State of New Mexico
Oil Conservation Division

Incident ID	nRM2006453458
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>110 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nRM2006453458
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Amy Barnhill Title: Waste and Water Specialist

Signature: Date: 8-3-2020

email: ABarnhill@chevron.com Telephone: 432-687-7108

OCD Only

Received by: Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nRM2006453458
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- [x] Detailed description of proposed remediation technique
- [x] Scaled sitemap with GPS coordinates showing delineation points
- [x] Estimated volume of material to be remediated
- [x] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [x] Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- [ ] Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- [ ] Extents of contamination must be fully delineated.
- [ ] Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Amy Barnhill Title: Waste and Water Specialist

Signature:  Date: 8-3-2020

email: ABarnhill@chevron.com Telephone: 432-687-7108

OCD Only

Received by: _____ Date: _____

- [ ] Approved
- [ ] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: _____ Date: _____

nRM2006453458
Delineation Report and Remediation Plan
Talco 25 25 35 Federal #001H
Produced Water Release
Lea County, New Mexico

Latitude: N 32.107986°
Longitude: W -103.327119°

LAI Project No. 20-0107-07

July 21, 2020

Prepared for:
Chevron USA Inc.
6301 Deauville Blvd.
Midland, Texas 79706

Prepared by:
Larson & Associates, Inc.
507 North Marienfeld Street, Suite 202
Midland, Texas 79701

Mark J. Larson, P.G.
Certified Professional Geologist #10490

Robert Nelson
Staff Geologist

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Appendices

1.0 INTRODUCTION

Larson & Associates, Inc. (LAI), has prepared this delineation report and remediation plan on behalf of Chevron USA Inc. (Chevron) for submittal to the New Mexico Oil Conservation Division (OCD) District 1 for a produced water release at the Talco 25 25 35 Federal #001H (Site) located in Unit M (NW/4, SW/4), Section 25, Township 25 South, Range 35 East in Lea County New Mexico. The geodetic position is North 32°06'28.78" and West 103°19'37.36". Figure 1 presents a topographic map. Figure 2 presents an aerial map.

1.1 Background

The release was discovered on February 19, 2020, at 1:20PM MST. The spill occurred due to corrosion in the load line and resulted in the release being contained in the lined berm. Chevron reported that 138 barrels (bbls) of produced water was released and 138 bbls were recovered. A small amount of liquid pooled outside near the west and east sides of the containment. Inspection of the lined containment did not reveal any defects. The affected area measures approximately 3,964 square feet. The initial C-141 was submitted to OCD District 1 on February 28, 2020 and received incident number nRM2006453458. Appendix A presents the chevron spill calculation.

1.2 Physical Setting

The physical setting is as follows:

- The surface elevation is approximately 3,100 feet above mean sea level (msl);
- The surface topography gradually decreases to the southeast;
- There are no surface water features within 1,000 feet of the Site;
- The soils are designated as Simona-Upton association, 0 to 3 percent slopes , consisting of 0 to 8 inches of gravelly fine sandy loam, underlain by 8 to 16 inches of a fine sandy loam, and 16 to 24 inches of cemented material (caliche);
- The geology is Quaternary age sand and silt, and locally includes cover sand;
- Groundwater occurs at a depth greater than 110 feet below ground surface (bgs) based on depth to groundwater measurements taken 72 hours after installing a temporary monitor well (BH-1) on April 28, 2020.

1.3 Remediation Action Levels

The following remediation standards are based on closure criteria for soils impacted by a release as presented in Table 1 of 19.15.29 NMAC:

- Benzene 10 mg/Kg
- BTEX 50 mg/Kg
- TPH 2,500 mg/Kg
- Chloride 20,000 mg/Kg

Further, 19.15.29.13 NMAC (Restoration, Reclamation and Re-Vegetation) requires the operator to restore the impacted surface area that existed prior to the release or their final land use.

2.0 DELINEATION

On March 9 and 23, 2020, LAI personnel used a stainless-steel hand auger to collect soil samples from eight (8) locations outside the lined containment (SP-1 through SP-8) to delineate the release vertically and horizontally. The samples were collected at approximately 1-foot bgs. The soil samples were delivered under chain of custody and preservation to Xenco Laboratories (Xenco) in Midland, Texas. The laboratory analyzed the samples for benzene, toluene, ethylbenzene and xylenes (BTEX) and total petroleum hydrocarbons (TPH), including gasoline range organics (C6-C12), diesel range organics (>C12-C28) and oil range organics (>C28-C35), and chloride by EPA SW-846 Methods 8021B and 8015M, and M300, respectively. Figure 2 presents an aerial map showing the sample locations.

Benzene and chloride were below the remediation action levels of 10 milligrams per kilogram (mg/Kg) and 600 mg/Kg in all samples. BTEX and TPH exceeded the OCD remediation limits of 50 mg/Kg) and 2,500 mg/Kg in the following samples.

Sample ID, Depth (feet)	**BTEX Concentration (mg/Kg)**	**TPH Concentration (mg/Kg)**
SP-3, 0 to 0.5'	1,080	3,000
SP-3, 0.5 to 1'	112	1,040
SP-6, 0 to 0.5'	--	4,850
SP-6, 0.5 to 1'	--	3,770

On March 25, 2020, LAI personnel utilized a Geoprobe® Model 7822DT direct push rig to further delineate the release at sample points SP-3 and SP-6. Soil samples were collected at 2, 3, 4, 5, 6, and 10 feet bgs depending on subsurface conditions. The samples were delivered under chain of custody and preservation to PBEL and were analyzed for BTEX, TPH, and chloride by EPA SW-846 Methods 8021B and 8015M, and M300, respectively.

According to the release rule (19.15.29.11(5)(C) NMAC) vertical delineation for chloride to 600 mg/Kg is not required where groundwater exceeds 100 feet in depth. Chloride was delineated below the remediation limit (20,000 mg/Kg) at all sample locations, therefore, the release was delineated vertically for chloride according to 19.15.29.11(5)(C) NMAC. Table 1 presents the soil sample analytical data summary. Appendix B presents the laboratory reports.

3.0 Remediation Plan

Chevron proposes the following remedial actions:

- Excavate soil from an area measuring approximately 30' X 5' encompassing SP-3 and approximately 30' X 10' encompassing SP-6 to depths of 2 feet bgs.
- Collect five (5) point composite bottom and sidewall confirmation soil samples every 200 square feet and analyze for BTEX, TPH and chloride.
- Backfill excavations with caliche confirmed clean through laboratory analysis.
- Prepare report with photographs for submittal to OCD District 1.

Figure 3 presents the proposed excavation areas.

Tables

Table 1
Soil Sample Analytical Data Summary
Talco 25
Lea County, New Mexico
North 32 6 28.78, West 103 19 37.36

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Remediation Level:				**10**	**50**				**100 / 2,500**	**600 / 20,000**
SP-1	0 - 0.5	3/9/2020	In-Situ	<0.00200	0.00804	<50.0	<50.0	<50.0	<50.0	<5.05
	0.5 - 1	3/9/2020	In-Situ	<0.00199	0.12900	<50.0	<50.0	<50.0	<50.0	<4.99
SP-2	0 - 0.5	3/9/2020	In-Situ	<0.00199	0.13700	<49.9	<49.9	<49.9	<49.9	125
	0.5 - 1	3/9/2020	In-Situ	<0.00198	0.19400	<50.0	<50.0	<50.0	<50.0	119
SP-3	0 - 0.5	3/9/2020	In-Situ	<0.200	**1,080**	3,000	<50.0	<50.0	**3,000**	20.6
	0.5 - 1	3/9/2020	In-Situ	<0.200	**112**	1,040	<49.9	<49.9	**1,040**	292
	2	3/26/2020	In-Situ	<0.00199	0.0690	<50.0	<50.0	<50.0	<50.0	<4.99
	3	3/26/2020	In-Situ	<0.00199	0.0608	<50.0	<50.0	<50.0	<50.0	11.2
	4	3/26/2020	In-Situ	--	--	<49.9	<49.9	<49.9	<49.9	8.77
	5	3/26/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	<4.96
	6	3/26/2020	In-Situ	--	--	<49.8	<49.8	<49.8	<49.8	<4.95
SP-4	0 - 0.5	3/9/2020	In-Situ	<0.00200	0.03210	<49.8	<49.8	<49.8	<49.8	72.8
	0.5 - 1	3/9/2020	In-Situ	<0.00198	0.00774	<50.0	<50.0	<50.0	<50.0	56.0
SP-5	0 - 0.5	3/9/2020	In-Situ	<0.00199	0.16600	<50.0	<50.0	<50.0	<50.0	14.1
	0.5 - 1	3/9/2020	In-Situ	<0.00200	0.21000	<49.9	<49.9	<49.9	<49.9	83.6
SP-6	0 - 0.5	3/9/2020	In-Situ	<0.00199	0.14300	120	4,080	646	**4,850**	149
	0.5 - 1	3/9/2020	In-Situ	<0.00198	<0.00198	252	3,000	522	**3,770**	22.7
	2	3/25/2020	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	139
	3	3/25/2020	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	21.3
	4	3/25/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	20.8

Table 1
Soil Sample Analytical Data Summary
Talco 25
Lea County, New Mexico
North 32 6 28.78, West 103 19 37.36

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Remediation Level:				**10**	**50**				**100 / 2,500**	**600 / 20,000**
	5	3/25/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	26.1
	10	3/25/2020	In-Situ	--	--	<49.9	<49.9	<49.9	<49.9	137
SP-7	0 - 0.5	3/23/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	56.4
	0.5 - 1	3/23/2020	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	17.6
SP-8	0 - 0.5	3/23/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<4.96
	0.5 - 1	3/23/2020	In-Situ	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	7.62

Notes: Analysis performed by Xenco Laboratories
Depth in feet below ground surface (bgs)
mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)
<: denotes concentration less than analytical method reporting limit
Bold and Highlighted exceeds OCD remediation action limits

Figures

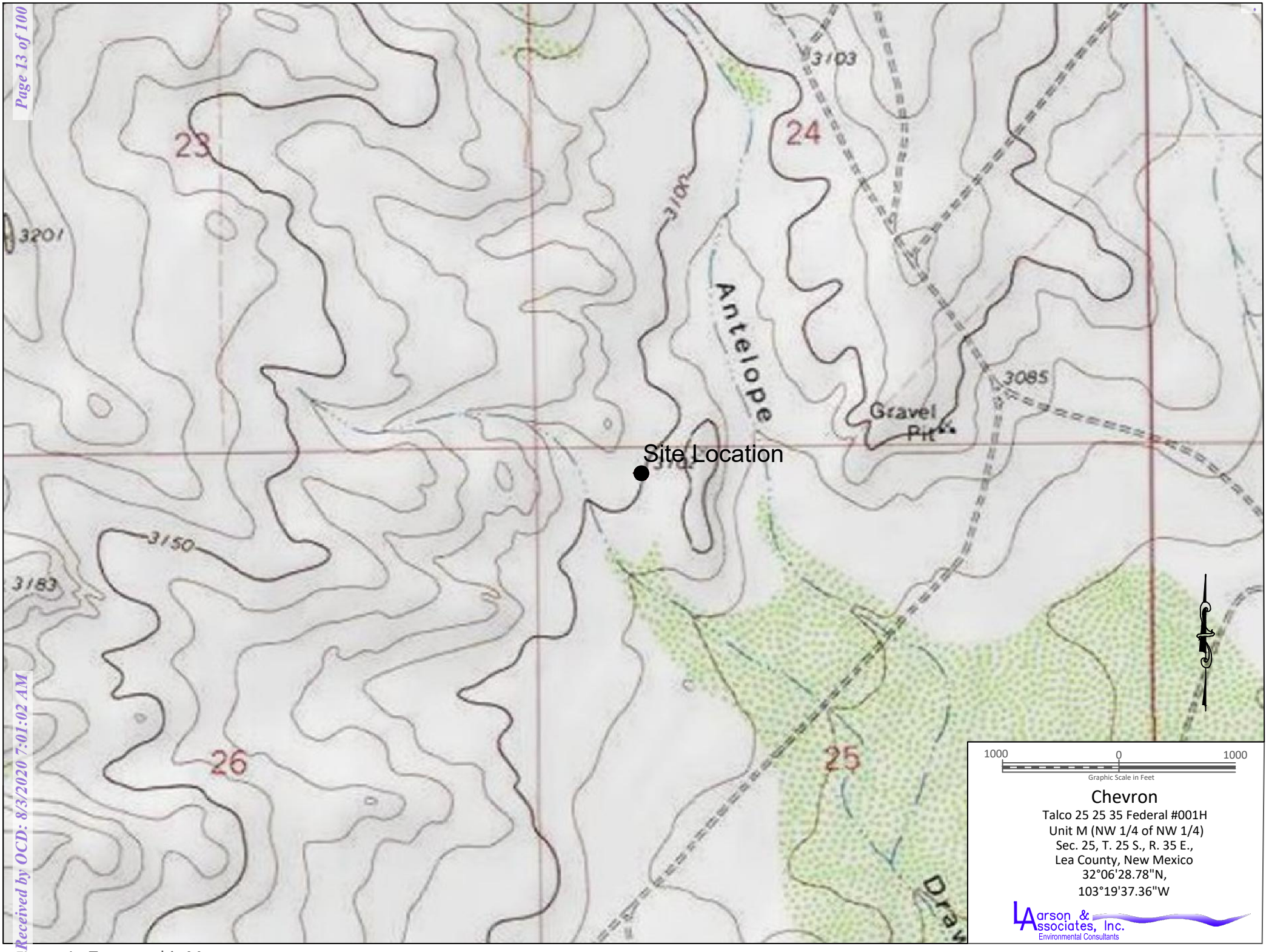


Figure 1 - Topographic Map

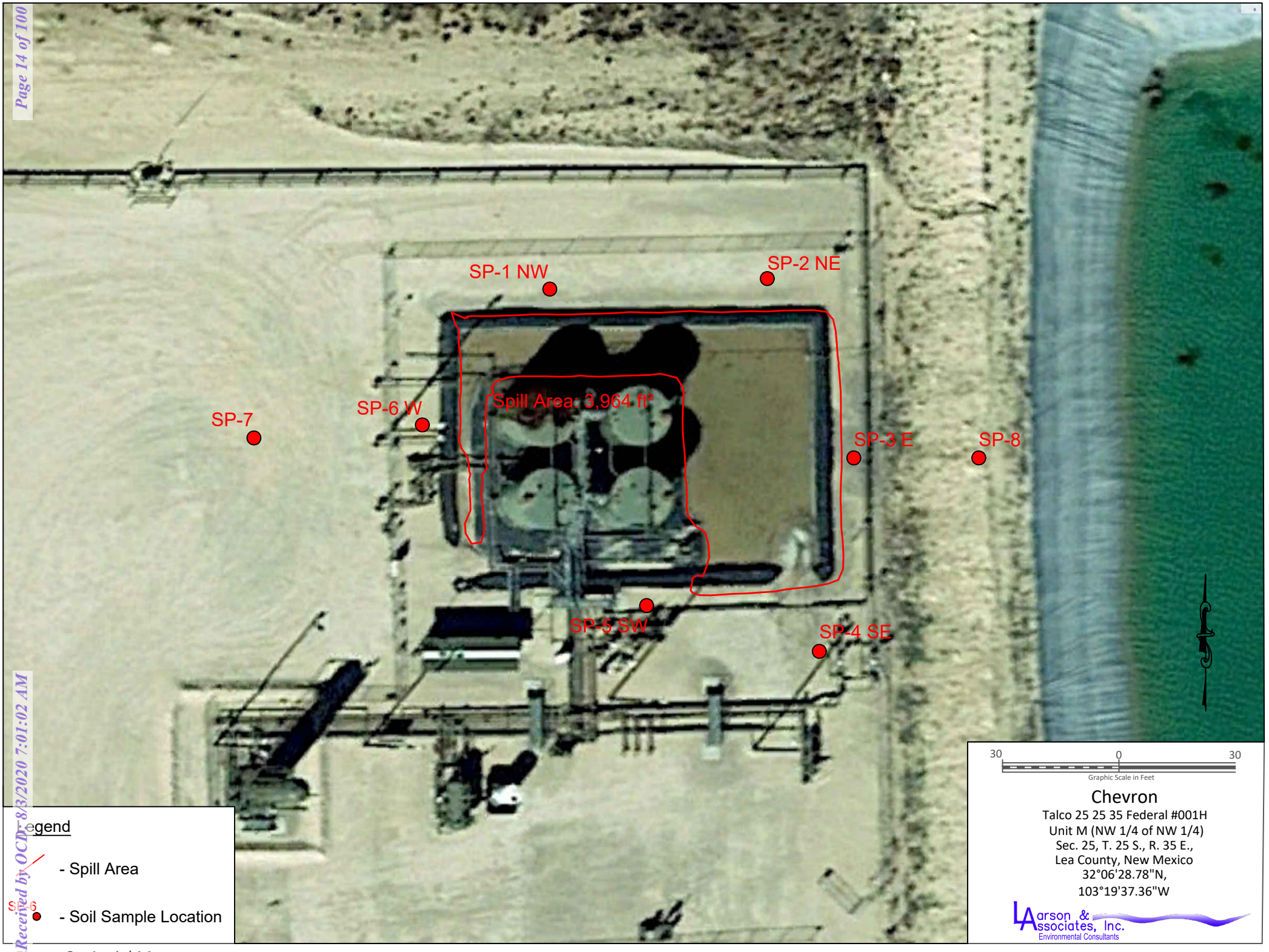


Figure 2 - Aerial Map

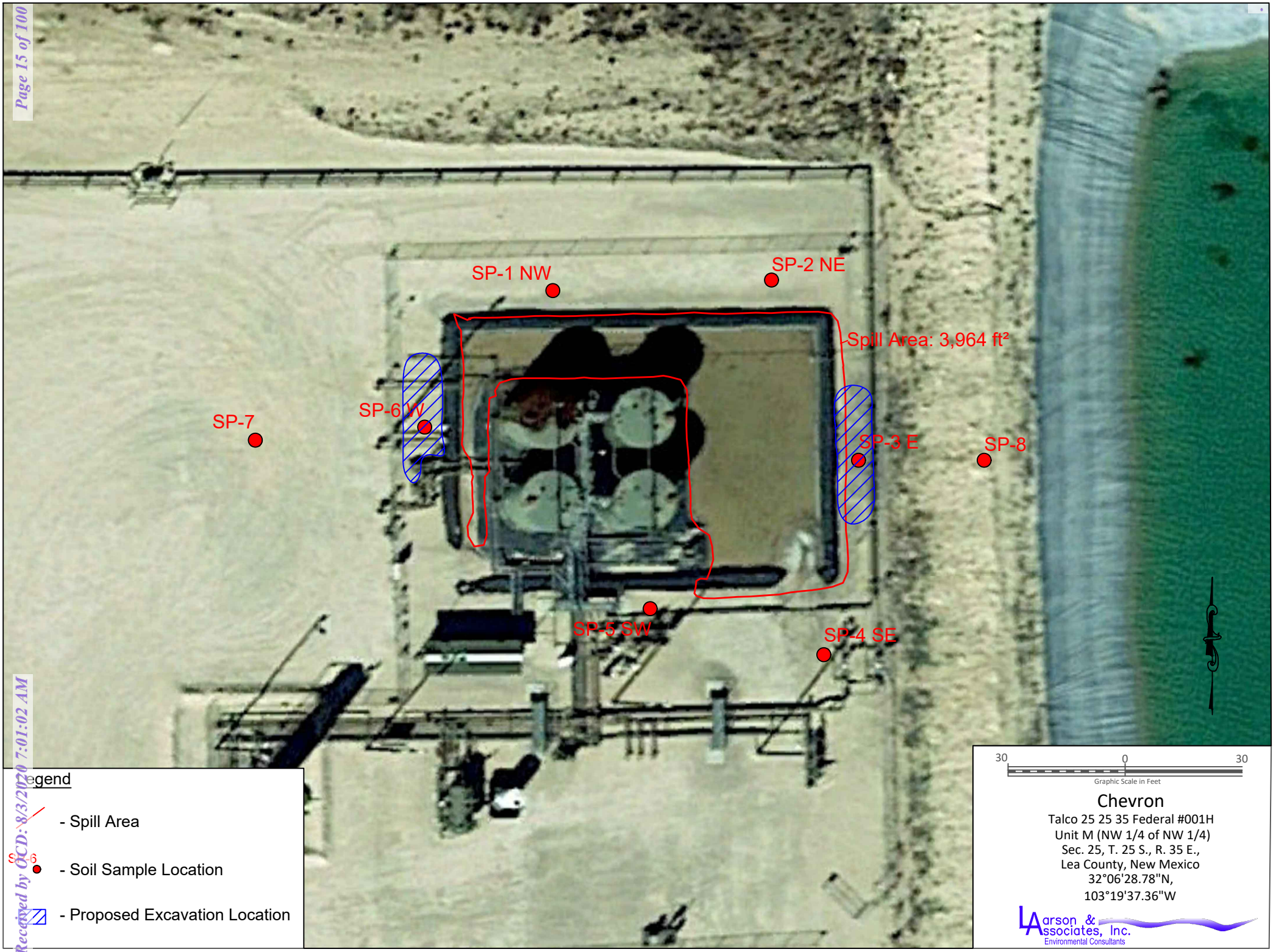


Figure 3 - Aerial Map Showing Proposed Excavation Locations

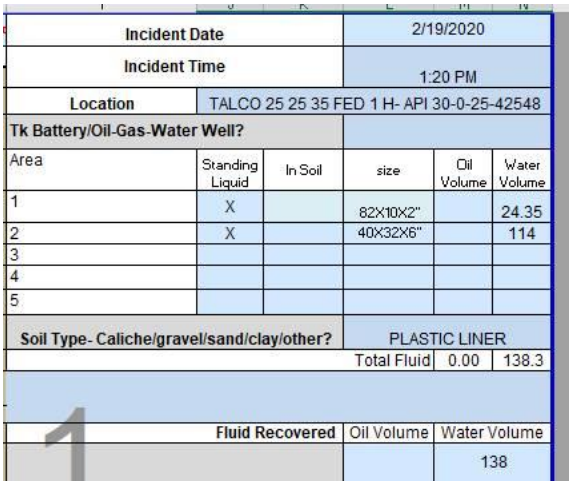
Appendix A

Chevron Spill Calculation

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	



Incident Date			2/19/2020		
Incident Time			1:20 PM		
Location	TALCO 25 25 35 FED 1 H- API 30-0-25-42548				
Tk Battery/Oil-Gas-Water Well?					
Area	Standing Liquid	In Soil	size	Oil Volume	Water Volume
1	X		82X10X2"		24.35
2	X		40X32X6"		114
3					
4					
5					
Soil Type- Caliche/gravel/sand/clay/other?			PLASTIC LINER		
			Total Fluid	0.00	138.3
			Fluid Recovered	Oil Volume	Water Volume
					138

Appendix B

Laboratory Reports

Certificate of Analysis Summary 655065

Larson and Associates, Inc., Midland, TX

Project Name: Talco 25

Project Id: 20-0107-07
Contact: Mark Larson
Project Location:

Date Received in Lab: Mon 03.09.2020 15:32
Report Date: 03.17.2020 11:30
Project Manager: Holly Taylor

Analysis Requested		655065-001		655065-002		655065-003		655065-004		655065-005		655065-006	
	Field Id:	SP-1 NW 0.5'		SP-1 NW 1'		SP-2 NE 0.5'		SP-2 NE 1'		SP-3 E 0.5'		SP-3 E 1'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	03.09.2020 10:36		03.09.2020 10:38		03.09.2020 10:44		03.09.2020 10:48		03.09.2020 10:50		03.09.2020 10:52	
BTEX by EPA 8021B	*Extracted:*	03.15.2020 10:15		03.15.2020 10:15		03.15.2020 10:15		03.15.2020 10:15		03.15.2020 10:15		03.15.2020 10:15	
	Analyzed:	03.15.2020 14:31		03.15.2020 14:51		03.15.2020 15:11		03.15.2020 15:32		03.16.2020 00:36		03.16.2020 00:56	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.200	0.200	<0.200	0.200
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.200	0.200	<0.200	0.200
Ethylbenzene		<0.00200	0.00200	0.0220	0.00199	0.0264	0.00199	0.0351	0.00198	20.8	0.200	14.0	0.200
m,p-Xylenes		0.00488	0.00400	0.0766	0.00398	0.0799	0.00398	0.114	0.00397	779 D	3.99	74.0	0.399
o-Xylene		0.00316	0.00200	0.0308	0.00199	0.0305	0.00199	0.0448	0.00198	280 D	2.00	24.3	0.200
Total Xylenes		0.00804	0.00200	0.107	0.00199	0.110	0.00199	0.159	0.00198	1060	2.00	98.3	0.200
Total BTEX		0.00804	0.00200	0.129	0.00199	0.137	0.00199	0.194	0.00198	1080	0.200	112	0.200
Chloride by EPA 300	*Extracted:*	03.10.2020 09:50		03.10.2020 09:50		03.10.2020 09:50		03.10.2020 09:50		03.10.2020 09:50		03.10.2020 09:50	
	Analyzed:	03.10.2020 10:23		03.10.2020 11:00		03.10.2020 11:06		03.10.2020 11:12		03.10.2020 11:20		03.10.2020 12:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<5.05	5.05	<4.99	4.99	125	4.96	119	5.00	20.6	4.98	292	5.04
TPH by SW8015 Mod	*Extracted:*	03.10.2020 09:30		03.10.2020 09:30		03.10.2020 09:30		03.10.2020 09:30		03.10.2020 09:30		03.10.2020 09:30	
	Analyzed:	03.10.2020 09:38		03.10.2020 10:33		03.10.2020 10:52		03.10.2020 11:11		03.10.2020 11:30		03.10.2020 11:48	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	3000	50.0	1040	49.9
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9
Total TPH		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	3000	50.0	1040	49.9

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager

Certificate of Analysis Summary 655065

Larson and Associates, Inc., Midland, TX

Project Name: Talco 25

Project Id: 20-0107-07
Contact: Mark Larson
Project Location:

Date Received in Lab: Mon 03.09.2020 15:32
Report Date: 03.17.2020 11:30
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	655065-007		655065-008		655065-009		655065-010		655065-011		655065-012	
	Field Id:	SP-4 SE 0.5'		SP-4 SE 1'		SP-5 SW 0.5'		SP-5 SW 1'		SP-6 W 0.5'		SP-6 W 1'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	03.09.2020 10:55		03.09.2020 11:01		03.09.2020 11:08		03.09.2020 11:07		03.09.2020 11:11		03.09.2020 11:16	
BTEX by EPA 8021B	***Extracted:***	03.15.2020 10:15		03.15.2020 10:15		03.15.2020 10:15		03.15.2020 10:15		03.15.2020 10:15		03.15.2020 10:15	
	Analyzed:	03.15.2020 15:52		03.15.2020 16:12		03.15.2020 16:32		03.15.2020 16:52		03.15.2020 17:12		03.15.2020 17:32	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		0.00409	0.00200	<0.00198	0.00198	0.0301	0.00199	0.0375	0.00200	0.0237	0.00199	0.0134	0.00200
m,p-Xylenes		0.0185	0.00400	0.00466	0.00397	0.0981	0.00398	0.124	0.00401	0.0875	0.00398	0.0989	0.00399
o-Xylene		0.00947	0.00200	0.00308	0.00198	0.0374	0.00199	0.0486	0.00200	0.0319	0.00199	0.0579	0.00200
Total Xylenes		0.0280	0.00200	0.00774	0.00198	0.136	0.00199	0.173	0.00200	0.119	0.00199	0.157	0.00200
Total BTEX		0.0321	0.00200	0.00774	0.00198	0.166	0.00199	0.210	0.00200	0.143	0.00199	0.170	0.00200
Chloride by EPA 300	***Extracted:***	03.10.2020 09:50		03.10.2020 09:50		03.10.2020 09:50		03.10.2020 09:50		03.10.2020 09:50		03.10.2020 09:50	
	Analyzed:	03.10.2020 12:28		03.10.2020 12:38		03.10.2020 12:47		03.10.2020 12:56		03.10.2020 13:05		03.10.2020 13:33	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		72.8	5.01	56.0	4.97	14.1	4.96	83.6	5.00	149	5.00	22.7	5.02
TPH by SW8015 Mod	***Extracted:***	03.10.2020 09:30		03.10.2020 09:30		03.10.2020 09:30		03.10.2020 09:30		03.10.2020 09:30		03.10.2020 09:30	
	Analyzed:	03.10.2020 12:07		03.10.2020 12:26		03.10.2020 12:45		03.10.2020 13:04		03.10.2020 13:23		03.10.2020 13:42	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	120	50.0	252	49.9
Diesel Range Organics (DRO)		<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	4080	50.0	3000	49.9
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	646	50.0	522	49.9
Total TPH		<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	4850	50.0	3770	49.9

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager

Analytical Report 655065

for

Larson and Associates, Inc.

Project Manager: Mark Larson

Talco 25

20-0107-07

03.17.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

03.17.2020

Project Manager: **Mark Larson**
Larson and Associates, Inc.
P. O. Box 50685
Midland, TX 79710

Reference: XENCO Report No(s): **655065**
Talco 25
Project Address:

Mark Larson :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 655065. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 655065 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Holly Taylor

Holly Taylor
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1 NW 0.5'	S	03.09.2020 10:36		655065-001
SP-1 NW 1'	S	03.09.2020 10:38		655065-002
SP-2 NE 0.5'	S	03.09.2020 10:44		655065-003
SP-2 NE 1'	S	03.09.2020 10:48		655065-004
SP-3 E 0.5'	S	03.09.2020 10:50		655065-005
SP-3 E 1'	S	03.09.2020 10:52		655065-006
SP-4 SE 0.5'	S	03.09.2020 10:55		655065-007
SP-4 SE 1'	S	03.09.2020 11:01		655065-008
SP-5 SW 0.5'	S	03.09.2020 11:08		655065-009
SP-5 SW 1'	S	03.09.2020 11:07		655065-010
SP-6 W 0.5'	S	03.09.2020 11:11		655065-011
SP-6 W 1'	S	03.09.2020 11:16		655065-012

CASE NARRATIVE

Client Name: Larson and Associates, Inc.

Project Name: Talco 25

Project ID: *20-0107-07*
Work Order Number(s): *655065*

Report Date: *03.17.2020*
Date Received: *03.09.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3119699 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered below QC limits. Samples affected are: 7698912-1-BLK.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Due to matrix, the intial run for samples 005 & 006 was performed at a dilution of 100X.

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id: **SP-1 NW 0.5'** Matrix: Soil Date Received:03.09.2020 15:32

Lab Sample Id: 655065-001 Date Collected: 03.09.2020 10:36

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.10.2020 09:50 Basis: Wet Weight

Seq Number: 3119152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.05	5.05	mg/kg	03.10.2020 10:23	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.10.2020 09:30 Basis: Wet Weight

Seq Number: 3119216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.10.2020 09:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.10.2020 09:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.10.2020 09:38	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.10.2020 09:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	03.10.2020 09:38	
o-Terphenyl	84-15-1	90	%	70-135	03.10.2020 09:38	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-1 NW 0.5'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-001	Date Collected:	03.09.2020 10:36		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.15.2020 10:15	Basis:	Wet Weight
Seq Number:	3119699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.15.2020 14:31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.15.2020 14:31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.15.2020 14:31	U	1
m,p-Xylenes	179601-23-1	**0.00488**	0.00400	mg/kg	03.15.2020 14:31		1
o-Xylene	95-47-6	**0.00316**	0.00200	mg/kg	03.15.2020 14:31		1
Total Xylenes	1330-20-7	**0.00804**	0.00200	mg/kg	03.15.2020 14:31		1
Total BTEX		**0.00804**	0.00200	mg/kg	03.15.2020 14:31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	74	%	70-130	03.15.2020 14:31	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.15.2020 14:31	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-1 NW 1'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-002	Date Collected:	03.09.2020 10:38		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.10.2020 09:50	Basis:	Wet Weight
Seq Number:	3119152				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	03.10.2020 11:00	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.2020 09:30	Basis:	Wet Weight
Seq Number:	3119216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.10.2020 10:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.10.2020 10:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.10.2020 10:33	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.10.2020 10:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.10.2020 10:33	
o-Terphenyl	84-15-1	99	%	70-135	03.10.2020 10:33	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-1 NW 1'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-002	Date Collected:	03.09.2020 10:38		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.15.2020 10:15	Basis:	Wet Weight
Seq Number:	3119699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.15.2020 14:51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.15.2020 14:51	U	1
Ethylbenzene	100-41-4	**0.0220**	0.00199	mg/kg	03.15.2020 14:51		1
m,p-Xylenes	179601-23-1	**0.0766**	0.00398	mg/kg	03.15.2020 14:51		1
o-Xylene	95-47-6	**0.0308**	0.00199	mg/kg	03.15.2020 14:51		1
Total Xylenes	1330-20-7	**0.107**	0.00199	mg/kg	03.15.2020 14:51		1
Total BTEX		**0.129**	0.00199	mg/kg	03.15.2020 14:51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	03.15.2020 14:51	
4-Bromofluorobenzene	460-00-4	82	%	70-130	03.15.2020 14:51	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id: **SP-2 NE 0.5'** Matrix: Soil Date Received:03.09.2020 15:32
Lab Sample Id: 655065-003 Date Collected: 03.09.2020 10:44

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 03.10.2020 09:50 Basis: Wet Weight
Seq Number: 3119152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**125**	4.96	mg/kg	03.10.2020 11:06		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 03.10.2020 09:30 Basis: Wet Weight
Seq Number: 3119216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.10.2020 10:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.10.2020 10:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.10.2020 10:52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.10.2020 10:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	03.10.2020 10:52	
o-Terphenyl	84-15-1	92	%	70-135	03.10.2020 10:52	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-2 NE 0.5'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-003	Date Collected:	03.09.2020 10:44		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.15.2020 10:15	Basis:	Wet Weight
Seq Number:	3119699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.15.2020 15:11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.15.2020 15:11	U	1
Ethylbenzene	100-41-4	**0.0264**	0.00199	mg/kg	03.15.2020 15:11		1
m,p-Xylenes	179601-23-1	**0.0799**	0.00398	mg/kg	03.15.2020 15:11		1
o-Xylene	95-47-6	**0.0305**	0.00199	mg/kg	03.15.2020 15:11		1
Total Xylenes	1330-20-7	**0.110**	0.00199	mg/kg	03.15.2020 15:11		1
Total BTEX		**0.137**	0.00199	mg/kg	03.15.2020 15:11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	70-130	03.15.2020 15:11	
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.15.2020 15:11	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-2 NE 1'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-004	Date Collected:	03.09.2020 10:48		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.10.2020 09:50	Basis:	Wet Weight
Seq Number:	3119152				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**119**	5.00	mg/kg	03.10.2020 11:12		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.2020 09:30	Basis:	Wet Weight
Seq Number:	3119216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.10.2020 11:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.10.2020 11:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.10.2020 11:11	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.10.2020 11:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	03.10.2020 11:11	
o-Terphenyl	84-15-1	105	%	70-135	03.10.2020 11:11	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-2 NE 1'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-004	Date Collected:	03.09.2020 10:48		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.15.2020 10:15	Basis:	Wet Weight
Seq Number:	3119699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.15.2020 15:32	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.15.2020 15:32	U	1
Ethylbenzene	100-41-4	**0.0351**	0.00198	mg/kg	03.15.2020 15:32		1
m,p-Xylenes	179601-23-1	**0.114**	0.00397	mg/kg	03.15.2020 15:32		1
o-Xylene	95-47-6	**0.0448**	0.00198	mg/kg	03.15.2020 15:32		1
Total Xylenes	1330-20-7	**0.159**	0.00198	mg/kg	03.15.2020 15:32		1
Total BTEX		**0.194**	0.00198	mg/kg	03.15.2020 15:32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	78	%	70-130	03.15.2020 15:32	
1,4-Difluorobenzene	540-36-3	105	%	70-130	03.15.2020 15:32	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-3 E 0.5'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-005	Date Collected:	03.09.2020 10:50		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.10.2020 09:50	Basis:	Wet Weight
Seq Number:	3119152				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**20.6**	4.98	mg/kg	03.10.2020 11:20		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.2020 09:30	Basis:	Wet Weight
Seq Number:	3119216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**3000**	50.0	mg/kg	03.10.2020 11:30		1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.10.2020 11:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.10.2020 11:30	U	1
Total TPH	PHC635	**3000**	50.0	mg/kg	03.10.2020 11:30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.10.2020 11:30	
o-Terphenyl	84-15-1	104	%	70-135	03.10.2020 11:30	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-3 E 0.5'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-005	Date Collected:	03.09.2020 10:50		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.15.2020 10:15	Basis:	Wet Weight
Seq Number:	3119699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.200	0.200	mg/kg	03.16.2020 00:36	U	100
Toluene	108-88-3	<0.200	0.200	mg/kg	03.16.2020 00:36	U	100
Ethylbenzene	100-41-4	**20.8**	0.200	mg/kg	03.16.2020 00:36		100
m,p-Xylenes	179601-23-1	**779**	3.99	mg/kg	03.16.2020 14:12	D	1000
o-Xylene	95-47-6	**280**	2.00	mg/kg	03.16.2020 14:12	D	1000
Total Xylenes	1330-20-7	**1060**	2.00	mg/kg	03.16.2020 14:12		1000
Total BTEX		**1080**	0.200	mg/kg	03.16.2020 14:12		1000

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	03.16.2020 00:36	
1,4-Difluorobenzene	540-36-3	91	%	70-130	03.16.2020 00:36	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-3 E 1'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-006	Date Collected:	03.09.2020 10:52		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.10.2020 09:50	Basis:	Wet Weight
Seq Number:	3119152				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**292**	5.04	mg/kg	03.10.2020 12:19		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.2020 09:30	Basis:	Wet Weight
Seq Number:	3119216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**1040**	49.9	mg/kg	03.10.2020 11:48		1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.10.2020 11:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.10.2020 11:48	U	1
Total TPH	PHC635	**1040**	49.9	mg/kg	03.10.2020 11:48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.10.2020 11:48	
o-Terphenyl	84-15-1	101	%	70-135	03.10.2020 11:48	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-3 E 1'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-006	Date Collected:	03.09.2020 10:52		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.15.2020 10:15	Basis:	Wet Weight
Seq Number:	3119699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.200	0.200	mg/kg	03.16.2020 00:56	U	100
Toluene	108-88-3	<0.200	0.200	mg/kg	03.16.2020 00:56	U	100
Ethylbenzene	100-41-4	**14.0**	0.200	mg/kg	03.16.2020 00:56		100
m,p-Xylenes	179601-23-1	**74.0**	0.399	mg/kg	03.16.2020 00:56		100
o-Xylene	95-47-6	**24.3**	0.200	mg/kg	03.16.2020 00:56		100
Total Xylenes	1330-20-7	**98.3**	0.200	mg/kg	03.16.2020 00:56		100
Total BTEX		**112**	0.200	mg/kg	03.16.2020 00:56		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	03.16.2020 00:56	
1,4-Difluorobenzene	540-36-3	94	%	70-130	03.16.2020 00:56	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id: **SP-4 SE 0.5'** Matrix: Soil Date Received:03.09.2020 15:32
Lab Sample Id: 655065-007 Date Collected: 03.09.2020 10:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 03.10.2020 09:50 Basis: Wet Weight
Seq Number: 3119152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**72.8**	5.01	mg/kg	03.10.2020 12:28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 03.10.2020 09:30 Basis: Wet Weight
Seq Number: 3119216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.10.2020 12:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.10.2020 12:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.10.2020 12:07	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.10.2020 12:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.10.2020 12:07	
o-Terphenyl	84-15-1	106	%	70-135	03.10.2020 12:07	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-4 SE 0.5'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-007	Date Collected:	03.09.2020 10:55		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.15.2020 10:15	Basis:	Wet Weight
Seq Number:	3119699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.15.2020 15:52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.15.2020 15:52	U	1
Ethylbenzene	100-41-4	**0.00409**	0.00200	mg/kg	03.15.2020 15:52		1
m,p-Xylenes	179601-23-1	**0.0185**	0.00400	mg/kg	03.15.2020 15:52		1
o-Xylene	95-47-6	**0.00947**	0.00200	mg/kg	03.15.2020 15:52		1
Total Xylenes	1330-20-7	**0.0280**	0.00200	mg/kg	03.15.2020 15:52		1
Total BTEX		**0.0321**	0.00200	mg/kg	03.15.2020 15:52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	76	%	70-130	03.15.2020 15:52	
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.15.2020 15:52	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id: **SP-4 SE 1'** Matrix: Soil Date Received:03.09.2020 15:32

Lab Sample Id: 655065-008 Date Collected: 03.09.2020 11:01

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.10.2020 09:50 Basis: Wet Weight

Seq Number: 3119152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**56.0**	4.97	mg/kg	03.10.2020 12:38		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.10.2020 09:30 Basis: Wet Weight

Seq Number: 3119216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.10.2020 12:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.10.2020 12:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.10.2020 12:26	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.10.2020 12:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	03.10.2020 12:26	
o-Terphenyl	84-15-1	90	%	70-135	03.10.2020 12:26	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-4 SE 1'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-008	Date Collected:	03.09.2020 11:01		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.15.2020 10:15	Basis:	Wet Weight
Seq Number:	3119699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.15.2020 16:12	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.15.2020 16:12	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.15.2020 16:12	U	1
m,p-Xylenes	179601-23-1	**0.00466**	0.00397	mg/kg	03.15.2020 16:12		1
o-Xylene	95-47-6	**0.00308**	0.00198	mg/kg	03.15.2020 16:12		1
Total Xylenes	1330-20-7	**0.00774**	0.00198	mg/kg	03.15.2020 16:12		1
Total BTEX		**0.00774**	0.00198	mg/kg	03.15.2020 16:12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	75	%	70-130	03.15.2020 16:12	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.15.2020 16:12	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id: **SP-5 SW 0.5'** Matrix: Soil Date Received:03.09.2020 15:32

Lab Sample Id: 655065-009 Date Collected: 03.09.2020 11:08

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.10.2020 09:50 Basis: Wet Weight

Seq Number: 3119152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.1**	4.96	mg/kg	03.10.2020 12:47		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.10.2020 09:30 Basis: Wet Weight

Seq Number: 3119216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.10.2020 12:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.10.2020 12:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.10.2020 12:45	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.10.2020 12:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	03.10.2020 12:45	
o-Terphenyl	84-15-1	91	%	70-135	03.10.2020 12:45	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-5 SW 0.5'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-009	Date Collected:	03.09.2020 11:08		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.15.2020 10:15	Basis:	Wet Weight
Seq Number:	3119699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.15.2020 16:32	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.15.2020 16:32	U	1
Ethylbenzene	100-41-4	**0.0301**	0.00199	mg/kg	03.15.2020 16:32		1
m,p-Xylenes	179601-23-1	**0.0981**	0.00398	mg/kg	03.15.2020 16:32		1
o-Xylene	95-47-6	**0.0374**	0.00199	mg/kg	03.15.2020 16:32		1
Total Xylenes	1330-20-7	**0.136**	0.00199	mg/kg	03.15.2020 16:32		1
Total BTEX		**0.166**	0.00199	mg/kg	03.15.2020 16:32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	85	%	70-130	03.15.2020 16:32	
1,4-Difluorobenzene	540-36-3	106	%	70-130	03.15.2020 16:32	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id: **SP-5 SW 1'** Matrix: Soil Date Received:03.09.2020 15:32
Lab Sample Id: 655065-010 Date Collected: 03.09.2020 11:07

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 03.10.2020 09:50 Basis: Wet Weight
Seq Number: 3119152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**83.6**	5.00	mg/kg	03.10.2020 12:56		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 03.10.2020 09:30 Basis: Wet Weight
Seq Number: 3119216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.10.2020 13:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.10.2020 13:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.10.2020 13:04	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.10.2020 13:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	03.10.2020 13:04	
o-Terphenyl	84-15-1	89	%	70-135	03.10.2020 13:04	

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Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-5 SW 1'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-010	Date Collected:	03.09.2020 11:07		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.15.2020 10:15	Basis:	Wet Weight
Seq Number:	3119699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.15.2020 16:52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.15.2020 16:52	U	1
Ethylbenzene	100-41-4	**0.0375**	0.00200	mg/kg	03.15.2020 16:52		1
m,p-Xylenes	179601-23-1	**0.124**	0.00401	mg/kg	03.15.2020 16:52		1
o-Xylene	95-47-6	**0.0486**	0.00200	mg/kg	03.15.2020 16:52		1
Total Xylenes	1330-20-7	**0.173**	0.00200	mg/kg	03.15.2020 16:52		1
Total BTEX		**0.210**	0.00200	mg/kg	03.15.2020 16:52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	81	%	70-130	03.15.2020 16:52	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.15.2020 16:52	

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Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-6 W 0.5'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-011	Date Collected:	03.09.2020 11:11		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.10.2020 09:50	Basis:	Wet Weight
Seq Number:	3119152				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**149**	5.00	mg/kg	03.10.2020 13:05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.2020 09:30	Basis:	Wet Weight
Seq Number:	3119216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**120**	50.0	mg/kg	03.10.2020 13:23		1
Diesel Range Organics (DRO)	C10C28DRO	**4080**	50.0	mg/kg	03.10.2020 13:23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**646**	50.0	mg/kg	03.10.2020 13:23		1
Total TPH	PHC635	**4850**	50.0	mg/kg	03.10.2020 13:23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	03.10.2020 13:23	
o-Terphenyl	84-15-1	116	%	70-135	03.10.2020 13:23	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-6 W 0.5'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-011	Date Collected:	03.09.2020 11:11		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.15.2020 10:15	Basis:	Wet Weight
Seq Number:	3119699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.15.2020 17:12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.15.2020 17:12	U	1
Ethylbenzene	100-41-4	**0.0237**	0.00199	mg/kg	03.15.2020 17:12		1
m,p-Xylenes	179601-23-1	**0.0875**	0.00398	mg/kg	03.15.2020 17:12		1
o-Xylene	95-47-6	**0.0319**	0.00199	mg/kg	03.15.2020 17:12		1
Total Xylenes	1330-20-7	**0.119**	0.00199	mg/kg	03.15.2020 17:12		1
Total BTEX		**0.143**	0.00199	mg/kg	03.15.2020 17:12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	03.15.2020 17:12	
1,4-Difluorobenzene	540-36-3	93	%	70-130	03.15.2020 17:12	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-6 W 1'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-012	Date Collected:	03.09.2020 11:16		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.10.2020 09:50	Basis:	Wet Weight
Seq Number:	3119152				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**22.7**	5.02	mg/kg	03.10.2020 13:33		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.2020 09:30	Basis:	Wet Weight
Seq Number:	3119216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**252**	49.9	mg/kg	03.10.2020 13:42		1
Diesel Range Organics (DRO)	C10C28DRO	**3000**	49.9	mg/kg	03.10.2020 13:42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**522**	49.9	mg/kg	03.10.2020 13:42		1
Total TPH	PHC635	**3770**	49.9	mg/kg	03.10.2020 13:42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	03.10.2020 13:42	
o-Terphenyl	84-15-1	128	%	70-135	03.10.2020 13:42	

Certificate of Analytical Results 655065

Larson and Associates, Inc., Midland, TX

Talco 25

Sample Id:	**SP-6 W 1'**	Matrix:	Soil	Date Received:	03.09.2020 15:32
Lab Sample Id:	655065-012	Date Collected:	03.09.2020 11:16		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.15.2020 10:15	Basis:	Wet Weight
Seq Number:	3119699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.15.2020 17:32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.15.2020 17:32	U	1
Ethylbenzene	100-41-4	**0.0134**	0.00200	mg/kg	03.15.2020 17:32		1
m,p-Xylenes	179601-23-1	**0.0989**	0.00399	mg/kg	03.15.2020 17:32		1
o-Xylene	95-47-6	**0.0579**	0.00200	mg/kg	03.15.2020 17:32		1
Total Xylenes	1330-20-7	**0.157**	0.00200	mg/kg	03.15.2020 17:32		1
Total BTEX		**0.170**	0.00200	mg/kg	03.15.2020 17:32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	88	%	70-130	03.15.2020 17:32	
4-Bromofluorobenzene	460-00-4	168	%	70-130	03.15.2020 17:32	**

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 655065

Larson and Associates, Inc.

Talco 25

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3119152 — Matrix: Solid — Date Prep: 03.10.2020
MB Sample Id: 7698441-1-BLK — LCS Sample Id: 7698441-1-BKS — LCSD Sample Id: 7698441-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	255	102	254	102	90-110	0	20	mg/kg	03.10.2020 10:02	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3119152 — Matrix: Soil — Date Prep: 03.10.2020
Parent Sample Id: 655065-001 — MS Sample Id: 655065-001 S — MSD Sample Id: 655065-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.63	253	269	105	268	105	90-110	0	20	mg/kg	03.10.2020 10:31	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3119152 — Matrix: Soil — Date Prep: 03.10.2020
Parent Sample Id: 655065-011 — MS Sample Id: 655065-011 S — MSD Sample Id: 655065-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	149	250	409	104	406	103	90-110	1	20	mg/kg	03.10.2020 13:14	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3119216 — Matrix: Solid — Date Prep: 03.10.2020
MB Sample Id: 7698502-1-BLK — LCS Sample Id: 7698502-1-BKS — LCSD Sample Id: 7698502-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	927	93	913	91	70-135	2	20	mg/kg	03.10.2020 09:01	
Diesel Range Organics (DRO)	<15.0	1000	1020	102	991	99	70-135	3	20	mg/kg	03.10.2020 09:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		104		103		70-135	%	03.10.2020 09:01
o-Terphenyl	89		98		100		70-135	%	03.10.2020 09:01

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3119216 — Matrix: Solid — Date Prep: 03.10.2020
MB Sample Id: 7698502-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.10.2020 08:42	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 655065

Larson and Associates, Inc.

Talco 25

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3119216 Matrix: Soil Date Prep: 03.10.2020
Parent Sample Id: 655065-001 MS Sample Id: 655065-001 S MSD Sample Id: 655065-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	910	91	912	92	70-135	0	20	mg/kg	03.10.2020 09:56	
Diesel Range Organics (DRO)	22.5	997	986	97	1000	98	70-135	1	20	mg/kg	03.10.2020 09:56	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		103		70-135	%	03.10.2020 09:56
o-Terphenyl	98		100		70-135	%	03.10.2020 09:56

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3119699 Matrix: Solid Date Prep: 03.15.2020
MB Sample Id: 7698912-1-BLK LCS Sample Id: 7698912-1-BKS LCSD Sample Id: 7698912-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.108	108	0.106	106	70-130	2	35	mg/kg	03.15.2020 12:12	
Toluene	<0.000456	0.100	0.111	111	0.107	107	70-130	4	35	mg/kg	03.15.2020 12:12	
Ethylbenzene	<0.000565	0.100	0.110	110	0.104	104	70-130	6	35	mg/kg	03.15.2020 12:12	
m,p-Xylenes	<0.00101	0.200	0.219	110	0.205	103	70-130	7	35	mg/kg	03.15.2020 12:12	
o-Xylene	<0.000344	0.100	0.108	108	0.101	101	70-130	7	35	mg/kg	03.15.2020 12:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		107		106		70-130	%	03.15.2020 12:12
4-Bromofluorobenzene	67	**	91		91		70-130	%	03.15.2020 12:12

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3119699 Matrix: Soil Date Prep: 03.15.2020
Parent Sample Id: 655065-001 MS Sample Id: 655065-001 S MSD Sample Id: 655065-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000382	0.0992	0.0818	82	0.114	114	70-130	33	35	mg/kg	03.15.2020 12:52	
Toluene	0.000560	0.0992	0.0988	99	0.111	111	70-130	12	35	mg/kg	03.15.2020 12:52	
Ethylbenzene	0.00129	0.0992	0.0984	98	0.107	106	70-130	8	35	mg/kg	03.15.2020 12:52	
m,p-Xylenes	0.00488	0.198	0.195	96	0.211	103	70-130	8	35	mg/kg	03.15.2020 12:52	
o-Xylene	0.00316	0.0992	0.0968	94	0.103	100	70-130	6	35	mg/kg	03.15.2020 12:52	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		111		70-130	%	03.15.2020 12:52
4-Bromofluorobenzene	80		93		70-130	%	03.15.2020 12:52

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Nº 0890

Q55065

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 3/09/2020 PAGE 1 OF 1

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Talco 23

LAI PROJECT #: 20-0107-07 COLLECTOR: DSIRN

TRRP report? ☐ Yes ☒ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

TIME ZONE: Time zone/State: MST/NM

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☐ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TBLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
SP-1 NW 0.5'		3/9/20	1036	S	1				X		X		X	X	X														X	
SP-1 NW 1'			1038	S																										
SP-2 NE 0.5'			1044																											
SP-2 NE 1'			1048																											
SP-3 E 0.5'			1050																											
SP-3 E 1'			1052																											
SP-4 SE 0.5'			1055																											
SP-4 SE 1'			1101																											
SP-5 SW 0.5'			1108																											
SP-5 SW 1'			1107																											
SP-6 W 0.5'			1114																											
SP-6 W 1'			1116																											

TOTAL 12

RELINQUISHED BY:(Signature) Daniel Sotelo DATE/TIME 1532 3/9/20 RECEIVED BY: (Signature) Stramer

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

LABORATORY:

TURN AROUND TIME
NORMAL ☐
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 5.1/4.8 THERM#: R9
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Date/ Time Received: 03.09.2020 03.32.00 PM

Work Order #: 655065

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.8
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 03.10.2020

Brianna Teel

Checklist reviewed by: Holly Taylor Date: 03.16.2020

Holly Taylor

Certificate of Analysis Summary 656298

Larson and Associates, Inc., Midland, TX

Project Name: Taclo 25 25 35 Fed #001H

Project Id: 20-0107-07
Contact: Mark Larson
Project Location:

Date Received in Lab: Thu 03.19.2020 16:04
Report Date: 03.23.2020 15:07
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	656298-001		656298-002		656298-003		656298-004					
	Field Id:	SP-7 (0.5')		SP-7 (1')		SP-8 (0.5')		SP-8 (1')					
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	03.19.2020 10:48		03.19.2020 10:50		03.19.2020 11:10		03.19.2020 11:11					
BTEX by EPA 8021B	***Extracted:***	03.21.2020 09:00		03.21.2020 09:00		03.21.2020 09:00		03.21.2020 09:00					
	Analyzed:	03.21.2020 23:17		03.21.2020 23:38		03.21.2020 23:58		03.22.2020 01:21					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201				
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201				
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201				
m,p-Xylenes		<0.00399	0.00399	<0.00398	0.00398	<0.00399	0.00399	<0.00402	0.00402				
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201				
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201				
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201				
Chloride by EPA 300	***Extracted:***	03.20.2020 08:30		03.20.2020 08:30		03.20.2020 08:30		03.20.2020 08:30					
	Analyzed:	03.20.2020 10:21		03.20.2020 10:26		03.20.2020 09:39		03.20.2020 10:31					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		56.4	25.2	17.6	4.98	<4.96	4.96	7.62	4.96				
TPH by SW8015 Mod	***Extracted:***	03.20.2020 16:00		03.20.2020 16:00		03.20.2020 16:00		03.20.2020 16:00					
	Analyzed:	03.20.2020 19:32		03.20.2020 20:26		03.20.2020 20:45		03.20.2020 21:03					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9				
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9				
Total TPH		<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9				

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager

Analytical Report 656298

for

Larson and Associates, Inc.

Project Manager: Mark Larson

Taclo 25 25 35 Fed #001H

20-0107-07

03.23.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

03.23.2020

Project Manager: **Mark Larson**
Larson and Associates, Inc.
P. O. Box 50685
Midland, TX 79710

Reference: XENCO Report No(s): **656298**
Taclo 25 25 35 Fed #001H
Project Address:

Mark Larson :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 656298. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 656298 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Holly Taylor

Holly Taylor
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 656298

Larson and Associates, Inc., Midland, TX

Taclo 25 25 35 Fed #001H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-7 (0.5')	S	03.19.2020 10:48		656298-001
SP-7 (1')	S	03.19.2020 10:50		656298-002
SP-8 (0.5')	S	03.19.2020 11:10		656298-003
SP-8 (1')	S	03.19.2020 11:11		656298-004

CASE NARRATIVE

Client Name: Larson and Associates, Inc.

Project Name: Taclo 25 25 35 Fed #001H

Project ID: *20-0107-07*
Work Order Number(s): *656298*

Report Date: *03.23.2020*
Date Received: *03.19.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120574 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 656298

Larson and Associates, Inc., Midland, TX

Taclo 25 25 35 Fed #001H

Sample Id: **SP-7 (0.5')** Matrix: Soil Date Received:03.19.2020 16:04

Lab Sample Id: 656298-001 Date Collected: 03.19.2020 10:48

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.20.2020 08:30 Basis: Wet Weight

Seq Number: 3120517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**56.4**	25.2	mg/kg	03.20.2020 10:21		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.20.2020 16:00 Basis: Wet Weight

Seq Number: 3120509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.20.2020 19:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.20.2020 19:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.20.2020 19:32	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.20.2020 19:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	03.20.2020 19:32	
o-Terphenyl	84-15-1	93	%	70-135	03.20.2020 19:32	

Certificate of Analytical Results 656298

Larson and Associates, Inc., Midland, TX

Taclo 25 25 35 Fed #001H

Sample Id:	**SP-7 (0.5')**	Matrix:	Soil	Date Received:	03.19.2020 16:04
Lab Sample Id:	656298-001	Date Collected:	03.19.2020 10:48		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.21.2020 09:00	Basis:	Wet Weight
Seq Number:	3120574				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.21.2020 23:17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.21.2020 23:17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.21.2020 23:17	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.21.2020 23:17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.21.2020 23:17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.21.2020 23:17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.21.2020 23:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	03.21.2020 23:17	
4-Bromofluorobenzene	460-00-4	106	%	70-130	03.21.2020 23:17	

Certificate of Analytical Results 656298

Larson and Associates, Inc., Midland, TX

Taclo 25 25 35 Fed #001H

Sample Id:	**SP-7 (1')**	Matrix:	Soil	Date Received:	03.19.2020 16:04
Lab Sample Id:	656298-002	Date Collected:	03.19.2020 10:50		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.20.2020 08:30	Basis:	Wet Weight
Seq Number:	3120517				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**17.6**	4.98	mg/kg	03.20.2020 10:26		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.20.2020 16:00	Basis:	Wet Weight
Seq Number:	3120509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.20.2020 20:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.20.2020 20:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.20.2020 20:26	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.20.2020 20:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	03.20.2020 20:26	
o-Terphenyl	84-15-1	92	%	70-135	03.20.2020 20:26	

Certificate of Analytical Results 656298

Larson and Associates, Inc., Midland, TX

Taclo 25 25 35 Fed #001H

Sample Id:	**SP-7 (1')**	Matrix:	Soil	Date Received:	03.19.2020 16:04
Lab Sample Id:	656298-002	Date Collected:	03.19.2020 10:50		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.21.2020 09:00	Basis:	Wet Weight
Seq Number:	3120574				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.21.2020 23:38	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.21.2020 23:38	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.21.2020 23:38	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.21.2020 23:38	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.21.2020 23:38	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.21.2020 23:38	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.21.2020 23:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	03.21.2020 23:38	
1,4-Difluorobenzene	540-36-3	99	%	70-130	03.21.2020 23:38	

Certificate of Analytical Results 656298

Larson and Associates, Inc., Midland, TX

Taclo 25 25 35 Fed #001H

Sample Id:	**SP-8 (0.5')**	Matrix:	Soil	Date Received:	03.19.2020 16:04
Lab Sample Id:	656298-003	Date Collected:	03.19.2020 11:10		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.20.2020 08:30	Basis:	Wet Weight
Seq Number:	3120517				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	03.20.2020 09:39	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.20.2020 16:00	Basis:	Wet Weight
Seq Number:	3120509				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.20.2020 20:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.20.2020 20:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.20.2020 20:45	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.20.2020 20:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	03.20.2020 20:45	
o-Terphenyl	84-15-1	91	%	70-135	03.20.2020 20:45	

Certificate of Analytical Results 656298

Larson and Associates, Inc., Midland, TX

Taclo 25 25 35 Fed #001H

Sample Id:	**SP-8 (0.5')**	Matrix:	Soil	Date Received:	03.19.2020 16:04
Lab Sample Id:	656298-003	Date Collected:	03.19.2020 11:10		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.21.2020 09:00	Basis:	Wet Weight
Seq Number:	3120574				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.21.2020 23:58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.21.2020 23:58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.21.2020 23:58	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.21.2020 23:58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.21.2020 23:58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.21.2020 23:58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.21.2020 23:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	03.21.2020 23:58	
1,4-Difluorobenzene	540-36-3	98	%	70-130	03.21.2020 23:58	

Certificate of Analytical Results 656298

Larson and Associates, Inc., Midland, TX

Taclo 25 25 35 Fed #001H

Sample Id: **SP-8 (1')** Matrix: Soil Date Received:03.19.2020 16:04

Lab Sample Id: 656298-004 Date Collected: 03.19.2020 11:11

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.20.2020 08:30 Basis: Wet Weight

Seq Number: 3120517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.62**	4.96	mg/kg	03.20.2020 10:31		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.20.2020 16:00 Basis: Wet Weight

Seq Number: 3120509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.20.2020 21:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.20.2020 21:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.20.2020 21:03	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.20.2020 21:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	03.20.2020 21:03	
o-Terphenyl	84-15-1	89	%	70-135	03.20.2020 21:03	

Certificate of Analytical Results 656298

Larson and Associates, Inc., Midland, TX

Taclo 25 25 35 Fed #001H

Sample Id:	**SP-8 (1')**	Matrix:	Soil	Date Received:	03.19.2020 16:04
Lab Sample Id:	656298-004	Date Collected:	03.19.2020 11:11		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.21.2020 09:00	Basis:	Wet Weight
Seq Number:	3120574				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.22.2020 01:21	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.22.2020 01:21	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.22.2020 01:21	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.22.2020 01:21	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.22.2020 01:21	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.22.2020 01:21	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.22.2020 01:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	03.22.2020 01:21	
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.22.2020 01:21	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 656298

Larson and Associates, Inc.

Taclo 25 25 35 Fed #001H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120517 — Matrix: Solid — Date Prep: 03.20.2020
MB Sample Id: 7699378-1-BLK — LCS Sample Id: 7699378-1-BKS — LCSD Sample Id: 7699378-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	254	102	255	102	90-110	0	20	mg/kg	03.20.2020 09:28	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120517 — Matrix: Soil — Date Prep: 03.20.2020
Parent Sample Id: 656192-008 — MS Sample Id: 656192-008 S — MSD Sample Id: 656192-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	93.9	250	339	98	344	100	90-110	1	20	mg/kg	03.20.2020 11:24	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120517 — Matrix: Soil — Date Prep: 03.20.2020
Parent Sample Id: 656298-003 — MS Sample Id: 656298-003 S — MSD Sample Id: 656298-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.21	248	251	100	248	99	90-110	1	20	mg/kg	03.20.2020 09:44	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120509 — Matrix: Solid — Date Prep: 03.20.2020
MB Sample Id: 7699421-1-BLK — LCS Sample Id: 7699421-1-BKS — LCSD Sample Id: 7699421-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	934	93	922	92	70-135	1	20	mg/kg	03.20.2020 18:55	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	1030	103	70-135	0	20	mg/kg	03.20.2020 18:55	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		108		107		70-135	%	03.20.2020 18:55
o-Terphenyl	91		102		99		70-135	%	03.20.2020 18:55

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120509 — Matrix: Solid — Date Prep: 03.20.2020
MB Sample Id: 7699421-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.20.2020 18:37	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 656298

Larson and Associates, Inc.

Taclo 25 25 35 Fed #001H

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120509 — Matrix: Soil — Date Prep: 03.20.2020
Parent Sample Id: 656298-001 — MS Sample Id: 656298-001 S — MSD Sample Id: 656298-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	923	93	922	93	70-135	0	20	mg/kg	03.20.2020 19:50	
Diesel Range Organics (DRO)	<49.9	997	1030	103	1030	103	70-135	0	20	mg/kg	03.20.2020 19:50	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		102		70-135	%	03.20.2020 19:50
o-Terphenyl	99		98		70-135	%	03.20.2020 19:50

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3120574 — Matrix: Solid — Date Prep: 03.21.2020
MB Sample Id: 7699497-1-BLK — LCS Sample Id: 7699497-1-BKS — LCSD Sample Id: 7699497-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0910	91	0.0909	91	70-130	0	35	mg/kg	03.21.2020 18:33	
Toluene	<0.00200	0.100	0.0890	89	0.0908	91	70-130	2	35	mg/kg	03.21.2020 18:33	
Ethylbenzene	<0.00200	0.100	0.0878	88	0.0925	93	70-130	5	35	mg/kg	03.21.2020 18:33	
m,p-Xylenes	<0.00400	0.200	0.174	87	0.184	92	70-130	6	35	mg/kg	03.21.2020 18:33	
o-Xylene	<0.00200	0.100	0.0900	90	0.0923	92	70-130	3	35	mg/kg	03.21.2020 18:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		97		98		70-130	%	03.21.2020 18:33
4-Bromofluorobenzene	96		99		97		70-130	%	03.21.2020 18:33

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3120574 — Matrix: Soil — Date Prep: 03.21.2020
Parent Sample Id: 655881-063 — MS Sample Id: 655881-063 S — MSD Sample Id: 655881-063 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0906	91	0.0672	68	70-130	30	35	mg/kg	03.21.2020 19:13	X
Toluene	<0.00200	0.0998	0.0768	77	0.0547	55	70-130	34	35	mg/kg	03.21.2020 19:13	X
Ethylbenzene	<0.00200	0.0998	0.0756	76	0.0525	53	70-130	36	35	mg/kg	03.21.2020 19:13	XF
m,p-Xylenes	<0.00399	0.200	0.147	74	0.102	52	70-130	36	35	mg/kg	03.21.2020 19:13	XF
o-Xylene	<0.00200	0.0998	0.0801	80	0.0597	60	70-130	29	35	mg/kg	03.21.2020 19:13	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		95		70-130	%	03.21.2020 19:13
4-Bromofluorobenzene	101		99		70-130	%	03.21.2020 19:13

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

Nº 1005

E056298

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 3/19/2020 PAGE 1 OF 1

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: TALCO 25 25 35 FED #001H

LAI PROJECT #: 20-0107-07 COLLECTOR: DS/EC

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST / NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐	TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☒	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐	HOLDPAH ☐	8081 PESTICIDES ☐	8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐	TCLP VOC ☐	TCLP - PEST ☐	HERB ☐	Semi-VOC ☐	TOTAL METALS (RCRA) ☐	OTHER LIST ☐	LEAD - TOTAL ☐	D.W. 200.8 ☐	TCLP ☐	RCI ☐	TOX ☐	FLASHPOINT ☐	TDS ☐	TSS ☐	% MOISTURE ☐	pH ☐	CYANIDE ☐	HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐	PECHLORATE ☐	CHLORIDE ☒	ANIONS ☐	ALKALINITY ☐	FIELD NOTES
SP-7 (0.5')		3/19/20	1048	S	1				X		X				X	X	X																								X				
SP-7 (1')		"	1050	"	"				"		"				"	"	"																								"				
SP-8 (0.5')		"	1110	"	"				"		"				"	"	"																								"				
SP-8 (1')		"	1111	"	"				"		"				"	"	"																								"				
TOTAL		4																																													

RELINQUISHED BY:(Signature) Daniel A Stefanow DATE/TIME 3/19/20 RECEIVED BY:(Signature) 1604

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

LABORATORY: XENCO

TURN AROUND TIME
NORMAL ☐
1 DAY ☐
2 DAY ☐
OTHER ☒
4 days

LABORATORY USE ONLY:
RECEIVING TEMP: 3.1.0 THERM#: R9
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Date/ Time Received: 03.19.2020 04.04.00 PM

Work Order #: 656298

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 03.19.2020

Brianna Teel

Checklist reviewed by: Holly Taylor Date: 03.23.2020

Holly Taylor

Certificate of Analysis Summary 657072

Larson and Associates, Inc., Midland, TX

Project Name: Chevron -Talco

Project Id: 20-0107-07
Contact: Mark Larson
Project Location:

Date Received in Lab: Fri 03.27.2020 08:21
Report Date: 04.02.2020 15:42
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	657072-001		657072-002		657072-003		657072-004		657072-005		657072-006	
	Field Id:	SP-6,2'		SP-6,3'		SP-6,4'		SP-6,5'		SP-6,10'		SP-3,2'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	03.25.2020 11:12		03.25.2020 11:14		03.25.2020 11:15		03.25.2020 11:20		03.25.2020 11:21		03.26.2020 12:08	
BTEX by EPA 8021B	***Extracted:***	04.01.2020 16:00		04.01.2020 16:00								04.01.2020 16:00	
	Analyzed:	04.02.2020 05:23		04.02.2020 05:43								04.02.2020 06:04	
	Units/RL:	mg/kg	RL	mg/kg	RL							mg/kg	RL
Benzene		<0.00202	0.00202	<0.00200	0.00200							<0.00199	0.00199
Toluene		<0.00202	0.00202	<0.00200	0.00200							<0.00199	0.00199
Ethylbenzene		<0.00202	0.00202	<0.00200	0.00200							<0.00199	0.00199
m,p-Xylenes		<0.00403	0.00403	<0.00399	0.00399							0.0355	0.00398
o-Xylene		<0.00202	0.00202	<0.00200	0.00200							0.0335	0.00199
Total Xylenes		<0.00202	0.00202	<0.00200	0.00200							0.0690	0.00199
Total BTEX		<0.00202	0.00202	<0.00200	0.00200							0.0690	0.00199
Chloride by EPA 300	***Extracted:***	03.27.2020 18:15		03.27.2020 18:15		03.27.2020 18:15		03.27.2020 18:15		03.30.2020 11:30		03.30.2020 11:30	
	Analyzed:	03.27.2020 23:46		03.27.2020 23:51		03.27.2020 23:57		03.28.2020 00:02		03.30.2020 14:10		03.30.2020 14:16	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		139	24.8	21.3	4.95	20.8	5.02	26.1	24.9	137	5.01	<4.99	4.99
TPH by SW8015 Mod	***Extracted:***	03.31.2020 11:00		03.31.2020 11:00		03.31.2020 11:00		03.31.2020 11:00		03.31.2020 11:00		03.31.2020 11:00	
	Analyzed:	03.31.2020 12:31		03.31.2020 13:36		03.31.2020 13:57		03.31.2020 14:17		03.31.2020 14:38		03.31.2020 14:59	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0
Total TPH		<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager

Certificate of Analysis Summary 657072

Larson and Associates, Inc., Midland, TX

Project Name: Chevron -Talco

Project Id: 20-0107-07
Contact: Mark Larson
Project Location:

Date Received in Lab: Fri 03.27.2020 08:21
Report Date: 04.02.2020 15:42
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	657072-007		657072-008		657072-009		657072-010					
	Field Id:	SP-3,3'		SP-3,4'		SP-3,5'		SP-3,6'					
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	03.26.2020 12:09		03.26.2020 12:10		03.26.2020 12:11		03.26.2020 12:15					
BTEX by EPA 8021B	***Extracted:***	04.01.2020 16:00											
	Analyzed:	04.02.2020 06:24											
	Units/RL:	mg/kg	RL										
Benzene		<0.00199	0.00199										
Toluene		<0.00199	0.00199										
Ethylbenzene		<0.00199	0.00199										
m,p-Xylenes		0.0329	0.00398										
o-Xylene		0.0279	0.00199										
Total Xylenes		0.0608	0.00199										
Total BTEX		0.0608	0.00199										
Chloride by EPA 300	***Extracted:***	03.30.2020 11:30		03.30.2020 11:30		03.30.2020 11:30		03.30.2020 11:30					
	Analyzed:	03.30.2020 14:35		03.30.2020 14:41		03.30.2020 15:00		03.30.2020 15:07					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		11.2	5.02	8.77	4.99	<4.96	4.96	<4.95	4.95				
TPH by SW8015 Mod	***Extracted:***	03.31.2020 11:00		03.31.2020 11:00		03.31.2020 11:00		03.31.2020 11:00					
	Analyzed:	03.31.2020 15:20		03.31.2020 15:40		03.31.2020 16:01		03.31.2020 16:22					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8				
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8				
Total TPH		<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8				

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager

Analytical Report 657072

for

Larson and Associates, Inc.

Project Manager: Mark Larson

Chevron -Talco

20-0107-07

04.02.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

04.02.2020

Project Manager: **Mark Larson**
Larson and Associates, Inc.
P. O. Box 50685
Midland, TX 79710

Reference: XENCO Report No(s): **657072**
Chevron -Talco
Project Address:

Mark Larson :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 657072. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 657072 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Holly Taylor

Holly Taylor
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 657072

Larson and Associates, Inc., Midland, TX

Chevron -Talco

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-6,2'	S	03.25.2020 11:12		657072-001
SP-6,3'	S	03.25.2020 11:14		657072-002
SP-6,4'	S	03.25.2020 11:15		657072-003
SP-6,5'	S	03.25.2020 11:20		657072-004
SP-6,10'	S	03.25.2020 11:21		657072-005
SP-3,2'	S	03.26.2020 12:08		657072-006
SP-3,3'	S	03.26.2020 12:09		657072-007
SP-3,4'	S	03.26.2020 12:10		657072-008
SP-3,5'	S	03.26.2020 12:11		657072-009
SP-3,6'	S	03.26.2020 12:15		657072-010

CASE NARRATIVE

Client Name: Larson and Associates, Inc.

Project Name: Chevron -Talco

Project ID: *20-0107-07*
Work Order Number(s): *657072*

Report Date: *04.02.2020*
Date Received: *03.27.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3121690 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 657072

Larson and Associates, Inc., Midland, TX

Chevron -Talco

Sample Id: **SP-6,2'** Matrix: Soil Date Received:03.27.2020 08:21

Lab Sample Id: 657072-001 Date Collected: 03.25.2020 11:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.27.2020 18:15 Basis: Wet Weight

Seq Number: 3121272

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**139**	24.8	mg/kg	03.27.2020 23:46		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.31.2020 11:00 Basis: Wet Weight

Seq Number: 3121604

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.31.2020 12:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.31.2020 12:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.31.2020 12:31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.31.2020 12:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	03.31.2020 12:31	
o-Terphenyl	84-15-1	107	%	70-130	03.31.2020 12:31	

Certificate of Analytical Results 657072

Larson and Associates, Inc., Midland, TX

Chevron -Talco

Sample Id:	**SP-6,2'**	Matrix:	Soil	Date Received:	03.27.2020 08:21
Lab Sample Id:	657072-001	Date Collected:	03.25.2020 11:12		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	04.01.2020 16:00	Basis:	Wet Weight
Seq Number:	3121690				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.02.2020 05:23	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.02.2020 05:23	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.02.2020 05:23	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.02.2020 05:23	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.02.2020 05:23	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.02.2020 05:23	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.02.2020 05:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	04.02.2020 05:23	
1,4-Difluorobenzene	540-36-3	112	%	70-130	04.02.2020 05:23	

Certificate of Analytical Results 657072

Larson and Associates, Inc., Midland, TX

Chevron -Talco

Sample Id: **SP-6,3'** Matrix: Soil Date Received:03.27.2020 08:21

Lab Sample Id: 657072-002 Date Collected: 03.25.2020 11:14

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.27.2020 18:15 Basis: Wet Weight

Seq Number: 3121272

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**21.3**	4.95	mg/kg	03.27.2020 23:51		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.31.2020 11:00 Basis: Wet Weight

Seq Number: 3121604

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.31.2020 13:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.31.2020 13:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.31.2020 13:36	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.31.2020 13:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	03.31.2020 13:36	
o-Terphenyl	84-15-1	112	%	70-130	03.31.2020 13:36	

Certificate of Analytical Results 657072

Larson and Associates, Inc., Midland, TX

Chevron -Talco

Sample Id:	**SP-6,3'**	Matrix:	Soil	Date Received:	03.27.2020 08:21
Lab Sample Id:	657072-002	Date Collected:	03.25.2020 11:14		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	04.01.2020 16:00	Basis:	Wet Weight
Seq Number:	3121690				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.02.2020 05:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.02.2020 05:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.02.2020 05:43	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.02.2020 05:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.02.2020 05:43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.02.2020 05:43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.02.2020 05:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	04.02.2020 05:43	
4-Bromofluorobenzene	460-00-4	112	%	70-130	04.02.2020 05:43	

Certificate of Analytical Results 657072

Larson and Associates, Inc., Midland, TX

Chevron -Talco

Sample Id: **SP-6,4'** Matrix: Soil Date Received:03.27.2020 08:21

Lab Sample Id: 657072-003 Date Collected: 03.25.2020 11:15

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.27.2020 18:15 Basis: Wet Weight

Seq Number: 3121272

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**20.8**	5.02	mg/kg	03.27.2020 23:57		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.31.2020 11:00 Basis: Wet Weight

Seq Number: 3121604

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.31.2020 13:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.31.2020 13:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.31.2020 13:57	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.31.2020 13:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	03.31.2020 13:57	
o-Terphenyl	84-15-1	105	%	70-130	03.31.2020 13:57	

Certificate of Analytical Results 657072

Larson and Associates, Inc., Midland, TX

Chevron -Talco

Sample Id: **SP-6,5'** Matrix: Soil Date Received:03.27.2020 08:21

Lab Sample Id: 657072-004 Date Collected: 03.25.2020 11:20

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.27.2020 18:15 Basis: Wet Weight

Seq Number: 3121272

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**26.1**	24.9	mg/kg	03.28.2020 00:02		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.31.2020 11:00 Basis: Wet Weight

Seq Number: 3121604

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.31.2020 14:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.31.2020 14:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.31.2020 14:17	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.31.2020 14:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	03.31.2020 14:17	
o-Terphenyl	84-15-1	110	%	70-130	03.31.2020 14:17	

Certificate of Analytical Results 657072

Larson and Associates, Inc., Midland, TX

Chevron -Talco

Sample Id: **SP-6,10'** Matrix: Soil Date Received:03.27.2020 08:21

Lab Sample Id: 657072-005 Date Collected: 03.25.2020 11:21

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 03.30.2020 11:30 Basis: Wet Weight

Seq Number: 3121356

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**137**	5.01	mg/kg	03.30.2020 14:10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.31.2020 11:00 Basis: Wet Weight

Seq Number: 3121604

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.31.2020 14:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.31.2020 14:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.31.2020 14:38	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.31.2020 14:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	03.31.2020 14:38	
o-Terphenyl	84-15-1	117	%	70-130	03.31.2020 14:38	

Certificate of Analytical Results 657072

Larson and Associates, Inc., Midland, TX

Chevron -Talco

Sample Id: **SP-3,2'** Matrix: Soil Date Received:03.27.2020 08:21
Lab Sample Id: 657072-006 Date Collected: 03.26.2020 12:08

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: SPC % Moisture:
Analyst: SPC Date Prep: 03.30.2020 11:30 Basis: Wet Weight
Seq Number: 3121356

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	03.30.2020 14:16	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 03.31.2020 11:00 Basis: Wet Weight
Seq Number: 3121604

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.31.2020 14:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.31.2020 14:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.31.2020 14:59	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.31.2020 14:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	03.31.2020 14:59	
o-Terphenyl	84-15-1	104	%	70-130	03.31.2020 14:59	

Certificate of Analytical Results 657072

Larson and Associates, Inc., Midland, TX

Chevron -Talco

Sample Id:	**SP-3,2'**	Matrix:	Soil	Date Received:	03.27.2020 08:21
Lab Sample Id:	657072-006	Date Collected:	03.26.2020 12:08		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	04.01.2020 16:00	Basis:	Wet Weight
Seq Number:	3121690				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.02.2020 06:04	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.02.2020 06:04	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.02.2020 06:04	U	1
m,p-Xylenes	179601-23-1	**0.0355**	0.00398	mg/kg	04.02.2020 06:04		1
o-Xylene	95-47-6	**0.0335**	0.00199	mg/kg	04.02.2020 06:04		1
Total Xylenes	1330-20-7	**0.0690**	0.00199	mg/kg	04.02.2020 06:04		1
Total BTEX		**0.0690**	0.00199	mg/kg	04.02.2020 06:04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	04.02.2020 06:04	
1,4-Difluorobenzene	540-36-3	111	%	70-130	04.02.2020 06:04	

Certificate of Analytical Results 657072

Larson and Associates, Inc., Midland, TX

Chevron -Talco

Sample Id: **SP-3,3'** Matrix: Soil Date Received:03.27.2020 08:21

Lab Sample Id: 657072-007 Date Collected: 03.26.2020 12:09

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 03.30.2020 11:30 Basis: Wet Weight

Seq Number: 3121356

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.2**	5.02	mg/kg	03.30.2020 14:35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.31.2020 11:00 Basis: Wet Weight

Seq Number: 3121604

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.31.2020 15:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.31.2020 15:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.31.2020 15:20	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.31.2020 15:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	03.31.2020 15:20	
o-Terphenyl	84-15-1	105	%	70-130	03.31.2020 15:20	

Certificate of Analytical Results 657072

Larson and Associates, Inc., Midland, TX

Chevron -Talco

Sample Id:	**SP-3,3'**	Matrix:	Soil	Date Received:	03.27.2020 08:21
Lab Sample Id:	657072-007	Date Collected:	03.26.2020 12:09		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	04.01.2020 16:00	Basis:	Wet Weight
Seq Number:	3121690				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.02.2020 06:24	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.02.2020 06:24	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.02.2020 06:24	U	1
m,p-Xylenes	179601-23-1	**0.0329**	0.00398	mg/kg	04.02.2020 06:24		1
o-Xylene	95-47-6	**0.0279**	0.00199	mg/kg	04.02.2020 06:24		1
Total Xylenes	1330-20-7	**0.0608**	0.00199	mg/kg	04.02.2020 06:24		1
Total BTEX		**0.0608**	0.00199	mg/kg	04.02.2020 06:24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	04.02.2020 06:24	
1,4-Difluorobenzene	540-36-3	112	%	70-130	04.02.2020 06:24	

Certificate of Analytical Results 657072

Larson and Associates, Inc., Midland, TX

Chevron -Talco

Sample Id: **SP-3,4'** Matrix: Soil Date Received:03.27.2020 08:21

Lab Sample Id: 657072-008 Date Collected: 03.26.2020 12:10

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 03.30.2020 11:30 Basis: Wet Weight

Seq Number: 3121356

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.77**	4.99	mg/kg	03.30.2020 14:41		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.31.2020 11:00 Basis: Wet Weight

Seq Number: 3121604

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.31.2020 15:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.31.2020 15:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.31.2020 15:40	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.31.2020 15:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	03.31.2020 15:40	
o-Terphenyl	84-15-1	108	%	70-130	03.31.2020 15:40	

Certificate of Analytical Results 657072

Larson and Associates, Inc., Midland, TX

Chevron -Talco

Sample Id: **SP-3,5'** Matrix: Soil Date Received:03.27.2020 08:21

Lab Sample Id: 657072-009 Date Collected: 03.26.2020 12:11

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 03.30.2020 11:30 Basis: Wet Weight

Seq Number: 3121356

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	03.30.2020 15:00	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.31.2020 11:00 Basis: Wet Weight

Seq Number: 3121604

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.31.2020 16:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.31.2020 16:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.31.2020 16:01	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.31.2020 16:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	03.31.2020 16:01	
o-Terphenyl	84-15-1	110	%	70-130	03.31.2020 16:01	

Certificate of Analytical Results 657072

Larson and Associates, Inc., Midland, TX

Chevron -Talco

Sample Id: **SP-3,6'** Matrix: Soil Date Received:03.27.2020 08:21

Lab Sample Id: 657072-010 Date Collected: 03.26.2020 12:15

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 03.30.2020 11:30 Basis: Wet Weight

Seq Number: 3121356

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	03.30.2020 15:07	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.31.2020 11:00 Basis: Wet Weight

Seq Number: 3121604

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.31.2020 16:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.31.2020 16:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.31.2020 16:22	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.31.2020 16:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	03.31.2020 16:22	
o-Terphenyl	84-15-1	102	%	70-130	03.31.2020 16:22	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 657072

Larson and Associates, Inc.

Chevron -Talco

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121272 — Matrix: Solid — Date Prep: 03.27.2020
MB Sample Id: 7699975-1-BLK — LCS Sample Id: 7699975-1-BKS — LCSD Sample Id: 7699975-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	256	102	246	98	90-110	4	20	mg/kg	03.27.2020 21:40	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121356 — Matrix: Solid — Date Prep: 03.30.2020
MB Sample Id: 7700049-1-BLK — LCS Sample Id: 7700049-1-BKS — LCSD Sample Id: 7700049-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	259	104	258	103	90-110	0	20	mg/kg	03.30.2020 12:37	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121272 — Matrix: Soil — Date Prep: 03.27.2020
Parent Sample Id: 656937-110 — MS Sample Id: 656937-110 S — MSD Sample Id: 656937-110 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	17.9	250	250	93	280	105	90-110	11	20	mg/kg	03.27.2020 21:55	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121272 — Matrix: Soil — Date Prep: 03.27.2020
Parent Sample Id: 656937-113 — MS Sample Id: 656937-113 S — MSD Sample Id: 656937-113 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.5	251	248	94	286	109	90-110	14	20	mg/kg	03.27.2020 23:09	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121356 — Matrix: Soil — Date Prep: 03.30.2020
Parent Sample Id: 657072-006 — MS Sample Id: 657072-006 S — MSD Sample Id: 657072-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.99	250	263	105	265	106	90-110	1	20	mg/kg	03.30.2020 14:22	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121356 — Matrix: Soil — Date Prep: 03.30.2020
Parent Sample Id: 657151-014 — MS Sample Id: 657151-014 S — MSD Sample Id: 657151-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.53	249	257	103	250	100	90-110	3	20	mg/kg	03.30.2020 12:58	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 657072

Larson and Associates, Inc.

Chevron -Talco

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3121604 Matrix: Solid Date Prep: 03.31.2020
MB Sample Id: 7700206-1-BLK LCS Sample Id: 7700206-1-BKS LCSD Sample Id: 7700206-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	946	95	950	95	70-130	0	20	mg/kg	03.31.2020 11:49	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1090	109	70-130	0	20	mg/kg	03.31.2020 11:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	88		91		93		70-130	%	03.31.2020 11:49
o-Terphenyl	102		106		102		70-130	%	03.31.2020 11:49

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3121604 Matrix: Solid Date Prep: 03.31.2020
MB Sample Id: 7700206-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.31.2020 11:28	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3121604 Matrix: Soil Date Prep: 03.31.2020
Parent Sample Id: 657072-001 MS Sample Id: 657072-001 S MSD Sample Id: 657072-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	946	95	819	82	70-130	14	20	mg/kg	03.31.2020 12:52	
Diesel Range Organics (DRO)	<49.9	997	1100	110	964	97	70-130	13	20	mg/kg	03.31.2020 12:52	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	91		79		70-130	%	03.31.2020 12:52
o-Terphenyl	105		90		70-130	%	03.31.2020 12:52

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3121690 Matrix: Solid Date Prep: 04.01.2020
MB Sample Id: 7700315-1-BLK LCS Sample Id: 7700315-1-BKS LCSD Sample Id: 7700315-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0861	86	0.0835	84	70-130	3	35	mg/kg	04.02.2020 02:58	
Toluene	<0.00200	0.100	0.0904	90	0.0865	87	70-130	4	35	mg/kg	04.02.2020 02:58	
Ethylbenzene	<0.00200	0.100	0.0927	93	0.0870	87	70-130	6	35	mg/kg	04.02.2020 02:58	
m,p-Xylenes	<0.00400	0.200	0.184	92	0.174	87	70-130	6	35	mg/kg	04.02.2020 02:58	
o-Xylene	<0.00200	0.100	0.0934	93	0.0895	90	70-130	4	35	mg/kg	04.02.2020 02:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		105		107		70-130	%	04.02.2020 02:58
4-Bromofluorobenzene	101		97		99		70-130	%	04.02.2020 02:58

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 657072

Larson and Associates, Inc.

Chevron -Talco

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3121690 Matrix: Soil Date Prep: 04.01.2020

Parent Sample Id: 657072-001 MS Sample Id: 657072-001 S MSD Sample Id: 657072-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0758	76	0.0841	84	70-130	10	35	mg/kg	04.02.2020 03:39	
Toluene	<0.00199	0.0994	0.0794	80	0.0854	86	70-130	7	35	mg/kg	04.02.2020 03:39	
Ethylbenzene	<0.00199	0.0994	0.0795	80	0.0846	85	70-130	6	35	mg/kg	04.02.2020 03:39	
m,p-Xylenes	<0.00398	0.199	0.160	80	0.169	85	70-130	5	35	mg/kg	04.02.2020 03:39	
o-Xylene	<0.00199	0.0994	0.0825	83	0.0869	87	70-130	5	35	mg/kg	04.02.2020 03:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		109		70-130	%	04.02.2020 03:39
4-Bromofluorobenzene	103		107		70-130	%	04.02.2020 03:39

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike

Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added

LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec

Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

№ 1077

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 3/27/2020 PAGE 1 OF 1
PO#: LAB WORK ORDER#:
PROJECT LOCATION OR NAME: Chevron - Talco
LAI PROJECT #: 20-0107-07 COLLECTOR: RN/DS

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	BTEX ☒ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☒	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TBLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
sp-6, 2'		3/25/20	11:12	S	1				X		X		X	X	X													X	
sp-6, 3'		3/25/20	11:14	S	1				X		X		X	X	X													X	
sp-6, 4'		3/25/20	11:15	S	1				X				X	X	X													X	
sp-6, 5'		3/25/20	11:20	S	1				X				X	X	X													X	
sp-6, 10'		3/25/20	11:21	S	1				X				X	X	X													X	
sp-3, 2'		3/26/20	12:08	S	1				X		X		X	X	X													X	
sp-3, 3'		3/26/20	12:09	S	1				X		X		X	X	X													X	
sp-3, 4'		3/26/20	12:10	S	1				X				X	X	X													X	
sp-3, 5'		3/26/20	12:11	S	1				X				X	X	X													X	
sp-3, 6'		3/26/20	12:15	S	1				X				X	X	X													X	
TOTAL																													

RELINQUISHED BY:(Signature) [signature] DATE/TIME 3/27/20 0821 RECEIVED BY: (Signature) [signature]

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

LABORATORY: Xenco

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 5.0/5.3 THERM#: R9
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Date/ Time Received: 03.27.2020 08.21.00 AM

Work Order #: 657072

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	-5.3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 03.27.2020

Brianna Teel

Checklist reviewed by: Holly Taylor Date: 03.31.2020

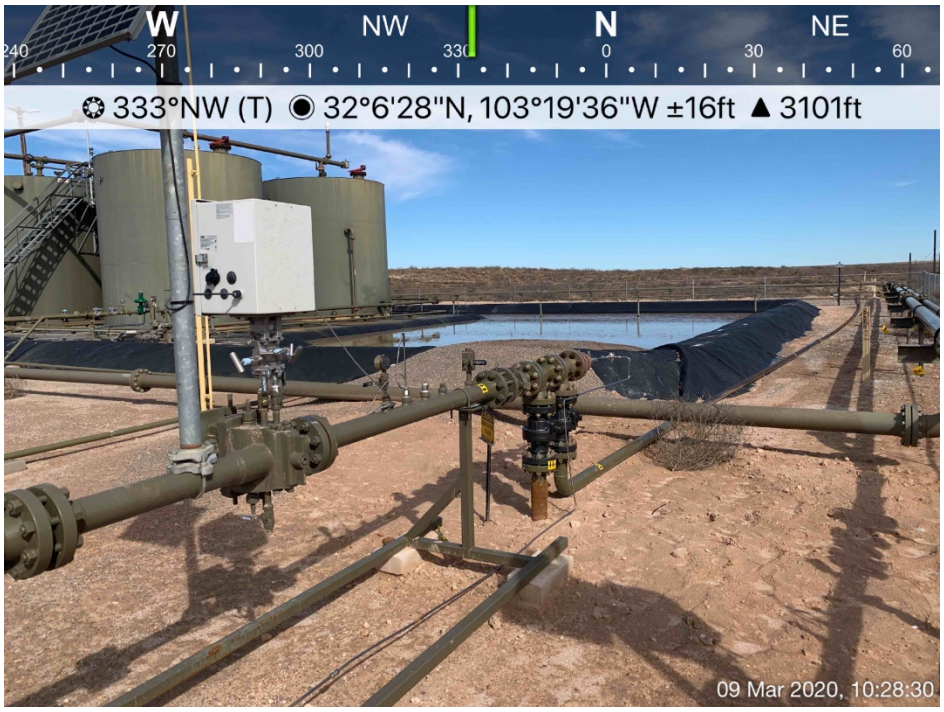
Holly Taylor

Appendix C

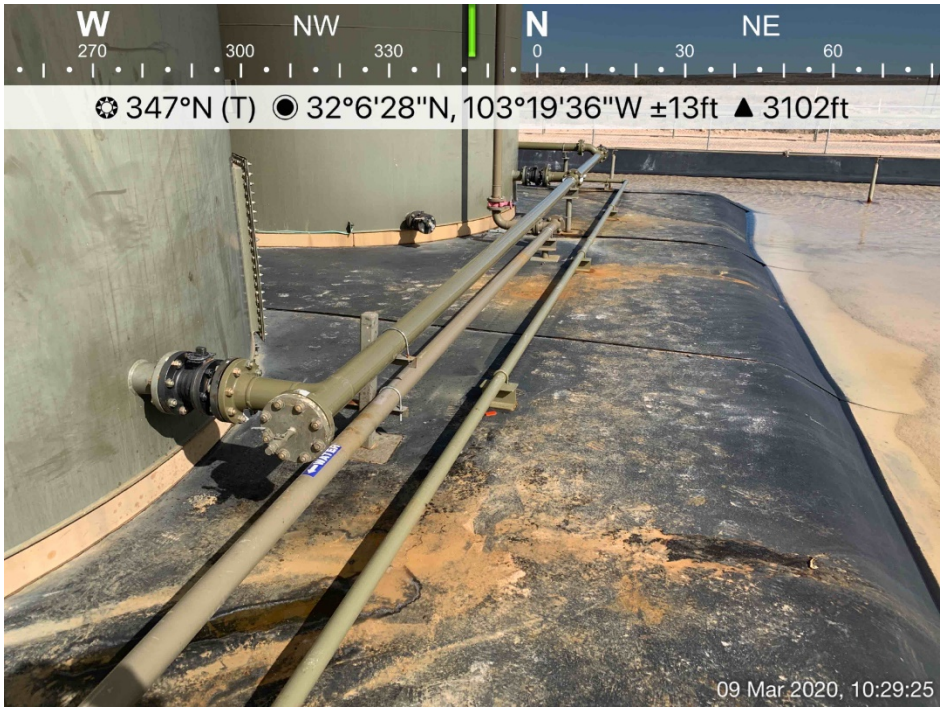
Photographs

Stormwater contained within lined berm, viewing southeast

Stormwater contained within lined berm, viewing southwest



Lined berm viewing northwest



Release source (load line) viewing north