Rs and relative percent differences (RPDs), and

e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

a. The amount of analyte measured in the duplicate,

b. The calculated RPD, and

c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Mark W. Beasley
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: ESC Lab Sciences	LRC Date: 09/17/2018 16:11
Project Name: Future Federal Way Hospital	Laboratory Job Number: L1025391-01, 02 and 03
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1153500, WG1154708, WG1154707, WG1165460 and WG1167056

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	X				
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?		X			1
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: ESC Lab Sciences	LRC Date: 09/17/2018 16:11
Project Name: Future Federal Way Hospital	Laboratory Job Number: L1025391-01, 02 and 03
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1153500, WG1154708, WG1154707, WG1165460 and WG1167056

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?			X		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?		X			2
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports

Laboratory Name: ESC Lab Sciences	LRC Date: 09/17/2018 16:11
Project Name: Future Federal Way Hospital	Laboratory Job Number: L1025391-01, 02 and 03
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1153500, WG1154708, WG1154707, WG1165460 and WG1167056

ER #[1]	Description
1	3060A/7196A WG1165460 Chromium,Hexavalent: Relative Percent Difference is outside of established control limits.
2	6010C WG1153500 Chromium: Post Spike Percent Recovery and/or Serial Dilution Relative Percent Difference was outside of established control limits.

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.8		1	08/20/2018 14:20	WG1154707

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	6.58	B	0.700	2.00	2.15	1	09/16/2018 21:11	WG1167056

Calculated Results

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chromium,Trivalent	43.9		0.146	1.00	1.04	1	09/14/2018 13:14	WG1153500

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.1		1	08/20/2018 14:20	WG1154707

Wet Chemistry by Method 3060A/7196A

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chromium,Hexavalent	0.916	J	0.666	2.00	2.08	1	09/14/2018 13:14	WG1165460

Metals (ICP) by Method 6010C

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chromium	44.8		0.146	1.00	1.04	1	08/19/2018 12:15	WG1153500

Calculated Results

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chromium,Trivalent	41.7		0.147	1.00	1.05	1	09/14/2018 13:15	WG1153500

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	95.6		1	08/20/2018 11:13	WG1154708

Wet Chemistry by Method 3060A/7196A

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chromium,Hexavalent	0.670	J P1	0.670	2.00	2.09	1	09/14/2018 13:15	WG1165460

Metals (ICP) by Method 6010C

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chromium	42.4		0.147	1.00	1.05	1	08/19/2018 12:22	WG1153500

Method Blank (MB)

(MB) R3335233-1 08/20/18 14:20

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

L1017897-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1017897-03 08/20/18 14:20 • (DUP) R3335233-3 08/20/18 14:20

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	94.5	94.1	1	0.376		10

Laboratory Control Sample (LCS)

(LCS) R3335233-2 08/20/18 14:20

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) R3335227-1 08/20/18 11:13

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

L1017897-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1017897-11 08/20/18 11:13 • (DUP) R3335227-3 08/20/18 11:13

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	95.6	95.5	1	0.0205		10

Laboratory Control Sample (LCS)

(LCS) R3335227-2 08/20/18 11:13

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) R3342019-1 09/14/18 12:54

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chromium,Hexavalent	U		0.640	2.00

L1024302-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1024302-02 09/14/18 12:58 • (DUP) R3342019-4 09/14/18 12:58

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chromium,Hexavalent	ND	0.000	1	0.000		20

L1025391-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1025391-03 09/14/18 13:15 • (DUP) R3342019-9 09/14/18 13:16

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chromium,Hexavalent	0.670	0.000	1	200	P1	20

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

(LCS) R3342019-2 09/14/18 12:55 • (LCSD) R3342019-3 09/14/18 12:55

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 %
Chromium,Hexavalent	24.0	23.3	23.4	97.2	97.7	80.0-120			0.513	20

L1024302-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1024302-06 09/14/18 13:01 • (MS) R3342019-5 09/14/18 13:02 • (MSD) R3342019-6 09/14/18 13:02

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 %
Chromium,Hexavalent	20.0	ND	15.6	15.5	77.8	77.6	1	75.0-125			0.257	20

L1024302-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1024302-06 09/14/18 13:01 • (MS) R3342019-7 09/14/18 13:03

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chromium,Hexavalent	695	ND	738	106	50	75.0-125	

Method Blank (MB)

(MB) R3334886-1 08/19/18 11:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chromium	U		0.140	1.00

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

(LCS) R3334886-2 08/19/18 11:35 • (LCSD) R3334886-3 08/19/18 11:37

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 %
Chromium	100	95.1	104	95.1	104	80.0-120			8.57	20

L1017897-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1017897-10 08/19/18 11:40 • (MS) R3334886-6 08/19/18 11:47 • (MSD) R3334886-7 08/19/18 11:50

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 %
Chromium	123	21.5	132	138	89.5	94.5	1	75.0-125			4.55	20

Method Blank (MB)

(MB) R3342361-1 09/16/18 20:32

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	0.782	J	0.650	2.00

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

(LCS) R3342361-2 09/16/18 20:34 • (LCSD) R3342361-3 09/16/18 20:37

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	98.7	100	98.7	100	80.0-120			1.58	20

L1026042-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1026042-01 09/16/18 20:40 • (MS) R3342361-6 09/16/18 20:48 • (MSD) R3342361-7 09/16/18 20:51

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	ND	98.6	101	97.3	99.3	1	75.0-125			2.02	20

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

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

State Accreditations

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

Third Party Federal Accreditations

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

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

Our Locations

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

TGE Resources

8048 Northcourt Road
Houston, TX 77040

Billing Information:
Accounts Payable
8048 Northcourt Road
Houston, TX 77040

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 3

Pace Analytical*
National Center for Testing & Innovation

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

Report to: Kristi Barnette

Email To: kristib@tgeresources.com, tecrump@tgeresources.com,

Project Description: Future Federal Way Hospital

City/State Collected:

Phone: 713-744-5800
Fax: 713-744-5888

Client Project # R13411.06

Lab Project # TGERESHTX-R13411

Collected by (print): TIM CRUMP

Site/Facility ID #

P.O. # 8162

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

L# L1617897
E240
L1025391

Acctnum: TGERESHTX
Template: T139025
Prelogin: P665046
TSR: 134 - Mark W. Beasley
PB: TO 8-2-18
Shipped Via: FedEX Ground

RV 8/15/18

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	MRCRA8 4ozClr-NoPres	NWTPHDXNOSGT,TS 4ozClr-NoPres	SV8082,SV8270PAHSIMD 4ozClr-NoPres	V8260C, Gx 40ml/NaHSO4/Syr/MeOH	Remarks	Sample # (lab only)
B-1 (4)	Grab	SS	4	8/14/18	0850	5	X	X		X		-01
B-1 (9)	Grab	SS	9	8/14/18	0900	5	X	X		X		02
B-2 (4)	Grab	SS	4	8/14/18	0930	5	X	X		X		03
B-2 (8)	Grab	SS	8	8/14/18	0940	5	X	X		X		04
B-3 (4)	Grab	SS	4	8/14/18	0955	5	X	X		X		05
B-3 (10)	Grab	SS	10	8/14/18	1010	5	X	X		X		06
B-4 (3)	Grab	SS	3	8/14/18	1030	5	X	X		X		07
B-4 (6)	Grab	SS	6	8/14/18	1035	5	X	X		X		08
B-5 (4)	Grab	SS	4	8/14/18	1105	5	X	X		X		09
B-5 (9)	Grab	SS	9	8/14/18	1130	5	X	X		X		10

-01

-02

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

Remarks:

pH ____ Temp ____

Flow ____ Other ____

Samples returned via:
__ UPS __ FedEx __ Courier ____

Tracking # 4492 6220 9340/9351

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
LOT MeOH

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
	8/14/18	1440		2	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.83 °C	Bottles Received: 80
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 861	Date: 8/15/18	Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

TGE Resources

8048 Northcourt Road
Houston, TX 77040

Billing Information:
Accounts Payable
8048 Northcourt Road
Houston, TX 77040

Pres Chk

Report to: Kristi Barnette

Email To: kristib@tgeresources.com, tecrump@tgeresources.com,

Project Description: Future Federal Way Hospital

City/State Collected:

Phone: 713-744-5800
Fax: 713-744-5888

Client Project # R13411.06

Lab Project # TGERESHTX-R13411

Collected by (print): TIM CRUMP

Site/Facility ID #

P.O. # 8162

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	MRCRA8 4ozClr-NoPres	NWTPHDXNOSGT,TS 4ozClr-NoPres	SV8082,SV8270PAHSIMD 4ozClr-NoPres	V8260C, Gx 40ml/NaHSO4/Syr/MeOH	Remarks	Sample # (lab only)
B-6 (3)	Grab	SS	3	8/14/18	1145	5	X	X		X		-11
B-6 (6)	Grab	SS	6	8/14/18	1155	5	X	X		X		-12
B-7 (4)	Grab	SS	4	8/14/18	1230	5	X	X		X		-13
B-7 (9)	Grab	SS	9	8/14/18	1240	5	X	X		X		-14
B-8 (4)	Grab	SS	4	8/14/18	1250	5	X	X		X		-15
B-8 (7)	Grab	SS	7	8/14/18	1300	5	X	X		X		-16
		SS										
		SS										
		SS										
		SS										

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace Analytical®
National Center for Testing & Innovation

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

L# L1017897

Table # L1025391

Acctnum: TGERESHTX

Template: T139025

Prelogin: P665046

TSR: 134 - Mark W. Beasley

PB: TD 8-2-18

Shipped Via: FedEX Ground

N 9/15/18

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

Remarks:

pH _____ Temp _____

Flow _____ Other _____

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

Tracking #

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
1015 MRIAR

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: (Yes) No HCL / MeoH TBR	If preservation required by Login: Date/Time
	08/14/18	1440		2	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.5 °C Bottles Received: 80	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 861	Date: 8/15/18 Time: 8:45	Hold: Condition: NCF / OK

Andy Vann

From: Mark Beasley
Sent: Thursday, September 13, 2018 2:12 PM
To: Login; Sample Storage; Due Metals; Due WetLab
Subject: L1017897 *TGERESHTX* rush relog

Relog the following as R3 due 9/17:

L1017897-05	ASICP, transfer TS
L1017897-08	CR6, CR3, CRICP (place in WG1153500), transfer TS
L1017897-12	CR6, CR3, CRICP (place in WG1153500), transfer TS

Thanks
Mark

From: Tim Crump [mailto:tecrump@tgeresources.com]
Sent: Thursday, September 13, 2018 1:44 PM
To: Mark Beasley
Cc: Kristi Barnette
Subject: RE: Pace National Report & EDD for R13411.06 Future Federal Way Hospital L1017897

Mark,
I need the following additional soil sample analyses (expedited – 2 day? I'm not aware of timing needed for Chromium speciation):

- Soil sample B-3(4) "L1017897-05" re-analyzed for Arsenic;
- Soil sample B-4(6) "L1017897-08" analyzed for Chromium speciation; and
- Soil sample B-6(6) "L1017897-12" analyzed for Chromium speciation.

I will need pricing so I can pull a PO for this. Thanks.

Timothy E. Crump, P.G., C.P.G., RSO
Senior Project Manager

TGERESOURCES,INC.

TGE Resources, Inc. | Environmental Management & Consulting Services
8048 Northcourt Road, Houston, TX 77040
Phone: (713) 744-5817 Fax: (713) 744-5888
tecrump@tgeresources.com| www.tgeresources.com
WBENC & SBA Certified Woman Owned Small Business
DUNS# 929574051 / CAGE Code 08PQ6

ATTACHMENT 3

Photograph 1. View of installation activities associated with soil boring B-3.

Photograph 2. Installation activities associated with soil boring B-4.

Photograph 3. Installation activities for soil boring B-6, adjacent to the waste storage area in the rear of Bay 3.

Photograph 4. Installation activities for soil boring B-8, adjacent to the sump in Service Bay 5.

Photograph 5. View of typical plugged soil boring.

Photograph 6. Soil vapor sample collection at soil boring B-11.

ATTACHMENT 4

TGE RESOURCES, INC.

8048 Northcourt Road
Houston, Texas 77040
(713) 744-5800
(713) 744-5888 (fax)

BORING LOG

BOREHOLE NO.: **B-1**
LATITUDE: ---
LONGITUDE: ---

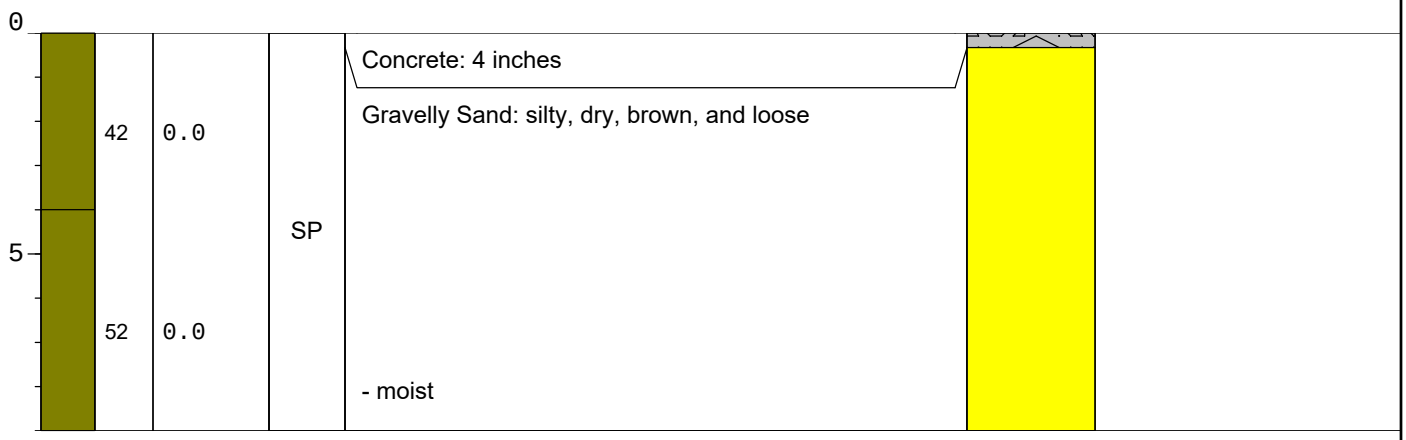
PROJECT INFORMATION

PROJECT NAME:	**Future Federal Way Hospital**
SITE LOCATION:	**29805 Pacific HWY S**
CITY, STATE	**Federal Way, Washington**
TGE PROJECT NO.:	**R13411.06**
LOGGED BY:	**T. Crump**
CLIENT:	**Philo Wilke Partnership**
DATES DRILLED:	**8/14/2018**

DRILLING INFORMATION

DRILLING CO.:	**ESN Northwest**
DRILLER:	**C. Pickering**
RIG TYPE:	**Power Probe 9100-SK**
METHOD OF DRILLING:	**Direct Push**
SAMPLING METHOD:	**Plastic Sleeve**
TOTAL DEPTH:	**9**
SURFACE ELEVATION:	**Not Measured**

DEPTH (in feet)	SAMPLE	% RECOVERY	ORGANIC VAPOR (ppm)	USCS	LITHOLOGIC DESCRIPTION	SOIL PROFILE	REMARKS
0					Concrete: 4 inches		
		42	0.0	SP	Gravelly Sand: silty, dry, brown, and loose		
5		52	0.0		- moist		



NOTES:
Boring logs should not be used separately from the original report.

TGE RESOURCES, INC.

8048 Northcourt Road
Houston, Texas 77040
(713) 744-5800
(713) 744-5888 (fax)

BORING LOG

BOREHOLE NO.: **B-2**
LATITUDE: **---**
LONGITUDE: **--**

PROJECT INFORMATION

PROJECT NAME:	**Future Federal Way Hospital**
SITE LOCATION:	**29805 Pacific HWY S**
CITY, STATE	**Federal Way, Washington**
TGE PROJECT NO.:	**R13411.06**
LOGGED BY:	**T. Crump**
CLIENT:	**Philo Wilke Partnership**
DATES DRILLED:	**8/14/2018**

DRILLING INFORMATION

DRILLING CO.:	**ESN Northwest**
DRILLER:	**C. Pickering**
RIG TYPE:	**Power Probe 9100-SK**
METHOD OF DRILLING:	**Direct Push**
SAMPLING METHOD:	**4' Plastic Sleeve**
TOTAL DEPTH:	**9**
SURFACE ELEVATION:	**Not Measured**

DEPTH (in feet)	SAMPLE	% RECOVERY	ORGANIC VAPOR (ppm)	USCS	LITHOLOGIC DESCRIPTION	SOIL PROFILE	REMARKS
0					Concrete: 4 inches		
		50	0.0	SP	Gravelly Sand: brown, dry, silty, coarse-grained, poorly sorted, and loose		
5		100	0.0		- medium-grained, few gravel		

NOTES:
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8048 Northcourt Road
Houston, Texas 77040
(713) 744-5800
(713) 744-5888 (fax)

BORING LOG

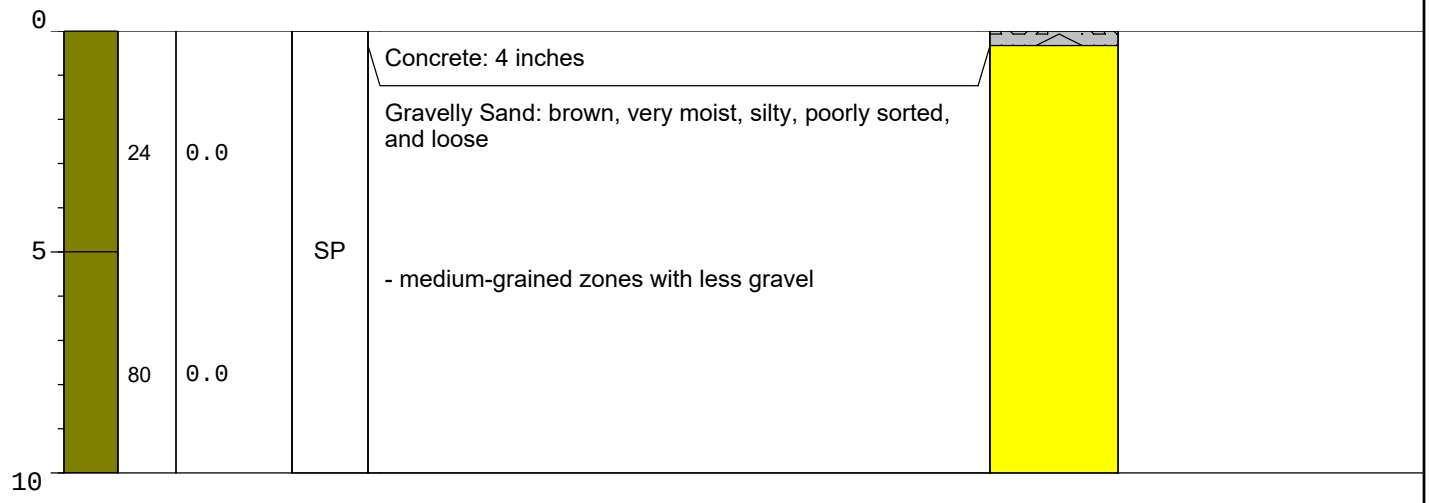
BOREHOLE NO.: **B-3**
LATITUDE: **---**
LONGITUDE: **--**

PROJECT INFORMATION

PROJECT NAME:	**Future Federal Way Hospital**
SITE LOCATION:	**29805 Pacific HWY S**
CITY, STATE	**Federal Way, Washington**
TGE PROJECT NO.:	**R13411.06**
LOGGED BY:	**T. Crump**
CLIENT:	**Philo Wilke Partnership**
DATES DRILLED:	**8/14/2018**

DRILLING INFORMATION

DRILLING CO.:	**ESN Northwest**
DRILLER:	**C. Pickering**
RIG TYPE:	**Power Probe 9100-SK**
METHOD OF DRILLING:	**Direct Push**
SAMPLING METHOD:	**5' Plastic Sleeve**
TOTAL DEPTH:	**9**
SURFACE ELEVATION:	**Not Measured**



NOTES:
Boring logs should not be used separately from the original report.

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8048 Northcourt Road
Houston, Texas 77040
(713) 744-5800
(713) 744-5888 (fax)

BORING LOG

BOREHOLE NO.: **B-4**
LATITUDE: **---**
LONGITUDE: **--**

PROJECT INFORMATION

PROJECT NAME:	**Future Federal Way Hospital**
SITE LOCATION:	**29805 Pacific HWY S**
CITY, STATE	**Federal Way, Washington**
TGE PROJECT NO.:	**R13411.06**
LOGGED BY:	**T. Crump**
CLIENT:	**Philo Wilke Partnership**
DATES DRILLED:	**8/14/2018**

DRILLING INFORMATION

DRILLING CO.:	**ESN Northwest**
DRILLER:	**C. Pickering**
RIG TYPE:	**Power Probe 9100-SK**
METHOD OF DRILLING:	**Direct Push**
SAMPLING METHOD:	**5' Plastic Sleeve**
TOTAL DEPTH:	**6**
SURFACE ELEVATION:	**Not Measured**

DEPTH (in feet)	SAMPLE	% RECOVERY	ORGANIC VAPOR (ppm)	USCS	LITHOLOGIC DESCRIPTION	SOIL PROFILE	REMARKS
0					Concrete: 4 inches		
		65	0.0	SP	Gravelly Sand: brown, dry, poorly sorted, coarse-gravel, and loose		
5		100	0.0				

NOTES:
Boring logs should not be used separately from the original report.

TGE RESOURCES, INC.

8048 Northcourt Road
Houston, Texas 77040
(713) 744-5800
(713) 744-5888 (fax)

BORING LOG

BOREHOLE NO.: **B-5**
LATITUDE: **---**
LONGITUDE: **--**

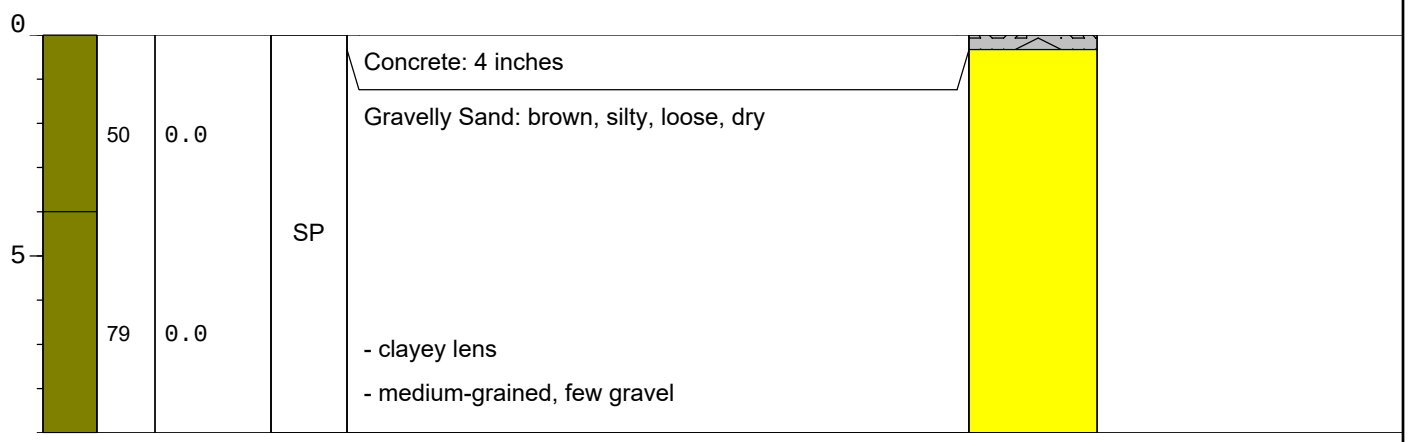
PROJECT INFORMATION

PROJECT NAME:	**Future Federal Way Hospital**
SITE LOCATION:	**29805 Pacific HWY S**
CITY, STATE	**Federal Way, Washington**
TGE PROJECT NO.:	**R13411.06**
LOGGED BY:	**T. Crump**
CLIENT:	**Philo Wilke Partnership**
DATES DRILLED:	**8/14/2018**

DRILLING INFORMATION

DRILLING CO.:	**ESN Northwest**
DRILLER:	**C. Pickering**
RIG TYPE:	**Power Probe 9100-SK**
METHOD OF DRILLING:	**Direct Push**
SAMPLING METHOD:	**Plastic Sleeve**
TOTAL DEPTH:	**9**
SURFACE ELEVATION:	**Not Measured**

DEPTH (in feet)	SAMPLE	% RECOVERY	ORGANIC VAPOR (ppm)	USCS	LITHOLOGIC DESCRIPTION	SOIL PROFILE	REMARKS
0					Concrete: 4 inches		
		50	0.0		Gravelly Sand: brown, silty, loose, dry		
				SP			
5		79	0.0		- clayey lens - medium-grained, few gravel		



NOTES:
Boring logs should not be used separately from the original report.

TGE RESOURCES, INC.

8048 Northcourt Road
Houston, Texas 77040
(713) 744-5800
(713) 744-5888 (fax)

BORING LOG

BOREHOLE NO.: **B-6**
LATITUDE: **---**
LONGITUDE: **--**

PROJECT INFORMATION

PROJECT NAME:	**Future Federal Way Hospital**
SITE LOCATION:	**29805 Pacific HWY S**
CITY, STATE	**Federal Way, Washington**
TGE PROJECT NO.:	**R13411.06**
LOGGED BY:	**T. Crump**
CLIENT:	**Philo Wilke Partnership**
DATES DRILLED:	**8/14/2018**

DRILLING INFORMATION

DRILLING CO.:	**ESN Northwest**
DRILLER:	**C. Pickering**
RIG TYPE:	**Power Probe 9100-SK**
METHOD OF DRILLING:	**Direct Push**
SAMPLING METHOD:	**5' Plastic Sleeve**
TOTAL DEPTH:	**6**
SURFACE ELEVATION:	**Not Measured**

DEPTH (in feet)	SAMPLE	% RECOVERY	ORGANIC VAPOR (ppm)	USCS	LITHOLOGIC DESCRIPTION	SOIL PROFILE	REMARKS
0					Concrete: 4 inches		
		63	0.0	SP	Gravelly Sand: brown, dry, loose, coarse to medium grained and loose		
5		100	0.0				

NOTES:
Boring logs should not be used separately from the original report.

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8048 Northcourt Road
Houston, Texas 77040
(713) 744-5800
(713) 744-5888 (fax)

BORING LOG

BOREHOLE NO.: **B-7**
LATITUDE: **---**
LONGITUDE: **--**

PROJECT INFORMATION

PROJECT NAME:	**Future Federal Way Hospital**
SITE LOCATION:	**29805 Pacific HWY S**
CITY, STATE	**Federal Way, Washington**
TGE PROJECT NO.:	**R13411.06**
LOGGED BY:	**T. Crump**
CLIENT:	**Philo Wilke Partnership**
DATES DRILLED:	**8/14/2018**

DRILLING INFORMATION

DRILLING CO.:	**ESN Northwest**
DRILLER:	**C. Pickering**
RIG TYPE:	**Power Probe 9100-SK**
METHOD OF DRILLING:	**Direct Push**
SAMPLING METHOD:	**Plastic Sleeve**
TOTAL DEPTH:	**9**
SURFACE ELEVATION:	**Not Measured**

DEPTH (in feet)	SAMPLE	% RECOVERY	ORGANIC VAPOR (ppm)	USCS	LITHOLOGIC DESCRIPTION	SOIL PROFILE	REMARKS
0					Concrete: 4 inches		
		57	0.0	SP	Gravelly Sand: brown, silty, dry, coarse grained, poorly sorted and loose		
5		68	0.0		- medium grained, little gravel, moist		

NOTES:
Boring logs should not be used separately from the original report.

TGE RESOURCES, INC.

8048 Northcourt Road
Houston, Texas 77040
(713) 744-5800
(713) 744-5888 (fax)

BORING LOG

BOREHOLE NO.: **B-8**
LATITUDE: **---**
LONGITUDE: **--**

PROJECT INFORMATION

PROJECT NAME:	**Future Federal Way Hospital**
SITE LOCATION:	**29805 Pacific HWY S**
CITY, STATE	**Federal Way, Washington**
TGE PROJECT NO.:	**R13411.06**
LOGGED BY:	**T. Crump**
CLIENT:	**Philo Wilke Partnership**
DATES DRILLED:	**8/14/2018**

DRILLING INFORMATION

DRILLING CO.:	**ESN Northwest**
DRILLER:	**C. Pickering**
RIG TYPE:	**Power Probe 9100-SK**
METHOD OF DRILLING:	**Direct Push**
SAMPLING METHOD:	**5' Plastic Sleeve**
TOTAL DEPTH:	**7**
SURFACE ELEVATION:	**Not Measured**

DEPTH (in feet)	SAMPLE	% RECOVERY	ORGANIC VAPOR (ppm)	USCS	LITHOLOGIC DESCRIPTION	SOIL PROFILE	REMARKS
0							
		50	0.0	SP	Gravelly Sand: brown, silty, dry, corase grained, poorly sorted, and loose		
5		92	0.0		- medium grained, few gravel, and moist		

NOTES:
Boring logs should not be used separately from the original report.

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8048 Northcourt Road
Houston, Texas 77040
(713) 744-5800
(713) 744-5888 (fax)

BORING LOG

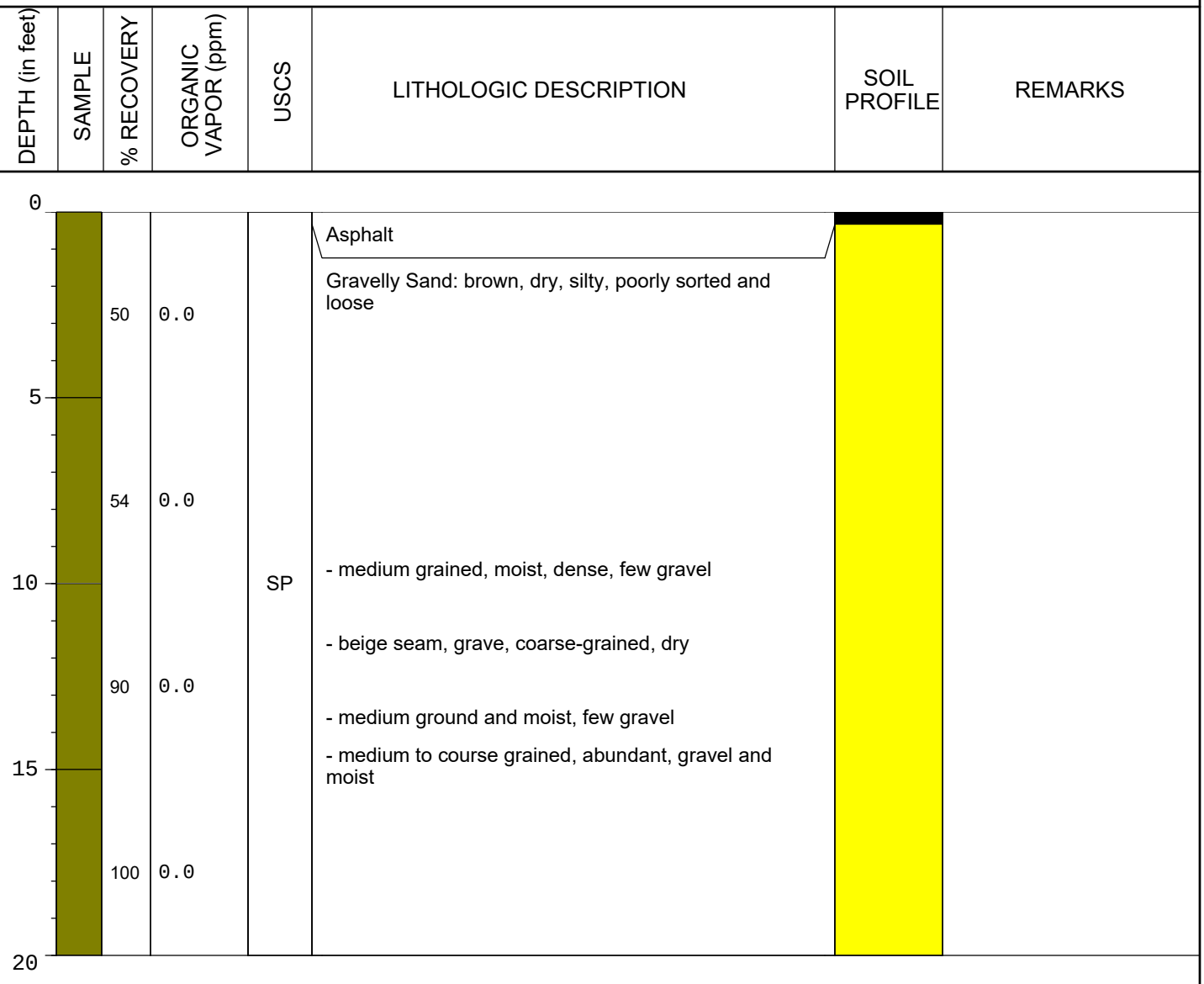
BOREHOLE NO.: **B-9**
LATITUDE: **---**
LONGITUDE: **--**

PROJECT INFORMATION

PROJECT NAME:	**Future Federal Way Hospital**
SITE LOCATION:	**29805 Pacific HWY S**
CITY, STATE	**Federal Way, Washington**
TGE PROJECT NO.:	**R13411.06**
LOGGED BY:	**T. Crump**
CLIENT:	**Philo Wilke Partnership**
DATES DRILLED:	**8/15/2018**

DRILLING INFORMATION

DRILLING CO.:	**ESN Northwest**
DRILLER:	**C. Pickering**
RIG TYPE:	**Power Probe 9100-SK**
METHOD OF DRILLING:	**Direct Push**
SAMPLING METHOD:	**5' Plastic Sleeve**
TOTAL DEPTH:	**20**
SURFACE ELEVATION:	**Not Measured**



NOTES:
Boring logs should not be used separately from the original report.

TGE RESOURCES, INC.

8048 Northcourt Road
Houston, Texas 77040
(713) 744-5800
(713) 744-5888 (fax)

BORING LOG

BOREHOLE NO.: **B-10**
LATITUDE: ---
LONGITUDE: --

PROJECT INFORMATION

PROJECT NAME:	**Future Federal Way Hospital**
SITE LOCATION:	**29805 Pacific HWY S**
CITY, STATE	**Federal Way, Washington**
TGE PROJECT NO.:	**R13411.06**
LOGGED BY:	**T. Crump**
CLIENT:	**Philo Wilke Partnership**
DATES DRILLED:	**8/15/2018**

DRILLING INFORMATION

DRILLING CO.:	**ESN Northwest**
DRILLER:	**C. Pickering**
RIG TYPE:	**Power Probe 9100-SK**
METHOD OF DRILLING:	**Direct Push**
SAMPLING METHOD:	**5' Plastic Sleeve**
TOTAL DEPTH:	**20**
SURFACE ELEVATION:	**Not Measured**

DEPTH (in feet)	SAMPLE	% RECOVERY	ORGANIC VAPOR (ppm)	USCS	LITHOLOGIC DESCRIPTION	SOIL PROFILE	REMARKS
0					Concrete: 4 inches		
		60	0.0		Gravelly Sand: brown, dry, silty, poorly sorted, and loose		
5					- medium grained, fewer gravel, moist		
		80	0.0				
10				SP	- abundant gravel		
		100	0.0				
15					- beige and dry		
		100	0.0		- brown and moist		
20					- few cobbles		

NOTES:
Boring logs should not be used separately from the original report.

ATTACHMENT 5

PHASE II - LIMITED SUBSURFACE SAMPLING AND TESTING

Commercial Property
29805 Pacific Highway South
Federal Way, Washington

MR. CURTIS NELSON

ENVIRONMENTAL
ASSOCIATES, INC.

1380 - 112th Avenue Northeast, Suite 300
Bellevue, Washington 98004
(425) 455-9025 Office
(888) 453-5394 Toll Free
(425) 455-2316 Fax

August 31, 2018 JN-27194-2

Mr. Curtis Nelson
c/o Mr. Sam Morse
Cantu Commercial Properties LLC
1410 North Mullan Road, Suite 110
Spokane Valley, Washington 99206

Subject: **PHASE II - LIMITED SUBSURFACE SAMPLING AND TESTING**
Commercial Property
29805 Pacific Highway South
Federal Way, Washington

Dear Mr. Nelson:

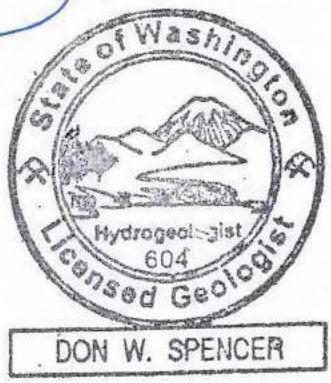
Environmental Associates, Inc. (EAI) has performed sampling and testing of subsurface soils and soil-vapor at selected localities on the subject property. The purpose of the current work was to make a preliminary assessment of current soil conditions in areas underneath the operating auto repair shop, adjacent to sumps, and near exterior material storage areas/surficially stained areas as well as evaluate soil-vapor conditions at the margins of the property. This report, prepared in accordance with the terms of our proposal dated July 11, 2018, summarizes our approach to the project along with results and conclusions.

The contents of this report are confidential and are intended solely for your use and the use of your representatives. No other distribution or discussion of this report will take place without your prior approval in writing.

We appreciate the opportunity to be of service on this assignment. If you have any questions or if we may be of additional service, please do not hesitate to contact us.

Respectfully submitted,
ENVIRONMENTAL ASSOCIATES, INC.

Don W. Spencer, M.Sc., P.G., R.E.A.
Principal



License: 604 (Washington)
License: 11464 (Oregon)
License: 876 (California)
License: 5195 (Illinois)
License: 0327 (Mississippi)

PHASE II - LIMITED SUBSURFACE SAMPLING AND TESTING

Commercial Property
29805 Pacific Highway South
Federal Way, Washington

Prepared for:

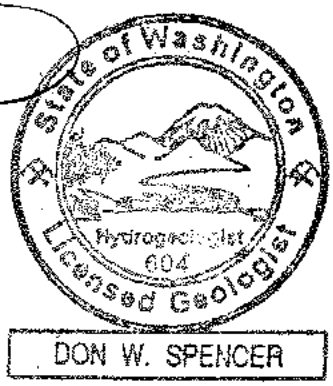
Mr. Curtis Nelson
c/o Cantu Commercial Properties LLC
1410 North Mullan Road, Suite 110
Spokane Valley, Washington 99206

Questions regarding this investigation, the conclusions reached and the recommendations given should be addressed to one of the following undersigned.

Eric Zuern
Environmental Geologist / Project Manager

Don W. Spencer, M.Sc., P.G., R.E.A.
Principal

License: 604 (Washington)
License: 11464 (Oregon)
License: 876 (California)
License: 5195 (Illinois)
License: 0327 (Mississippi)



Reference Job Number: JN 27194-2 **August 31, 2018**

TABLE OF CONTENTS

INTRODUCTION/SCOPE OF WORK

SITE/PROJECT DESCRIPTION

The subject property consists of two (2) contiguous parcels (tax parcel numbers 042104-9033 & -9157) covering a combined total of approximately 1.72 acres of land. Existing improvements consist principally of a single-story wood frame commercial office/auto shop building (with an office mezzanine level) enclosing approximately 6,350 square feet of space, which was reportedly constructed in 1970. Additional improvements include an asphalt-paved parking lot/storage yard. The approximate location of the site is shown on the Vicinity/Topographic Map, Plate 1, appended herewith.

Background

On June 21, 2007, Environmental Associates, Inc. (EAI), presented its report summarizing the findings of a Phase 1 Environmental Site Assessment to Niklexi, LLC (current property owners) regarding the subject site which was unoccupied at that time. That report documented numerous prior environmental studies for the property pertaining to an on-site history of petroleum storage and sales and automotive service. The results of those studies and subsequent remediation of petroleum contaminated soils resulted in the Washington Department of Ecology (WDOE) granting the subject site a status of "no further action" (NFA) in 2001. Recognized environmental conditions (RECs) identified in EAI's Phase 1 report included:

- Confirmed past release of petroleum products on the property to subsurface soil related to the historic operation of an on-site gasoline service station from approximately 1920 until the late 1960's and risk/material threat of subsurface environmental impacts to the property related to the historic storage and dispensing of diesel fuel stored in a former 500-gallon capacity UST on the southwestern portion of the site and gasoline stored in four (4) additional USTs (1-5,000 gallon capacity, 3-750 gallon capacity) on the northeast/east portion of the site. Following subsurface exploration and subsequent soil remediation activities (including the excavation and lawful off-site disposal of approximately 260 tons of petroleum-impacted soil and diesel/oil "sludge") performed by others in 2000, the WDOE issued a determination of "no further action" (NFA) on May 17, 2001 pertaining to that reported past release of petroleum products to subsurface soil at the property.

  In recognition of the WDOE's authority and regulatory primacy expressed in their May 17, 2001-dated "no further action" letter and further relying upon the information contained in reports prepared by others, EAI had no basis upon which to predicate a recommendation for additional study with respect to the former on-site gasoline service station or the removed 500-gallon capacity diesel UST and the four (4) removed USTs (1-5,000 gallon capacity, 3-750 gallon capacity) at that time.

As an administrative footnote, EAI's 2007 Phase I noted that the subject property remained on the WDOE's listing of "Leaking Underground Storage Tank" (LUST) sites at that time (2007). In the course of interviews with Mr. Joe Hickey of the WDOE, EAI was informed that he would update the status of the property in the LUST database to reflect the "no further action" status and that the subject site would be removed from the WDOE's LUST listing.

- Lingering presence of residual "pockets" of heavy oil-range total petroleum hydrocarbon-impacted subsurface soils (reported concentrations below (i.e. compliant with) the current Model Toxics Control ACT (MTCA) Method A cleanup level of 2,000 parts-per-million for heavy oil; i.e. "Class 2" soil) beneath the northern portion of the property confirmed by others in 2001. Reports reviewed at that time advised that the source(s) of the residual heavy oil-containing soils was not identifiable, though they concluded that "...small pieces of asphalt in the soil samples may have resulted in elevated petroleum hydrocarbon concentrations" (AMEC, 2001). EAI concurred with AMEC's recommendation made in their July 3, 2001-dated report to the extent that if soil excavation activities were conducted at the site, samples of soil planned to be exported from the property should be collected and laboratory tested for lawful off-site disposal/treatment characterization purposes.

- Risk/material threat of subsurface environmental impacts to the property related to the historic use of four (4) sumps within or proximal to the existing 1970-vintage on-site building on the subject office/shop building. Results of previous subsurface soil sampling and testing conducted by others in 2000 proximal to these four (4) sumps and the sump drain discharge point revealed no detectable concentrations of diesel/heavy oil range total petroleum hydrocarbons (ATC, 2001). Relying solely upon the results of that previous work conducted by others (ATC Associates, Inc.), no recommendations for additional study with respect to these four (4) on-site sumps were made by EAI at that time. Depending upon anticipated future uses of the subject property, EAI recommended that these sumps be either properly maintained or decommissioned in an effort to reduce the potential for future environmental impacts related to use of these sumps.

Non-CERCLA conditions of potential environmental significance identified at the subject site by EAI in 2007 consisted of the following:

- Potential PCB-containing fluorescent light ballasts within the subject building.

- Presence of "suspect" asbestos-containing building materials in the form of a "popcorn"-textured ceiling material and the sheetrock wallboard system.

On August 17, 2017, TGE Resources, Inc. (TGE) presented the findings of a "Phase I Environmental Site Assessment" of the subject site to PhiloWilke Partnership. That report summarized the large extent of previous environmental studies (including UST removals and contaminated soil excavation) which resulted in the 2001-NFA status. TGE advised that the site had been re-established as an automotive service shop at the time of their study. TGE identified the following REC's associated with the site:

- Historic site use, absence of details specific to final removal of likely sub-slab waste holding units (tanks, sumps, separators, septic systems, etc.); the unknown presence of fuel storage tanks, tank piping systems, and other operational equipment as well as the presence of non-characterized fill across the site.

- Current site use (at that time) as an auto repair/service/vehicle holding operation.

- The presence of an off-site gas station to the north (listed by TGE as "adjoining" but actually approximately 120 feet north of the site across South Dash Point Road), and a historic dry cleaner approximately 350 feet to the northwest (both off-site operations located in inferred/presumed cross/down-gradient hydrologic positions relative to the subject site according to TGE).

- Historic use of the land approximately 50 feet west of the site as a municipal landfill.

TGE recommended that a complete site inspection, including areas not previously made accessible to their staff, be performed to complete the "All Appropriate Inquiries/AAI" investigative process. TGE notes that such an inspection would precede performance of soil/soil-vapor, and/or groundwater sampling and testing to characterize the site for hazardous substances and/or petroleum.

On September 12, 2017, TGE presented a report titled "Limited Phase II Environmental Site Assessment" to Philo Wilke Partnership and MultiCare Health System regarding the subject site. That study included the installation of five (5) temporary soil borings to depths of 12 to 20 feet below grade at localities corresponding to former UST installations, along the exterior of the service shop, and at an inferred down-gradient portion of the site. Two (2) additional localities were drilled to a depth of 8 feet below grade and utilized for soil-vapor monitoring points. Soils from the five (5) temporary borings were analyzed for petroleum products (gasoline/diesel/oil range total petroleum hydrocarbons/TPH), pesticides/herbicides, volatile organic compounds (VOCs), and/or RCRA-8 metals including arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. Soil-vapor samples appear to have been tested for VOCs. Groundwater does not appear to have been encountered during this phase of study. TGE advised that gasoline, diesel/residual petroleum products, pesticides/herbicides, VOCs, and RCRA-8 metals were reported by the analytical laboratory as "not in excess of laboratory detection limits and/or respective Ecology screening limits as set forth within the MTCA regulation/statute". Specifically, reported concentrations of various VOC analytes were noted to be below (i.e. compliant with) MTCA guideline limits. The results of soil-vapor analysis revealed that select VOCs including 1,3-butadiene, benzene, and chloroform were detected at concentrations above the MTCA Method-B screening limits. Relying on these findings, TGE calculated potential indoor air concentrations of these VOCs based on their soil-vapor concentrations. TGE concluded "Elevated concentrations of VOCs (specifically 1,3-butadiene, chloroform, and benzene) were detected within Site soil vapor, as established through the installation and sampling of temporary soil vapor monitor points." TGE recommended the design, installation, and performance test of a vapor mitigation system in response to Site-specific findings. TGE also recommended that prior to commencement of planned demolition and earthwork activities, all regulated materials utilized by the on-site business be profiled and submitted for recycling, reuse, and/or disposal.

On November 8, 2017, TGE presented a report titled "Supplemental Phase II Environmental Site Assessment" to Philo Wilke Partnership and MultiCare Health System regarding the subject site. An additional seven (7) temporary soil borings were installed to depths of 10 feet below grade while an eighth boring was installed to a depth of 110 feet below grade in an effort to facilitate examination/sampling of groundwater underlying the property. No groundwater was reportedly encountered. The borings were installed on the central portion of the site in the anticipated footprint of a proposed medical structure. Select soil samples were analyzed for petroleum products (gasoline/diesel/oil range total petroleum hydrocarbons/TPH), volatile organic compounds (VOCs), and/or RCRA-8 metals including arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. TGE advised that gasoline, diesel, and oil range petroleum hydrocarbons as well as RCRA-8 metals "were reported by the analytical laboratory at concentrations not in excess of laboratory detection limits and/or responsive Ecology screening limits". Various VOCs were detected in soils below their applicable MTCA limits. TGE noted the presence of fill materials on-site and that geotechnical studies performed by others advised that the fill soils were unsuitable for foundation support, further stating that the fill may be recycled and/or shipped to a regulated facility in compliance with applicable federal statute. TGE also restated the recommendation from their earlier work advising that installation and performance testing of a vapor mitigation system as well as regulated materials removal prior to planned demolition and earthwork activities.

Also on November 8, 2017, TGE provided an additional document titled Update of Environmental Conditions, Project Status & Conceptual Remediation Cost Estimates for the subject property to Philo Wilke Partnership. That document presents a scope of work for moving forward with environmental mitigation of soil-vapors as encountered in TGE's prior studies. TGE states:

- "Soil vapor testing has established that soil vapor analytical data collected within the proposed building location exceeds the MTCA regulation(s)/statute(s); specifically, analytes in excess were 1,3-butadiene, benzene, and chloroform. This vapor data requires reporting to Ecology as per WAC 173-340. Like impacted soil, soil vapor above regulatory thresholds will require notice (VCP entry) and corrective action under agency purview. Typically, soil vapor risk conditions can be mitigated coincident with Property redevelopment (building construction)."

- "Laboratory analysis of soil samples collected at the Site during the Limited Phase II ESA did not evidence impact by volatile organic compounds and/or petroleum hydrocarbons above Ecology screening limits (as set forth within the Washington MTCA regulation/statute)...However, until Site demolition occurs, the potential presence of in-ground, hydraulic vehicle lifts or other buried, historically significant equipment/facilities remains unknown (yet is suspect)."

- "Although groundwater assessment was performed, dry conditions (even beyond a vertical investigation depth of 100 feet) precluded collection of sample for characterization...At this time, it is not believed likely that the agency (once notice is made of soil and vapor condition) will require further attempts at groundwater characterization.

The reader is referred to the above reports in all cases where expanded details and documentation are desired.

Current Study

Your expressed interests to conduct evaluation of subsurface conditions to assess current conditions under the currently operating auto service facility as well as analyze soil-vapor from various points across the subject property as memorialized in EAI's proposal dated July 30, 2018, formed the basis for the following scope of work:

- Drill and sample soils from ten (10) borings within and adjacent to the on-site automotive service shop as well as well as collect soil-vapor samples from four (4) localities across the property. Soil samples were obtained from the ten borings at the shop location and a log of subsurface conditions encountered was prepared for those borings by the EAI project geologist.

- Laboratory analysis of selected soil samples for gasoline, diesel, and oil-range petroleum hydrocarbons, volatile organic compounds (VOCs), and RCRA-8 metals including arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver.

- Preparation of this summary report documenting the methodology and results of the investigation.

FINDINGS

SUBSURFACE INVESTIGATION

Soil Boring Sampling

Referring to the attached Site Plan, Plate 2, thirteen (13) borings were made on August 14th and 15th, 2018 at the approximate locations noted as B-1, B-2, B-3, B-4, B-5, B-6, B-7, B-8, B-9, B-10, B-11, B-12, and B-13. Borings B-1 through B-10 were installed in and around the automotive service shop area including within auto bays, adjacent to interior sumps, adjacent to waste material storage containers, and at notable exterior surficial stained areas which were not accessible to TGE during their 2017-subsurface investigations. Additionally, three (3) locations along the west (B-11), north (B-12), and east (B-13) margins of the site were drilled specifically to evaluate soil-vapor at those areas of the property. Borings B-1 through B-10 were extended to depths between six (6) to twenty (20) feet below ground surface (bgs) before subsurface resistance/soil density prevented further penetration by the hydraulic push-probe drill rig utilized for this work. Borings utilized solely for collection of soil-vapor (B-11, B-12, and B-13) were extended to a depth of five (5) feet bgs. Groundwater was not observed within the borings.

Soil Sampling Procedure

Under the observation of the EAI field geologist, a push probe drill rig was brought into position over the borings locations. Following set-up preparations, the push-probe sampling technique consisted of advancing a plastic lined sampler into the ground. The sampler was then withdrawn and the liner was removed and cut open for examination and transfer of the soil sample to laboratory prepared glassware by EPA Method 5035.

Soil samples were transferred directly to sterilized laboratory prepared glassware which were then stored in an iced chest maintained at approximately 4 degrees centigrade at the site and taken to the laboratory in this condition in an effort to preserve sample integrity.

Each sample container was clearly labeled as to boring and sample number/depth, date, time, project, etc. EPA-recommended sample-management protocol was observed at each stage of the project. During drilling, a field log was made by EAI for each boring. Information recorded versus corresponding depth included soil classification (Unified Soil Classification System), color, texture, relative moisture, odors (if present), etc.

Soil-Vapor Sampling Procedure

Upon reaching the allowable depths of approximately 5 feet bgs at localities B-10, B-11, B-12, and B-13, soil- vapor samples were collected through a temporary screen and steel casing rod inserted into the ground by the drill rig. Hydrated bentonite clay was used to seal the annulus of the bore hole around the upper casing rod to inhibit dilution from of atmospheric air in the soil-vapor sample. A "fit-test" to verify the tightness of the seal was performed at each location prior to sample collection. A laboratory-prepared "summa canister" (vacuum cylinder) was then utilized to collect a sample of the subsurface soil-vapor at the specified locations. Utilizing flow controllers and gauge-vacuum, soil-vapor was collected over a span of approximately 5 minutes at each location.

Each sample container was clearly labeled as to sample number/location, date, time, project, etc. EPA-recommended sample-management protocol was observed at each stage of the project.

Subsurface Conditions

Soils encountered within the interior borings generally consisted of various combinations of silt, sand, and/or coarse gravels (till) with matrix density increasing with depth, causing the termination of borings at the depths indicated on the attached well logs. Groundwater was not encountered within the depths explored. Previous explorations by others did not encounter recoverable groundwater within 110 feet below the ground surface.

LABORATORY ANALYSIS

Laboratory analysis of soil and soil-vapor samples was conducted by ESN Northwest of Olympia, Washington and by Friedman & Bruya, Inc., of Seattle, Washington, both being WDOE-accredited analytical laboratory. Select soil samples were submitted for analysis of total petroleum hydrocarbons (TPH) in the boiling range gasoline, diesel, and oil as well as volatile organic compounds (VOCs) and RCRA-8 metals including arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. Soils from the upper most recoverable portion of the boring were selected for analysis. Soil-vapor samples were submitted for analysis of VOCs.

As summarized in Table I attached to this report, no detections of gasoline, diesel, or heavy oil TPH were detected in the soil samples analyzed. Additional no benzene, toluene, ethylbenzene, or xylenes (BTEX) were detected in the soil samples tested.

As depicted in Table 2 and in appended laboratory data (Appendix A) attached to this report, no VOCs were detected in the soil samples analyzed.

As documented in Table 3 of this report, various concentrations of arsenic, barium, and lead were detected in the samples analyzed at concentrations below (i.e. compliant with) their respective cleanup values. Chromium was detected in all soil samples anlayzed between 14 to 57 parts per million (ppm). Those chromium detections may (or may not) be above regulatory levels depending upon what species of chromium is actually present. If the species present were found to be hexavalent chromium, a MTCA cleanup level of 19 ppm would apply. Otherwise, the cleanup level is 2,000 ppm.

Studies conducted by the Washington Department of Ecology published in the document titled Natural Background Soil Metal Concentrations in Washington State (WDOE, October 1994) report an average "background" concentration of chromium in soil in the Puget Sound region on the order of 22 ppm. Other studies of residential and suburban areas in King County (1982; U.S. EPA Grant #P-000161-01, Metro Toxicant Program - Report #2 (Toxicants in Urban Runoff), Galvin, D.V., Moore, R.K.) have documented concentrations of chromium in street dust ranging from approximately 20 to 230 ppm.

In summary, taking into account the relative similitude between the chromium concentrations detected in the samples analyzed in our current study along with the published background data relating to this analyte, it may be reasonable to tentatively presume that the detections are indicative of naturally occurring "background" relating to native soil mineralogy. Further laboratory analysis would be required to determine which "species" of chromium is present in the samples analyzed, if desired.

As documented in Table 4 attached to this report, various VOCs were detected in the soil-vapor samples analyzed. Specifically, 1,3-butadiene and benzene were detected in B-10, B-12, and B-13 at concentrations at concentrations exceeding their respective MTCA Method-B screening limits. Those two compounds had previously been detected in soil-vapor samples collected by TGE during prior site investigations. Other compounds including acrolein (at B-10 and B-13), acrylonitrile (at B-10), and trichloroethene/TCE (at B-10, B-11, and B-13) were detected above their applicable screening limits at select sampling locations. The attached laboratory data lists additional VOCs which were not detected in any of the soil-vapor samples.

CONCLUSIONS / RECOMMENDATIONS

Relying upon the results of limited soil and soil-vapor sampling and laboratory testing documented in this preliminary effort, soils at the locations and depths tested by EAI do not appear to have been impacted by on-site automotive repair/service activities. Several volatile organic compounds (VOCs) including 1,3-butadiene, benzene, acrolein, acrylonitrile, and trichloroethene (TCE) were detected in soil-vapor above their applicable MTCA Method-B "screening limits". Loosely translated from WDOE literature (WDOE's Guidance For Evaluating Soil Vapor Intrusion, April 2015), the "screening limits" or screening level set by WDOE indicate a soil gas/vapor concentration in the soil-vapor just beneath a building expected to not result in exceedance of the air cleanup level in the overlying structure.

Acknowledging the historic use of the property as a gas station as well as the current auto service usage, the detection of benzene is not surprising. While no detections of benzene were found during EAI's current study, prior explorations by TGE encountered compliant detections of benzene in soils at several areas of the site. In an effort to illustrate the relation between soil vapor concentrations related to concentrations in sorbed soils in regard to benzene, the highest soil-vapor concentration in the samples collected was 340 ug/m^3 collected at a depth of 5 feet at B-13. Utilizing a "three-phase partitioning model" (Table 5 attached to this report), such a soil-vapor concentration of benzene could result from concentrations of benzene sorbed to soil at levels below (i.e. compliant with) the WDOE standard Method-A target compliance levels for that media. Therefore, the above benzene soil-vapor data does not necessarily contradict the reported soil laboratory results (i.e a sorbed soil concentration of approximately 0.27 parts per billion (ppb) would be below the laboratory's soil reporting limit of 30 ppb/.03 ppm).

Similar to the discussion above, 1,3-butadiene, acrolein, acrylonitrile, and trichloroethene (TCE) were also detected in soil-vapor samples at concentrations above the WDOE's vapor intrusion risk screening levels. The source of these other VOCs is presently unknown. Detections of 1,3-butadiene are generally related to wood or diesel fuel combustion. That analyte is monitored by the Puget Sound Clean Air Agency as a background low-level contaminant in the Puget Sound region. Detections of 1,3-butadiene found in on-site soil-vapor were present at concentrations generally higher than listed background levels. Similarly, acrolein is a common component of diesel combustion. Trichloroethene (TCE) is a common de-greasing solvent utilized in auto service shops. None of the on-site testing conducted by EAI or TGE discovered concentrations of TCE above its

MTCA Method-A compliance limit or above minimum laboratory reporting limits. In addition, acrylonitrile had not been encountered in soils during prior assessments by TGE at areas proximal to EAI's soil-vapor sampling localities. The exact source of the VOC soil-vapor detections remains unknown at this time.

Acknowledging the collective scope and results of prior soil evaluations as well as the findings of this current sampling and testing event, it does not appear that additional soil sampling and testing would be warranted at this time. Additionally, further evaluation of indoor air quality within the current on-site structure at this time would likely not provide useful data regarding potential soil-vapor migration through the floor slab as the building currently stores many petroleum based chemicals and VOCs which would likely be detectable through indoor air sampling. In an effort to mitigate potential risk of soil-vapor intrusion into any future construction, EAI recommends that a vapor barrier of appropriate composition and material compatibility suitable for use with the contaminants detected be incorporated into the design and construction of the proposed medical office planned for the site. The inclusion of an appropriately designed and constructed vapor barrier in the building design would reduce the potential for encroachment of subsurface VOC vapors into the indoor air within the finished structure.

As a technical footnote, if contaminated soils in areas not previously explored by EAI or others is encountered during construction activities for the planned medical office, EAI would then recommend that such materials be sampled, tested, and properly disposed of by appropriate personnel.

LIMITATIONS

This report has been prepared for the exclusive use of Mr. Curtis Nelson along with Cantu Commercial Properties LLC and their several representatives for specific application to this site. Our work for this project was conducted in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our proposal dated July 11, 2018. The findings and conclusions of this study are based upon the results of laboratory testing of selected samples obtained from separated boring localities and conditions may vary between those locations or at other locations, media, depths, or date. No warranty with respect to results, scope, or opinions made by previous investigators is made here. No other warranty, expressed or implied, is made. If new information is developed in future site work which may include excavations, borings, studies, etc., Environmental Associates, Inc., must be retained to reevaluate the conclusions of this report and to provide amendments as required.

REFERENCES

AMEC Earth & Environmental, Inc. (AMEC), July 3, 2001, Limited Phase II Environmental Site Assessment, Savon Drugs #90TL, 29805 Pacific Highway South, Federal Way, Washington. Prepared for Nicholson Development Properties, LLC. Missing all appendices.

ATC Associates, Inc. (ATC), February 2, 2001, Report of Subsurface Investigation at 29805 Pacific Highway South, Federal Way, Washington. ATC project # 17.17883.0901. Prepared for Union Bank of California. Missing Figure 1, Figure 2, and all appendices.

ATC Associates, Inc. (ATC), February 16, 2001, Underground Storage Tank Site Assessment at the Ruth Evans Trust Site, 29805 Pacific Highway South, Federal Way, Washington 98003. ATC Project # 76.17883.0902. Prepared for Missing Figure 1, Figure 2, and all appendices.

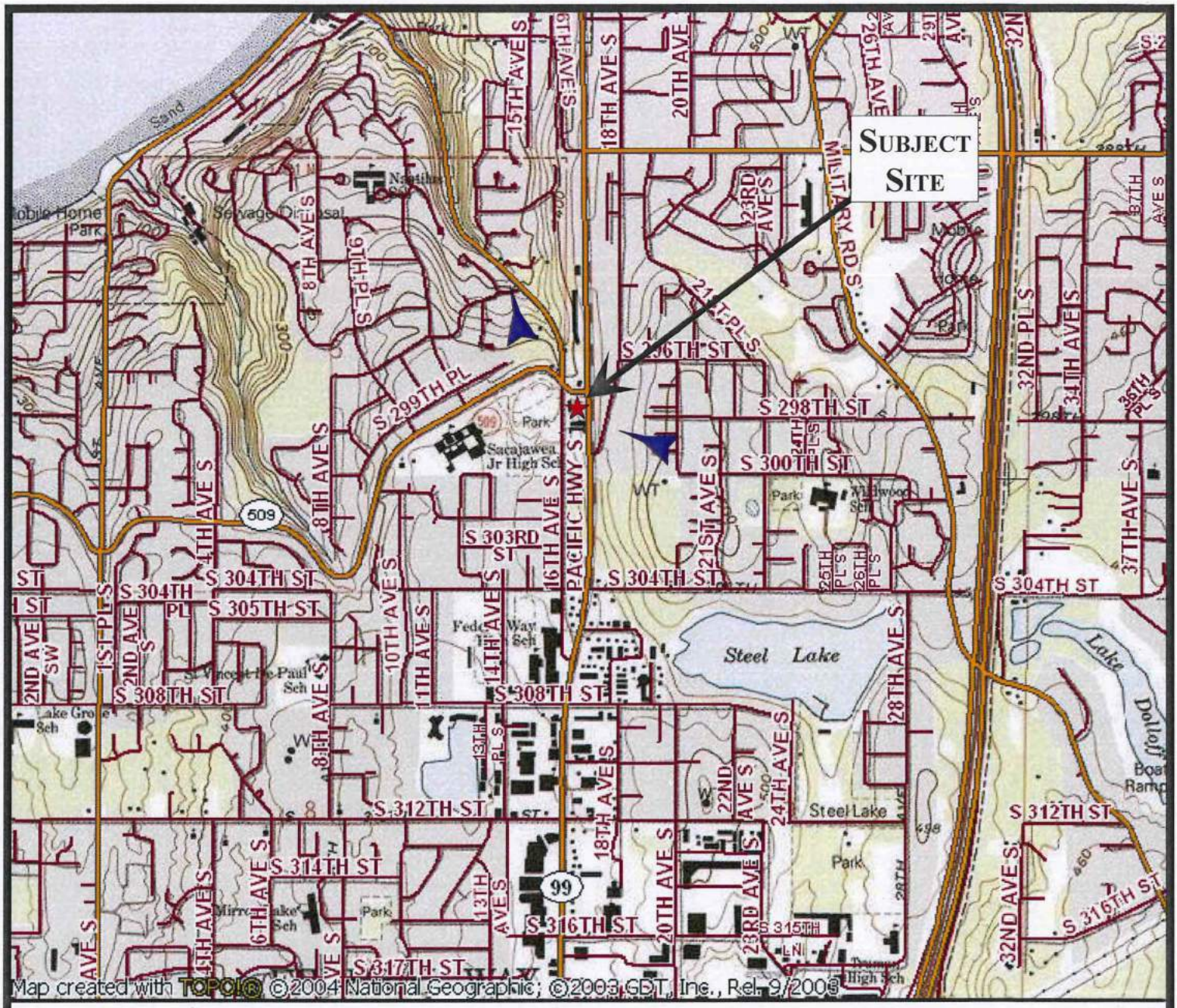
Environmental Associates, Inc. (EAI), June 21, 2007, Phase 1 Environmental Site Assessment, Commercial Property, 29805 Pacific Highway South, Federal Way, Washington.

TGE Resources, Inc. (TGE), August 17, 2017, Phase I Environmental Site Assessment, Payless Auto Sales, Repossession, and Auto Repair, 29805 Pacific Highway South, Federal Way, Washington.

TGE Resources, Inc. (TGE), September 12, 2017, Limited Phase II Environmental Site Assessment, Proposed Star Lake Hospital, 29805 Pacific Highway South, Federal Way, Washington.

TGE Resources, Inc. (TGE), November 8, 2017, Supplemental Phase II Environmental Site Assessment, Proposed Star Lake Hospital, 29805 Pacific Highway South, Federal Way, Washington.

TGE Resources, Inc. (TGE), November 8, 2017, Update of Environmental Conditions, Project Status & Conceptual Remediation Cost Estimates, Future Star Lake Hospital, 29805 Pacific Highway South, Federal Way, Washington.



LEGEND:

Approximate Site Location

Inferred Directions Of Local Shallow-Seated Groundwater Flow

N

Scale

0 — 1/2 — 1 mile

Contour Interval 20 Feet

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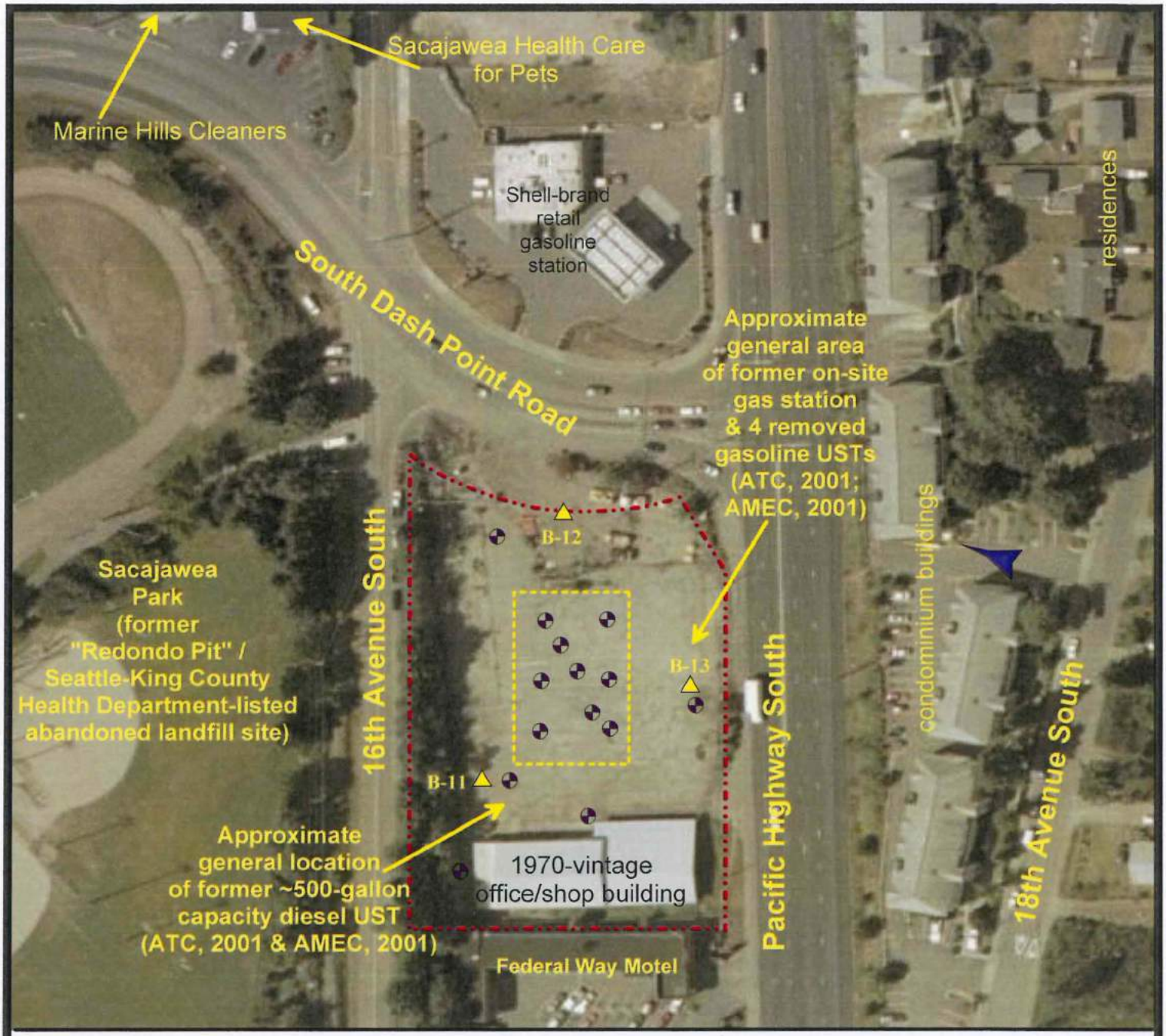
Bellevue, Washington 98004

VICINITY/TOPOGRAPHIC MAP

Commercial Property
29805 Pacific Highway South
Federal Way, Washington 98003

Job Number:	*Date:*		*Plate:*
JN 27194-2	August 2018		1



LEGEND:

- Approximate exterior soil-vapor sampling locations explored by EAI 2018
- Approximate locations explored by TGE Resources
- Probable local direction of shallow-seated groundwater flow.
- Approximate limits of subject property.

2002-Dated Image
(Source: U.S. Geological Survey)

N

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SITE PLAN

Commercial Property
29805 Pacific Highway South
Federal Way, Washington 98003

Job Number:	Date:		Plate:
JN 27194-2	August 2018		2

△ Approximate Location of Borings/Sample Locations

■ Approximate Location of Interior Sumps

■ Approximate Waste Oil/Parts Washer Storage Area

N

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SAMPLING PLAN

Commercial Property
29805 Pacific Highway South
Federal Way, Washington 98003

Job Number:	*Date:*		*Plate:*
JN 27194-2	August 2018		3

BORING B1

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					No Recovery
5		Dry		GM	Brown silt and gravels, dry, no odors or discolorations, PID=0 ppm
		Dry		GM	Brown silt and gravels, dry, no odors or discolorations PID=0 ppm
10					Boring refusal at 9 feet below grade on August 14, 2018.
15					
20					
25					
30					
35					
40					

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Bellevue, Washington 98004

Boring: B1

Commercial Property
29805 Pacific Highway South
Federal Way, Washington 98003

Job Number:	Date:	Logged by:	Plate:
JN 27194-2	August 2018	EAZ	4

BORING B2

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					No Recovery
5		Dry		SM/ GP	Brown silty sand and gravels, dry, no odors or discolorations, PID=0 ppm
		Dry		SM/ GP	Silty sand and gravels, dry, no odors or discolorations PID=0 ppm
10					Boring refusal at 8 feet below grade on August 14, 2018.
15					
20					
25					
30					
35					
40					

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1380 - 112th Avenue N.E., Ste. 300
Bellevue, Washington 98004

Boring: B2

Commercial Property
29805 Pacific Highway South
Federal Way, Washington 98003

Job Number:	Date:	Logged by:	Plate:
JN 27194-2	August 2018	EAZ	5

BORING B3

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					No Recovery
5		Moist		SM/ GP	Brown silty sand and gravels, moist, no odors or discolorations, PID=0 ppm
10		Dry		SM/ GP	Brown silty sand and gravels. dry, no odors or discolorations PID=0 ppm
					Boring refusal at 10 feet below grade on August 14, 2018.
15					
20					
25					
30					
35					
40					

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue N.E., Ste. 300
Bellevue, Washington 98004

Boring: B3

Commercial Property
29805 Pacific Highway South
Federal Way, Washington 98003

Job Number:	Date:	Logged by:	Plate:
JN 27194-2	August 2018	EAZ	6

BORING B4

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					No Recovery Brown silty sand and gravels, dry, no odors or discolorations, PID=0 ppm
		Dry		SM/ GP	
5		Dry			Brown silty sand and gravels, dry, no odors or discolorations PID=0 ppm
					Boring refusal at 6 feet below grade on August 14, 2018.
10					
15					
20					
25					
30					
35					
40					

ENVIRONMENTAL ASSOCIATES, INC.

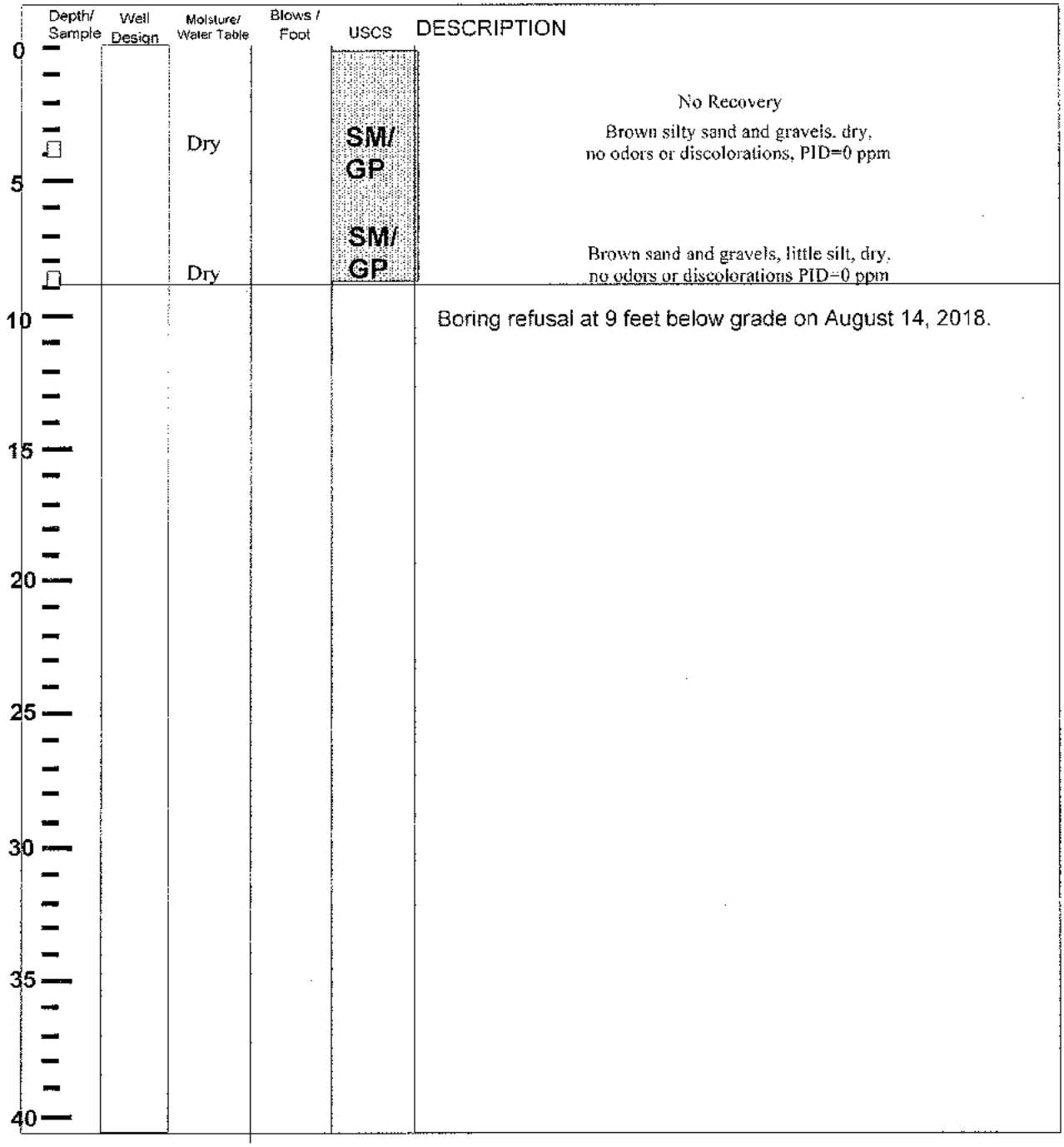
1380 - 112th Avenue N.E., Ste. 300
Bellevue, Washington 98004

Boring: B4

Commercial Property
29805 Pacific Highway South
Federal Way, Washington 98003

Job Number:	Date:	Logged by:	Plate:
JN 27194-2	August 2018	EAZ	7

BORING B5



ENVIRONMENTAL ASSOCIATES, INC.

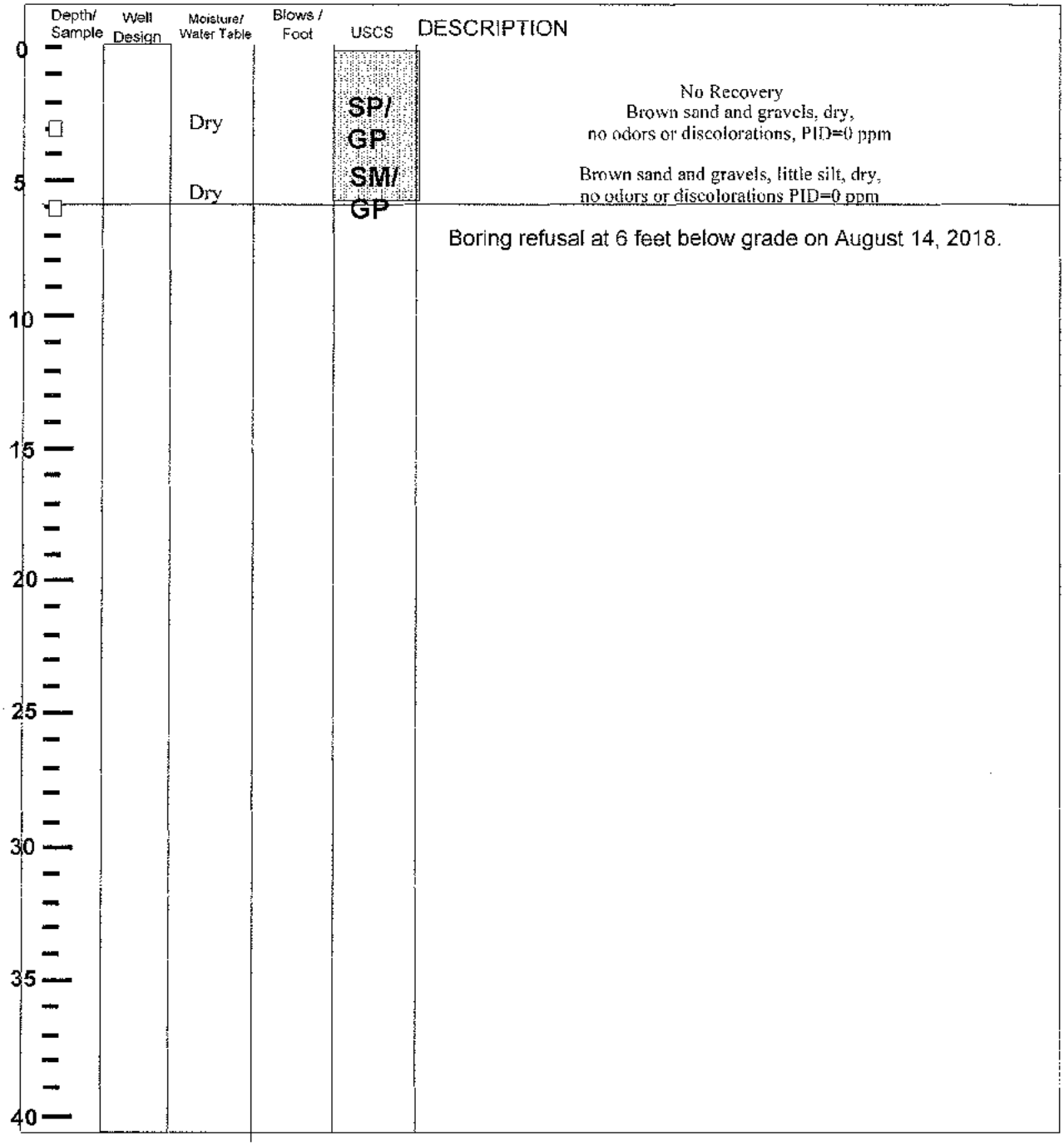
1380 - 112th Avenue N.E., Ste. 300
Bellevue, Washington 98004

Boring: B5

Commercial Property
29805 Pacific Highway South
Federal Way, Washington 98003

Job Number:	Date:	Logged by:	Plate:
JN 27194-2	August 2018	EAZ	8

BORING B6



ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue N.E., Ste. 300
Bellevue, Washington 98004

Boring: B6

Commercial Property
29805 Pacific Highway South
Federal Way, Washington 98003

Job Number:	Date:	Logged by:	Plate:
JN 27194-2	August 2018	EAZ	9

BORING B7

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					No Recovery
		Dry		SM/ GP	Brown silty sand and gravels, dry, no odors or discolorations, PID=0 ppm
5					
		Dry		SP/ GP	Brown sand and gravels, dry, no odors or discolorations PID=0 ppm
					Boring refusal at 9 feet below grade on August 14, 2018.
10					
15					
20					
25					
30					
35					
40					

ENVIRONMENTAL ASSOCIATES, INC.

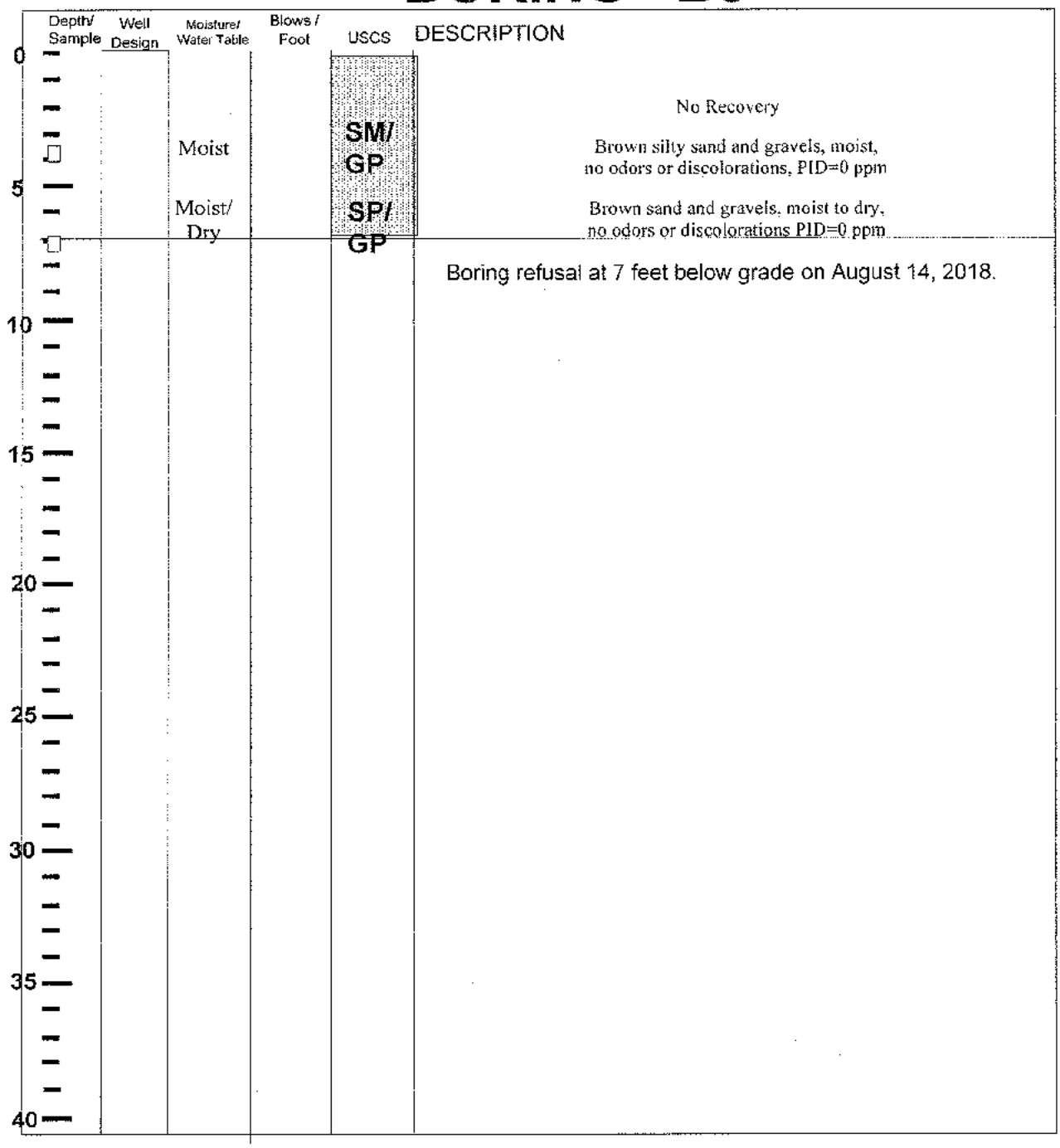
1380 - 112th Avenue N.E., Ste. 300
Bellevue, Washington 98004

Boring: B7

Commercial Property
29805 Pacific Highway South
Federal Way, Washington 98003

Job Number:	Date:	Logged by:	Plate:
JN 27194-2	August 2018	EAZ	10

BORING B8



ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue N.E., Ste. 300
Bellevue, Washington 98004

Boring: B8

Commercial Property
29805 Pacific Highway South
Federal Way, Washington 98003

Job Number:	Date:	Logged by:	Plate:
JN 27194-2	August 2018	EAZ	11

BORING B9

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					No Recovery
		Dry		SP/ GP	Brown sand and gravels, little silt, dry, no odors or discolorations, PID=0 ppm
5					crushed rock
		Dry		SP/ GP	Brown sand and gravels, dry, no odors or discolorations PID=0 ppm
10					
		Moist		SP/ GP	Brown sand and gravels, moist, no odors or discolorations PID=0 ppm
15					
		Moist/ Dry		SM/ GP	Brown silty sand and gravels, moist to dry, no odors or discolorations PID=0 ppm
20					Boring terminated at 20 feet below grade on August 15, 2018.
25					
30					
35					
40					

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue N.E., Ste. 300
Bellevue, Washington 98004

Boring: B9

Commercial Property
29805 Pacific Highway South
Federal Way, Washington 98003

Job Number:	Date:	Logged by:	Plate:
JN 27194-2	August 2018	EAZ	12

BORING B10

Depth/ Sample	Well Design	Moisture/ Water Table	Blows / Foot	USCS	DESCRIPTION
0					No Recovery
		Dry		SM/ GP	Brown silty sand and gravels, dry, no odors or discolorations, PID=0 ppm
5					crushed rock
		Dry		SP/ GP	Brown sand and gravels, dry, no odors or discolorations PID=0 ppm
10					crushed rock
		Dry		SP/ GP	Brown sand and gravels, dry, no odors or discolorations PID=0 ppm
15					
		Moist		SP/ GP	Brown sand and gravels, moist, no odors or discolorations PID=0 ppm
20					Boring terminated at 20 feet below grade on August 15, 2018.
25					
30					
35					
40					

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue N.E., Ste. 300
Bellevue, Washington 98004

Boring: B10

Commercial Property
29805 Pacific Highway South
Federal Way, Washington 98003

Job Number:	Date:	Logged by:	Plate:
JN 27194-2	August 2018	EAZ	13

TABLE 1 - Petroleum Hydrocarbons and BTEX - Soil Sampling Results
All results and limits in parts per million (ppm)

Sample Name and Depth	Gasoline (TPH)	Diesel	Heavy Oil	Benzene	Toluene	Ethylbenzene	Total Xylenes
B1-4 @ 4'	ND	ND	ND	ND	ND	ND	ND
B1-9 @ 9'	ND	ND	ND	ND	ND	ND	ND
B2-4 @ 4'	ND	ND	ND	ND	ND	ND	ND
B2-8 @ 8'	ND	ND	ND	ND	ND	ND	ND
B3-5 @ 5'	ND	ND	ND	ND	ND	ND	ND
B3-10 @ 10'	ND	ND	ND	ND	ND	ND	ND
B4-3 @ 3'	ND	ND	ND	ND	ND	ND	ND
B4-6 @ 6'	ND	ND	ND	ND	ND	ND	ND
B5-4 @ 4'	ND	ND	ND	ND	ND	ND	ND
B5-9 @ 9'	ND	ND	ND	ND	ND	ND	ND
B6-3 @ 3'	ND	ND	ND	ND	ND	ND	ND
B6-6 @ 6'	ND	ND	ND	ND	ND	ND	ND
B7-4 @ 4'	ND	ND	ND	ND	ND	ND	ND
B7-9 @ 9'	ND	ND	ND	ND	ND	ND	ND
B8-4 @ 4'	ND	ND	ND	ND	ND	ND	ND
B8-7 @ 7'	ND	ND	ND	ND	ND	ND	ND
B9-4 @ 4'	ND	ND	ND	ND	ND	ND	ND
B9-10 @ 10'	ND	ND	ND	ND	ND	ND	ND
B10-3 @ 3'	ND	ND	ND	ND	ND	ND	ND
B10-10 @ 10'	ND	ND	ND	ND	ND	ND	ND
Reporting Limit [3]	10	50	100	0.02	0.05	0.05	0.15
WDOE Target Compliance Level[4]	**30 or 100 [5]**	**2000**	**2000**	**0.03**	**7**	**6**	**9**

Notes:
1 - "ND" denotes analyte not detected at or above listed Reporting Limit.
2- "NA" denotes sample not analyzed for specific analyte.
3- "Reporting Limit" represents the laboratory lower quantitation limit.
4- Soil samples were field screened using a GasTech combustible gas meter to measure the concentration of combustible gas, such as petroleum VOCs. Headspace VOC concentrations were measured after placing the soil sample in a sealed plastic bag and allowing soil and air inside the bag to equilibrate.
5- The MTCA gasoline TPH cleanup level is 30 ppm for soils with benzene or toleune, ethelybenzene, and xylenes = less than 1% if gas detections otherwise it is 100 ppm.

Bold and Italics denotes concentrations above MTCA Method A soil cleanup levels.

BGS - Below ground surface.

TABLE 2- Select VOCs - Soil Sampling Results
All results and limits in parts per million (ppm)

Strataprobe Boring	Tetrachloroethene (PCE)	Trichloroethene (TCE)	(cis) 1,2 Dichloroethene	(trans) 1,2 Dichloroethene	Vinyl Chloride
B1-4 @ 4'	ND	ND	ND	ND	ND
B1-9 @ 9'	ND	ND	ND	ND	ND
B2-4 @ 4'	ND	ND	ND	ND	ND
B2-8 @ 8'	ND	ND	ND	ND	ND
B3-5 @ 5'	ND	ND	ND	ND	ND
B3-10 @ 10'	ND	ND	ND	ND	ND
B4-3 @ 3'	ND	ND	ND	ND	ND
B4-6 @ 6'	ND	ND	ND	ND	ND
B5-4 @ 4'	ND	ND	ND	ND	ND
B5-9 @ 9'	ND	ND	ND	ND	ND
B6-3 @ 3'	ND	ND	ND	ND	ND
B6-6 @ 6'	ND	ND	ND	ND	ND
B7-4 @ 4'	ND	ND	ND	ND	ND
B7-9 @ 9'	ND	ND	ND	ND	ND
B8-4 @ 4'	ND	ND	ND	ND	ND
B8-7 @ 7'	ND	ND	ND	ND	ND
B9-4 @ 4'	ND	ND	ND	ND	ND
B9-10 @ 10'	ND	ND	ND	ND	ND
B10-3 @ 3'	ND	ND	ND	ND	ND
B10-10 @ 10'	ND	ND	ND	ND	ND
Reporting Limit [3]	0.02	0.02	0.05	0.05	0.02
Cleanup Level for Unrestricted Land Use (Method-A)[4]	0.05	0.03	---	---	---
Cleanup Level - (Method-B)[5]	476	12	160	1600.0	0.667

Notes:
1 - "ND" denotes analyte not detected at or above listed Reporting Limit.
2- "NA" denotes sample not analyzed for specific analyte.
3- "Reporting Limit" represents the laboratory lower quantitation limit.
4- Method A soil cleanup levels for unrestricted land use as published in the Model Toxics Control Act (MTCA) 173-340-WAC, Table 740-1.
5- Method-B soil cleanup levels for the "direct contact pathway", as published in Ecology's CLARC May 2014 database.

Bold and Italics denotes concentrations above existing MTCA Method A or B soil cleanup levels.

TABLE 3 - RCRA-8 Metals - Soil Sampling Results
All results and limits in parts per million (ppm)

Sample Name	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
B1-4 @ 4'	ND	51	ND	57	ND	ND	ND	ND
B1-9 @ 9'	ND	50	ND	14	ND	ND	ND	ND
B2-4 @ 4'	ND	55	ND	21	ND	ND	ND	ND
B2-4 @ 4' DUPLICATE	ND	72	ND	26	ND	ND	ND	ND
B2-8 @ 8'	ND	ND	ND	21	ND	ND	ND	ND
B3-5 @ 5'	5.8	50	ND	24	16	ND	ND	ND
B3-10 @ 10'	ND	ND	ND	15	ND	ND	ND	ND
B4-3 @ 3'	ND	ND	ND	19	ND	ND	ND	ND
B4-6 @ 6'	ND	57	ND	34	ND	ND	ND	ND
B5-4 @ 4'	ND	ND	ND	32	ND	ND	ND	ND
B5-9 @ 9'	ND	ND	ND	20	ND	ND	ND	ND
B6-3 @ 3'	ND	ND	ND	20	ND	ND	ND	ND
B6-6 @ 6'	ND	63	ND	36	ND	ND	ND	ND
B7-4 @ 4'	ND	ND	ND	32	ND	ND	ND	ND
B7-9 @ 9'	ND	54	ND	20	ND	ND	ND	ND
B8-4 @ 4'	ND	56	ND	41	72	ND	ND	ND
B8-7 @ 7'	ND	66	ND	16	ND	ND	ND	ND
B8-7 @ 7' DUPLICATE	ND	51	ND	21	ND	ND	ND	ND
B9-4 @ 4'	ND	100	ND	53	ND	ND	ND	ND
B9-4 @ 4' DUPLICATE	ND	87	ND	51	ND	ND	ND	ND
B9-10 @ 10'	ND	66	ND	44	ND	ND	ND	ND
B10-3 @ 3'	ND	94	ND	46	ND	ND	ND	ND
B10-10 @ 10'	ND	59	ND	37	ND	ND	ND	ND
Reporting Limit [3]	5	50	1	5	5	0.5	20	20
Existing Cleanup Level[4]	20 (A)	16,000 (B)	2 (A)	19/2,000 (A)[5]	250 (A)	2 (A)	400 (B)	400 (B)

Notes:
1 - "ND" denotes analyte not detected at or above listed Reporting Limit.
2- "NA" denotes sample not analyzed for specific analyte.
3- "Reporting Limit" represents the laboratory lower quantitation limit.
4- Method A or B cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC.
5- Hexavalent chromium was not found in the sample analyzed indicating the presence of chromium III.The Method A target compliance level for chromium III is 2,000 ppm

Bold and Italics denotes concentrations above existing MTCA Method A soil cleanup levels.

Table 4 - Select VOCs - Soil-Vapor Sampling Results

Sample Name	B-10	B-11	B-12	B-13	
Location & Depth	Beneath the shop floor at B-10 @ 5 feet below grade	Near the southwestern property line at B-11 @ 5 feet below grade	Near the northern property line at B12 @ 5 feet below grade	Near the eastern property line at B-13 @ 5 feet below grade	WDOE - Soil Gas Screening Levels[3]
Propene	700 ve	<2.3	1800 ve	1800 ve	NA
Dichlorodifluoromethane	2.6	2.9	<1.6	2.4	1520
Chloromethane	3	2.1	6.7	4.6	1,370
Isobutene	360	<3	670 ve	1000 ve	NA
1, 3-Butadiene	***260***	0.72	***210***	***340***	2.78
Ethanol	90	<25	42	26	NA
Acrolein	***18***	<3	<3	***12***	0.35
Acrylonitrile	***42***	<0.72	<0.72	<0.72	1.23
Pentane	480	<9.7	530 ve	250	NA
Acetone	190	100	400 ve	250	NA
Isoprene	36	<0.92	89	130	NA
Iodomethane	2.6	<1.9	<1.9	<1.9	NA
Methacrolein	18	<9.5	17	<9.5	NA
Butanal	20	<9.7	45	38	NA
Methylene Chloride	330	<290	290	880 ve	8330
Carbon Disulfide	28	<21	160	<21	10700
Hexane	340	<12	340	190	10700
Chloroform	0.61	0.52	0.32	0.44	3.62
2-Butanone (MEK)	40	13	110	73	76200
1-Butanol	35	<20	32	<20	NA
Benzene	***150***	***3***	***180***	***130***	10.7
Cyclohexane	170	<23	140	38	NA
Pentanal	20	<12	33	28	NA
Trichloroethene (TCE)	***13***	***15***	1.7	***18***	12.3
Toluene	360	11	150	130	76200
Hexanal	220	<14	32	27	NA
Tetrachloroethene (PCE)	35	2.7	<2.2	5.7	321
Ethylbenzene	28	2.1	22	25	15200
m,p-Xylene	78	7.4	58	83	1520
o-Xylene	25	2.6	24	24	1520
Styrene	44	<2.8	8.5	9.6	15200
Naphthalene	1.4 fb	1.3 fb	2.4 fb	2.7 fb	2.45
Trichlorofluoromethane	<1.9	1.9	<1.9	4.2	10700
Cyclopentane	<0.95	1.8	39	34	NA
1,3-Dichlorobenzene	<2	2.9	6.6	4	NA
Methyl Vinyl Ketone	<9.5	<9.5	22	<9.5	NA
1,3,5-Trimethylbenzene	<8.1	<8.1	<8.1	9	NA
1,2,4-Trimethylbenzene	<8.1	<8.1	9	30	30.5
1,2-Dichloroethane (EDC)	<0.13	<0.13	<0.13	0.6	4.2
1,1,1-Trichloroethane	<1.8	<1.8	<1.8	2.6	76200

Notes:

1 - "ND" denotes analyte not detected at or above listed Reporting Limit.

2- "NA" Not applicable.

3 - Soil gas screening level that concentrations in the soil gas just beneath a building expected to not result in exceedance of the air cleanup level in the overlying structure, per the WDOE's Guidance For Evaluating Soil Vapor Intrusion - (April, 2015).

ve- The analyte response exceeded teh valid instrument calibration range. The value reported is an estimate.

fb- The analyte was detected in the method blank.

Bold and Italics indicate concentrations of soil vapor that exceed the WDOE soil gas screening levels.

Table 5: Three-Phase Partitioning Model - Benzene
Based on Equation 747-1 MTCA (WAC 173-340)

Soil pore vapor contaminant concentration (ug/M^3-volume)	**Cv =**	**179**
Predicted Groundwater Concentration (ug/L or ppb)	**Cw =**	**0.0**
Sorbed soil concentration (ug/Kg or ppb)	**$C_{R\ and}$ Cs**	**0.27**
Henrys Law Constant at system temperature (15 C)	H'_{TS}	0.228
Unit Conversion Factor (1 mg/Kg	UCF	0.001
Dilution factor (for Cw calculation - unitless - 20 for unsaturated soil)	DF	20
Soil dry bulk density (g/cm^3)	Pb	1.5
Soil water-filled porosity (cm^3/cm^3)	Ow	0.3
Soil-water partition coefficient (cm^3/g)(=Koc x foc) (same as L/Kg)	Kd	0.124
Soil air-filled porosity (cm^3 / cm^3)	Oa	0.13
Soil organic carbon partition coefficient (cm^3/g)	Koc	62
Soil organic carbon weight fraction (0.002 EPA default)	foc	0.002

APPENDIX A

Laboratory Reports

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc
PROJECT FEDERAL WAY SHOP
PROJECT #27194-2
Federal Way, Washington

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Gasoline Range Organics in Soil
by Method NWTPH-Gx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (mg/kg)
Method Blank	8/16/2018	8/16/2018	108	nd
LCS	8/16/2018	8/16/2018	98	102%
B1-4	8/14/2018	8/16/2018	104	nd
B1-4 Duplicate	8/14/2018	8/16/2018	105	nd
B1-9	8/14/2018	8/16/2018	102	nd
B2-4	8/14/2018	8/16/2018	105	nd
B2-8	8/14/2018	8/16/2018	103	nd
B3-5	8/14/2018	8/16/2018	104	nd
B3-10	8/14/2018	8/16/2018	104	nd
B4-3	8/14/2018	8/16/2018	103	nd
B4-6	8/14/2018	8/16/2018	102	nd
B5-4	8/14/2018	8/16/2018	99	nd
B5-9	8/14/2018	8/16/2018	103	nd
B6-3	8/14/2018	8/16/2018	104	nd
B6-6	8/14/2018	8/17/2018	100	nd
B7-4	8/14/2018	8/17/2018	101	nd
B7-4 Duplicate	8/14/2018	8/17/2018	104	nd
B7-9	8/14/2018	8/17/2018	104	nd
B8-4	8/14/2018	8/17/2018	98	nd
B8-7	8/14/2018	8/17/2018	106	nd
Reporting Limits				10

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc
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lab@esnnw.com

Analysis of Gasoline Range Organics in Soil
by Method NWTPH-Gx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (mg/kg)
Method Blank	8/17/2018	8/17/2018	105	nd
LCS	8/17/2018	8/17/2018	101	94%
B9-4	8/15/2018	8/17/2018	106	nd
B9-10	8/15/2018	8/17/2018	104	nd
B10-3	8/15/2018	8/17/2018	104	nd
B10-10	8/15/2018	8/17/2018	102	nd
Reporting Limits				10

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

ESN NORTHWEST CHEMISTRY LABORATORY

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Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil by Method NWTPH-Dx/Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	8/17/2018	8/17/2018	94	nd	nd
LCS	8/17/2018	8/17/2018	132	119%	---
B1-4	8/17/2018	8/17/2018	122	nd	nd
B1-4 Duplicate	8/17/2018	8/17/2018	104	nd	nd
B1-9	8/17/2018	8/17/2018	103	nd	nd
B2-4	8/17/2018	8/17/2018	110	nd	nd
B2-8	8/17/2018	8/17/2018	104	nd	nd
B3-5	8/17/2018	8/17/2018	108	nd	nd
B3-10	8/17/2018	8/17/2018	110	nd	nd
B4-3	8/17/2018	8/17/2018	101	nd	nd
B4-6	8/17/2018	8/17/2018	124	nd	nd
B5-4	8/17/2018	8/17/2018	95	nd	nd
B5-9	8/17/2018	8/17/2018	101	nd	nd
B6-3	8/17/2018	8/17/2018	101	nd	nd
B6-6	8/17/2018	8/17/2018	115	nd	nd
B7-4	8/17/2018	8/17/2018	105	nd	nd
B7-9	8/17/2018	8/20/2018	107	nd	nd
B8-4	8/17/2018	8/20/2018	105	nd	nd
B8-7	8/17/2018	8/20/2018	109	nd	nd
B8-7 Duplicate	8/17/2018	8/20/2018	109	nd	nd
Reporting Limits				50	100

"---" Indicates not tested for component.
"nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc
PROJECT Federal Way Shop
PROJECT #27194-2
Federal Way, Washington

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil by Method NWTPH-Dx/Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	8/22/2018	8/22/2018	118	nd	nd
LCS	8/22/2018	8/22/2018	119	121%	---
B9-4	8/22/2018	8/22/2018	104	nd	nd
B9-10	8/22/2018	8/22/2018	98	nd	nd
B10-3	8/22/2018	8/22/2018	90	nd	nd
B10-10	8/22/2018	8/22/2018	87	nd	nd
Reporting Limits				50	100

"---" Indicates not tested for component.
"nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc
PROJECT FEDERAL WAY SHOP
PROJECT #27194-2
Federal Way, Washington

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lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	MB	LCS	LCSD	B1-4	B1-9	B2-4	B2-8
Date extracted		08/16/18	08/16/18	08/16/18	08/14/18	08/14/18	08/14/18	08/14/18
Date analyzed	(mg/Kg)	08/16/18	08/16/18	08/16/18	08/16/18	08/16/18	08/16/18	08/16/18
% Moisture					5%	6%	7%	5%
Dichlorodifluoromethane	0.05	nd			nd	nd	nd	nd
Chloromethane	0.05	nd			nd	nd	nd	nd
Vinyl chloride	0.02	nd	107%	109%	nd	nd	nd	nd
Bromomethane	0.05	nd			nd	nd	nd	nd
Chloroethane	0.05	nd			nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd	nd	nd
Acetone	0.25	nd			nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	71%	79%	nd	nd	nd	nd
Methylene chloride	0.05	nd			nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd			nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd	nd	nd
2-Butanone (MEK)	0.25	nd			nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd	nd	nd
Chloroform	0.05	nd	75%	82%	nd	nd	nd	nd
Bromochloromethane	0.05	nd			nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd			nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd			nd	nd	nd	nd
Carbon tetrachloride	0.05	nd			nd	nd	nd	nd
Benzene	0.02	nd	84%	89%	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	90%	97%	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	91%	98%	nd	nd	nd	nd
Dibromomethane	0.05	nd			nd	nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd			nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
Toluene	0.05	nd	86%	92%	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd	nd	nd
2-Hexanone	0.25	nd			nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd	nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	93%	98%	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	0.05	nd			nd	nd	nd	nd
Chlorobenzene	0.05	nd	88%	94%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
Ethylbenzene	0.05	nd	107%	113%	nd	nd	nd	nd
Xylenes	0.15	nd	110%	115%	nd	nd	nd	nd
Styrene	0.05	nd			nd	nd	nd	nd
Bromoform	0.05	nd			nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
Isopropylbenzene	0.05	nd			nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd			nd	nd	nd	nd
Bromobenzene	0.05	nd			nd	nd	nd	nd

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Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	MB	LCS	LCSD	B1-4	B1-9	B2-4	B2-8
Date extracted		08/16/18	08/16/18	08/16/18	08/14/18	08/14/18	08/14/18	08/14/18
Date analyzed	(mg/Kg)	08/16/18	08/16/18	08/16/18	08/16/18	08/16/18	08/16/18	08/16/18
% Moisture					5%	6%	7%	5%
n-Propylbenzene	0.05	nd			nd	nd	nd	nd
2-Chlorotoluene	0.05	nd			nd	nd	nd	nd
4-Chlorotoluene	0.05	nd			nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd			nd	nd	nd	nd
tert-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd			nd	nd	nd	nd
sec-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
Isopropyltoluene	0.05	nd			nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
n-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd			nd	nd	nd	nd
Naphthalene	0.05	nd			nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd			nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd			nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		105%	89%	97%	100%	101%	100%	102%
Toluene-d8		109%	99%	100%	104%	105%	105%	109%
4-Bromofluorobenzene		108%	104%	103%	104%	102%	105%	103%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

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Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	B3-5	B3-10	B4-3	B4-6	B5-4	B5-9	B6-3	B6-6
Date extracted		08/14/18	08/14/18	08/14/18	08/14/18	08/14/18	08/14/18	08/14/18	08/14/18
Date analyzed	(mg/Kg)	08/16/18	08/16/18	08/16/18	08/16/18	08/16/18	08/16/18	08/16/18	08/17/18
% Moisture		7%	4%	6%	7%	6%	9%	7%	7%
Dichlorodifluoromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl chloride	0.02	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Acetone	0.25	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2-Butanone (MEK)	0.25	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Carbon tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Benzene	0.02	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2-Hexanone	0.25	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Xylenes	0.15	nd	nd	nd	nd	nd	nd	nd	nd
Styrene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromoform	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd

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Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	B3-5	B3-10	B4-3	B4-6	B5-4	B5-9	B6-3	B6-6
Date extracted		08/14/18	08/14/18	08/14/18	08/14/18	08/14/18	08/14/18	08/14/18	08/14/18
Date analyzed	(mg/Kg)	08/16/18	08/16/18	08/16/18	08/16/18	08/16/18	08/16/18	08/16/18	08/17/18
% Moisture		7%	4%	6%	7%	6%	9%	7%	7%
n-Propylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Isopropyltoluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries									
Dibromofluoromethane		103%	101%	100%	104%	101%	103%	100%	102%
Toluene-d8		107%	107%	106%	109%	108%	105%	104%	106%
4-Bromofluorobenzene		104%	104%	103%	102%	99%	103%	104%	100%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

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Analysis of Volatile Organic Compounds in Soil by Method 8260C/5035

	RL	B7-4	B7-9	B8-4	B8-7
Date extracted		08/14/18	08/14/18	08/14/18	08/14/18
Date analyzed	(mg/Kg)	08/17/18	08/17/18	08/17/18	08/17/18
% Moisture		7%	7%	10%	4%
Dichlorodifluoromethane	0.05	nd	nd	nd	nd
Chloromethane	0.05	nd	nd	nd	nd
Vinyl chloride	0.02	nd	nd	nd	nd
Bromomethane	0.05	nd	nd	nd	nd
Chloroethane	0.05	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd	nd
Acetone	0.25	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd
Methylene chloride	0.05	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd	nd	nd	nd
2-Butanone (MEK)	0.25	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd
Bromochloromethane	0.05	nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd	nd	nd	nd
Carbon tetrachloride	0.05	nd	nd	nd	nd
Benzene	0.02	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	nd	nd	nd
Dibromomethane	0.05	nd	nd	nd	nd
Bromodichloromethane	0.05	nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd	nd	nd	nd
2-Hexanone	0.25	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd	nd	nd	nd
Dibromochloromethane	0.05	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	0.05	nd	nd	nd	nd
Chlorobenzene	0.05	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd
Xylenes	0.15	nd	nd	nd	nd
Styrene	0.05	nd	nd	nd	nd
Bromoform	0.05	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd	nd	nd	nd
Isopropylbenzene	0.05	nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd	nd	nd	nd
Bromobenzene	0.05	nd	nd	nd	nd

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	RL	B7-4	B7-9	B8-4	B8-7
Date extracted		08/14/18	08/14/18	08/14/18	08/14/18
Date analyzed	(mg/Kg)	08/17/18	08/17/18	08/17/18	08/17/18
% Moisture		7%	7%	10%	4%
n-Propylbenzene	0.05	nd	nd	nd	nd
2-Chlorotoluene	0.05	nd	nd	nd	nd
4-Chlorotoluene	0.05	nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd	nd	nd	nd
tert-Butylbenzene	0.05	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd	nd	nd	nd
sec-Butylbenzene	0.05	nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd	nd	nd	nd
Isopropyltoluene	0.05	nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd	nd	nd	nd
n-Butylbenzene	0.05	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd	nd	nd	nd
Naphthalene	0.05	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd	nd	nd	nd
Surrogate recoveries					
Dibromofluoromethane		103%	97%	107%	99%
Toluene-d8		104%	103%	109%	102%
4-Bromofluorobenzene		101%	104%	98%	106%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

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	RL	MB	LCS	LCSD	B9-4	B9-10	B10-3	B10-10
Date extracted		08/17/18	08/17/18	08/17/18	08/15/18	08/15/18	08/15/18	08/15/18
Date analyzed	(mg/Kg)	08/17/18	08/17/18	08/17/18	08/17/18	08/17/18	08/17/18	08/17/18
% Moisture					6%	11%	5%	6%
Dichlorodifluoromethane	0.05	nd			nd	nd	nd	nd
Chloromethane	0.05	nd			nd	nd	nd	nd
Vinyl chloride	0.02	nd	105%	113%	nd	nd	nd	nd
Bromomethane	0.05	nd			nd	nd	nd	nd
Chloroethane	0.05	nd			nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd	nd	nd
Acetone	0.25	nd			nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	75%	73%	nd	nd	nd	nd
Methylene chloride	0.05	nd			nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd			nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd	nd	nd
2-Butanone (MEK)	0.25	nd			nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd	nd	nd
Chloroform	0.05	nd	78%	77%	nd	nd	nd	nd
Bromochloromethane	0.05	nd			nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd			nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd			nd	nd	nd	nd
Carbon tetrachloride	0.05	nd			nd	nd	nd	nd
Benzene	0.02	nd	87%	83%	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	95%	92%	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	94%	92%	nd	nd	nd	nd
Dibromomethane	0.05	nd			nd	nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd			nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
Toluene	0.05	nd	90%	88%	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd	nd	nd
2-Hexanone	0.25	nd			nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd	nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	98%	94%	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	0.05	nd			nd	nd	nd	nd
Chlorobenzene	0.05	nd	92%	91%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
Ethylbenzene	0.05	nd	110%	106%	nd	nd	nd	nd
Xylenes	0.15	nd	115%	110%	nd	nd	nd	nd
Styrene	0.05	nd			nd	nd	nd	nd
Bromoform	0.05	nd			nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
Isopropylbenzene	0.05	nd			nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd			nd	nd	nd	nd
Bromobenzene	0.05	nd			nd	nd	nd	nd

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	RL	MB	LCS	LCSD	B9-4	B9-10	B10-3	B10-10
Date extracted		08/17/18	08/17/18	08/17/18	08/15/18	08/15/18	08/15/18	08/15/18
Date analyzed	(mg/Kg)	08/17/18	08/17/18	08/17/18	08/17/18	08/17/18	08/17/18	08/17/18
% Moisture					6%	11%	5%	6%
n-Propylbenzene	0.05	nd			nd	nd	nd	nd
2-Chlorotoluene	0.05	nd			nd	nd	nd	nd
4-Chlorotoluene	0.05	nd			nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd			nd	nd	nd	nd
tert-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd			nd	nd	nd	nd
sec-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
Isopropyltoluene	0.05	nd			nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
n-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd			nd	nd	nd	nd
Naphthalene	0.05	nd			nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd			nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.05	nd			nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		99%	98%	93%	97%	99%	99%	102%
Toluene-d8		105%	99%	98%	104%	105%	108%	108%
4-Bromofluorobenzene		105%	99%	105%	106%	104%	104%	102%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Environmental Associates, Inc
PROJECT FEDERAL WAY SHOP
PROJECT #27194-2
Federal Way, Washington

ESN Northwest
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(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Total Metals in Soil by EPA-6020 Series

Sample Number	Date Analyzed	Lead (Pb) (mg/kg)	Cadmium (Cd) (mg/kg)	Chromium (Cr) (mg/kg)	Arsenic (As) (mg/kg)	Silver (Ag) (mg/kg)	Barium (Ba) (mg/kg)	Selenium (Se) (mg/kg)	Mercury (Hg) (mg/kg)
Method Blank	8/15/2018	nd	nd	nd	nd	nd	nd	nd	nd
B1-4	8/15/2018	nd	nd	**57**	nd	nd	**51**	nd	nd
B1-9	8/15/2018	nd	nd	**14**	nd	nd	**50**	nd	nd
B2-4	8/15/2018	nd	nd	**21**	nd	nd	**55**	nd	nd
B2-4 Duplicate	8/15/2018	nd	nd	**26**	nd	nd	**72**	nd	nd
B2-8	8/15/2018	nd	nd	**21**	nd	nd	nd	nd	nd
B3-5	8/15/2018	**16**	nd	**24**	**5.8**	nd	**50**	nd	nd
B3-10	8/15/2018	nd	nd	**15**	nd	nd	nd	nd	nd
B4-3	8/15/2018	nd	nd	**19**	nd	nd	nd	nd	nd
B4-6	8/15/2018	nd	nd	**34**	nd	nd	**57**	nd	nd
B5-4	8/15/2018	nd	nd	**32**	nd	nd	nd	nd	nd
B5-9	8/15/2018	nd	nd	**20**	nd	nd	nd	nd	nd
B6-3	8/15/2018	nd	nd	**20**	nd	nd	nd	nd	nd
B6-6	8/15/2018	nd	nd	**36**	nd	nd	**63**	nd	nd
B7-4	8/15/2018	nd	nd	**32**	nd	nd	nd	nd	nd
B7-9	8/15/2018	nd	nd	**20**	nd	nd	**54**	nd	nd
B8-4	8/15/2018	**72**	nd	**41**	nd	nd	**56**	nd	nd
B8-7	8/15/2018	nd	nd	**16**	nd	nd	**66**	nd	nd
B8-7 Duplicate	8/15/2018	nd	nd	**21**	nd	nd	**51**	nd	nd
Reporting Limits		5.0	1.0	5.0	5.0	20	50	20	0.5

"nd" Indicates not detected at listed detection limits.

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Total Metals in Soil by EPA-6020 Series

Sample Number	Date Analyzed	Lead (Pb) (mg/kg)	Cadmium (Cd) (mg/kg)	Chromium (Cr) (mg/kg)	Arsenic (As) (mg/kg)	Silver (Ag) (mg/kg)	Barium (Ba) (mg/kg)	Selenium (Se) (mg/kg)	Mercury (Hg) (mg/kg)
Method Blank	8/22/2018	nd	nd	nd	nd	nd	nd	nd	nd
B9-4	8/22/2018	nd	nd	53	nd	nd	100	nd	nd
B9-4 Duplicate	8/22/2018	nd	nd	51	nd	nd	87	nd	nd
B9-10	8/22/2018	nd	nd	44	nd	nd	66	nd	nd
B10-5	8/22/2018	nd	nd	46	nd	nd	94	nd	nd
B10-10	8/22/2018	nd	nd	37	nd	nd	59	nd	nd
Reporting Limits		5.0	1.0	5.0	5.0	20	50	20	0.5

"nd" Indicates not detected at listed detection limits.

QA/QC Data - Total Metals EPA-6020

Sample Number: B9-4

	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Lead	81.6	80.1	98.2	95.7	96.6	101	2.8
Cadmium	81.6	70.8	86.8	95.7	85.2	89.0	2.6
Chromium	81.6	109	134M	95.7	118	123	8.0
Arsenic	81.6	82.6	101	95.7	99.5	104	2.7
Silver	81.6	71.5	87.6	95.7	87.7	91.6	4.5
Barium	81.6	97.4	119	95.7	106	111	7.5
Selenium	81.6	59.9	73.4M	95.7	75.0	78.4	6.5
Mercury	8.16	6.65	81.5	9.57	8.06	84.2	3.3

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 75%-125%
ACCEPTABLE RPD IS 20%
M - Matrix Spike recovery failed due to matrix interference.

	Laboratory Control Sample		
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
Lead	100	106	106
Cadmium	100	90.1	90.1
Chromium	100	122	122*
Arsenic	100	93.3	93.3
Silver	100	103	103
Barium	100	122	122
Selenium	100	75.4	75.4*
Mercury	10.0	8.32	83.2

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 80%-120%
*LCS recovery failed to meet acceptable recovery limits for Chromium and Selenium. Instrument was maintained and batch was analyzed a second time producing similar results.

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QA/QC Data - Total Metals EPA-6020

Sample Number: B2-4

	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Lead	99.0	100	101	91.7	93.1	102	0.4
Cadmium	99.0	98.5	99.5	91.7	90.7	98.9	0.6
Chromium	99.0	111	112	91.7	95.2	104	7.7
Arsenic	99.0	105	106	91.7	96.5	105	0.8
Silver	99.0	94.3	95.3	91.7	86.9	94.8	0.5
Barium	99.0	90.9	91.8	91.7	73.5	80.2	13.6
Selenium	99.0	96.3	97.3	91.7	89.1	97.2	0.1
Mercury	9.90	10.1	102	9.17	9.36	102	0.1

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 75%-125%
ACCEPTABLE RPD IS 20%

	Laboratory Control Sample		
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
Lead	100	103	103
Cadmium	100	101	101
Chromium	100	109	109
Arsenic	100	103	103
Silver	100	102	102
Barium	100	104	104
Selenium	100	99.3	99.3
Mercury	10.0	10.2	102

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES. 80%-120%

CASE NARRATIVE

This case narrative encompasses samples received on August 15, 2018 by Friedman & Bruya, Inc. from the Environmental Associates Federal Way Shop 27194-2, F&BI 808364 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Environmental Associates
808364 -01	B-10
808364 -02	B-11
808364 -03	B-12
808364 -04	B-13

Several analytes exceeded the calibration range of the instrument. The data were flagged accordingly.

Naphthalene was detected in the TO-15 method blank at a level within 10 times the concentration detected in the samples. The data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	B-10	Client:	Environmental Associates
Date Received:	08/15/18	Project:	Federal Way Shop 27194-2
Date Collected:	08/15/18	Lab ID:	808364-01 1/3.3
Date Analyzed:	08/22/18	Data File:	082123.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	102	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Chlorodifluoromethane	<1.2	<0.33	1-Butanol	35	11
Propene	700 ve	410 ve	Carbon tetrachloride	<2.1	<0.33
Dichlorodifluoromethane	2.6	0.53	Benzene	150	46
Chloromethane	3.0	1.4	Cyclohexane	170	50
F-114	<2.3	<0.33	2-Pentanone	<12	<3.3
Isobutene	360	160	3-Pentanone	<12	<3.3
Acetaldehyde	<30	<16	Pentanal	20	5.5
Vinyl chloride	<0.84	<0.33	1,2-Dichloropropane	<0.76	<0.16
1,3-Butadiene	260	120	1,4-Dioxane	<1.2	<0.33
Bromomethane	<5.1	<1.3	Bromodichloromethane	<0.22	<0.033
Chloroethane	<0.87	<0.33	Trichloroethene	13	2.4
Ethanol	90	48	cis-1,3-Dichloropropene	<1.5	<0.33
Acetonitrile	<5.5	<3.3	4-Methyl-2-pentanone	<14	<3.3
Acrolein	18	8.1	trans-1,3-Dichloropropene	<1.5	<0.33
Acrylonitrile	42	19	Toluene	360	94
Pentane	480	160	1,1,2-Trichloroethane	<0.18	<0.033
Trichlorofluoromethane	<1.9	<0.33	3-Hexanone	<14	<3.3
Acetone	190	81	2-Hexanone	<14	<3.3
2-Propanol	<28	<12	Hexanal	220	53
Isoprene	36	13	Tetrachloroethene	35	5.2
Iodomethane	2.6	0.45	Dibromochloromethane	<0.28	<0.033
1,1-Dichloroethene	<1.3	<0.33	1,2-Dibromoethane (EDB)	<0.25	<0.033
Methacrolein	18	6.4	Chlorobenzene	<1.5	<0.33
trans-1,2-Dichloroethene	<1.3	<0.33	Ethylbenzene	28	6.4
Cyclopentane	<0.95	<0.33	1,1,2,2-Tetrachloroethane	<0.45	<0.066
Methyl vinyl ketone	<9.5	<3.3	m,p-Xylene	78	18
Butanal	20	6.7	o-Xylene	25	5.8
Methylene chloride	330	95	Styrene	44	10
CFC-113	<2.5	<0.33	Bromoform	<6.8	<0.66
Carbon disulfide	28	9.0	Benzyl chloride	<0.17	<0.033
Methyl t-butyl ether (MTBE)	<5.9	<1.6	1,3,5-Trimethylbenzene	<8.1	<1.6
Vinyl acetate	<23	<6.6	1,2,4-Trimethylbenzene	<8.1	<1.6
1,1-Dichloroethane	<1.3	<0.33	1,3-Dichlorobenzene	<2	<0.33
cis-1,2-Dichloroethene	<1.3	<0.33	1,4-Dichlorobenzene	<0.79	<0.13
Hexane	340	96	1,2,3-Trimethylbenzene	<8.1	<1.6
Chloroform	0.61	0.13	1,2-Dichlorobenzene	<2	<0.33
2-Butanone (MEK)	40	14	1,2,4-Trichlorobenzene	<2.4	<0.33
1,2-Dichloroethane (EDC)	<0.13	<0.033	Naphthalene	1.4 fb	0.26 fb
1,1,1-Trichloroethane	<1.8	<0.33	Hexachlorobutadiene	<0.7	<0.066

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	B-11	Client:	Environmental Associates
Date Received:	08/15/18	Project:	Federal Way Shop 27194-2
Date Collected:	08/15/18	Lab ID:	808364-02 1/3.3
Date Analyzed:	08/22/18	Data File:	082124.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Chlorodifluoromethane	<1.2	<0.33	1-Butanol	<20	<6.6
Propene	<2.3	<1.3	Carbon tetrachloride	<2.1	<0.33
Dichlorodifluoromethane	2.9	0.58	Benzene	3.0	0.95
Chloromethane	2.1	1.0	Cyclohexane	<23	<6.6
F-114	<2.3	<0.33	2-Pentanone	<12	<3.3
Isobutene	<3	<1.3	3-Pentanone	<12	<3.3
Acetaldehyde	<30	<16	Pentanal	<12	<3.3
Vinyl chloride	<0.84	<0.33	1,2-Dichloropropane	<0.76	<0.16
1,3-Butadiene	0.72	0.32	1,4-Dioxane	<1.2	<0.33
Bromomethane	<5.1	<1.3	Bromodichloromethane	<0.22	<0.033
Chloroethane	<0.87	<0.33	Trichloroethene	15	2.8
Ethanol	<25	<13	cis-1,3-Dichloropropene	<1.5	<0.33
Acetonitrile	<5.5	<3.3	4-Methyl-2-pentanone	<14	<3.3
Acrolein	<3	<1.3	trans-1,3-Dichloropropene	<1.5	<0.33
Acrylonitrile	<0.72	<0.33	Toluene	11	3.0
Pentane	<9.7	<3.3	1,1,2-Trichloroethane	<0.18	<0.033
Trichlorofluoromethane	1.9	0.33	3-Hexanone	<14	<3.3
Acetone	100	44	2-Hexanone	<14	<3.3
2-Propanol	<28	<12	Hexanal	<14	<3.3
Isoprene	<0.92	<0.33	Tetrachloroethene	2.7	0.40
Iodomethane	<1.9	<0.33	Dibromochloromethane	<0.28	<0.033
1,1-Dichloroethene	<1.3	<0.33	1,2-Dibromoethane (EDB)	<0.25	<0.033
Methacrolein	<9.5	<3.3	Chlorobenzene	<1.5	<0.33
trans-1,2-Dichloroethene	<1.3	<0.33	Ethylbenzene	2.1	0.49
Cyclopentane	1.8	0.64	1,1,2,2-Tetrachloroethane	<0.45	<0.066
Methyl vinyl ketone	<9.5	<3.3	m,p-Xylene	7.4	1.7
Butanal	<9.7	<3.3	o-Xylene	2.6	0.60
Methylene chloride	<290	<82	Styrene	<2.8	<0.66
CFC-113	<2.5	<0.33	Bromoform	<6.8	<0.66
Carbon disulfide	<21	<6.6	Benzyl chloride	<0.17	<0.033
Methyl t-butyl ether (MTBE)	<5.9	<1.6	1,3,5-Trimethylbenzene	<8.1	<1.6
Vinyl acetate	<23	<6.6	1,2,4-Trimethylbenzene	<8.1	<1.6
1,1-Dichloroethane	<1.3	<0.33	1,3-Dichlorobenzene	2.9	0.49
cis-1,2-Dichloroethene	<1.3	<0.33	1,4-Dichlorobenzene	<0.79	<0.13
Hexane	<12	<3.3	1,2,3-Trimethylbenzene	<8.1	<1.6
Chloroform	0.52	0.11	1,2-Dichlorobenzene	<2	<0.33
2-Butanone (MEK)	13	4.6	1,2,4-Trichlorobenzene	<2.4	<0.33
1,2-Dichloroethane (EDC)	<0.13	<0.033	Naphthalene	1.3 fb	0.24 fb
1,1,1-Trichloroethane	<1.8	<0.33	Hexachlorobutadiene	<0.7	<0.066

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	B-12	Client:	Environmental Associates
Date Received:	08/15/18	Project:	Federal Way Shop 27194-2
Date Collected:	08/15/18	Lab ID:	808364-03 1/3.3
Date Analyzed:	08/22/18	Data File:	082125.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MS

	Concentration			Concentration	
Compounds:	ug/m3	ppbv	Compounds:	ug/m3	ppbv
Chlorodifluoromethane	<1.2	<0.33	1-Butanol	32	11
Propene	1,800 ve	1,000 ve	Carbon tetrachloride	<2.1	<0.33
Dichlorodifluoromethane	<1.6	<0.33	Benzene	180	57
Chloromethane	6.7	3.3	Cyclohexane	140	41
F-114	<2.3	<0.33	2-Pentanone	<12	<3.3
Isobutene	670 ve	290 ve	3-Pentanone	<12	<3.3
Acetaldehyde	<30	<16	Pentanal	33	9.4
Vinyl chloride	<0.84	<0.33	1,2-Dichloropropane	<0.76	<0.16
1,3-Butadiene	210	96	1,4-Dioxane	<1.2	<0.33
Bromomethane	<5.1	<1.3	Bromodichloromethane	<0.22	<0.033
Chloroethane	<0.87	<0.33	Trichloroethene	1.7	0.32
Ethanol	42	22	cis-1,3-Dichloropropene	<1.5	<0.33
Acetonitrile	<5.5	<3.3	4-Methyl-2-pentanone	<14	<3.3
Acrolein	<3	<1.3	trans-1,3-Dichloropropene	<1.5	<0.33
Acrylonitrile	<0.72	<0.33	Toluene	150	40
Pentane	530 ve	180 ve	1,1,2-Trichloroethane	<0.18	<0.033
Trichlorofluoromethane	<1.9	<0.33	3-Hexanone	<14	<3.3
Acetone	400 ve	170 ve	2-Hexanone	<14	<3.3
2-Propanol	<28	<12	Hexanal	32	7.8
Isoprene	89	32	Tetrachloroethene	<2.2	<0.33
Iodomethane	<1.9	<0.33	Dibromochloromethane	<0.28	<0.033
1,1-Dichloroethene	<1.3	<0.33	1,2-Dibromoethane (EDB)	<0.25	<0.033
Methacrolein	17	5.9	Chlorobenzene	<1.5	<0.33
trans-1,2-Dichloroethene	<1.3	<0.33	Ethylbenzene	22	5.0
Cyclopentane	39	14	1,1,2,2-Tetrachloroethane	<0.45	<0.066
Methyl vinyl ketone	22	7.7	m,p-Xylene	58	13
Butanal	45	15	o-Xylene	24	5.6
Methylene chloride	290	83	Styrene	8.5	2.0
CFC-113	<2.5	<0.33	Bromoform	<6.8	<0.66
Carbon disulfide	160	53	Benzyl chloride	<0.17	<0.033
Methyl t-butyl ether (MTBE)	<5.9	<1.6	1,3,5-Trimethylbenzene	<8.1	<1.6
Vinyl acetate	<23	<6.6	1,2,4-Trimethylbenzene	9.0	1.8
1,1-Dichloroethane	<1.3	<0.33	1,3-Dichlorobenzene	6.6	1.1
cis-1,2-Dichloroethene	<1.3	<0.33	1,4-Dichlorobenzene	<0.79	<0.13
Hexane	340	96	1,2,3-Trimethylbenzene	<8.1	<1.6
Chloroform	0.32	0.066	1,2-Dichlorobenzene	<2	<0.33
2-Butanone (MEK)	110	36	1,2,4-Trichlorobenzene	<2.4	<0.33
1,2-Dichloroethane (EDC)	<0.13	<0.033	Naphthalene	2.4 fb	0.45 fb
1,1,1-Trichloroethane	<1.8	<0.33	Hexachlorobutadiene	<0.7	<0.066

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	B-13	Client:	Environmental Associates
Date Received:	08/15/18	Project:	Federal Way Shop 27194-2
Date Collected:	08/15/18	Lab ID:	808364-04 1/3.3
Date Analyzed:	08/22/18	Data File:	082126.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	104	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Chlorodifluoromethane	<1.2	<0.33	1-Butanol	<20	<6.6
Propene	1,800 ve	1,000 ve	Carbon tetrachloride	<2.1	<0.33
Dichlorodifluoromethane	2.4	0.48	Benzene	130	39
Chloromethane	4.6	2.2	Cyclohexane	38	11
F-114	<2.3	<0.33	2-Pentanone	<12	<3.3
Isobutene	1,000 ve	440 ve	3-Pentanone	<12	<3.3
Acetaldehyde	<30	<16	Pentanal	28	8.1
Vinyl chloride	<0.84	<0.33	1,2-Dichloropropane	<0.76	<0.16
1,3-Butadiene	340	150	1,4-Dioxane	<1.2	<0.33
Bromomethane	<5.1	<1.3	Bromodichloromethane	<0.22	<0.033
Chloroethane	<0.87	<0.33	Trichloroethene	18	3.3
Ethanol	26	14	cis-1,3-Dichloropropene	<1.5	<0.33
Acetonitrile	<5.5	<3.3	4-Methyl-2-pentanone	<14	<3.3
Acrolein	12	5.2	trans-1,3-Dichloropropene	<1.5	<0.33
Acrylonitrile	<0.72	<0.33	Toluene	130	34
Pentane	250	85	1,1,2-Trichloroethane	<0.18	<0.033
Trichlorofluoromethane	4.2	0.75	3-Hexanone	<14	<3.3
Acetone	250	110	2-Hexanone	<14	<3.3
2-Propanol	<28	<12	Hexanal	27	6.5
Isoprene	130	48	Tetrachloroethene	5.7	0.84
Iodomethane	<1.9	<0.33	Dibromochloromethane	<0.28	<0.033
1,1-Dichloroethene	<1.3	<0.33	1,2-Dibromoethane (EDB)	<0.25	<0.033
Methacrolein	<9.5	<3.3	Chlorobenzene	<1.5	<0.33
trans-1,2-Dichloroethene	<1.3	<0.33	Ethylbenzene	25	5.8
Cyclopentane	34	12	1,1,2,2-Tetrachloroethane	<0.45	<0.066
Methyl vinyl ketone	<9.5	<3.3	m,p-Xylene	83	19
Butanal	38	13	o-Xylene	24	5.4
Methylene chloride	880 ve	250 ve	Styrene	9.6	2.2
CFC-113	<2.5	<0.33	Bromoform	<6.8	<0.66
Carbon disulfide	<21	<6.6	Benzyl chloride	<0.17	<0.033
Methyl t-butyl ether (MTBE)	<5.9	<1.6	1,3,5-Trimethylbenzene	9.0	1.8
Vinyl acetate	<23	<6.6	1,2,4-Trimethylbenzene	30	6.1
1,1-Dichloroethane	<1.3	<0.33	1,3-Dichlorobenzene	4.0	0.67
cis-1,2-Dichloroethene	<1.3	<0.33	1,4-Dichlorobenzene	<0.79	<0.13
Hexane	190	54	1,2,3-Trimethylbenzene	<8.1	<1.6
Chloroform	0.44	0.089	1,2-Dichlorobenzene	<2	<0.33
2-Butanone (MEK)	73	25	1,2,4-Trichlorobenzene	<2.4	<0.33
1,2-Dichloroethane (EDC)	0.60	0.15	Naphthalene	2.7 fb	0.52 fb
1,1,1-Trichloroethane	2.6	0.48	Hexachlorobutadiene	<0.7	<0.066

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Environmental Associates
Date Received:	Not Applicable	Project:	Federal Way Shop 27194-2
Date Collected:	Not Applicable	Lab ID:	08-1793 mb
Date Analyzed:	08/21/18	Data File:	082110.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	96	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Chlorodifluoromethane	<0.35	<0.1	1-Butanol	<6.1	<2
Propene	<0.69	<0.4	Carbon tetrachloride	<0.63	<0.1
Dichlorodifluoromethane	<0.49	<0.1	Benzene	<0.32	<0.1
Chloromethane	<0.21	<0.1	Cyclohexane	<6.9	<2
F-114	<0.7	<0.1	2-Pentanone	<3.5	<1
Isobutene	<0.92	<0.4	3-Pentanone	<3.5	<1
Acetaldehyde	<9	<5	Pentanal	<3.5	<1
Vinyl chloride	<0.26	<0.1	1,2-Dichloropropane	<0.23	<0.05
1,3-Butadiene	<0.022	<0.01	1,4-Dioxane	<0.36	<0.1
Bromomethane	<1.6	<0.4	Bromodichloromethane	<0.067	<0.01
Chloroethane	<0.26	<0.1	Trichloroethene	<0.27	<0.05
Ethanol	<7.5	<4	cis-1,3-Dichloropropene	<0.45	<0.1
Acetonitrile	<1.7	<1	4-Methyl-2-pentanone	<4.1	<1
Acrolein	<0.92	<0.4	trans-1,3-Dichloropropene	<0.45	<0.1
Acrylonitrile	<0.22	<0.1	Toluene	<0.38	<0.1
Pentane	<3	<1	1,1,2-Trichloroethane	<0.055	<0.01
Trichlorofluoromethane	<0.56	<0.1	3-Hexanone	<4.1	<1
Acetone	<4.8	<2	2-Hexanone	<4.1	<1
2-Propanol	<8.6	<3.5	Hexanal	<4.1	<1
Isoprene	<0.28	<0.1	Tetrachloroethene	<0.68	<0.1
Iodomethane	<0.58	<0.1	Dibromochloromethane	<0.085	<0.01
1,1-Dichloroethene	<0.4	<0.1	1,2-Dibromoethane (EDB)	<0.077	<0.01
Methacrolein	<2.9	<1	Chlorobenzene	<0.46	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1	Ethylbenzene	<0.43	<0.1
Cyclopentane	<0.29	<0.1	1,1,2,2-Tetrachloroethane	<0.14	<0.02
Methyl vinyl ketone	<2.9	<1	m,p-Xylene	<0.87	<0.2
Butanal	<2.9	<1	o-Xylene	<0.43	<0.1
Methylene chloride	<87	<25	Styrene	<0.85	<0.2
CFC-113	<0.77	<0.1	Bromoform	<2.1	<0.2
Carbon disulfide	<6.2	<2	Benzyl chloride	<0.052	<0.01
Methyl t-butyl ether (MTBE)	<1.8	<0.5	1,3,5-Trimethylbenzene	<2.5	<0.5
Vinyl acetate	<7	<2	1,2,4-Trimethylbenzene	<2.5	<0.5
1,1-Dichloroethane	<0.4	<0.1	1,3-Dichlorobenzene	<0.6	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1	1,4-Dichlorobenzene	<0.24	<0.04
Hexane	<3.5	<1	1,2,3-Trimethylbenzene	<2.5	<0.5
Chloroform	<0.049	<0.01	1,2-Dichlorobenzene	<0.6	<0.1
2-Butanone (MEK)	<2.9	<1	1,2,4-Trichlorobenzene	<0.74	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01	Naphthalene	0.12	0.023 lc
1,1,1-Trichloroethane	<0.55	<0.1	Hexachlorobutadiene	<0.21	<0.02

Date of Report: 08/27/18
Date Received: 08/15/18
Project: Federal Way Shop 27194-2, F&BI 808364

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chlorodifluoromethane	ppbv	5	110	70-130
Propene	ppbv	5	95	70-130
Dichlorodifluoromethane	ppbv	5	103	70-130
Chloromethane	ppbv	5	101	70-130
F-114	ppbv	5	105	70-130
Isobutene	ppbv	5	98	70-130
Acetaldehyde	ppbv	5	94	70-130
Vinyl chloride	ppbv	5	103	70-130
1,3-Butadiene	ppbv	5	109	70-130
Bromomethane	ppbv	5	126	70-130
Chloroethane	ppbv	5	101	70-130
Ethanol	ppbv	5	94	70-130
Acetonitrile	ppbv	5	94	70-130
Acrolein	ppbv	5	113	70-130
Acrylonitrile	ppbv	5	128	70-130
Pentane	ppbv	5	107	70-130
Trichlorofluoromethane	ppbv	5	107	70-130
Acetone	ppbv	5	103	70-130
2-Propanol	ppbv	5	106	70-130
Isoprene	ppbv	5	111	70-130
Iodomethane	ppbv	5	105	70-130
1,1-Dichloroethene	ppbv	5	106	70-130
Methacrolein	ppbv	5	105	70-130
trans-1,2-Dichloroethene	ppbv	5	107	70-130
Cyclopentane	ppbv	5	113	70-130
Methyl vinyl ketone	ppbv	5	115	70-130
Butanal	ppbv	5	106	70-130
Methylene chloride	ppbv	5	101	70-130
CFC-113	ppbv	5	104	70-130
Carbon disulfide	ppbv	5	99	70-130
Methyl t-butyl ether (MTBE)	ppbv	5	108	70-130
Vinyl acetate	ppbv	5	103	70-130
1,1-Dichloroethane	ppbv	5	108	70-130
cis-1,2-Dichloroethene	ppbv	5	107	70-130
Hexane	ppbv	5	113	70-130
Chloroform	ppbv	5	108	70-130
2-Butanone (MEK)	ppbv	5	108	70-130
1,2-Dichloroethane (EDC)	ppbv	5	110	70-130
1,1,1-Trichloroethane	ppbv	5	111	70-130

Date of Report: 08/27/18
Date Received: 08/15/18
Project: Federal Way Shop 27194-2, F&BI 808364

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample (continued)

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
1-Butanol	ppbv	5	104	70-130
Carbon tetrachloride	ppbv	5	107	70-130
Benzene	ppbv	5	108	70-130
Cyclohexane	ppbv	5	105	70-130
2-Pentanone	ppbv	5	104	70-130
3-Pentanone	ppbv	5	112	70-130
Pentanal	ppbv	5	107	70-130
1,2-Dichloropropane	ppbv	5	104	70-130
1,4-Dioxane	ppbv	5	107	70-130
Bromodichloromethane	ppbv	5	110	70-130
Trichloroethene	ppbv	5	101	70-130
cis-1,3-Dichloropropene	ppbv	5	103	70-130
4-Methyl-2-pentanone	ppbv	5	113	70-130
trans-1,3-Dichloropropene	ppbv	5	108	70-130
Toluene	ppbv	5	100	70-130
1,1,2-Trichloroethane	ppbv	5	104	70-130
3-Hexanone	ppbv	5	101	70-130
2-Hexanone	ppbv	5	109	70-130
Hexanal	ppbv	5	99	70-130
Tetrachloroethene	ppbv	5	101	70-130
Dibromochloromethane	ppbv	5	112	70-130
1,2-Dibromoethane (EDB)	ppbv	5	109	70-130
Chlorobenzene	ppbv	5	105	70-130
Ethylbenzene	ppbv	5	107	70-130
1,1,2,2,-Tetrachloroethane	ppbv	5	116	70-130
m,p-Xylene	ppbv	10	110	70-130
o-Xylene	ppbv	5	116	70-130
Styrene	ppbv	5	110	70-130
Bromoform	ppbv	5	109	70-130
Benzyl chloride	ppbv	5	127	70-130
1,3,5-Trimethylbenzene	ppbv	5	114	70-130
1,2,4-Trimethylbenzene	ppbv	5	111	70-130
1,3-Dichlorobenzene	ppbv	5	112	70-130
1,4-Dichlorobenzene	ppbv	5	121	70-130
1,2,3-Trimethylbenzene	ppbv	5	111	70-130
1,2-Dichlorobenzene	ppbv	5	116	70-130
1,2,4-Trichlorobenzene	ppbv	5	108	70-130
Naphthalene	ppbv	5	105	70-130
Hexachloro-1,3-butadiene	ppbv	5	110	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

808364

ME 08/15/18

Page 1 of 1

Report To Eric Zuern
Company Environmental Associates
Address 13380 - 112th ave NE #300
City, State, ZIP Bellevue, WA 98004
Phone 425-455-1025 Email info@environmentalassociates.com

SAMPLERS (signature)

PROJECT NAME: Federal Way Shop
PO #: 27194-2

REPORTING LEVEL
☐ Indoor Air ☐ Deep Soil Gas
☑ Sub Slab/Soil Gas ☐ SVE/Grab

INVOICE TO: Carlo Comm. Prop. See attached sheet

TURNAROUND TIME
☑ Standard
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Archive Samples
☐ Other

ANALYSIS REQUESTED

Sample Name	Lab ID	Canister ID	Flow Contr. ID	Date Sampled	Field Initial Press. (Hg)	Field Initial Time	Field Final Press. (Hg)	Field Final Time	TO-15 Full Scan	TO-15 BTEXN	TO-15 cVOCs		Notes
B-10	01	3674	101	8-15-18	30	10:10	3	10:15	X				
B-11	02	3672	108	8-15-18	29	11:35	3	11:40	X				
B-12	03	3671	105	8-15-18	29	12:10	3	12:15	X				
B-13	04	3669	106	8-15-18	30	12:35	3	12:38	X				
												Samples received at 23 °C	

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Eric Zuern	EAI	8-15-18	2:45
Received by:	Nhan Phan	FedEx	8/15/18	2:45
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

APPENDIX B

Certifications

National Registry of Environmental Professionals

Be it known to all persons that the following individual pursuant to the requirements for education, experience and examination established by the National Registry of Environmental Professionals is entitled to all of the rights and privileges by the body and to be duly registered by it.

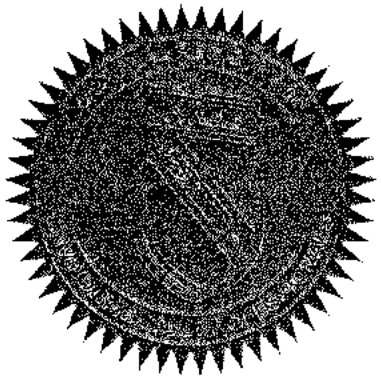
This is to certify that

Don W Spencer

is a

Registered Environmental Property Assessor

This certificate will remain valid only if it bears the seal of the current year, unless revoked, suspended or invalidated by order of the Board of Directors of the National Registry of Environmental Professionals.



Witness our hand

This Day **09/17/2013**

REPA 418290

Richard Young, PhD

Executive Director

Registration Number: _____

This certificate is the property of the National Registry of Environmental Professionals and must upon demand be returned.

It is hereby certified that Don W. Spencer

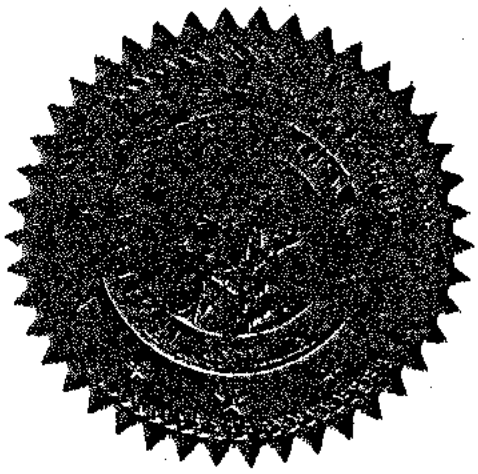
has satisfactorily complied with and completed the statutory requirements set forth in title 18 revised code of Washington to engage in practice as a

Geologist

And is hereby authorized, empowered and granted the right to engage in that practice within the State of Washington subject to the state laws.

And is licensed as a qualified

Hydrogeologist



Given under the hand and seal of the director this fourteenth day of March, 2002.

Fred Stephens
DIRECTOR

Geologist Licensing Board

CHAIR

No. 604

Certificate of Completion

This is to certify that

Don W. Spencer

has satisfactorily completed
8 hours of refresher training in

Hazardous Waste Operation and Emergency Response

to comply with the training requirements of
OSHA 29 CFR 1910.120 & WAC 296-843

167354
Certificate Number

ARGUS PACIFIC
TRAINING • CONSULTING
A Terracon COMPANY

May 10, 2018 — Expires in 1 year.
Date(s) of Training

Exam Score: N/A
If appropriate:

Instructor

ARGUS PACIFIC, INC / 1900 WEST NICKERSON ST, SUITE 315 / SEATTLE, WASHINGTON 98119 / 206.285.3373 / ARGUSPACIFIC.COM

Certificate of Completion

This is to certify that

Eric A. Zuern

has satisfactorily completed
8 hours of refresher training in

Hazardous Waste Operation and Emergency Response

to comply with the training requirements of
OSHA 29 CFR 1910.120 & WAC 296-843

168066
Certificate Number

ARGUS PACIFIC
TRAINING • CONSULTING
A Terracon COMPANY

Jun 14, 2018 Expires in 1 year.
Date(s) of Training

Exam Score: N/A
If appropriate:

Instructor

ARGUS PACIFIC, INC / 1900 WEST NICKERSON ST. SUITE 315 / SEATTLE, WASHINGTON 98119 / 206.285.3373 / ARGUSPACIFIC.COM

ENVIRONMENTAL
ASSOCIATES, INC.

1380 - 112th Avenue Northeast, Suite 300
Bellevue, Washington 98004
(425) 455-9025 Office
(888) 453-5394 Toll Free
(425) 455-2316 Fax

September 21, 2018 JN-27194-2

Mr. Curtis Nelson
c/o Mr. Sam Morse
Cantu Commercial Properties LLC
1410 North Mullan Road, Suite 110
Spokane Valley, Washington 99206

Subject: **ADDENDUM: ADDITIONAL TESTING FOR HEXAVALENT CHROMIUM**
Commercial Property
29805 Pacific Highway South
Federal Way, Washington

On August 31, 2018, Environmental Associates, Inc., (EAI) presented the findings of a report titled "Phase II - Limited Subsurface Sampling and Testing" to you for the above referenced property. You subsequently presented the report to TGE Resources, Inc. (TGE). Due to the chromium detections in soils identified by the project laboratory as discussed in the report, TGE requested further analysis of select soil samples for hexavalent chromium in an effort to discern whether previous chromium detections were compliant with WDOE guidelines. You authorized the additional testing on September 14, 2018.

Three (3) soil samples were selected for analysis of hexavalent chromium. The samples were selected due to either having the highest chromium detections or their split samples collected by TGE indicated the presence of chromium over 19 parts per million (ppm). Testing was performed by Spectra Laboratories of Tacoma, Washington. A copy of the laboratory report is appended to this letter. The results of the hexavalent chromium testing are documented in the table below:

SAMPLE NAME	HEXAVALENT CHROMIUM RESULTS (in mg/kg or parts per million/ppm)
B1-4	<0.1
B4-6	<0.1
B6-6	<0.1

Relying upon the results of lab testing noted above, hexavalent chromium does not appear to be present in the samples analyzed above the laboratory reporting limit. Based on the above results, the chromium detections reported in soil samples in EAI's previous report (JN 27194-2) appear to be the less hazardous species of chromium (Chromium III) which were detected below the applicable compliance limit of 2,000 ppm.

Limitations

This addendum has been prepared at your request for the exclusive use of Mr. Curtis Nelson along with Cantu Commercial Properties LLC and their several representatives for specific application to this site. As the title implies, this addendum is intended for use in conjunction with the August 31, 2018-dated " Phase II - Limited Subsurface Sampling and Testing" report, and should therefore be furnished to recipients of that report with that understanding. Our work for this project was conducted in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area. No other warranty, expressed or implied, is made. If new information is developed in future site work which may include excavations, borings, studies, etc., Environmental Associates, Inc., must be retained to reevaluate the conclusions of this report and to provide amendments as required

We appreciate the opportunity to be of service in providing this hopefully useful addendum. If you have any questions or if we may be of additional service, please do not hesitate to contact us.

Respectfully submitted,
ENVIRONMENTAL ASSOCIATES, INC.

Eric Zuern
Environmental Geologist / Project Manager

Don W. Spencer, M.Sc., P.G., R.E.A.
Principal

EPA-Certified Asbestos Inspector/Management Planner
I.D. # AM 48151

State of Washington Licensed Geologist Hydrogeologist 604 DON W. SPENCER

EPA/HUD Certified Lead Inspector (Licensed)

Registered Site Assessor/Licensed UST Supervisor
State Certification #0878545-U7

License: 604	(Washington)
License: 11464	(Oregon)
License: 876	(California)
License: 5195	(Illinois)
License: 0327	(Mississippi)

ESN NORTHWEST, INC. | Environmental Services Network

1809040440

CHAIN-OF-CUSTODY RECORD

CLIENT: EAI (ESNNW - Renton)
ADDRESS:
PHONE: FAX:
CLIENT PROJECT #: 27194-2 PROJECT MANAGER: Eric Znen

DATE: 9/13/18 PAGE 1 OF 1
PROJECT NAME: Federal Way Shop
LOCATION: Federal Way
COLLECTOR: Eric Znen DATE OF COLLECTION: 9/13/18

Sample Number	Depth	Time	Sample Type	Container Type	TPH - HCID	TPH - Diesel & Oil	TPH - Gasoline	BTEX	VOC 8260CL	VOC 8260	SemiVol 8270	PAH's 8270	PCB's 8082	CL Pesticides 8081	RCRA 8 Metals	MTCA 5 Metals	Pb	Asbestos - PLM	GRO Suite	DRO Suite	WO Suite	hexavalent Chromium	NOTES	Total Number of Containers	Laboratory Note Number
1. B1-4	4	845	Soil	VOA																	X			1	
2. B4-6	6	1040	↓	↓																	X			1	
3. B6-6	6	1147	↓	↓																	X			1	
4.																									
5.																									
6.																									
7.																									
8.																									
9.																									
10.																									
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12.																									
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15.																									
16.																									
17.																									
18.																									

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
Joshua Fedex/UPS	9/13/18 400pm		
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:
call ESNNW for TAT

Turn Around Time: 24 HR 48 HR 5 DAY

1210 Eastside Street SE, Suite 200
Olympia, Washington 98501
Phone: 360-459-4670
Fax: 360-459-3432
Website: www.esnnw.com
E-Mail: info@esnnw.com

SPECTRA Laboratories ...*Where experience matters*

2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

09/20/2018

ESN Northwest
1210 Eastside St SE
Suite 200
Olympia, WA 98501
Attn: Julie Woods

Project: Federal Way Shop
Sample Matrix: Soil
Date Sampled: 08/14/2018
Date Received: 09/14/2018
Spectra Project: 2018090440

Client ID	Spectra #	Analyte	Result	Units	Method
B1-4	1	Hexavalent Chromium	<0.1	mg/Kg	SW846 7196A
B4-6	2	Hexavalent Chromium	<0.1	mg/Kg	SW846 7196A
B6-6	3	Hexavalent Chromium	<0.1	mg/Kg	SW846 7196A

SPECTRA LABORATORIES

Jeffrey Cooper, Laboratory Manager

cl//cmk