April 2020, Groundwater Monitoring Report

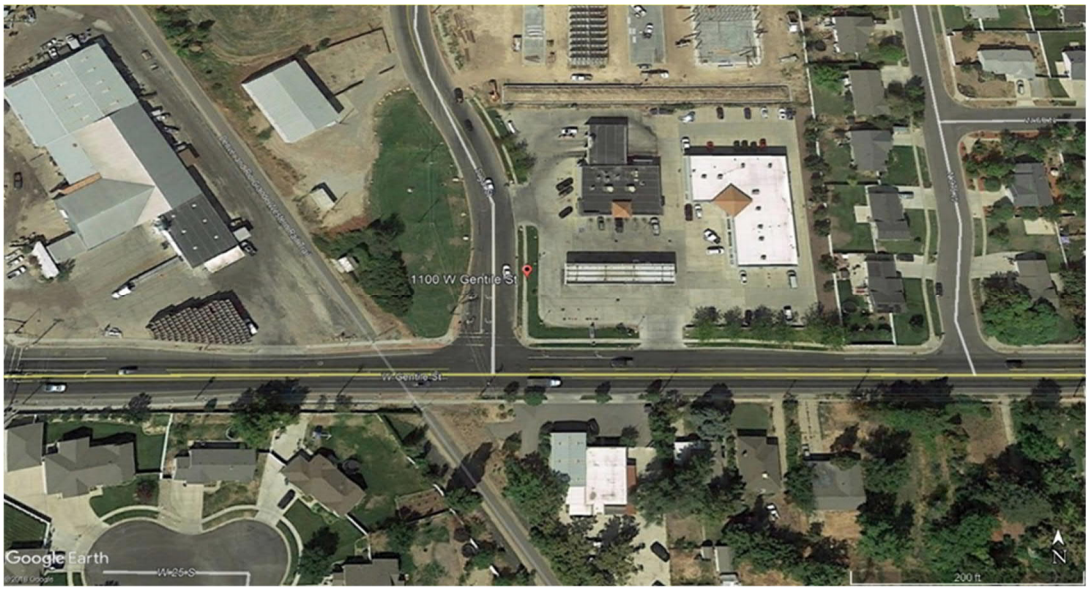
Triple Stop Chevron

1034 West Gentile Street, Layton, Utah

Facility ID No. 3000500, Release Site NUB

July 27, 2020

Terracon Project No. 61197153



Prepared for:

Utah Department of Environmental Quality
Division of Environmental Response and Remediation
Salt Lake City, Utah

Prepared by:

Terracon Consultants, Inc.
Midvale, Utah

July 27, 2020

Utah Department of Environmental Quality
Division of Environmental Response and Remediation
195 North 1950 West
PO Box 144840
Salt Lake City, Utah 84114-4840

Attn: Mr. Kevin Beery
P: 801.536.4214
E: kbeery@utah.gov

Re: April 2020, Groundwater Monitoring Report
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Facility ID No. 3000500, Release Site NUB
Terracon Project No. 61197153

Dear Mr. Beery:

Terracon is pleased to provide this report documenting the April 2020 groundwater monitoring event at the above-referenced site. Terracon conducted this sampling event in accordance with a workplan submitted under NUB-07 dated March 9, 2020.

We appreciate the opportunity to have performed these services for you. Please contact our office at [801] 545-8500 if you have questions regarding this information or if we can provide any other services.

Sincerely,

Terracon Consultants, Inc.

Curt Stripeika
Senior Project Manager
UST Certified Consultant #CC0003

Benjamin B. Bowers
Authorized Project Reviewer
UST Certified Consultant #CC0195

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1.0 INTRODUCTION

1.1 Site Description

Site Name	Triple Stop Chevron
Site Location/Address	1034 West Gentile Street, Layton, Utah
Site Improvements	The Site operates as a gas station and convenience store.

Exhibit 1 (**Appendix A**) presents the general location, shows locations of the wells in relation to pertinent site features and depicts groundwater elevations and elevation contours based on measurements collected during this sampling event. **Exhibit 2** depicts the benzene concentration from the wells sampled and benzene isoconcentration contours.

1.2 Project Background

On February 14, 2019, Layton City reported petroleum odors in the basement of a home near the intersection of Gentile and Angel streets. This prompted an investigation initiated by the Utah Division of Environmental Response and Remediation (DERR). On February 16, 2019 two other homeowners reported gasoline vapors in their basements.

At the request of DERR and the Owner of Triple Stop Chevron, Mr. Mark Smith, Terracon prepared a Work Plan to assist with development of a strategy for containment and remediation of the release.

As a response to the release, CalClean (a mobile high vacuum extraction unit) was brought to the site for the purpose of removing impacted groundwater and recovery of light non-aqueous phase liquid (LNAPL). The unit operated on the Triple Stop Chevron for five weeks and one week on the south side of Gentile Street directly south of the Chevron. During that time 254,960 gallons of water was recovered and discharged under permit to the South Davis Sewer District Reclamation Plant. During that time, it was estimated that 1,350 gallons of light non-aqueous phase liquid (LNAPL) was recovered.

An analysis of inventory control records in November of 2019 by the DERR revealed that since March of 2013 to March of 2019, the Chevron lost between 22,000 to 23,000 gallons of unleaded fuel. The cause of the release was attributed to a crack in the downtube below the spill bucket. The release is believed to have occurred at a rate of 20 gallons per load of unleaded fuel

delivered. The downtube was repaired in April of 2019 and it is presumed the release has stopped.

Additional work performed by Terracon includes investigation into possible additional sources, groundwater monitoring, high vacuum extraction from wells near the USTs, monitoring of petroleum vapors in storm and sanitary sewers, and extraction well installation on the Chevron property and in Gentile Street. Presently Terracon has submitted a CAP and installed a vapor extraction system (SVE) for source reduction and vapor mitigation at the Triple Stop Chevron.

1.3 Scope of Work

This report documents the groundwater sampling event conducted in April of 2020 to evaluate concentrations of dissolved petroleum hydrocarbons and determine groundwater elevations at the Site for evaluation of present groundwater conditions.

1.4 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time. Terracon makes no warranties, express or implied, regarding the findings, conclusions, or recommendations. Terracon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report. These services were performed in accordance with the scope of work agreed upon with you as reflected in our workplan NUB-03 dated October 30, 2019.

1.5 Additional Scope Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work. Such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable, or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during our investigation. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.6 Reliance

This report has been prepared for the exclusive use and reliance of Triple Stop Chevron, Inc. and authorized regulatory agencies having jurisdiction over the release case file. Use or reliance by

any other party is prohibited without the written authorization of Triple Stop Chevron, Inc. and Terracon.

Reliance on the report by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, report, and Terracon's Terms and Conditions. The limitation of liability defined in the Terms and Conditions is the aggregate limit of Terracon's liability to the client and all relying parties.

2.0 METHODOLOGY

2.1 Groundwater Monitoring

On March 31 and April 1, 2020 Terracon gauged 26 wells on the Triple Stop Chevron, along Gentile Street and within the residential neighborhood to the southwest. The wells were sampled by a Utah-certified UST Groundwater and Soil Sampler (Mark Lilly, GS 0097) with oversight from a Utah-certified UST Consultant (Curt Stripeika, CC 0003)

The list of wells and rationale for sampling is listed below:

Wells	Location	Rationale
MW-8	Chevron	Upgradient
MW-12, 13, 14, 15, EW-3, RW-1, RW-2	Chevron	Source area
MW-22, 23, 24, 25	South side of Gentile Street	In plume
MW-34, 35, 36	Western portion of dissolved plume, Gentile Street	Utility influence in Gentile Street
MW-1, 2, 3, 4, 16, 18, 19, 21, 30,	Residential neighborhood	In plume
MW-31, 37	Residential neighborhood	Downgradient plume edge

Blind duplicates were collected from monitor wells MW-1 (labeled as MW-111) and MW-22 (labeled as MW-122).

Terracon sampled the wells following standard operating procedures for well sampling, which included purging three casing volumes from each of the wells using a new disposable bailer for each well.

2.2 Site Observations

Twenty-four wells were gauged across the project Site. Comparing the gauging data collected in January of 2020 to this gauging event shows a groundwater elevation increase of approximately 0.3 feet across the project site. **Table 1** (**Appendix B**) presents the gauging performed in January 2020. **Exhibit 1** (**Appendix A**) shows the calculated potentiometric surface and inferred groundwater flow direction. The groundwater flow direction was toward the southwest. A groundwater gradient was calculated as 0.012 feet/foot between the 4322 and 4317 contours.

2.3 Investigation-derived Waste

Monitoring well purge water was surface applied in the vicinity of the well that generated the water and was allowed to infiltrate and/or evaporate. Care was taken to not allow purge water to affect nearby receptors (e.g., storm water catch basins, utilities, property boundaries, etc.).

3.0 LABORATORY ANALYTICAL PROGRAM

The 26 groundwater samples and the two blind duplicate samples were submitted to Pace Analytical National for analyses of methyl tert-butyl ether, benzene, toluene, ethyl benzene, xylenes, and naphthalene (MBTEXN); total petroleum hydrocarbons – gasoline range organics (TPH-GRO), using EPA Method 8260; and total petroleum hydrocarbons – diesel range organics (TPH-DRO) with silica gel treatment (SGT), using EPA Method 8015.

4.0 DATA EVALUATION

Please refer to **Table 2** in (**Appendix B**) for a summary of the laboratory analytical results. The analytical data are compared to regulatory screening levels, including the Initial Screening Levels (ISL) and Tier 1 Screening Criteria established by the Utah Division of Environmental Response and Remediation (DERR). **Table 3** compares the groundwater analytical results to the EPA Vapor Intrusion Screening Level (VISL) for residential. The executed chain-of-custody records and laboratory data sheets are provided in **Appendix C**. **Exhibit 2** (**Appendix B**) shows benzene concentrations and inferred isoconcentration contours for the January 2020 event. It is noted that the benzene contour was truncated to the north because there is not enough data to support extrapolation of the contours in that direction.

4.1 Groundwater Sample Results

Triple Stop Chevron

Monitor wells MW-8, EW-3, MW-12, MW-13, MW-14 and MW-15 were sampled on the Triple Stop Chevron. Monitor well MW-8 (upgradient of presumed release location) had no detections of MBTEXN, TPH GRO or DRO. Monitor wells EW-3, MW-12, MW-13, MW-14 showed detections

of petroleum constituents. Monitor wells EW-3 and MW-13 showing detection of benzene above Tier 1, MW-14 above ISLs. Monitor well MW-12 had detections but below ISLs. Monitor well MW-15 showed no detections of MBTEXN, TPH GRO or DRO.

Off-Site Groundwater Sample Results

Gentile Street

Groundwater samples were collected from wells RW-1, RW-2, located in Gentile Street, MW-22, MW-23, MW-24, MW-25, MW-34, MW-35 and MW-36 located along the right of way of Gentile Street. Monitor well MW-34 is located south of the Gentile right of way on private property. Monitor wells MW-22, MW-23, MW-24, RW-1 and RW-2 had detections in groundwater above the Tier 1 screening levels. Monitor well 35 showed several detections of petroleum hydrocarbons above regulatory limits, but only benzene was above the ISLs.

Residential neighborhood

Groundwater samples were collected from wells MW-1, MW-2, MW-3, MW-4, MW-16, MW-18, MW-19, MW-21, MW-30, MW-31 and MW-37 within the subdivision. The wells are located within the cul-de-sac, and within property boundaries of 35 South 1125 West and 25 South 1122 West. Monitor wells MW-1, MW-2 and MW-19 had impacts to groundwater over Tier 1 screening levels. Monitor wells MW-4, MW-21 and MW-31 showed impacts above ISLs. All other wells had either non-detect concentrations or detections below the ISLs.

A review of **Table 3** (**Appendix B**) which compared the analytical results to the EPA Target Groundwater Concentration VISL for residential scenarios shows seven of the of the eleven wells sampled in September within the subdivision exceed the VISL screening levels. All of the benzene detections are over the screening level except for MW-21 which had a detection of 0.000649 mg/l. Ethylbenzene was over in MW-1, MW-2, MW-19, and MW-23, naphthalene in monitor well MW-1, toluene in MW-1 and MW-23, and xylenes in MW-1 and MW-23.

4.2 Quality Assurance / Quality Control

Two blind duplicate groundwater samples were collected: MW-111 (duplicate of MW-1) and MW-122 (duplicate of MW-22). The relative percent difference (RPD) was calculated for each of the analytes. RPD is a measure of precision and repeatability and is calculated as

$$RPD = ((X_2-X_1)/X_2)*100$$

Where:

X_1 = Target value

X_2 = Comparison value

MW-1 (blind duplicate MW-101)

Analyte	DRO (mg/l)	GRO (mg/l)	B (mg/l)	T (mg/l)	E (mg/l)	X (mg/l)	N (mg/l)
MW-1	0.440	<100	1.08	0.337	0.167	0.688	<1.0
MW-11	0.476	6.56	1.19	0.306	0.205	0.815	0.0288
RPD (%)	7.56	NC	9.25	10.13	18.54	15.58	NC

MW-14 (blind duplicate MW-114)

Analyte	DRO (mg/l)	GRO (mg/l)	B (mg/l)	T (mg/l)	E (mg/l)	X (mg/l)	N (mg/l)
MW-22	1.45	15.90	3.62	1.58	0.495	2.08	<0.500
MW-122	1.26	17.00	3.72	1.84	0.562	2.33	<0.00100
RPD (%)	15.08	6.47	2.69	14.13	11.92	10.73	NC

NC – Not calculated, DRO – diesel, GRO – gasoline, B – benzene, T – toluene, E – ethylbenzene, X – total xylenes, N - naphthalene

Calculated RPDs were within the laboratories RPD limits of 20 percent. The GRO and naphthalene in MW-1 were not detected above the laboratory reporting limits, however the reported levels in the associated blind duplicate MW-111, were several orders of magnitude lower.

5.0 FINDINGS AND CONCLUSIONS

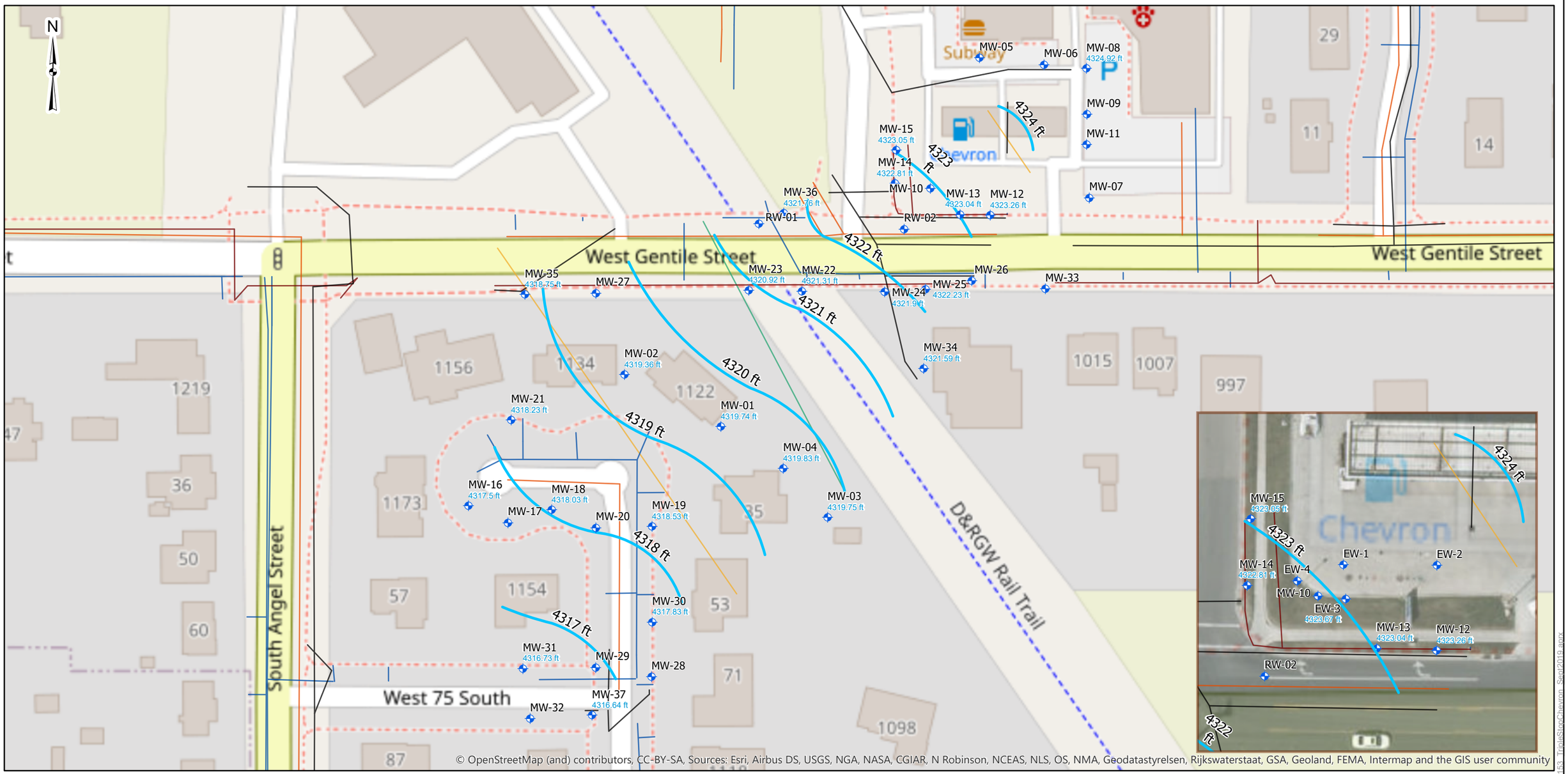
Groundwater elevations have decreased across most of the project site by 0.3 feet since the previous sampling event in January 2020.

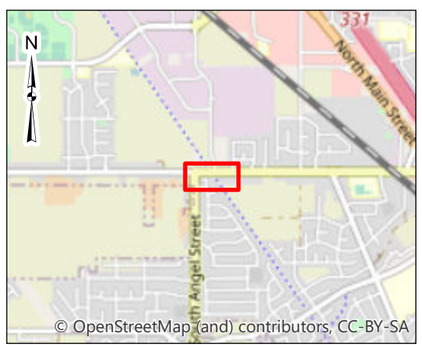
Monitor wells RW-1, RW-2 and EW-3 show the highest petroleum concentrations within the source zone but are showing a reduction from the previous groundwater sampling event.

Monitor wells MW-1 and MW-19 within the subdivision show concentrations of dissolved benzene above Tier 1 screening levels. Monitor wells MW-1, MW-2, MW-4, MW-18, MW-19, MW-23, MW-30 and MW-31 have petroleum constituents that exceed the EPA residential VISLs.

At this time, Terracon developed a CAP and has installed a SVE system to reduce source petroleum mass and mitigate vapors in utilities located in Gentile. To mitigate the vapor intrusion hazard within the subdivision, sub slab depressurization systems (SSDS) have been installed in six homes within the residential subdivision. The systems are currently operating. Sub slab soil gas sampling was performed prior to the install the SSD systems, results of that sampling will be presented in a forthcoming report.

APPENDIX A
Exhibits





- GW Elevation, Spring 2020
- Monitoring Well
- Storm Drain Lines
- UTOPIA AsBuilt Lines
- Waterlines
- Sanitary Sewer Lines
- UTA Right-of-Way
- Andeavor Pipeline

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

0 60 120 240 Feet

Project No.:	61197153
Date:	May 2020
Drawn By:	AST
Reviewed By:	CAS

Terracon
6949 S High Tech Dr, Ste 100 Midvale, UT 84047
PH. (801) 545-8500 terracon.com

Groundwater Elevation Map, April 2020

TSC - Layton Chevron
Triple Stop Chevron Inc.
1034 West Gentile Street
Layton, UT 84041

Exhibit

1

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- Monitoring Well
- Storm Drain Lines
- UTOPIA AsBuilt Lines
- Waterlines
- Sanitary Sewer Lines
- UTA Right-of-Way
- Andeavor Pipeline

Benzene Concentrations (mg/L) April 2020

- >5
- 1 - <5
- 0.3 - <1
- 0 - <0.3

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Feet
0 100 200 400

Project No.:	61197153
Date:	May 2020
Drawn By:	AST
Reviewed By:	JRG

Terracon
6949 High Tech Dr., Suite 100 Midvale, UT 84047
PH. (801) 545-8500 terracon.com

Benzene Concentrations, April 2020

TSC - Layton Chevron
Triple Stop Chevron Inc.
1034 West Gentile Street
Layton, UT 84041

Exhibit

2

APPENDIX B
Analytical Data Tables

Table 1
Monitoring Well Gauging Data
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Well ID	DATE	NAPL	DTW	Groundwater Elevation
TOC Elevation	MM/DD/YY	Thickness	feet below TOC	
MW-1	02/26/19	NM	NM	NM
4330.19	03/15/19	0.00	9.77	4320.42
	05/13/19	0.00	9.26	4320.93
	06/05/19	0.00	9.34	4320.85
	06/14/19	0.00	9.56	4320.63
	07/31/19	0.00	10.14	4320.05
	08/30/19	0.00	10.46	4319.73
	09/26/19	0.00	10.60	4319.59
	01/06/20	0.00	10.71	4319.48
	04/01/20	0.00	10.45	4319.74
MW-2	02/26/19	NM	NM	NM
4330.01	03/15/19	0.00	10.10	4319.91
	06/05/19	0.00	9.66	4320.35
	06/14/19	0.00	9.84	4320.17
	07/31/19	0.00	10.33	4319.68
	08/30/19	0.00	10.58	4319.43
	01/06/20	0.00	10.92	4319.09
	04/01/20	0.00	10.65	4319.36
MW-3	03/15/19	0.00	8.83	4320.46
4329.29	03/19/19	0.00	8.72	4320.57
	06/05/19	0.00	8.36	4320.93
	06/14/19	0.00	8.60	4320.69
	08/30/19	0.00	9.74	4319.55
	01/06/20	0.00	9.84	4319.45
	04/01/20	0.00	9.54	4319.75
MW-4	03/15/19	0.00	9.51	4320.54
4330.05	03/19/19	0.00	9.40	4320.65
	06/05/19	0.00	9.05	4321.00
	06/14/19	0.00	9.30	4320.75
	07/31/19	0.00	10.00	4319.29
	08/30/19	0.00	10.35	4319.70
	01/06/20	0.00	10.56	4319.49
	04/01/20	0.00	10.22	4319.83
MW-5	03/15/19	0.00	8.65	4325.22
4333.87	05/13/19	0.00	8.68	4325.19
	06/05/19	0.00	8.78	4325.09
	06/14/19	NM	NM	NM
	08/30/19	0.00	9.89	4323.98
MW-6	03/15/19	0.00	8.50	4325.62
4334.12	05/13/19	0.00	8.57	4325.55
	06/05/19	0.00	8.65	4325.47
	06/14/19	NM	NM	NM
	08/30/19	0.00	9.27	4324.85
MW-7	03/15/19	0.00	8.51	4325.45
4333.96	05/13/19	0.00	8.59	4325.37
	06/05/19	0.00	8.71	4325.25
	06/14/19	0.00	9.02	4324.94
	08/30/19	0.00	10.15	4323.81
MW-8	03/15/19	0.00	9.07	4325.81
4334.88	05/13/19	0.00	9.12	4325.76
	06/05/19	0.00	9.18	4325.70
	06/14/19	NM	NM	NM
	08/30/19	0.00	10.31	4324.57
	01/06/20	0.00	10.16	4324.72
	04/01/20	0.00	9.96	4324.92
MW-9	03/15/19	0.00	8.95	4325.62

Table 1
Monitoring Well Gauging Data
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Well ID	DATE	NAPL	DTW	Groundwater Elevation
TOC Elevation	MM/DD/YY	Thickness	feet below TOC	
4334.57	05/13/19	0.00	8.99	4325.58
	06/05/19	0.00	9.10	4325.47
	06/14/19	NM	NM	NM
	08/30/19	0.00	10.28	4324.29
MW-10	03/12/19	**0.09**	10.10	4324.43
4334.46	03/15/19	0.00	10.00	4324.46
	03/20/19	0.00	9.98	4324.48
	05/13/19	**1.47**	11.10	4324.46
	06/05/19	NM	NM	-
	06/14/19	0.00	10.64	4323.82
	07/31/19	**0.43**	11.68	4323.10
	08/30/19	**0.52**	11.51	4323.34
	01/08/20	**0.79**	12.24	4322.81
MW-11	03/15/19	0.00	9.16	4325.53
4334.69	05/13/19	0.00	9.17	4325.52
	06/05/19	0.00	9.33	4325.36
	06/14/19	NM	NM	NM
	08/30/19	0.00	10.57	4324.12
MW-12	02/27/19	NM	NM	NM
4332.49	03/15/19	0.00	7.46	4325.03
	05/13/19	0.00	7.52	4324.97
	06/05/19	NM	NM	NM
	06/14/19	0.00	8.15	4324.34
	08/30/19	0.00	9.45	4323.04
	01/08/20	0.00	9.49	4323.00
	04/01/20	0.00	9.23	4323.26
MW-13	02/27/19	NM	NM	NM
4332.82	03/15/19	0.00	8.00	4324.82
	03/20/18	0.00	8.01	4324.81
	05/13/19	0.00	8.06	4324.76
	06/05/19	NM	NM	NM
	06/14/19	0.00	8.72	4324.10
	08/30/19	0.00	9.98	4322.84
	01/08/20	0.00	10.02	4322.80
	03/31/20	0.00	9.78	4323.04
MW-14	02/27/19	NM	NM	NM
4332.86	03/15/19	0.00	8.77	4324.09
	03/20/19	0.00	8.77	4324.09
	05/13/19	0.00	9.56	4323.30
	06/05/19	0.00	9.13	4323.73
	06/14/19	NM	NM	NM
	07/31/19	0.00	9.95	4322.91
	08/30/19	0.00	10.22	4322.64
	01/08/20	0.00	10.30	4322.56
	03/31/20	0.00	10.05	4322.81
MW-15	02/27/19	NM	NM	NM
4333.42	03/15/19	0.00	9.43	4323.99
	05/13/19	0.00	9.23	4324.19
	06/05/19	0.00	9.51	4323.91
	60/14/19	0.00	9.69	4323.73
	07/31/19	0.00	10.29	4323.13
	08/30/19	0.00	10.56	4322.86
	01/08/20	0.00	10.60	4322.82
	03/31/20	0.00	10.37	4323.05
MW-16	03/15/19	0.00	10.10	4318.11
4328.21	05/13/19	0.00	9.50	4318.71
	06/05/19	0.00	9.54	4318.67

Table 1
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Well ID	DATE	NAPL	DTW	Groundwater Elevation
TOC Elevation	MM/DD/YY	Thickness	feet below TOC	
	06/14/19	NM	NM	NM
	07/31/19	0.00	9.94	4318.27
	08/30/19	0.00	10.30	4317.91
	01/06/20	0.00	11.02	4317.19
	04/01/20	0.00	10.71	4317.50
MW-17	03/15/19	0.00	9.62	4318.29
4327.91	05/13/19	0.00	9.04	4318.87
	06/05/19	0.00	9.05	4318.86
	06/14/19	NM	NM	NM
	08/30/19	0.00	9.93	4317.98
MW-18	03/15/19	0.00	9.12	4318.62
4327.74	05/13/19	0.00	8.55	4319.19
	06/05/19	0.00	8.57	4319.17
	06/14/19	0.00	8.79	4318.95
	08/30/19	0.00	9.45	4318.29
	01/06/20	0.00	10.01	4317.73
	04/01/20	0.00	9.71	4318.03
MW-19	03/15/19	0.00	8.05	4319.07
4327.12	05/13/19	0.00	7.49	4319.63
	06/05/19	0.00	7.51	4319.61
	06/14/19	0.00	7.75	4319.37
	07/31/19	0.00	8.10	4319.02
	08/30/19	0.00	8.46	4318.66
	09/26/19	0.00	8.61	4318.51
	01/07/20	0.00	8.83	4318.29
	04/01/20	0.00	8.59	4318.53
MW-20	03/15/19	0.00	8.75	4318.61
4327.36	05/13/19	0.00	8.12	4319.24
	06/05/19	0.00	8.12	4319.24
	06/14/19	0.00	8.34	4319.02
	07/31/19	0.00	8.70	4318.66
	08/30/19	0.00	9.00	4318.36
MW-21	03/15/19	0.00	9.55	4318.77
4328.32	05/13/19	0.00	9.01	4319.31
	06/05/19	0.00	9.04	4319.28
	06/14/19	NM	NM	NM
	07/31/19	0.00	9.47	4318.85
	08/30/19	0.00	9.73	4318.59
	01/06/20	0.00	10.36	4317.96
	04/01/20	0.00	10.09	4318.23
MW-22	02/27/19	NM	NM	NM
4333.90	03/20/19	0.00	11.60	4322.30
	05/13/19	0.00	11.45	4322.45
	06/05/19	0.00	11.51	4322.39
	06/14/19	0.00	11.73	4322.17
	07/31/19	0.00	12.39	4321.51
	08/30/19	0.00	12.70	4321.20
	01/07/20	0.00	12.83	4321.07
	3//31/20	0.00	12.59	4321.31
MW-23	02/27/19	NM	NM	NM
4333.67	03/20/19	0.00	11.90	4321.77
	05/13/19	0.00	11.65	4322.02
	06/05/19	0.00	11.73	4321.94
	06/14/19	0.00	11.94	4321.73
	07/31/19	0.00	12.39	4321.28
	08/30/19	0.00	12.82	4320.85
	09/26/19	0.00	11.92	4321.75

Table 1
Monitoring Well Gauging Data
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Well ID	DATE	NAPL	DTW	Groundwater Elevation
TOC Elevation	MM/DD/YY	Thickness	feet below TOC	
	1/8/2020	0.00	13.02	4320.65
	3/31/2020	0.00	12.75	4320.92
MW-24	03/20/19	0.00	9.98	4323.34
4333.32	05/13/19	0.00	9.92	4323.40
	06/05/19	0.00	10.06	4323.26
	06/14/19	0.00	10.38	4322.94
	07/31/19	0.00	11.30	4322.02
	08/30/19	0.00	11.61	4321.71
	01/07/20	0.00	11.66	4321.66
	03/31/20	0.00	11.42	4321.90
MW-25	03/20/19	0.00	9.01	4323.90
4332.91	05/13/19	0.00	9.00	4323.91
	06/05/19	0.00	9.14	4323.77
	06/14/19	0.00	9.52	4323.39
	07/31/19	0.00	10.59	4322.32
	08/30/19	0.00	10.88	4322.03
	01/07/20	0.00	10.94	4321.97
	03/31/20	0.00	10.68	4322.23
MW-26	03/19/19	0.00	8.31	4324.36
4332.67	05/13/19	0.00	8.22	4324.45
	06/05/19	0.00	8.44	4324.23
	06/14/19	0.00	8.78	4323.89
	08/30/19	0.00	10.25	4322.42
MW-27	03/20/19	0.00	13.37	4319.95
4333.32	05/13/19	0.00	13.01	4320.31
	06/05/19	0.00	13.07	4320.25
	06/14/19	0.00	13.19	4320.13
	08/30/19	0.00	13.80	4319.52
MW-28	03/20/19	NM	NM	NM
4326.51	05/13/19	0.00	7.91	4318.60
	06/05/19	0.00	7.90	4318.61
	06/14/19	0.00	NM	NM
	08/30/19	0.00	8.90	4317.61
MW-29	03/20/19	NM	NM	NM
4326.35	05/13/19	0.00	8.05	4318.30
	06/05/19	0.00	8.05	4318.30
	06/14/19	0.00	8.27	4318.08
	08/30/19	0.00	9.00	4317.35
MW-30	03/20/19	0.00	NM	NM
4326.86	05/13/19	0.00	7.84	4319.02
	06/05/19	0.00	7.84	4319.02
	06/14/19	0.00	8.10	4318.76
	08/30/19	0.00	8.88	4317.98
	01/07/20	0.00	9.28	4317.58
	04/01/20	0.00	9.03	4317.83
MW-31	03/27/19	0.00	8.36	4317.50
4325.86	06/05/19	0.00	7.99	4317.87
	06/14/19	0.00	8.2	4317.66
	07/31/19	0.00	8.58	4317.28
	08/30/19	0.00	8.85	4317.01
	01/06/20	0.00	9.42	4316.44
	04/01/20	0.00	9.13	4316.73
MW-32	03/27/19	0.00	8.74	4317.15
4325.89	06/05/19	0.00	8.36	4317.53
	06/14/19	0.00	8.57	4317.32
	07/31/19	0.00	8.48	4317.41
	08/30/19	0.00	9.20	4316.69

Table 1
Monitoring Well Gauging Data
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Well ID	DATE	NAPL	DTW	Groundwater Elevation
TOC Elevation	MM/DD/YY	Thickness	feet below TOC	
MW-33	03/27/19	0.00	8.06	4324.93
4332.99	06/05/19	0.00	8.45	4324.54
	06/14/19	0.00	8.78	4324.21
	08/30/19	0.00	10.16	4322.83
MW-34	03/27/19	0.00	NM	NM
4331.78	06/05/19	0.00	8.92	4322.86
	06/14/19	0.00	9.22	4322.56
	08/30/19	0.00	10.48	4321.30
	01/07/20	0.00	10.45	4321.33
	04/01/20	0.00	10.19	4321.59
MW-35	04/02/19	0.00	NM	NM
4332.19	06/05/19	0.00	12.91	4319.28
	06/14/19	0.00	12.98	4319.21
	08/30/19	0.00	13.37	4318.82
	01/08/20	0.00	13.72	4318.47
	03/31/20	0.00	13.44	4318.75
MW-36	04/02/19	0.00	NM	NM
4333.26	06/05/19	0.00	10.67	4322.59
	06/14/19	0.00	10.83	4322.43
	08/30/19	0.00	11.60	4321.66
	01/07/20	0.00	11.74	4321.52
	03/31/20	0.00	11.5	4321.76
MW-37	04/02/19	0.00	NM	NM
4326.48	06/05/19	0.00	8.71	4317.77
	06/14/19	0.00	8.93	4317.55
	08/30/19	0.00	9.58	4316.90
	01/06/20	0.00	10.1	4316.38
	04/01/20	0.00	9.84	4316.64
EW-1	05/23/19	0.00	8.82	4325.48
4334.30	05/24/19	**0.01**	8.91	4325.40
	06/05/19	0.00	9.93	4324.37
	07/03/19	0.00	10.48	4323.82
	08/30/19	0.00	10.95	4323.35
	01/08/20	0.00	10.90	4323.40
EW-2	05/23/19	0.00	8.73	4325.44
4334.17	05/24/19	**Trace**	8.81	4325.36
	06/05/19	0.00	9.84	4324.33
	07/03/19	0.00	10.10	DRY
	08/30/19	0.00	10.07	4324.10
	01/08/20	0.00	10.09	4324.08
EW-3	05/23/19	0.00	8.61	4325.49
4334.10	05/24/19	0.00	8.69	4325.41
	06/05/19	NM	NM	NM
	07/03/19	NM	NM	NM
	08/30/19	0.00	10.73	4323.37
	01/08/20	0.00	10.66	4323.44
	03/31/20	0.00	10.43	4323.67
EW-4	05/23/19	**0.13**	9.55	4324.84
4334.29	05/24/19	**0.15**	9.90	4324.50
	06/05/19	NM	NM	NM
	07/03/19	NM	NM	NM
	08/30/19	**0.09**	11.44	4322.92
	01/08/20	**1.18**	12.38	4322.80

Notes:
TOC = Top of Casing, Monitoring Well Surveyed Elevation
DTP - Depth to product

Table 2
Monitoring Well Data and Analytical Results
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Sample ID	DATE	BENZENE	ETHYL-BENZENE	MTBE	NAPH-THALENE	TOLUENE	XYLENES	TPH-GRO	TPH-DRO	Ethanol	FPT	DTW	Groundwater Elevation
	MM/DD/YY	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(feet)	(feet)	(feet)
Initial Screening Level		0.005	0.7	0.2	0.7	1	10	1	1	NE			
Tier 1 Screening Level		0.3	4	0.2	0.7	3	10	10	10	NE			
MW-1	02/26/19	10.6	1.28	<0.005	0.101	0.416	1.63	17.6	1.3	NA	NM	NM	--
	03/15/19	3.06	0.377	<0.005	0.037	0.595	1.41	7.67	1.1	NA	0.00	9.77	--
	09/04/19	6.70	0.551	<0.00100	0.0440	2.41	3.18	18.00	1.06	NA	0.00	10.46	4319.73
	09/26/19	5.63	0.475	<0.100	<0.100	2.06	2.53	11.00	1.73	NA	0.00	10.60	4319.59
	01/06/20	4.38	0.578	<0.100	0.0773	2.08	3.28	25.50	0.912	NA	0.00	10.71	4319.48
MW-101[1]	01/06/20	5.03	0.689	<0.100	0.0710	2.54	3.93	29.10	1.010	NA	0.00	10.71	4319.48
MW-1	04/01/20	1.08	0.167	<0.200	<1.00	0.337	0.688	<100	0.440	NA	0.00	10.45	4319.74
MW-111	04/01/20	1.19	0.205	<0.00100	0.0288	0.306	0.815	6.56	0.476	NA	0.00	10.45	4319.74
MW-2	02/26/19	4.74	<0.012	<0.005	0.053	<0.012	0.106	6.95	<1.0	NA	NM	NM	NA
	03/15/19	1.24	0.030	<0.005	0.028	0.018	0.086	2.40	<1.0	NA	0.00	10.10	4319.91
	09/04/19	0.0214	0.00398	<0.00100	<0.00500	<0.00100	<0.00300	0.430	<0.100	NA	0.00	10.58	4319.43
	01/06/20	0.3310	0.0522	<0.00100	0.00473	0.000562	0.0182	1.760	0.0807	NA	0.00	10.92	4319.09
	04/01/20	0.755	0.132	<0.0100	0.0309	0.0134	0.6320	4.480	0.3830	NA	0.00	10.65	4319.36
MW-3*	03/15/19	0.550	0.073	<0.005	<0.012	0.027	0.813	2.71	<1.0	NA	0.00	9.51	4319.78
MW-3	03/19/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.72	4320.57
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.327	<0.100	NA	0.00	9.74	4319.55
	01/06/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	9.84	4319.45
	04/01/20	0.00168	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	9.54	4319.75
MW-4*	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.83	4321.22
MW-4	03/19/19	0.256	0.020	<0.005	<0.012	<0.012	0.302	1.23	<1.0	NA	0.00	9.40	4320.65
	09/04/19	0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.351	<0.100	NA	0.00	10.35	4319.70
	01/06/20	0.33500	0.00165	<0.00100	<0.00100	0.0149	0.0103	1.680	<0.100	NA	0.00	10.56	4319.49
	04/01/20	0.0986	<0.00100	<0.00100	<0.00500	0.00319	<0.00300	0.259	<0.100	NA	0.00	10.22	4319.83
MW-5	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.65	4325.22
MW-6	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.50	4325.62
MW-7	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.51	4325.45
MW-8	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	9.07	4325.81
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.33	<0.100	NA	0.00	10.31	4324.57
	01/06/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	10.16	4324.72
	03/31/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	9.96	4324.92
MW-9	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.95	4325.62
MW-10	03/12/19	9.32	1.12	<0.005	0.221	4.65	7.72	33.1	13.2	NA	0.09	10.10	4324.43
	03/15/19	14.5	2.32	<0.005	0.394	25.1	18.1	78.0	11.8	NA	0.00	10.00	4324.46
	03/20/19	13.8	2.13	<0.100	0.598	17.9	16.2	68.7	13.3	NA	0.00	9.98	4324.48
MW-11	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	9.16	4325.53
MW-12	02/27/19	0.322	0.019	<0.005	<0.012	0.125	0.069	4.54	<1.0	<1	NM	NM	--
	03/15/19	0.158	0.012	<0.005	<0.012	0.082	0.044	4.92	<1.0	NA	0.00	7.46	4325.03
	09/05/19	0.0746	0.00274	<0.00100	<0.00500	0.00673	0.0107	2.11	0.0562	NA	0.00	10.57	4321.92
	01/08/20	0.00760	<0.00100	<0.00100	<0.00500	<0.00100	0.00110	0.193	<0.100	NA	0.00	9.49	4323.00
	03/31/20	0.00361	<0.00100	<0.00100	<0.00500	<0.00100	0.00172	0.159	<0.100	NA	0.00	9.23	4323.26
MW-13	02/27/19	4.98	1.06	<0.200	<0.500	4.57	8.38	19.0	4.4	<50	NM	NM	--
	03/15/19	2.29	0.464	<0.005	0.039	1.27	3.06	10.7	2.1	NA	0.00	8.00	4324.82
	03/20/18	3.02	0.635	<0.005	0.045	1.97	4.42	17.0	2.9	NA	0.00	8.01	4324.81
	09/05/19	2.530	1.53	<0.00100	0.171	1.47	11.50	57.3	2.5	NA	0.00	9.88	4322.94
	01/08/20	0.225	0.133	<0.100	0.0298	0.0127	0.756	4.09	0.655	NA	0.00	10.02	4322.80
	03/31/20	0.402	0.220	<0.0100	0.0383	0.0317	1.340	4.38	1.270	NA	0.00	9.78	4323.04
MW-14	02/27/19	2.09	0.511	<0.005	0.046	0.804	3.44	13.5	3.3	<1	NM	NM	--
	03/15/19	1.16	0.365	<0.005	0.039	0.765	2.56	9.21	2.5	NA	0.00	8.77	4324.09
	03/20/19	2.38	0.341	<0.005	0.034	1.44	2.43	11.0	2.1	NA	0.00	8.77	4324.09
	09/05/19	0.798	0.082	<0.00100	0.0204	0.485	0.428	6.3	0.415	NA	0.00	10.22	4322.64
	01/08/20	0.0179	0.00143	<0.00100	<0.00500	0.000857	0.00136	1.02	<0.100	NA	0.00	10.30	4322.56
MW-114[1]	01/08/20	0.0183	0.00155	<0.00100	<0.00100	0.000861	0.00152	0.954	<0.100	NA	0.00	10.30	4322.56
MW-14	03/31/20	0.0317	0.00282	<0.00100	<0.00100	0.00119	0.00383	0.811	<0.100	NA	0.00	10.05	4322.81
MW-15	02/27/19	0.318	<0.012	<0.005	<0.012	<0.012	0.031	3.28	<1.0	<1	NM	NM	--
	03/15/19	0.038	<0.012	<0.005	<0.012	<0.012	<0.012	0.334	<1.0	NA	0.00	9.43	4323.99
	09/05/19	0.00184	<0.00100	<0.00100	<0..00500	<0.00100	<0.00300	0.217	<0.100	NA	0.00	10.56	4322.86
	01/08/20	<0.00100	<0.00100	<0.00100	<0..00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.60	4322.82
	03/31/20	<0.00100	<0.00100	<0.00100	<0..00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.37	4323.05
MW-16	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	10.10	4318.11
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.323	<0.100	NA	0.00	10.30	4317.91
	01/06/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	11.02	4317.19
	04/01/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.71	4317.50
MW-17	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	9.62	4318.29
MW-18	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	9.12	4318.62

Table 2
Monitoring Well Data and Analytical Results
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Sample ID	DATE	BENZENE	ETHYL-BENZENE	MTBE	NAPH-THALENE	TOLUENE	XYLENES	TPH-GRO	TPH-DRO	Ethanol	FPT	DTW	Groundwater Elevation
	MM/DD/YY	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(feet)	(feet)	(feet)
Initial Screening Level		0.005	0.7	0.2	0.7	1	10	1	1	NE			
Tier 1 Screening Level		0.3	4	0.2	0.7	3	10	10	10	NE			
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.324	<0.100	NA	0.00	9.45	4318.29
	01/06/20	0.00159	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.01	4317.73
	04/01/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	9.71	4318.03
MW-19	03/15/19	4.23	0.423	<0.005	0.040	0.085	0.333	6.29	<1.0	NA	0.00	8.05	4319.07
	09/04/19	8.13	0.81	<0.00100	0.0548	0.0589	0.0589	10.30	1.47	NA	0.00	8.46	4318.66
		9.70	0.746	<0.0400	0.0862	0.0464	1.51	12.50	1.68	NA	0.00	8.61	4318.51
	01/07/20	2.14	0.0558	<0.00100	0.00401	0.00165	<0.00300	4.56	0.198	NA	0.00	8.83	4318.29
	04/01/20	4.58	0.3720	<0.00500	<0.250	<0.0500	0.0569	14.20	0.559	NA	0.00	8.59	4318.53
MW-20	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.75	4318.61
MW-21	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	9.55	4318.77
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.361	<0.100	NA	0.00	9.73	4318.59
	01/06/20	0.000649	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	0.19	NA	0.00	10.35	4317.97
	04/01/20	0.00756	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.09	4318.23
MW-22	02/27/19	6.32	2.12	<0.200	<0.500	10.4	16.9	41.4	6.7	<50	NM	NM	--
	03/20/19	0.421	0.116	<0.005	0.016	0.182	0.665	2.35	1.1	NA	0.00	11.60	4322.30
	09/04/19	0.251	0.180	<0.00100	0.0286	0.462	1.280	7.40	1.08	NA	0.00	12.70	4321.20
	01/07/20	6.81	1.11	<0.00100	0.144	1.06	2.06	29.50	1.85	NA	0.00	12.83	4321.07
	03/31/20	3.62	0.495	<0.100	<0.500	1.58	2.08	15.90	1.45	NA	0.00	12.59	4321.31
MW-122	03/31/20	3.72	0.562	<0.00100	0.0892	1.84	2.33	17.00	1.26	NA	0.00	12.59	4321.31
MW-23	02/27/19	5.85	1.09	<0.005	<0.012	5.96	8.56	21.5	5.2	<50	NM	NM	--
	03/20/19	0.184	0.048	<0.005	<0.012	0.231	0.270	1.02	<1.0	NA	0.00	11.90	4321.77
	09/26/19	0.728	0.143	<0.00200	0.0668	0.417	0.382	1.96	0.917	NA	0.00	11.92	4321.75
	01/08/20	1.180	0.188	<0.00100	<0.00100	0.0602	0.412	6.26	0.311	NA	0.00	13.02	4320.65
	03/31/20	2.240	0.177	<0.0250	<0.125	0.971	0.538	8.90	0.363	na	0.00	12.75	4320.92
MW-24	03/20/19	5.42	0.942	<0.005	0.132	0.233	7.11	18.6	4.9	NA	0.00	9.98	4323.34
	09/04/19	0.00507	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.390	0.0394	NA	0.00	11.61	4321.71
MW-24A	09/04/19	0.00495	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.383	0.0321	NA	0.00	11.61	4321.71
MW-24	01/07/20	7.86	1.27	<0.00100	0.0705	0.0304	1.18	20.3	1.35	NA	0.00	11.66	4321.66
	03/31/20	0.853	0.258	<0.0250	0.0309	0.0161	0.754	<12.5	1.10	NA	0.00	11.42	4321.49
MW-25	03/20/19	1.25	0.298	<0.005	0.028	0.243	2.06	5.53	1.5	NA	0.00	9.01	4323.90
	09/04/19	0.000668	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.351	<0.100	NA	0.00	10.88	4322.03
MW-25A	09/04/19	0.000899	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.349	<0.100	NA	0.00	10.88	4322.03
MW-25	01/07/20	0.00182	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.94	4321.97
	03/31/20	0.00136	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.68	4322.23
MW-26	03/19/19	0.127	<0.012	<0.005	<0.012	0.012	0.033	0.991	<1.0	NA	0.00	8.31	4324.36
MW-27	03/20/19	0.281	0.056	<0.005	<0.012	0.618	0.334	1.44	<1.0	NA	0.00	13.37	4319.95
MW-28	03/20/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	NM	NM	--
MW-29	03/20/19	0.120	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	NM	NM	--
MW-30	03/20/19	0.820	0.076	<0.005	<0.012	0.014	0.068	0.978	<1.0	NA	NM	NM	--
	09/04/19	0.139	0.0584	<0.00100	<0.0050	<0.00100	<0.00100	0.516	0.0784	NA	0.00	8.88	4317.98
	01/07/20	0.00984	<0.00100	<0.00100	<0.0050	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	9.28	4317.58
	04/01/20	0.00348	<0.00100	<0.00100	<0.0050	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	9.03	4317.83
MW-31	03/27/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.36	4317.50
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.34	<0.100	NA	0.00	8.85	4317.01
	01/06/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	9.42	4316.44
	04/01/20	0.0342	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.134	<0.100	NA	0.00	9.13	4316.73
MW-32	03/27/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.74	4317.15
MW-33	03/27/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.06	4324.93
MW-34	03/27/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	NM	NM	-
	09/04/19	0.00253	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.336	<0.100	NA	0.00	10.48	4321.30
	01/07/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.45	4321.33
	03/31/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.19	4321.59
MW-35	04/02/19	0.927	<0.012	<0.005	0.017	0.078	0.258	1.84	<1.0	NA	NM	NM	--
	09/04/19	1.52	0.0931	<0.00100	0.0121	0.140	0.558	5.81	0.262	NA	0.00	13.37	4318.82
	01/08/20	1.06	0.0735	<0.00100	0.0255	0.199	0.203	4.70	0.161	NA	0.00	13.72	4318.47
	03/31/20	0.0789	0.0292	<0.00100	0.0125	0.00267	0.0673	0.62	0.0710	NA	0.00	13.44	4318.75
MW-36	04/02/19	0.026	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	NM	NM	-
	09/04/19	0.193	<0.00100	<0.00100	<0.00500	<0.00100	0.00352	1.31	<0.100	NA	0.00	11.60	4321.66
	01/07/28	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	11.74	4321.52
	03/31/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	11.50	4321.76
MW-37	04/02/19	0.086	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	NM	NM	-
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.334	<0.105	NA	0.00	9.58	4316.90
	01/06/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	10.10	4316.38
	04/01/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	9.84	4316.64

Table 2
Monitoring Well Data and Analytical Results
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Sample ID	DATE	BENZENE	ETHYL-BENZENE	MTBE	NAPH-THALENE	TOLUENE	XYLENES	TPH-GRO	TPH-DRO	Ethanol	FPT	DTW	Groundwater Elevation
	MM/DD/YY	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(feet)	(feet)	(feet)
Initial Screening Level		**0.005**	**0.7**	**0.2**	**0.7**	**1**	**10**	**1**	**1**	**NE**			
Tier 1 Screening Level		**0.3**	**4**	**0.2**	**0.7**	**3**	**10**	**10**	**10**	**NE**			
EW-3	03/31/20	**4.14**	**1.87**	<0.0500	**0.458**	**4.290**	**23.600**	**82.800**	**12.20**	NA	0.00	10.43	4323.67
RW-1	09/18/19	**1.21**	**1.22**	<0.100	**0.246**	**3.53**	**10.6**	**54.3**	**5.81**	NA	0.00	NM	-
	04/02/20	**<0.100**	**0.36**	<0.100	<0.500	**0.644**	**3.14**	**14.4**	**2.49**	NA	0.00	NM	-
RW-2	09/18/19	**11.6**	**2.20**	<0.500	**0.303**	**18.5**	**16.7**	**143**	**6.23**	NA	0.00	NM	-
	04/02/20	**4.1**	**1.51**	<0.0500	**0.148**	**13.2**	**12.9**	**79.7**	**3.81**	NA	0.00	NM	-
Layton 1014 E	03/04/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	**0.175**	<1.0	NA	NM	NM	NM
1140 W. Gentile	03/13/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	NM	NM	NM

Notes:
*** The sample labels for MW-3 & MW-4 were reversed on 3/15/19. Resampled on 3/19/19.**
TPH-GRO = Total Petroleum Hydrocarbons as Gasoline
TOC = Top of Casing, Monitoring Well Surveyed Elevation
< = Not detected above the laboratoryreporting limit
NE = Not Established WTE = Water Table Elevation
MW-101 and MW-114 are blind duplicates of MW-1 and MW-14 respectively
Bold numbers indicate an exceedance of the Initial Screening Level

TPH-DRO = Total Petroleum Hydrocarbons as Diesel
DTW = Depth to Water
mg/L = Milligrams per Liter
FPT = Free Product Thickness
NA = Not Analyzed
NM= Not Measured
NE = Not Established

Table 3
Groundwater in Residential Neighborhood Compared to EPA VISL
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Sample ID	DATE	BENZENE	ETHYL-BENZENE	MTBE	NAPH-THALENE	TOLUENE	XYLENES	TPH-GRO	TPH-DRO	Ethanol	FPT	DTW	Groundwater Elevation
	MM/DD/YY	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(feet)	(feet)	(feet)
EPA VISL, residential		**0.00159**	**0.00349**	**0.450**	**0.00459**	**1.92**	**0.0385**	**NA**	**NA**	**NA**			
MW-1	02/26/19	**10.6**	**1.28**	<0.005	**0.101**	**0.416**	**1.63**	**17.6**	**1.3**	NA	NM	NM	--
	03/15/19	**3.06**	**0.377**	<0.005	**0.037**	**0.595**	**1.41**	**7.67**	**1.1**	NA	0.00	9.77	--
	09/04/19	**6.70**	**0.551**	<0.00100	**0.0440**	**2.41**	**3.18**	**18.00**	**1.06**	NA	0.00	10.46	4319.73
	09/26/19	**5.63**	**0.475**	<0.100	<0.100	**2.06**	**2.53**	**11.00**	**1.73**	NA	0.00	10.60	4319.59
	01/06/20	**4.38**	**0.578**	<0.100	**0.0773**	**2.08**	**3.28**	**25.50**	**0.912**	NA	0.00	10.71	4319.48
	04/01/20	**1.08**	**0.167**	<0.200	<1.00	**0.337**	**0.688**	**<100**	**0.440**	NA	0.00	10.45	4319.74
MW-2	02/26/19	**4.74**	<0.012	<0.005	**0.053**	<0.012	**0.106**	**6.95**	<1.0	NA	NM	NM	NA
	03/15/19	**1.24**	**0.030**	<0.005	**0.028**	**0.018**	**0.086**	**2.40**	<1.0	NA	0.00	10.10	4319.91
	09/04/19	**0.0214**	**0.00398**	<0.00100	<0.00500	<0.00100	<0.00300	**0.430**	<0.100	NA	0.00	10.58	4319.43
	01/06/20	**0.3310**	**0.0522**	<0.00100	**0.00473**	**0.000562**	**0.0182**	**1.760**	**0.0807**	NA	0.00	10.92	4319.09
	04/01/20	**0.755**	**0.132**	<0.0100	**0.0309**	**0.0134**	**0.6320**	**4.480**	**0.3830**	NA	0.00	10.65	4319.36
MW-3*	03/15/19	**0.550**	0.073	<0.005	<0.012	**0.027**	**0.813**	**2.71**	<1.0	NA	0.00	9.51	4319.78
MW-3	03/19/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.72	4320.57
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	**0.327**	<0.100	NA	0.00	9.74	4319.55
	01/06/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	9.84	4319.45
	04/01/20	**0.00168**	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	9.54	4319.75
MW-4*	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.83	4321.22
MW-4	03/19/19	**0.256**	**0.020**	<0.005	<0.012	<0.012	**0.302**	**1.23**	<1.0	NA	0.00	9.40	4320.65
	09/04/19	**0.00500**	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	**0.351**	<0.100	NA	0.00	10.35	4319.70
	01/06/20	**0.33500**	**0.00165**	<0.00100	<0.00100	**0.0149**	**0.0103**	**1.680**	<0.100	NA	0.00	10.56	4319.49
	04/01/20	**0.0986**	<0.00100	<0.00100	<0.00500	**0.00319**	<0.00300	**0.259**	<0.100	NA	0.00	10.22	4319.83
MW-16	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	10.10	4318.11
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	**0.323**	<0.100	NA	0.00	10.30	4317.91
	01/06/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	11.02	4317.19
	04/01/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.71	4317.50
MW-18	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	9.12	4318.62
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	**0.324**	<0.100	NA	0.00	9.45	4318.29
	01/06/20	**0.00159**	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.01	4317.73
	04/01/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	9.71	4318.03
MW-19	03/15/19	**4.23**	**0.423**	<0.005	**0.040**	**0.085**	**0.333**	**6.29**	<1.0	NA	0.00	8.05	4319.07
	09/04/19	**8.13**	**0.81**	<0.00100	**0.0548**	**0.0589**	**0.0589**	**10.30**	**1.47**	NA	0.00	8.46	4318.66
	09/26/19	**9.70**	**0.746**	<0.0400	**0.0862**	**0.0464**	**1.51**	**12.50**	**1.68**	NA	0.00	8.61	4318.51
	01/07/20	**2.14**	**0.0558**	<0.00100	**0.00401**	**0.00165**	<0.00300	**4.56**	**0.198**	NA	0.00	8.83	4318.29
	04/01/20	**4.58**	**0.3720**	<0.00500	<0.250	<0.0500	**0.0569**	**14.20**	**0.559**	NA	0.00	8.59	4318.53
MW-20	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.75	4318.61
MW-21	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	9.55	4318.77
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	**0.361**	<0.100	NA	0.00	9.73	4318.59
	01/06/20	**0.000649**	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	**0.19**	NA	0.00	10.35	4317.97
	04/01/20	**0.00756**	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.09	4318.23
MW-23	09/26/19	**0.728**	**0.143**	<0.00200	**0.0668**	**0.417**	**0.382**	**1.96**	**0.917**	NA	0.00	11.92	4316.40
	01/08/20	**1.180**	**0.188**	<0.00100	<0.00100	**0.0602**	**0.412**	**6.26**	**0.311**	NA	0.00	13.02	4320.65
	03/31/20	**2.240**	**0.177**	<0.0250	<0.125	**0.971**	**0.538**	**8.90**	**0.363**	na	0.00	12.75	4320.92
MW-28	03/20/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	NM	NM	--
MW-29	03/20/19	**0.120**	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	NM	NM	--
MW-30	03/20/19	**0.820**	**0.076**	<0.005	<0.012	**0.014**	**0.068**	**0.978**	<1.0	NA	NM	NM	--
	09/04/19	**0.139**	**0.0584**	<0.00100	<0.0050	<0.00100	<0.00100	**0.516**	**0.0784**	NA	0.00	8.88	4317.98
	01/07/20	**0.00984**	<0.00100	<0.00100	<0.0050	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	9.28	4317.58
	04/01/20	**0.00348**	<0.00100	<0.00100	<0.0050	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	9.03	4317.83
MW-31	03/27/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.36	4317.50
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	**0.34**	<0.105	NA	0.00	8.85	4317.01
	01/06/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	9.42	4316.44
	04/01/20	**0.0342**	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.134	<0.100	NA	0.00	9.13	4316.73
MW-32	03/27/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.74	4317.15
MW-37	04/02/19	**0.086**	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	NM	NM	-
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	**0.334**	<0.105	NA	0.00	9.58	4316.90
	01/06/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	10.10	4316.38
	04/01/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	9.84	4316.64

Notes:
*** The sample labels for MW-3 & MW-4 were reversed on 3/15/19. Resampled on 3/19/19.**
TPH-GRO = Total Petroleum Hydrocarbons as Gasoline
TOC = Top of Casing, Monitoring Well Surveyed Elevation
< = Not detected above the laboratory reporting limit
NE = Not Established WTE = Water Table Elevation

Bold numbers indicate an exceedance of the Initial Screening Level

TPH-DRO = Total Petroleum Hydrocarbons as Diesel
DTW = Depth to Water
mg/L = Milligrams per Liter
FPT = Free Product Thickness
NA = Not Analyzed
NM= Not Measured
NE = Not Established

APPENDIX C
Chain of Custody and Laboratory Data Sheets

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

April 09, 2020

Terracon - Salt Lake City, UT

Sample Delivery Group:	L1205552
Samples Received:	04/03/2020
Project Number:	61197153
Description:	Triple Stop Chevron

Report To: Curt Stripeika
6949 South High Tech Drive
Midvale, UT 84047

Entire Report Reviewed By:

Jason Romer
Project Manager

MW-8 L1205552-01 GW

Collected by: Mark Lilly | Collected date/time: 03/31/20 09:30 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455724	1	04/04/20 22:30	04/04/20 22:30	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1455916	1	04/06/20 23:53	04/07/20 16:19	TJD	Mt. Juliet, TN

MW-12 L1205552-02 GW

Collected by: Mark Lilly | Collected date/time: 03/31/20 10:50 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455724	1	04/04/20 22:50	04/04/20 22:50	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1455916	1	04/06/20 23:53	04/07/20 16:43	TJD	Mt. Juliet, TN

MW-13 L1205552-03 GW

Collected by: Mark Lilly | Collected date/time: 03/31/20 11:17 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455724	10	04/04/20 23:09	04/04/20 23:09	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1455916	1	04/06/20 23:53	04/07/20 17:06	TJD	Mt. Juliet, TN

MW-14 L1205552-04 GW

Collected by: Mark Lilly | Collected date/time: 03/31/20 11:40 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455724	1	04/04/20 23:29	04/04/20 23:29	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1455916	1	04/06/20 23:53	04/07/20 17:30	TJD	Mt. Juliet, TN

MW-15 L1205552-05 GW

Collected by: Mark Lilly | Collected date/time: 03/31/20 12:11 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455724	1	04/04/20 23:49	04/04/20 23:49	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1455916	1	04/06/20 23:53	04/07/20 17:53	TJD	Mt. Juliet, TN

MW-36 L1205552-06 GW

Collected by: Mark Lilly | Collected date/time: 03/31/20 12:58 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455724	1	04/05/20 00:09	04/05/20 00:09	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1455916	1	04/06/20 23:53	04/07/20 18:13	TJD	Mt. Juliet, TN

EW-3 L1205552-07 GW

Collected by: Mark Lilly | Collected date/time: 03/31/20 13:26 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1456833	50	04/07/20 23:47	04/07/20 23:47	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1455916	10	04/06/20 23:53	04/08/20 06:49	JN	Mt. Juliet, TN

MW-35 L1205552-08 GW

Collected by: Mark Lilly | Collected date/time: 03/31/20 14:33 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1456276	1	04/07/20 01:20	04/07/20 01:20	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1455916	1	04/06/20 23:53	04/08/20 06:26	JN	Mt. Juliet, TN

MW-23 L1205552-09 GW

Collected by: Mark Lilly | Collected date/time: 03/31/20 15:53 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455724	25	04/05/20 01:09	04/05/20 01:09	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1455916	1	04/06/20 23:53	04/07/20 19:24	TJD	Mt. Juliet, TN

MW-22 L1205552-10 GW

Collected by: Mark Lilly | Collected date/time: 03/31/20 16:20 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455724	100	04/05/20 01:28	04/05/20 01:28	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1455916	1	04/06/20 23:53	04/07/20 21:43	JN	Mt. Juliet, TN

MW-122 L1205552-11 GW

Collected by: Mark Lilly | Collected date/time: 03/31/20 16:42 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455724	1	04/05/20 01:48	04/05/20 01:48	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1456276	100	04/07/20 01:59	04/07/20 01:59	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1455916	1	04/06/20 23:53	04/07/20 22:06	JN	Mt. Juliet, TN

MW-24 L1205552-12 GW

Collected by: Mark Lilly | Collected date/time: 03/31/20 17:00 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1456276	25	04/07/20 02:19	04/07/20 02:19	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1455916	1	04/06/20 23:53	04/07/20 22:30	JN	Mt. Juliet, TN

MW-25 L1205552-13 GW

Collected by: Mark Lilly | Collected date/time: 03/31/20 17:20 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455724	1	04/05/20 02:28	04/05/20 02:28	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1456276	1	04/07/20 01:40	04/07/20 01:40	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1455916	1	04/06/20 23:53	04/07/20 22:50	JN	Mt. Juliet, TN

MW-34 L1205552-14 GW

Collected by: Mark Lilly | Collected date/time: 03/31/20 17:52 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455724	1	04/05/20 02:48	04/05/20 02:48	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1455916	1	04/06/20 23:53	04/07/20 23:10	JN	Mt. Juliet, TN

MW-1 L1205552-15 GW

Collected by: Mark Lilly | Collected date/time: 04/01/20 11:40 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455730	200	04/04/20 23:31	04/04/20 23:31	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1456254	1	04/07/20 05:40	04/07/20 23:34	JN	Mt. Juliet, TN

MW-111 L1205552-16 GW

Collected by: Mark Lilly | Collected date/time: 04/01/20 11:55 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455730	1	04/04/20 23:54	04/04/20 23:54	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1456848	25	04/08/20 01:33	04/08/20 01:33	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1456254	1	04/07/20 05:40	04/07/20 23:55	JN	Mt. Juliet, TN

MW-2 L1205552-17 GW

Collected by: Mark Lilly | Collected date/time: 04/01/20 12:12 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455730	10	04/05/20 00:16	04/05/20 00:16	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1456254	1	04/07/20 05:40	04/08/20 00:18	JN	Mt. Juliet, TN

MW-3 L1205552-18 GW

Collected by: Mark Lilly | Collected date/time: 04/01/20 12:47 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455730	1	04/05/20 00:39	04/05/20 00:39	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1456848	1	04/08/20 00:08	04/08/20 00:08	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1456254	1	04/07/20 05:40	04/08/20 00:39	JN	Mt. Juliet, TN

MW-4 L1205552-19 GW

Collected by: Mark Lilly | Collected date/time: 04/01/20 13:10 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1456848	1	04/08/20 00:29	04/08/20 00:29	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1456254	1	04/07/20 05:40	04/08/20 01:02	JN	Mt. Juliet, TN

MW-16 L1205552-20 GW

Collected by: Mark Lilly | Collected date/time: 04/01/20 13:55 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455730	1	04/05/20 01:25	04/05/20 01:25	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1456254	1	04/07/20 05:40	04/08/20 01:23	JN	Mt. Juliet, TN

MW-18 L1205552-21 GW

Collected by: Mark Lilly | Collected date/time: 04/01/20 14:17 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455730	1	04/05/20 01:48	04/05/20 01:48	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1456254	1	04/07/20 05:40	04/08/20 01:46	JN	Mt. Juliet, TN

MW-19 L1205552-22 GW

Collected by: Mark Lilly | Collected date/time: 04/01/20 14:50 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455730	50	04/05/20 02:11	04/05/20 02:11	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1456254	1	04/07/20 05:40	04/08/20 02:10	JN	Mt. Juliet, TN

MW-21 L1205552-23 GW

Collected by: Mark Lilly | Collected date/time: 04/01/20 15:16 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455730	1	04/05/20 02:34	04/05/20 02:34	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1456254	1	04/07/20 05:40	04/08/20 02:34	JN	Mt. Juliet, TN

MW-30 L1205552-24 GW

Collected by: Mark Lilly | Collected date/time: 04/01/20 16:00 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455730	1	04/05/20 02:56	04/05/20 02:56	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1456254	1	04/07/20 05:40	04/08/20 02:57	JN	Mt. Juliet, TN

MW-31 L1205552-25 GW

Collected by: Mark Lilly | Collected date/time: 04/01/20 16:22 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455730	1	04/05/20 03:19	04/05/20 03:19	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1456254	1	04/07/20 05:40	04/08/20 03:21	JN	Mt. Juliet, TN

MW-37 L1205552-26 GW

Collected by: Mark Lilly | Collected date/time: 04/01/20 16:45 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455730	1	04/05/20 03:42	04/05/20 03:42	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1456254	1	04/07/20 05:40	04/08/20 03:44	JN	Mt. Juliet, TN

RW-1 L1205552-27 GW

Collected by: Mark Lilly | Collected date/time: 04/02/20 08:40 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455730	100	04/05/20 04:05	04/05/20 04:05	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1456254	1	04/07/20 05:40	04/08/20 04:08	JN	Mt. Juliet, TN

RW-2 L1205552-28 GW

Collected by: Mark Lilly | Collected date/time: 04/02/20 09:25 | Received date/time: 04/03/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1455730	50	04/05/20 04:28	04/05/20 04:28	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1456848	500	04/08/20 01:54	04/08/20 01:54	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1456254	1	04/07/20 05:40	04/08/20 04:32	JN	Mt. Juliet, TN

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Jason Romer
Project Manager

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

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG1455730	4-Bromofluorobenzene	L1205552-16, 20, 22, 26, 28

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG1455916	o-Terphenyl	L1205552-13

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG1455916	(LCSD) R3516344-3, L1205552-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14	DRO w/ SGT and DRO W/ SGT

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/04/2020 22:30	WG1455724
Benzene	U		0.000331	0.00100	1	04/04/2020 22:30	WG1455724
Ethylbenzene	U		0.000384	0.00100	1	04/04/2020 22:30	WG1455724
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/04/2020 22:30	WG1455724
Naphthalene	U		0.00100	0.00500	1	04/04/2020 22:30	WG1455724
Toluene	U		0.000412	0.00100	1	04/04/2020 22:30	WG1455724
Xylenes, Total	U		0.00106	0.00300	1	04/04/2020 22:30	WG1455724
(S) Toluene-d8	*102*			*80.0-120*		*04/04/2020 22:30*	WG1455724
(S) 4-Bromofluorobenzene	*99.9*			*77.0-126*		*04/04/2020 22:30*	WG1455724
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*04/04/2020 22:30*	WG1455724

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DRO w/ SGT	U	J3	0.0247	0.100	1	04/07/2020 16:19	WG1455916
(S) o-Terphenyl	*68.4*			*52.0-156*		*04/07/2020 16:19*	WG1455916

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	0.159	J	0.108	0.500	1	04/04/2020 22:50	WG1455724
Benzene	0.00361		0.000331	0.00100	1	04/04/2020 22:50	WG1455724
Ethylbenzene	U		0.000384	0.00100	1	04/04/2020 22:50	WG1455724
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/04/2020 22:50	WG1455724
Naphthalene	U		0.00100	0.00500	1	04/04/2020 22:50	WG1455724
Toluene	U		0.000412	0.00100	1	04/04/2020 22:50	WG1455724
Xylenes, Total	0.00172	J	0.00106	0.00300	1	04/04/2020 22:50	WG1455724
(S) Toluene-d8	*97.8*			*80.0-120*		*04/04/2020 22:50*	WG1455724
(S) 4-Bromofluorobenzene	*97.4*			*77.0-126*		*04/04/2020 22:50*	WG1455724
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*04/04/2020 22:50*	WG1455724

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	U	J3	0.0247	0.100	1	04/07/2020 16:43	WG1455916
(S) o-Terphenyl	*76.8*			*52.0-156*		*04/07/2020 16:43*	WG1455916

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	4.38	J	1.08	5.00	10	04/04/2020 23:09	WG1455724
Benzene	0.402		0.00331	0.0100	10	04/04/2020 23:09	WG1455724
Ethylbenzene	0.220		0.00384	0.0100	10	04/04/2020 23:09	WG1455724
Methyl tert-butyl ether	U		0.00367	0.0100	10	04/04/2020 23:09	WG1455724
Naphthalene	0.0383	J	0.0100	0.0500	10	04/04/2020 23:09	WG1455724
Toluene	0.0317		0.00412	0.0100	10	04/04/2020 23:09	WG1455724
Xylenes, Total	1.34		0.0106	0.0300	10	04/04/2020 23:09	WG1455724
(S) Toluene-d8	*104*			*80.0-120*		*04/04/2020 23:09*	WG1455724
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*04/04/2020 23:09*	WG1455724
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/04/2020 23:09*	WG1455724

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	1.27	J3	0.0247	0.100	1	04/07/2020 17:06	WG1455916
(S) o-Terphenyl	*83.7*			*52.0-156*		*04/07/2020 17:06*	WG1455916

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	0.811		0.108	0.500	1	04/04/2020 23:29	WG1455724
Benzene	0.0317		0.000331	0.00100	1	04/04/2020 23:29	WG1455724
Ethylbenzene	0.00282		0.000384	0.00100	1	04/04/2020 23:29	WG1455724
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/04/2020 23:29	WG1455724
Naphthalene	U		0.00100	0.00500	1	04/04/2020 23:29	WG1455724
Toluene	0.00119		0.000412	0.00100	1	04/04/2020 23:29	WG1455724
Xylenes, Total	0.00383		0.00106	0.00300	1	04/04/2020 23:29	WG1455724
(S) Toluene-d8	*101*			*80.0-120*		*04/04/2020 23:29*	WG1455724
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*04/04/2020 23:29*	WG1455724
(S) 1,2-Dichloroethane-d4	*99.4*			*70.0-130*		*04/04/2020 23:29*	WG1455724

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	U	J3	0.0247	0.100	1	04/07/2020 17:30	WG1455916
(S) o-Terphenyl	*74.7*			*52.0-156*		*04/07/2020 17:30*	WG1455916

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/04/2020 23:49	WG1455724
Benzene	U		0.000331	0.00100	1	04/04/2020 23:49	WG1455724
Ethylbenzene	U		0.000384	0.00100	1	04/04/2020 23:49	WG1455724
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/04/2020 23:49	WG1455724
Naphthalene	U		0.00100	0.00500	1	04/04/2020 23:49	WG1455724
Toluene	U		0.000412	0.00100	1	04/04/2020 23:49	WG1455724
Xylenes, Total	U		0.00106	0.00300	1	04/04/2020 23:49	WG1455724
(S) Toluene-d8	*99.6*			*80.0-120*		*04/04/2020 23:49*	WG1455724
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*04/04/2020 23:49*	WG1455724
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*04/04/2020 23:49*	WG1455724

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	U	J3	0.0247	0.100	1	04/07/2020 17:53	WG1455916
(S) o-Terphenyl	*67.4*			*52.0-156*		*04/07/2020 17:53*	WG1455916

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/05/2020 00:09	WG1455724
Benzene	U		0.000331	0.00100	1	04/05/2020 00:09	WG1455724
Ethylbenzene	U		0.000384	0.00100	1	04/05/2020 00:09	WG1455724
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/05/2020 00:09	WG1455724
Naphthalene	U		0.00100	0.00500	1	04/05/2020 00:09	WG1455724
Toluene	U		0.000412	0.00100	1	04/05/2020 00:09	WG1455724
Xylenes, Total	U		0.00106	0.00300	1	04/05/2020 00:09	WG1455724
(S) Toluene-d8	*102*			*80.0-120*		*04/05/2020 00:09*	WG1455724
(S) 4-Bromofluorobenzene	*97.8*			*77.0-126*		*04/05/2020 00:09*	WG1455724
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/05/2020 00:09*	WG1455724

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DRO w/ SGT	U	J3	0.0247	0.100	1	04/07/2020 18:13	WG1455916
(S) o-Terphenyl	*56.3*			*52.0-156*		*04/07/2020 18:13*	WG1455916

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	82.8		5.40	25.0	50	04/07/2020 23:47	WG1456833
Benzene	4.14		0.0166	0.0500	50	04/07/2020 23:47	WG1456833
Ethylbenzene	1.87		0.0192	0.0500	50	04/07/2020 23:47	WG1456833
Methyl tert-butyl ether	U		0.0184	0.0500	50	04/07/2020 23:47	WG1456833
Naphthalene	0.458		0.0500	0.250	50	04/07/2020 23:47	WG1456833
Toluene	4.29		0.0206	0.0500	50	04/07/2020 23:47	WG1456833
Xylenes, Total	23.6		0.0530	0.150	50	04/07/2020 23:47	WG1456833
(S) Toluene-d8	*105*			*80.0-120*		*04/07/2020 23:47*	WG1456833
(S) 4-Bromofluorobenzene	*96.3*			*77.0-126*		*04/07/2020 23:47*	WG1456833
(S) 1,2-Dichloroethane-d4	*89.1*			*70.0-130*		*04/07/2020 23:47*	WG1456833

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	12.2	J3	0.247	1.00	10	04/08/2020 06:49	WG1455916
(S) o-Terphenyl	*61.1*			*52.0-156*		*04/08/2020 06:49*	WG1455916

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

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	0.619		0.108	0.500	1	04/07/2020 01:20	WG1456276
Benzene	0.0789		0.000331	0.00100	1	04/07/2020 01:20	WG1456276
Ethylbenzene	0.0292		0.000384	0.00100	1	04/07/2020 01:20	WG1456276
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/07/2020 01:20	WG1456276
Naphthalene	0.0125		0.00100	0.00500	1	04/07/2020 01:20	WG1456276
Toluene	0.00267		0.000412	0.00100	1	04/07/2020 01:20	WG1456276
Xylenes, Total	0.0673		0.00106	0.00300	1	04/07/2020 01:20	WG1456276
(S) Toluene-d8	*106*			*80.0-120*		*04/07/2020 01:20*	WG1456276
(S) 4-Bromofluorobenzene	*92.0*			*77.0-126*		*04/07/2020 01:20*	WG1456276
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*04/07/2020 01:20*	WG1456276

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	0.0710	J J3	0.0247	0.100	1	04/08/2020 06:26	WG1455916
(S) o-Terphenyl	*63.7*			*52.0-156*		*04/08/2020 06:26*	WG1455916

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	8.90	J	2.70	12.5	25	04/05/2020 01:09	WG1455724
Benzene	2.24		0.00828	0.0250	25	04/05/2020 01:09	WG1455724
Ethylbenzene	0.177		0.00960	0.0250	25	04/05/2020 01:09	WG1455724
Methyl tert-butyl ether	U		0.00918	0.0250	25	04/05/2020 01:09	WG1455724
Naphthalene	U		0.0250	0.125	25	04/05/2020 01:09	WG1455724
Toluene	0.971		0.0103	0.0250	25	04/05/2020 01:09	WG1455724
Xylenes, Total	0.538		0.0265	0.0750	25	04/05/2020 01:09	WG1455724
(S) Toluene-d8	*102*			*80.0-120*		*04/05/2020 01:09*	WG1455724
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*04/05/2020 01:09*	WG1455724
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/05/2020 01:09*	WG1455724

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	0.363	J3	0.0247	0.100	1	04/07/2020 19:24	WG1455916
(S) o-Terphenyl	*81.6*			*52.0-156*		*04/07/2020 19:24*	WG1455916

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	15.9	J	10.8	50.0	100	04/05/2020 01:28	WG1455724
Benzene	3.62		0.0331	0.100	100	04/05/2020 01:28	WG1455724
Ethylbenzene	0.495		0.0384	0.100	100	04/05/2020 01:28	WG1455724
Methyl tert-butyl ether	U		0.0367	0.100	100	04/05/2020 01:28	WG1455724
Naphthalene	U		0.100	0.500	100	04/05/2020 01:28	WG1455724
Toluene	1.58		0.0412	0.100	100	04/05/2020 01:28	WG1455724
Xylenes, Total	2.08		0.106	0.300	100	04/05/2020 01:28	WG1455724
(S) Toluene-d8	*97.2*			*80.0-120*		*04/05/2020 01:28*	WG1455724
(S) 4-Bromofluorobenzene	*97.4*			*77.0-126*		*04/05/2020 01:28*	WG1455724
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/05/2020 01:28*	WG1455724

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	1.45	J3	0.0247	0.100	1	04/07/2020 21:43	WG1455916
(S) o-Terphenyl	*82.1*			*52.0-156*		*04/07/2020 21:43*	WG1455916

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

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	17.0		0.108	0.500	1	04/05/2020 01:48	WG1455724
Benzene	3.72		0.0331	0.100	100	04/07/2020 01:59	WG1456276
Ethylbenzene	0.562		0.0384	0.100	100	04/07/2020 01:59	WG1456276
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/05/2020 01:48	WG1455724
Naphthalene	0.0892		0.00100	0.00500	1	04/05/2020 01:48	WG1455724
Toluene	1.84		0.0412	0.100	100	04/07/2020 01:59	WG1456276
Xylenes, Total	2.33		0.106	0.300	100	04/07/2020 01:59	WG1456276
(S) Toluene-d8	*96.1*			*80.0-120*		*04/05/2020 01:48*	WG1455724
(S) Toluene-d8	*106*			*80.0-120*		*04/07/2020 01:59*	WG1456276
(S) 4-Bromofluorobenzene	*95.3*			*77.0-126*		*04/05/2020 01:48*	WG1455724
(S) 4-Bromofluorobenzene	*92.8*			*77.0-126*		*04/07/2020 01:59*	WG1456276
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*04/05/2020 01:48*	WG1455724
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*04/07/2020 01:59*	WG1456276

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	1.26	J3	0.0247	0.100	1	04/07/2020 22:06	WG1455916
(S) o-Terphenyl	*75.3*			*52.0-156*		*04/07/2020 22:06*	WG1455916

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		2.70	12.5	25	04/07/2020 02:19	WG1456276
Benzene	0.853		0.00828	0.0250	25	04/07/2020 02:19	WG1456276
Ethylbenzene	0.258		0.00960	0.0250	25	04/07/2020 02:19	WG1456276
Methyl tert-butyl ether	U		0.00918	0.0250	25	04/07/2020 02:19	WG1456276
Naphthalene	0.0309	J	0.0250	0.125	25	04/07/2020 02:19	WG1456276
Toluene	0.0161	J	0.0103	0.0250	25	04/07/2020 02:19	WG1456276
Xylenes, Total	0.754		0.0265	0.0750	25	04/07/2020 02:19	WG1456276
(S) Toluene-d8	*104*			*80.0-120*		*04/07/2020 02:19*	WG1456276
(S) 4-Bromofluorobenzene	*92.7*			*77.0-126*		*04/07/2020 02:19*	WG1456276
(S) 1,2-Dichloroethane-d4	*117*			*70.0-130*		*04/07/2020 02:19*	WG1456276

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	1.10	J3	0.0247	0.100	1	04/07/2020 22:30	WG1455916
(S) o-Terphenyl	*72.1*			*52.0-156*		*04/07/2020 22:30*	WG1455916

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/05/2020 02:28	WG1455724
Benzene	0.00136		0.000331	0.00100	1	04/07/2020 01:40	WG1456276
Ethylbenzene	U		0.000384	0.00100	1	04/07/2020 01:40	WG1456276
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/05/2020 02:28	WG1455724
Naphthalene	0.00250	J	0.00100	0.00500	1	04/05/2020 02:28	WG1455724
Toluene	U		0.000412	0.00100	1	04/07/2020 01:40	WG1456276
Xylenes, Total	U		0.00106	0.00300	1	04/07/2020 01:40	WG1456276
(S) Toluene-d8	*101*			*80.0-120*		*04/05/2020 02:28*	WG1455724
(S) Toluene-d8	*107*			*80.0-120*		*04/07/2020 01:40*	WG1456276
(S) 4-Bromofluorobenzene	*97.0*			*77.0-126*		*04/05/2020 02:28*	WG1455724
(S) 4-Bromofluorobenzene	*91.5*			*77.0-126*		*04/07/2020 01:40*	WG1456276
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*04/05/2020 02:28*	WG1455724
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*04/07/2020 01:40*	WG1456276

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	U	J3	0.0247	0.100	1	04/07/2020 22:50	WG1455916
(S) o-Terphenyl	*46.8*	J2		*52.0-156*		*04/07/2020 22:50*	WG1455916

Sample Narrative:

L1205552-13 WG1455916: Sample produced medium emulsion during Extraction process, low surr/spike recoveries due to matrix

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/05/2020 02:48	WG1455724
Benzene	U		0.000331	0.00100	1	04/05/2020 02:48	WG1455724
Ethylbenzene	U		0.000384	0.00100	1	04/05/2020 02:48	WG1455724
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/05/2020 02:48	WG1455724
Naphthalene	0.00101	J	0.00100	0.00500	1	04/05/2020 02:48	WG1455724
Toluene	U		0.000412	0.00100	1	04/05/2020 02:48	WG1455724
Xylenes, Total	U		0.00106	0.00300	1	04/05/2020 02:48	WG1455724
(S) Toluene-d8	*102*			*80.0-120*		*04/05/2020 02:48*	WG1455724
(S) 4-Bromofluorobenzene	*98.8*			*77.0-126*		*04/05/2020 02:48*	WG1455724
(S) 1,2-Dichloroethane-d4	*93.9*			*70.0-130*		*04/05/2020 02:48*	WG1455724

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DRO w/ SGT	U	J3	0.0247	0.100	1	04/07/2020 23:10	WG1455916
(S) o-Terphenyl	*54.7*			*52.0-156*		*04/07/2020 23:10*	WG1455916

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

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		21.6	100	200	04/04/2020 23:31	WG1455730
Benzene	1.08		0.0662	0.200	200	04/04/2020 23:31	WG1455730
Ethylbenzene	0.167	J	0.0768	0.200	200	04/04/2020 23:31	WG1455730
Methyl tert-butyl ether	U		0.0734	0.200	200	04/04/2020 23:31	WG1455730
Naphthalene	U		0.200	1.00	200	04/04/2020 23:31	WG1455730
Toluene	0.337		0.0824	0.200	200	04/04/2020 23:31	WG1455730
Xylenes, Total	0.688		0.212	0.600	200	04/04/2020 23:31	WG1455730
(S) Toluene-d8	*114*			*80.0-120*		*04/04/2020 23:31*	WG1455730
(S) 4-Bromofluorobenzene	*82.7*			*77.0-126*		*04/04/2020 23:31*	WG1455730
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*04/04/2020 23:31*	WG1455730

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	0.440		0.0247	0.100	1	04/07/2020 23:34	WG1456254
(S) o-Terphenyl	*82.6*			*52.0-156*		*04/07/2020 23:34*	WG1456254

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

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	6.56		0.108	0.500	1	04/04/2020 23:54	WG1455730
Benzene	1.19		0.00828	0.0250	25	04/08/2020 01:33	WG1456848
Ethylbenzene	0.205		0.00960	0.0250	25	04/08/2020 01:33	WG1456848
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/04/2020 23:54	WG1455730
Naphthalene	0.0288		0.00100	0.00500	1	04/04/2020 23:54	WG1455730
Toluene	0.306		0.0103	0.0250	25	04/08/2020 01:33	WG1456848
Xylenes, Total	0.815		0.0265	0.0750	25	04/08/2020 01:33	WG1456848
(S) Toluene-d8	*95.3*			*80.0-120*		*04/04/2020 23:54*	WG1455730
(S) Toluene-d8	*102*			*80.0-120*		*04/08/2020 01:33*	WG1456848
(S) 4-Bromofluorobenzene	*70.8*	J2		*77.0-126*		*04/04/2020 23:54*	WG1455730
(S) 4-Bromofluorobenzene	*97.6*			*77.0-126*		*04/08/2020 01:33*	WG1456848
(S) 1,2-Dichloroethane-d4	*96.6*			*70.0-130*		*04/04/2020 23:54*	WG1455730
(S) 1,2-Dichloroethane-d4	*91.3*			*70.0-130*		*04/08/2020 01:33*	WG1456848

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	0.476		0.0247	0.100	1	04/07/2020 23:55	WG1456254
(S) o-Terphenyl	*81.6*			*52.0-156*		*04/07/2020 23:55*	WG1456254

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	4.48	J	1.08	5.00	10	04/05/2020 00:16	WG1455730
Benzene	0.755		0.00331	0.0100	10	04/05/2020 00:16	WG1455730
Ethylbenzene	0.132		0.00384	0.0100	10	04/05/2020 00:16	WG1455730
Methyl tert-butyl ether	U		0.00367	0.0100	10	04/05/2020 00:16	WG1455730
Naphthalene	0.0309	J	0.0100	0.0500	10	04/05/2020 00:16	WG1455730
Toluene	0.0134		0.00412	0.0100	10	04/05/2020 00:16	WG1455730
Xylenes, Total	0.632		0.0106	0.0300	10	04/05/2020 00:16	WG1455730
(S) Toluene-d8	*104*			*80.0-120*		*04/05/2020 00:16*	WG1455730
(S) 4-Bromofluorobenzene	*82.3*			*77.0-126*		*04/05/2020 00:16*	WG1455730
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/05/2020 00:16*	WG1455730

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	0.383		0.0247	0.100	1	04/08/2020 00:18	WG1456254
(S) o-Terphenyl	*71.1*			*52.0-156*		*04/08/2020 00:18*	WG1456254

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

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/05/2020 00:39	WG1455730
Benzene	0.00168		0.000331	0.00100	1	04/08/2020 00:08	WG1456848
Ethylbenzene	U		0.000384	0.00100	1	04/05/2020 00:39	WG1455730
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/05/2020 00:39	WG1455730
Naphthalene	U		0.00100	0.00500	1	04/05/2020 00:39	WG1455730
Toluene	U		0.000412	0.00100	1	04/05/2020 00:39	WG1455730
Xylenes, Total	U		0.00106	0.00300	1	04/05/2020 00:39	WG1455730
(S) Toluene-d8	*111*			*80.0-120*		*04/05/2020 00:39*	WG1455730
(S) Toluene-d8	*104*			*80.0-120*		*04/08/2020 00:08*	WG1456848
(S) 4-Bromofluorobenzene	*84.4*			*77.0-126*		*04/05/2020 00:39*	WG1455730
(S) 4-Bromofluorobenzene	*96.9*			*77.0-126*		*04/08/2020 00:08*	WG1456848
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*04/05/2020 00:39*	WG1455730
(S) 1,2-Dichloroethane-d4	*89.6*			*70.0-130*		*04/08/2020 00:08*	WG1456848

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DRO w/ SGT	U		0.0247	0.100	1	04/08/2020 00:39	WG1456254
(S) o-Terphenyl	*52.5*			*52.0-156*		*04/08/2020 00:39*	WG1456254

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	0.259	J	0.108	0.500	1	04/08/2020 00:29	WG1456848
Benzene	0.0986		0.000331	0.00100	1	04/08/2020 00:29	WG1456848
Ethylbenzene	U		0.000384	0.00100	1	04/08/2020 00:29	WG1456848
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/08/2020 00:29	WG1456848
Naphthalene	U		0.00100	0.00500	1	04/08/2020 00:29	WG1456848
Toluene	0.00319		0.000412	0.00100	1	04/08/2020 00:29	WG1456848
Xylenes, Total	U		0.00106	0.00300	1	04/08/2020 00:29	WG1456848
(S) Toluene-d8	*101*			*80.0-120*		*04/08/2020 00:29*	WG1456848
(S) 4-Bromofluorobenzene	*96.1*			*77.0-126*		*04/08/2020 00:29*	WG1456848
(S) 1,2-Dichloroethane-d4	*90.2*			*70.0-130*		*04/08/2020 00:29*	WG1456848

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	U		0.0247	0.100	1	04/08/2020 01:02	WG1456254
(S) o-Terphenyl	*67.9*			*52.0-156*		*04/08/2020 01:02*	WG1456254

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

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/05/2020 01:25	WG1455730
Benzene	U		0.000331	0.00100	1	04/05/2020 01:25	WG1455730
Ethylbenzene	U		0.000384	0.00100	1	04/05/2020 01:25	WG1455730
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/05/2020 01:25	WG1455730
Naphthalene	U		0.00100	0.00500	1	04/05/2020 01:25	WG1455730
Toluene	U		0.000412	0.00100	1	04/05/2020 01:25	WG1455730
Xylenes, Total	U		0.00106	0.00300	1	04/05/2020 01:25	WG1455730
(S) Toluene-d8	*112*			*80.0-120*		*04/05/2020 01:25*	WG1455730
(S) 4-Bromofluorobenzene	*75.1*	J2		*77.0-126*		*04/05/2020 01:25*	WG1455730
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*04/05/2020 01:25*	WG1455730

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	U		0.0247	0.100	1	04/08/2020 01:23	WG1456254
(S) o-Terphenyl	*58.9*			*52.0-156*		*04/08/2020 01:23*	WG1456254

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

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/05/2020 01:48	WG1455730
Benzene	U		0.000331	0.00100	1	04/05/2020 01:48	WG1455730
Ethylbenzene	U		0.000384	0.00100	1	04/05/2020 01:48	WG1455730
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/05/2020 01:48	WG1455730
Naphthalene	U		0.00100	0.00500	1	04/05/2020 01:48	WG1455730
Toluene	U		0.000412	0.00100	1	04/05/2020 01:48	WG1455730
Xylenes, Total	U		0.00106	0.00300	1	04/05/2020 01:48	WG1455730
(S) Toluene-d8	*111*			*80.0-120*		*04/05/2020 01:48*	WG1455730
(S) 4-Bromofluorobenzene	*82.3*			*77.0-126*		*04/05/2020 01:48*	WG1455730
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*04/05/2020 01:48*	WG1455730

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	U		0.0247	0.100	1	04/08/2020 01:46	WG1456254
(S) o-Terphenyl	*74.7*			*52.0-156*		*04/08/2020 01:46*	WG1456254

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

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	14.2	J	5.40	25.0	50	04/05/2020 02:11	WG1455730
Benzene	4.58		0.0166	0.0500	50	04/05/2020 02:11	WG1455730
Ethylbenzene	0.372		0.0192	0.0500	50	04/05/2020 02:11	WG1455730
Methyl tert-butyl ether	U		0.0184	0.0500	50	04/05/2020 02:11	WG1455730
Naphthalene	U		0.0500	0.250	50	04/05/2020 02:11	WG1455730
Toluene	U		0.0206	0.0500	50	04/05/2020 02:11	WG1455730
Xylenes, Total	0.0569	J	0.0530	0.150	50	04/05/2020 02:11	WG1455730
(S) Toluene-d8	*105*			*80.0-120*		*04/05/2020 02:11*	WG1455730
(S) 4-Bromofluorobenzene	*76.6*	J2		*77.0-126*		*04/05/2020 02:11*	WG1455730
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*04/05/2020 02:11*	WG1455730

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	0.559		0.0247	0.100	1	04/08/2020 02:10	WG1456254
(S) o-Terphenyl	*73.2*			*52.0-156*		*04/08/2020 02:10*	WG1456254

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

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/05/2020 02:34	WG1455730
Benzene	0.00756		0.000331	0.00100	1	04/05/2020 02:34	WG1455730
Ethylbenzene	U		0.000384	0.00100	1	04/05/2020 02:34	WG1455730
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/05/2020 02:34	WG1455730
Naphthalene	U		0.00100	0.00500	1	04/05/2020 02:34	WG1455730
Toluene	U		0.000412	0.00100	1	04/05/2020 02:34	WG1455730
Xylenes, Total	U		0.00106	0.00300	1	04/05/2020 02:34	WG1455730
(S) Toluene-d8	*103*			*80.0-120*		*04/05/2020 02:34*	WG1455730
(S) 4-Bromofluorobenzene	*78.7*			*77.0-126*		*04/05/2020 02:34*	WG1455730
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*04/05/2020 02:34*	WG1455730

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DRO w/ SGT	U		0.0247	0.100	1	04/08/2020 02:34	WG1456254
(S) o-Terphenyl	*66.8*			*52.0-156*		*04/08/2020 02:34*	WG1456254

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/05/2020 02:56	WG1455730
Benzene	0.00348		0.000331	0.00100	1	04/05/2020 02:56	WG1455730
Ethylbenzene	U		0.000384	0.00100	1	04/05/2020 02:56	WG1455730
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/05/2020 02:56	WG1455730
Naphthalene	U		0.00100	0.00500	1	04/05/2020 02:56	WG1455730
Toluene	U		0.000412	0.00100	1	04/05/2020 02:56	WG1455730
Xylenes, Total	U		0.00106	0.00300	1	04/05/2020 02:56	WG1455730
(S) Toluene-d8	*112*			*80.0-120*		*04/05/2020 02:56*	WG1455730
(S) 4-Bromofluorobenzene	*79.9*			*77.0-126*		*04/05/2020 02:56*	WG1455730
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*04/05/2020 02:56*	WG1455730

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
DRO w/ SGT	U		0.0247	0.100	1	04/08/2020 02:57	WG1456254
(S) o-Terphenyl	*72.6*			*52.0-156*		*04/08/2020 02:57*	WG1456254

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	0.134	J	0.108	0.500	1	04/05/2020 03:19	WG1455730
Benzene	0.0342		0.000331	0.00100	1	04/05/2020 03:19	WG1455730
Ethylbenzene	U		0.000384	0.00100	1	04/05/2020 03:19	WG1455730
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/05/2020 03:19	WG1455730
Naphthalene	U		0.00100	0.00500	1	04/05/2020 03:19	WG1455730
Toluene	U		0.000412	0.00100	1	04/05/2020 03:19	WG1455730
Xylenes, Total	U		0.00106	0.00300	1	04/05/2020 03:19	WG1455730
(S) Toluene-d8	*112*			*80.0-120*		*04/05/2020 03:19*	WG1455730
(S) 4-Bromofluorobenzene	*82.2*			*77.0-126*		*04/05/2020 03:19*	WG1455730
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*04/05/2020 03:19*	WG1455730

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	U		0.0247	0.100	1	04/08/2020 03:21	WG1456254
(S) o-Terphenyl	*64.7*			*52.0-156*		*04/08/2020 03:21*	WG1456254

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/05/2020 03:42	WG1455730
Benzene	U		0.000331	0.00100	1	04/05/2020 03:42	WG1455730
Ethylbenzene	U		0.000384	0.00100	1	04/05/2020 03:42	WG1455730
Methyl tert-butyl ether	U		0.000367	0.00100	1	04/05/2020 03:42	WG1455730
Naphthalene	U		0.00100	0.00500	1	04/05/2020 03:42	WG1455730
Toluene	U		0.000412	0.00100	1	04/05/2020 03:42	WG1455730
Xylenes, Total	U		0.00106	0.00300	1	04/05/2020 03:42	WG1455730
(S) Toluene-d8	*110*			*80.0-120*		*04/05/2020 03:42*	WG1455730
(S) 4-Bromofluorobenzene	*76.6*	J2		*77.0-126*		*04/05/2020 03:42*	WG1455730
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*04/05/2020 03:42*	WG1455730

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	U		0.0247	0.100	1	04/08/2020 03:44	WG1456254
(S) o-Terphenyl	*66.8*			*52.0-156*		*04/08/2020 03:44*	WG1456254

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	14.4	J	10.8	50.0	100	04/05/2020 04:05	WG1455730
Benzene	U		0.0331	0.100	100	04/05/2020 04:05	WG1455730
Ethylbenzene	0.362		0.0384	0.100	100	04/05/2020 04:05	WG1455730
Methyl tert-butyl ether	U		0.0367	0.100	100	04/05/2020 04:05	WG1455730
Naphthalene	U		0.100	0.500	100	04/05/2020 04:05	WG1455730
Toluene	0.644		0.0412	0.100	100	04/05/2020 04:05	WG1455730
Xylenes, Total	3.14		0.106	0.300	100	04/05/2020 04:05	WG1455730
(S) Toluene-d8	*107*			*80.0-120*		*04/05/2020 04:05*	WG1455730
(S) 4-Bromofluorobenzene	*83.4*			*77.0-126*		*04/05/2020 04:05*	WG1455730
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*04/05/2020 04:05*	WG1455730

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	2.49		0.0247	0.100	1	04/08/2020 04:08	WG1456254
(S) o-Terphenyl	*90.5*			*52.0-156*		*04/08/2020 04:08*	WG1456254

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

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	79.7		5.40	25.0	50	04/05/2020 04:28	WG1455730
Benzene	4.08		0.0166	0.0500	50	04/05/2020 04:28	WG1455730
Ethylbenzene	1.51		0.0192	0.0500	50	04/05/2020 04:28	WG1455730
Methyl tert-butyl ether	U		0.0184	0.0500	50	04/05/2020 04:28	WG1455730
Naphthalene	0.148	J	0.0500	0.250	50	04/05/2020 04:28	WG1455730
Toluene	13.2		0.206	0.500	500	04/08/2020 01:54	WG1456848
Xylenes, Total	12.9		0.530	1.50	500	04/08/2020 01:54	WG1456848
(S) Toluene-d8	*103*			*80.0-120*		*04/05/2020 04:28*	WG1455730
(S) Toluene-d8	*106*			*80.0-120*		*04/08/2020 01:54*	WG1456848
(S) 4-Bromofluorobenzene	*76.0*	J2		*77.0-126*		*04/05/2020 04:28*	WG1455730
(S) 4-Bromofluorobenzene	*97.6*			*77.0-126*		*04/08/2020 01:54*	WG1456848
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/05/2020 04:28*	WG1455730
(S) 1,2-Dichloroethane-d4	*91.6*			*70.0-130*		*04/08/2020 01:54*	WG1456848

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
DRO w/ SGT	3.81		0.0247	0.100	1	04/08/2020 04:32	WG1456254
(S) o-Terphenyl	*65.3*			*52.0-156*		*04/08/2020 04:32*	WG1456254

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

Method Blank (MB)

(MB) R3515995-4 04/04/20 20:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/MS) Low Fraction	U		0.108	0.500
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*101*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.0*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*

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

(LCS) R3515995-1 04/04/20 18:41 • (LCSD) R3515995-2 04/04/20 19:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00485	0.00463	97.0	92.6	70.0-123			4.64	20
Ethylbenzene	0.00500	0.00489	0.00459	97.8	91.8	79.0-123			6.33	20
Methyl tert-butyl ether	0.00500	0.00525	0.00483	105	96.6	68.0-125			8.33	20
Naphthalene	0.00500	0.00337	0.00334	67.4	66.8	54.0-135			0.894	20
Toluene	0.00500	0.00463	0.00437	92.6	87.4	79.0-120			5.78	20
Xylenes, Total	0.0150	0.0142	0.0140	94.7	93.3	79.0-123			1.42	20
(S) Toluene-d8				*102*	*101*	*80.0-120*				
(S) 4-Bromofluorobenzene				*103*	*99.1*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*105*	*101*	*70.0-130*				

Laboratory Control Sample (LCS)

(LCS) R3515995-3 04/04/20 19:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/MS) Low Fraction	5.00	4.56	91.2	66.0-132	
(S) Toluene-d8			*99.8*	*80.0-120*	
(S) 4-Bromofluorobenzene			*114*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*109*	*70.0-130*	

Method Blank (MB)

(MB) R3516353-4 04/04/20 20:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/MS) Low Fraction	U		0.108	0.500
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*114*			*80.0-120*
(S) 4-Bromofluorobenzene	*88.4*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*

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

(LCS) R3516353-1 04/04/20 19:08 • (LCSD) R3516353-2 04/04/20 19:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00406	0.00421	81.2	84.2	70.0-123			3.63	20
Ethylbenzene	0.00500	0.00480	0.00463	96.0	92.6	79.0-123			3.61	20
Methyl tert-butyl ether	0.00500	0.00432	0.00453	86.4	90.6	68.0-125			4.75	20
Naphthalene	0.00500	0.00367	0.00399	73.4	79.8	54.0-135			8.36	20
Toluene	0.00500	0.00488	0.00481	97.6	96.2	79.0-120			1.44	20
Xylenes, Total	0.0150	0.0130	0.0132	86.7	88.0	79.0-123			1.53	20
(S) Toluene-d8				*109*	*103*	*80.0-120*				
(S) 4-Bromofluorobenzene				*82.6*	*83.6*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*102*	*101*	*70.0-130*				

Laboratory Control Sample (LCS)

(LCS) R3516353-3 04/04/20 19:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/MS) Low Fraction	5.00	4.96	99.2	66.0-132	
(S) Toluene-d8			*105*	*80.0-120*	
(S) 4-Bromofluorobenzene			*109*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*107*	*70.0-130*	

Method Blank (MB)

(MB) R3516273-4 04/06/20 21:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/MS) Low Fraction	U		0.108	0.500
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*91.1*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3516273-1 04/06/20 19:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00456	91.2	70.0-123	
Ethylbenzene	0.00500	0.00481	96.2	79.0-123	
Methyl tert-butyl ether	0.00500	0.00456	91.2	68.0-125	
Naphthalene	0.00500	0.00401	80.2	54.0-135	
Toluene	0.00500	0.00497	99.4	79.0-120	
Xylenes, Total	0.0150	0.0141	94.0	79.0-123	
(S) Toluene-d8			*106*	*80.0-120*	
(S) 4-Bromofluorobenzene			*93.9*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*116*	*70.0-130*	

Laboratory Control Sample (LCS)

(LCS) R3516273-3 04/06/20 20:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/MS) Low Fraction	5.00	5.36	107	66.0-132	
(S) Toluene-d8			*101*	*80.0-120*	
(S) 4-Bromofluorobenzene			*94.7*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*109*	*70.0-130*	

Method Blank (MB)

(MB) R3516641-4 04/07/20 22:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/MS) Low Fraction	U		0.108	0.500
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) 4-Bromofluorobenzene	*97.7*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*90.3*			*70.0-130*

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

(LCS) R3516641-1 04/07/20 20:28 • (LCSD) R3516641-2 04/07/20 20:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00505	0.00551	101	110	70.0-123			8.71	20
Ethylbenzene	0.00500	0.00480	0.00542	96.0	108	79.0-123			12.1	20
Methyl tert-butyl ether	0.00500	0.00519	0.00545	104	109	68.0-125			4.89	20
Naphthalene	0.00500	0.00384	0.00456	76.8	91.2	54.0-135			17.1	20
Toluene	0.00500	0.00494	0.00558	98.8	112	79.0-120			12.2	20
Xylenes, Total	0.0150	0.0155	0.0170	103	113	79.0-123			9.23	20
(S) Toluene-d8				*102*	*102*	*80.0-120*				
(S) 4-Bromofluorobenzene				*97.4*	*94.2*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*93.2*	*90.6*	*70.0-130*				

Laboratory Control Sample (LCS)

(LCS) R3516641-3 04/07/20 21:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/MS) Low Fraction	5.00	5.13	103	66.0-132	
(S) Toluene-d8			*102*	*80.0-120*	
(S) 4-Bromofluorobenzene			*105*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*94.2*	*70.0-130*	

Method Blank (MB)

(MB) R3516642-4 04/07/20 22:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/MS) Low Fraction	U		0.108	0.500
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) 4-Bromofluorobenzene	*97.7*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*90.3*			*70.0-130*

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

(LCS) R3516642-1 04/07/20 20:28 • (LCSD) R3516642-2 04/07/20 20:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00505	0.00551	101	110	70.0-123			8.71	20
Ethylbenzene	0.00500	0.00480	0.00542	96.0	108	79.0-123			12.1	20
Methyl tert-butyl ether	0.00500	0.00519	0.00545	104	109	68.0-125			4.89	20
Naphthalene	0.00500	0.00384	0.00456	76.8	91.2	54.0-135			17.1	20
Toluene	0.00500	0.00494	0.00558	98.8	112	79.0-120			12.2	20
Xylenes, Total	0.0150	0.0155	0.0170	103	113	79.0-123			9.23	20
(S) Toluene-d8				*102*	*102*	*80.0-120*				
(S) 4-Bromofluorobenzene				*97.4*	*94.2*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*93.2*	*90.6*	*70.0-130*				

Laboratory Control Sample (LCS)

(LCS) R3516642-3 04/07/20 21:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/MS) Low Fraction	5.00	5.13	103	66.0-132	
(S) Toluene-d8			*102*	*80.0-120*	
(S) 4-Bromofluorobenzene			*105*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*94.2*	*70.0-130*	

Method Blank (MB)

(MB) R3516344-1 04/07/20 10:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
DRO W/ SGT	U		0.0247	0.100
(S) o-Terphenyl	*60.0*			*52.0-156*

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

(LCS) R3516344-2 04/07/20 11:18 • (LCSD) R3516344-3 04/07/20 11:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
DRO W/ SGT	1.50	1.49	1.21	99.3	80.7	50.0-150		J3	20.7	20
(S) o-Terphenyl				*90.0*	*75.5*	*52.0-156*				

Method Blank (MB)

(MB) R3516345-1 04/07/20 12:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
DRO W/ SGT	U		0.0247	0.100
(S) o-Terphenyl	*75.0*			*52.0-156*

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

(LCS) R3516345-2 04/07/20 12:28 • (LCSD) R3516345-3 04/07/20 12:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
DRO W/ SGT	1.50	1.39	1.39	92.7	92.7	50.0-150			0.000	20
(S) o-Terphenyl				*90.0*	*86.5*	*52.0-156*				

Guide to Reading and Understanding Your Laboratory Report

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

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

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

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.

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	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

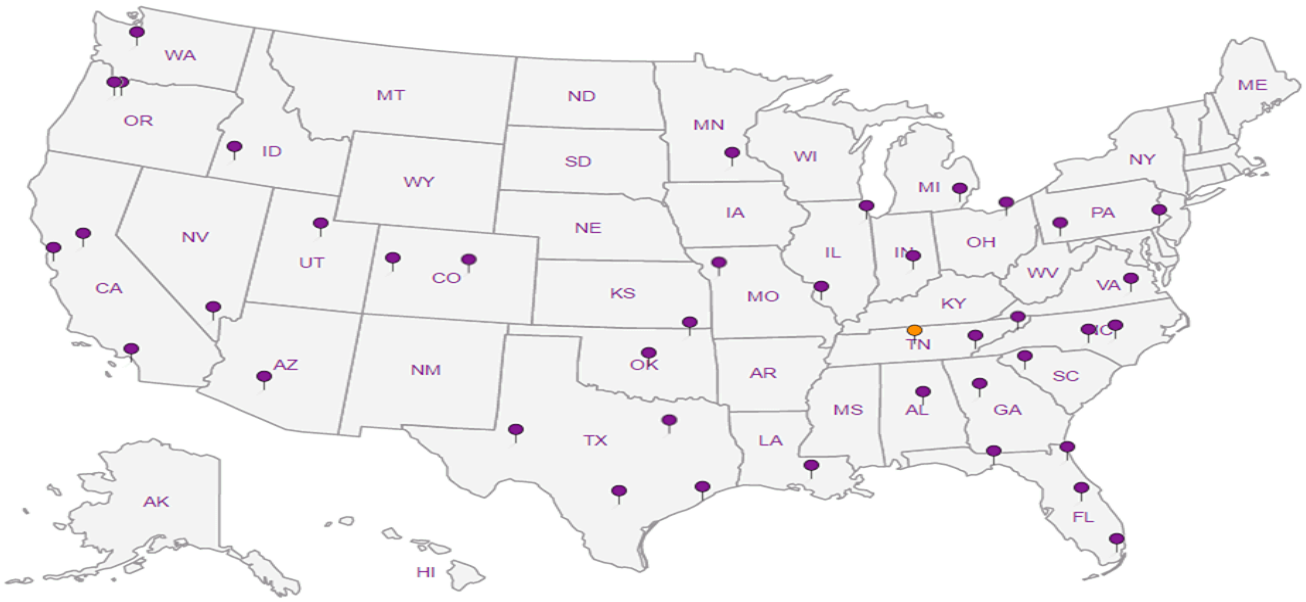
Third Party Federal Accreditations

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

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

Our Locations

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



Terracon
6949 S. High Tech Dr.
Midvale, Ut 84047

Billing Information:
Accounts Payable
6949 S. High Tech Dr.
Midvale, Ut 84047

Pres Chk

Report to: **Curt Stipeika**

Email To: **curt.stripeika@terracon.com**

Project Description: **Triple Stop Chevron**

City/State Collected: **Layton, Utah**

Phone: **(801) 545-8500**
Fax:

Client Project # **61197153**

Lab Project #

Collected by (print): **Mark Lilly**

Site/Facility ID #

P.O. #

Collected by (signature): Mark Lilly

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: **Standard 5-Day TAT**

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

L # L1205552

Table # E046

Acctnum: TERRDUT

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	MBTEXN (8260)	TPH-GRO (8260)	TPH-DRO (8015) w/SGT	Remarks	Sample # (lab only)
MW-8	Grab	GW	na	3/31/20	09:30	5	X	X	X		-01
MW-12	Grab	GW	na	3/31/20	10:50	5	X	X	X		-02
MW-13	Grab	GW	na	3/31/20	11:17	5	X	X	X		-03
MW-14	Grab	GW	na	3/31/20	11:40	5	X	X	X		-04
MW-15	Grab	GW	na	3/31/20	12:11	5	X	X	X		-05
MW-36	Grab	GW	na	3/31/20	12:58	5	X	X	X		-06
EW-3	Grab	GW	na	3/31/20	13:26	5	X	X	X		-07
MW-35	Grab	GW	na	3/31/20	14:33	5	X	X	X		-08
MW-23	Grab	GW	na	3/31/20	15:53	5	X	X	X		-09
MW-22	Grab	GW	na	3/31/20	16:20	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 #

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
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Mark Lilly	4/2/20	1123		
Relinquished by : (Signature) PNSLCUT	Date: 4/2/2020	Time: 1700	Received by: (Signature)	Temp: °C 0.9-0.2-0.7 Bottles Received: 140
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Billy Barnes	Date: 4/3/20 Time: 0830

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Terracon
6949 S. High Tech Dr.
Midvale, Ut 84047

Billing Information:
Accounts Payable
6949 S. High Tech Dr.
Midvale, Ut 84047

Pres Chk

Report to: **Curt Stipeika**

Email To: **curt.stripeika@terracon.com**

Project Description: **Triple Stop Chevron**

City/State Collected: **Layton, Utah**

Phone: **(801) 545-8500**
Fax:

Client Project # **61197153**

Lab Project #

Collected by (print): **Mark Lilly**

Site/Facility ID #

P.O. #

Collected by (signature): Mark Lilly

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: **Standard 5-Day TAT**

Analysis / Container / Preservative

Chain of Custody Page 2 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 #

Table #

Acctnum: **TERRDUT**

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	MBTEXN (8260)	TPH-GRO (8260)	TPH-DRO (8015) w/SGT	Remarks	Sample # (lab only)
MW-122	Grab	GW	na	3/31/20	16:42	5	X	X	X		-11
MW-24	Grab	GW	na	3/31/20	17:00	5	X	X	X		-12
MW-25	Grab	GW	na	3/31/20	17:20	5	X	X	X		-13
MW-34	Grab	GW	na	3/31/20	17:52	5	X	X	X		-14
MW-1	Grab	GW	na	4/1/20	11:40	5	X	X	X		-15
MW-111	Grab	GW	na	4/1/20	11:55	5	X	X	X		-16
MW-2	Grab	GW	na	4/1/20	12:12	5	X	X	X		-17
MW-3	Grab	GW	na	4/1/20	12:47	5	X	X	X		-18
MW-4	Grab	GW	na	4/1/20	13:10	5	X	X	X		-19
MW-16	Grab	GW	na	4/1/20	13:55	5	X	X	X		-20

* 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
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If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Mark Lilly	4/2/20	1123		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
PNSLCUT	4/2/2020	1700		0.9-0.2=0.7 140
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
			Billy Bauer	4/3/20 0830

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Terracon
6949 S. High Tech Dr.
Midvale, Ut 84047

Billing Information:
Accounts Payable
6949 S. High Tech Dr.
Midvale, Ut 84047

Report to: **Curt Stipeika**

Email To: **curt.stripeika@terracon.com**

Project Description: **Triple Stop Chevron**

City/State Collected: **Layton, Utah**

Phone: **(801) 545-8500**
Fax:

Client Project # **61197153**

Lab Project #

Collected by (print): **Mark Lilly**

Site/Facility ID #

P.O. #

Collected by (signature): Mark Lilly

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: **Standard 5-Day TAT**

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 3 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 #

Table #

Acctnum: **TERRDUT**

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	MBTEXN (8260)	TPH-GRO (8260)	TPH-DRO (8015) w/SGT	Remarks	Sample # (lab only)
MW-18	Grab	GW	na	4/1/20	14:17	5	X	X	X		-21
MW-19	Grab	GW	na	4/1/20	14:50	5	X	X	X		-22
MW-21	Grab	GW	na	4/1/20	15:16	5	X	X	X		-23
MW-30	Grab	GW	na	4/1/20	16:00	5	X	X	X		-24
MW-31	Grab	GW	na	4/1/20	16:22	5	X	X	X		-25
MW-37	Grab	GW	na	4/1/20	16:45	5	X	X	X		-26
RW-1	Grab	GW	na	4/2/20	08:40	5	X	X	X		-27
RW-2	Grab	GW	na	4/2/20	09:25	5	X	X	X		-28

* 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 __ _____

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Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes (No) HCL / MeoH TBR
Mark Lilly	4/2/20	1123		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
PNSLCUT	4/2/2020	1700		0.9-0.2-0.1 ind 42 140
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
			Billy Bauer	4/3/20 0830

If preservation required by Login: Date/Time

Hold:

Condition: NCF (OK)