Form C-141
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State of New Mexico
Oil Conservation Division

Incident ID	NRM1926958728
District RP	1RP-5695
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?	>101.5 (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.

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State of New Mexico
Oil Conservation Division

Incident ID	NRM1926958728
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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: 5/14/2020

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

OCD Only

Received by: Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NRM1926958728
District RP	1RP-5695
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: 5/14/2020

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:

1RP-5695
Amended Delineation Report and Remediation Plan
Salado Draw 24 CTB Line
Produced Water Release
Lea County, New Mexico

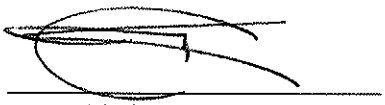
Latitude: N 32.02506°
Longitude: W 103.63420°

LAI Project No. 19-0180-01

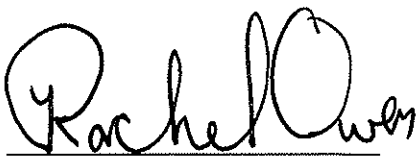
May 12, 2020

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



Rachel E. Owen
Sr. Geoscientist

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Appendices

1.0 INTRODUCTION

Larson & Associates, Inc. (LAI), has prepared this amended 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 Salado Draw 24 CTB line (Site) located in Unit L (NW/4, SW/4), Section 24, Township 26 South, Range 32 East in Lea County New Mexico. The geodetic position is North 32.02506° and West -103.63420°. Figure 1 presents a topographic map. Figure 2 presents an aerial map.

1.1 Background

The release was discovered on August 27, 2019, at 4:00 PM (MST). The spill occurred when gas lift lines between pads 23 and 25 ruptured causing a 12-inch buried water line from CTB 24 to rupture. Chevron reported that 135.6 barrels (bbls) of produced water was released. An unknown volume of produced water was recovered. The affected area measures approximately 1,984 square feet. LAI calculated the spill volume at approximately 106 bbls based on depth of impacted soil between 1 to 9 feet and average soil moisture of 5% from laboratory analysis. The initial C-141 was submitted to OCD District 1 on September 10, 2019 and assigned remediation permit number 1RP-5695.

On December 4, 2019, a report titled, "1RP-5695, Delineation Report and Remediation Plan, Salado Draw 24 CTB Line, Produced Water Release, November 25, 2019" was submitted to the OCD requesting approval on the soil sample delineation and soil remediation proposal. The OCD denied the report on January 23, 2020 due to a lack of groundwater data. The OCD requested that Chevron drill a borehole within 0.5 miles of the release and measure depth to groundwater after 72 hours of being drilled. Appendix A presents the delineation report and remediation plan. Appendix B presents OCD communications.

On April 14, 2020 Scarborough Drilling, Inc. (SDI), under LAI supervision, used an air rotary drilling rig to drill a boring for depth to groundwater determination. The boring (SB-1) was drilled in an undisturbed area about 1,000 feet northeast of the Site to approximately 101.5 feet bgs. The boring was gauged with an electronic water level meter approximately 72 hours after drilling and was found dry. The boring was plugged with bentonite. Appendix C presents the soil boring log.

1.2 Physical Setting

The physical setting is as follows:

- The surface elevation is approximately 3,137 feet above mean sea level (msl);
- The surface topography gradually decreases to the southeast;
- There are no karst or surface water features within 1,000 feet of the Site;
- The soils are designated as "Pyote and Maljamar fine sands, 0 to 3 percent slopes ", consisting of 0 to 24 inches of fine sand, underlain by 24 to 50 inches of a sandy clay loam, and 50 to 60 inches of cemented material (caliche);
- The geology is Eolian and piedmont deposits (Holocene to middle Pleistocene)- interlayed eolian sands and piedmont-slope deposits;
- Groundwater occurs greater than 101.5 feet below ground surface (bgs) based on depth to groundwater measurements 72 hours after installing a temporary monitor well (SB-1) on April 14, 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 REMEDIATION PLAN APPROVAL REQUEST

The remediation plan proposed in "1RP-5695, Delineation Report and Remediation Plan, Salado Draw 24 CTB Line, Produced Water Release, November 25, 2019" upholds the OCD remediation standards presented in Table 1 of 19.15.29 NMAC and the surface restoration requirements in 19.15.29.13 NMAC based on the depth to groundwater bore completed on April 14, 2020. Chevron respectfully requests approval of the remediation plan proposed in the November 25, 2019 report. Appendix A presents the original delineation report and remediation plan.

Figures

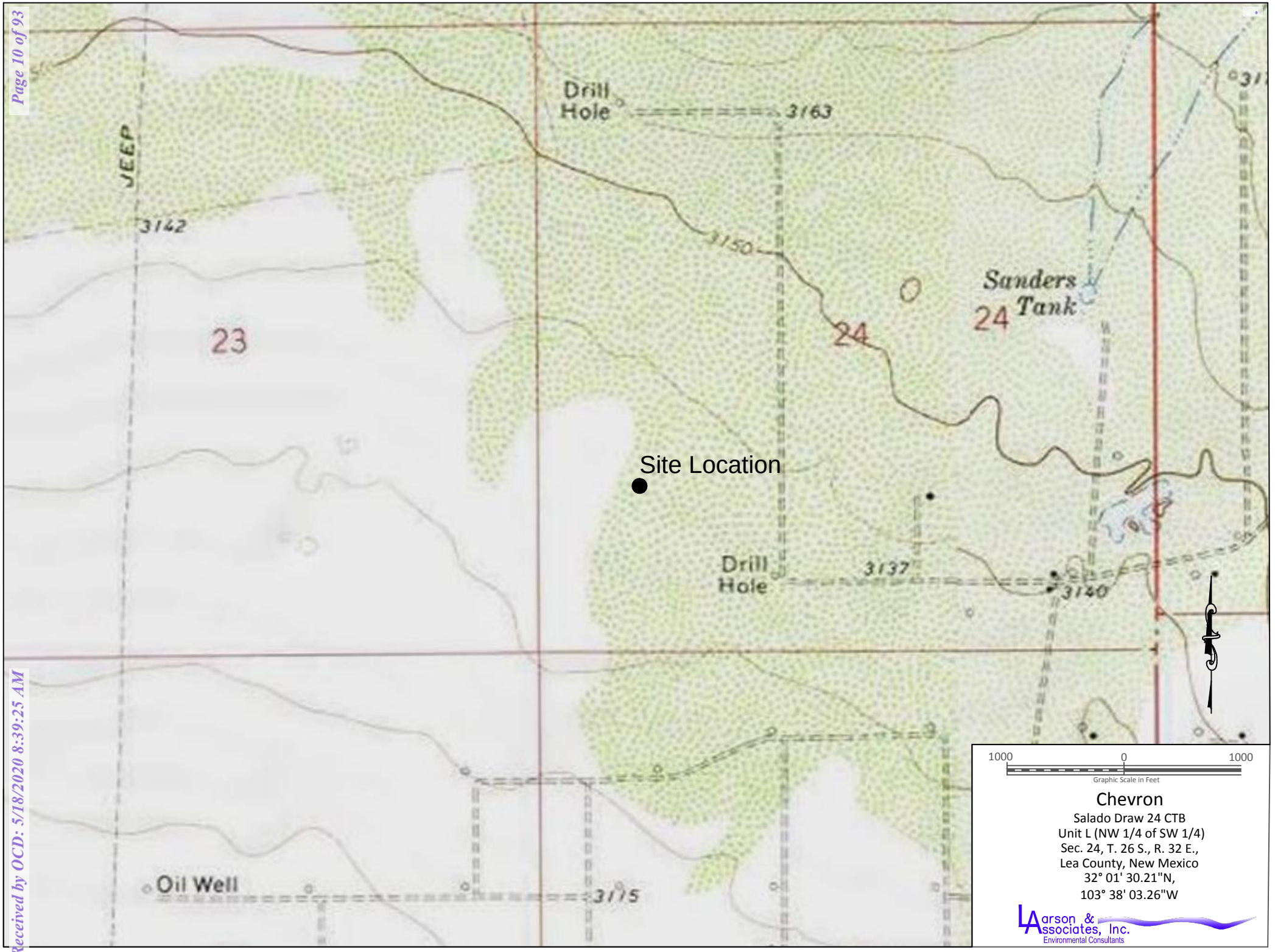

Figure 1 - Topographic Map

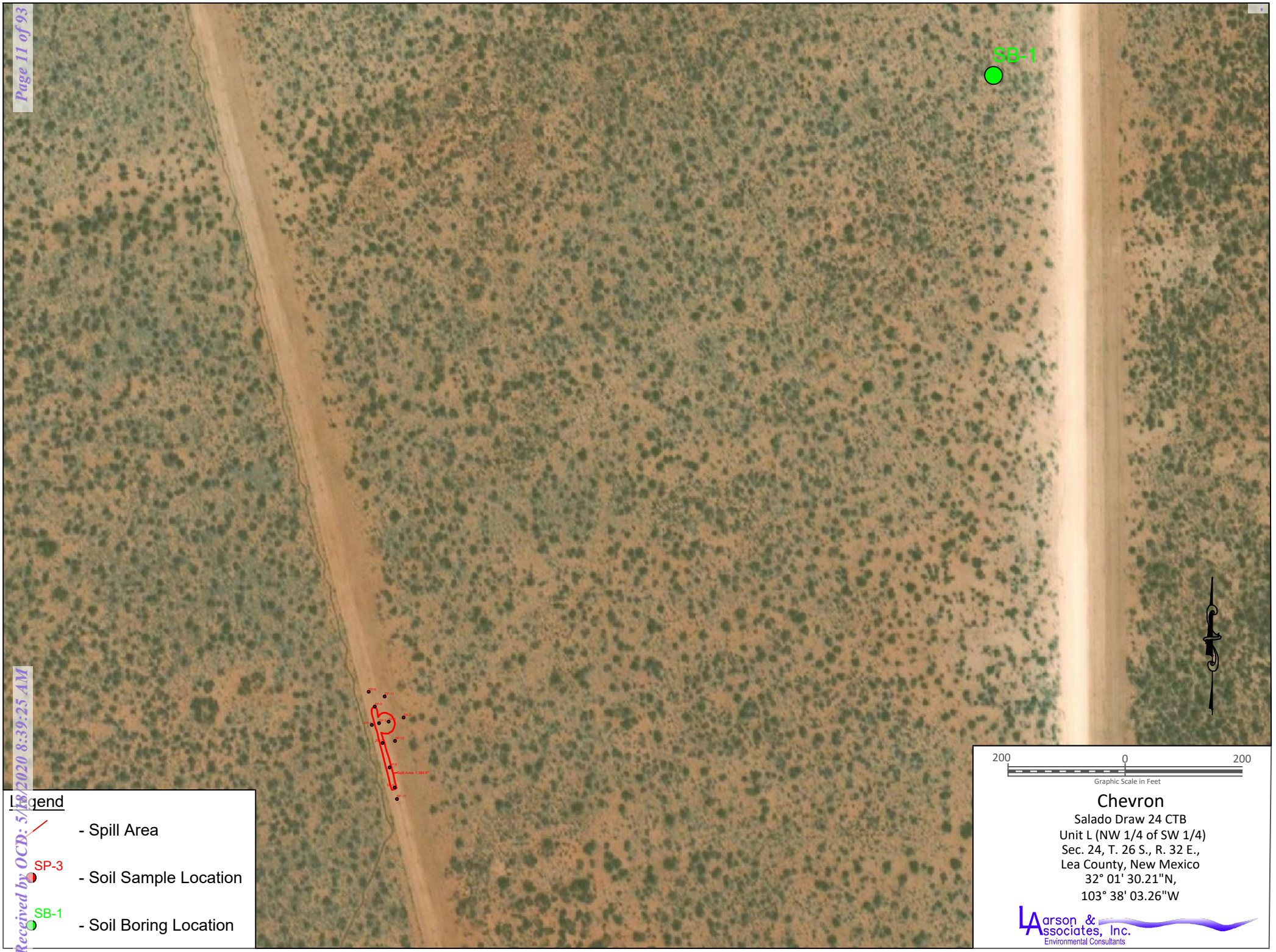

Figure 2 - Aerial Map Showing Soil Boring Location

Appendix A

Delineation Report and Remediation Plan, November 25, 2019

1RP-5695
Delineation Report and Remediation Plan
Salado Draw 24 CTB Line
Produced Water Release
Lea County, New Mexico

Latitude: N 32.02506°
Longitude: W 103.63420°

LAI Project No. 19-0180-01

November 25, 2019

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

Prepared by:
Larson & Associates, Inc.
507 North Marienfeld Street, Suite 205
Midland, Texas 79701

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

Rachel E. Owen
Sr. Geoscientist

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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 Salado Draw 24 CTB line (Site) located in Unit L (NW/4, SW/4), Section 24, Township 26 South, Range 32 East in Lea County New Mexico. The geodetic position is North 32.02506° and West -103.63420°. Figure 1 presents a topographic map. Figure 2 presents an aerial map.

1.1 Background

The release was discovered on August 27, 2019, at 4:00 PM (MST). The spill occurred when gas lift lines between pads 23 and 25 ruptured causing a 12 inch buried water line from CTB 24 to rupture. Chevron reported that 135.6 barrels (bbls) of produced water was released. Appendix A presents the Chevron spill calculation. An unknown volume was recovered. The affected area measures approximately 1,984 square feet. LAI calculated the spill volume at approximately 106 bbls based on depth of impacted soil between 1 to 9 feet and average soil moisture of 5% from laboratory analysis. The initial C-141 was submitted to OCD District 1 on September 10, 2019 and assigned remediation permit number 1RP-5695.

1.2 Physical Setting

The physical setting is as follows:

- The surface elevation is approximately 3,137 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 “Pyote and Maljamar fine sands, 0 to 3 percent slopes ”, consisting of 0 to 24 inches of fine sand, underlain by 24 to 50 inches of a sandy clay loam, and 50 to 60 inches of cemented material (caliche);
- The geology is Eolian and piedmont deposits (Holocene to middle Pleistocene)- interlayed eolian sands and piedmont-slope deposits;
- Groundwater was reported in a well at approximately 180 feet below ground surface (bgs) in 2013;
- According to the New Mexico Office of the State Engineer (OSE) website the nearest freshwater well is located in Unit K (NE/4, SW/4) in Section 21, Township 26 South, Range 32 East approximately 2.84 miles or 14,969.49 feet southwest of the Site.

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 October 7, 2019, LAI personnel used a stainless steel hand auger to collect soil samples from twelve (12) locations inside of the spill area and in each cardinal direction of the spill (SP-1 through SP-12) to vertically and horizontally delineate the release. The samples were collected to approximately 1 foot bgs. The soil samples were delivered under chain of custody and preservation to Permian Basin Environmental Laboratory (PBEL) 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, BTEX, and TPH were reported below the remediation action levels of 10 milligrams per kilogram (mg/Kg), 50 mg/Kg, and 2,500 mg/Kg in all samples. Chloride exceeded the surface restoration limits (19.15.29.13 NMAC) of 600 mg/Kg in the following samples:

SP-1, 0 to 1' - 3,280 mg/Kg
SP-3, 0 to 1' – 1,280 mg/Kg
SP-4, 0 to 1' – 5,590 mg/Kg
SP-7, 0 to 1' – 3,380 mg/Kg
SP-9, 0 to 1' – 783 mg/Kg
SP-10, 0 to 1' – 4,660 mg/Kg
SP -12, 0 to 1' – 1,440 mg/Kg

On October 30 and November 8, 2019, LAI personnel used direct push technology (DPT) to further delineate the release. Soil samples were collected at 5 and 9 feet bgs. The samples were delivered under chain of custody and preservation to PBEL and were analyzed for chloride by Method 300. Chloride was delineated below the remediation limit (20,000 mg/Kg) at all sample locations. Under the release rule (19.15.29.11(5)(C) NMAC, delineation for chloride to 600 mg/Kg is not required where groundwater exceeds 100 feet in depth therefore the release was delineated vertically for chloride. 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 160' X 40', encompassing SP-1, SP-3, SP-4, SP-7, SP-8, SP-9, SP-10, and SP-12. to 4 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 clean topsoil in pasture assuming achievement of OCD remediation levels;
- Seed the pasture area with BLM Mix No. 3; and
- 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
Chevron USA, Salado Draw 24 CTB Line Produced Water Spill
Lea County, NM
N32° 01' 30.21" W103° 38' 03.26"

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	C6 - C35 (mg/Kg)	chloride (mg/Kg)
RRAL				10	50				2,500	20,000
SP-1	0 - 1	10/7/2019	In-situ	<0.00109	<0.00653	<27.2	<27.2	<27.2	<27.2	3,280
	5	10/30/2019	In-situ	--	--	--	--	--	--	826
	9	10/30/2019	In-situ	--	--	--	--	--	--	667
SP-2	0 - 1	10/7/2019	In-situ	<0.00105	<0.00631	<26.3	<26.3	<26.3	<26.3	6.17
SP-3	0 - 1	10/7/2019	In-situ	<0.00114	<0.00683	<28.4	<28.4	<28.4	<28.4	1,280
	5	11/8/2019	In-situ	--	--	--	--	--	--	305
	9	11/8/2019	In-situ	--	--	--	--	--	--	2,620
SP-4	0 - 1	10/7/2019	In-situ	<0.00103	<0.00618	<25.8	<25.8	<25.8	<25.8	5,590
	5	10/30/2019	In-situ	--	--	--	--	--	--	4,700
	9	10/30/2019	In-situ	--	--	--	--	--	--	624
SP-5	0 - 1	10/7/2019	In-situ	<0.00108	<0.00647	<26.9	<26.9	<26.9	<26.9	13.4
SP-6	0 - 1	10/7/2019	In-situ	<0.00112	<0.00673	<28.1	<28.1	<28.1	<28.1	18.1
SP-7	0 - 1	10/7/2019	In-situ	<0.00106	<0.00637	<26.6	<26.6	<26.6	<26.6	3,380
	5	11/8/2019	In-situ	--	--	--	--	--	--	2,520
	9	11/8/2019	In-situ	--	--	--	--	--	--	73.4
SP-8	0 - 1	10/7/2019	In-situ	<0.00103	<0.00618	<25.8	<25.8	<25.8	<25.8	111.0
	5	11/8/2019	In-situ	--	--	--	--	--	--	4,040.0
	9	11/8/2019	In-situ	--	--	--	--	--	--	9.22
SP-9	0 - 1	10/7/2019	In-situ	<0.00104	<0.00624	<26.0	<26.0	<26.0	<26.0	783
	5	11/8/2019	In-situ	--	--	--	--	--	--	9,450
	9	11/8/2019	In-situ	--	--	--	--	--	--	99
SP-10	0 - 1	10/7/2019	In-situ	<0.00104	<0.00624	<26.0	<26.0	<26.0	<26.0	4,660
	5	11/8/2019	In-situ	--	--	--	--	--	--	2,760
	9	11/8/2019	In-situ	--	--	--	--	--	--	69.0

Table 1
Soil Sample Analytical Data Summary
Chevron USA, Salado Draw 24 CTB Line Produced Water Spill
Lea County, NM
N32° 01' 30.21" W103° 38' 03.26"

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	C6 - C35 (mg/Kg)	chloride (mg/Kg)
RRAL				**10**	**50**				**2,500**	**20,000**
SP-11	0 - 1	10/7/2019	In-situ	<0.00104	<0.00624	<26.0	<26.0	<26.0	<26.0	347.0
	5	10/30/2019	In-situ	--	--	--	--	--	--	2.29
	9	10/30/2019	In-situ	--	--	--	--	--	--	<1.03
SP-12	0 - 1	10/7/2019	In-situ	<0.00103	<0.00618	<25.8	<25.8	<25.8	<25.8	**1,440**
	5	10/30/2019	In-situ	--	--	--	--	--	--	448
	9	10/30/2019	In-situ	--	--	--	--	--	--	4.23

Notes: Laboratory analysis performed by Permian Basin Environmental Lab (PBEL), Midland, Texas by EPA SW-846 Method 8021B (BTEX), Method 8015M (TPH), and Method 300 (chloride).
Depth in feet below ground surface (bgs)
mg/Kg: milligrams per kilogram
Exceeds New Mexico OCD Surface Restoration Levels (600 mg/Kg)

Figures

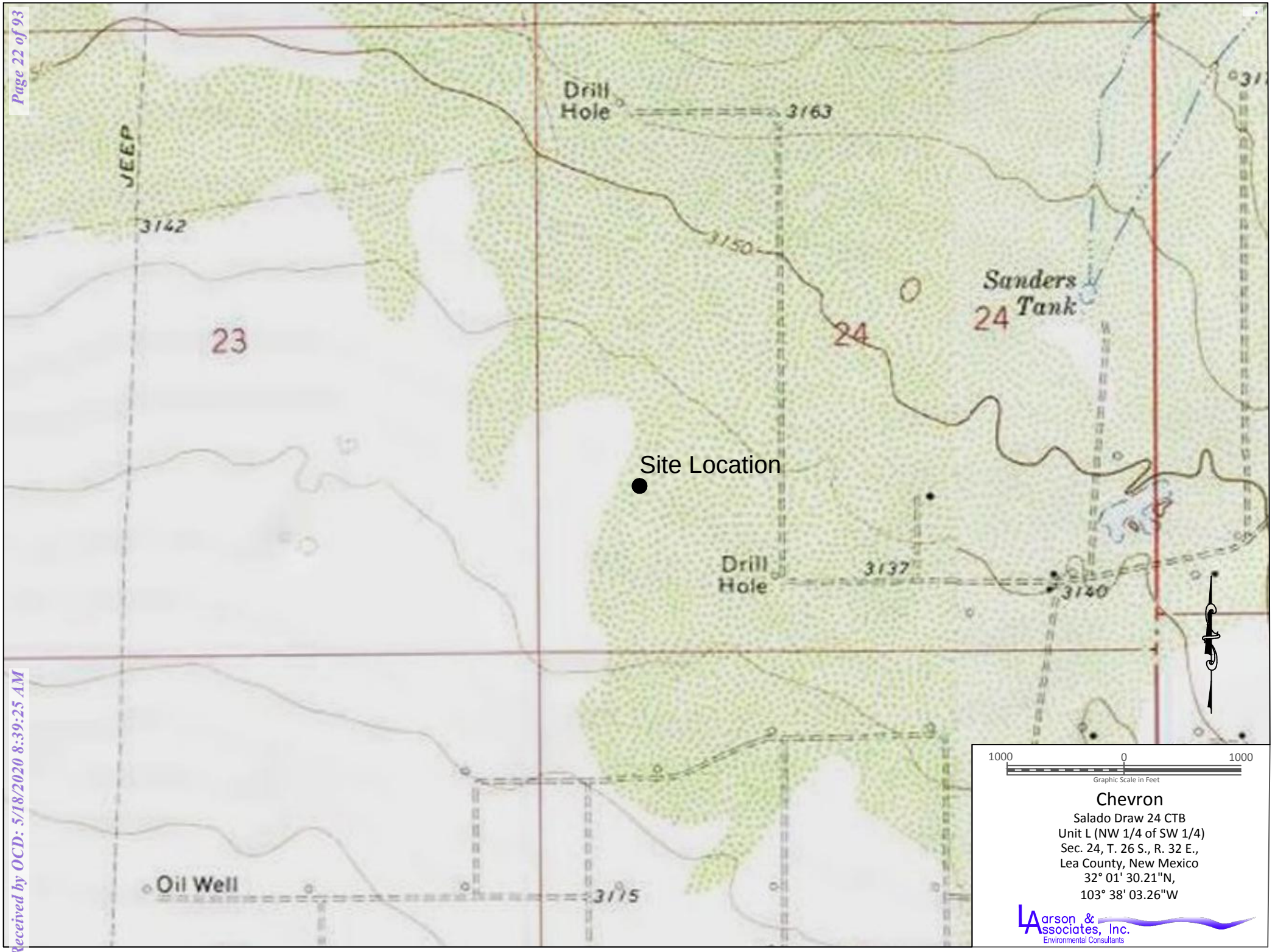

Figure 1 - Topographic Map

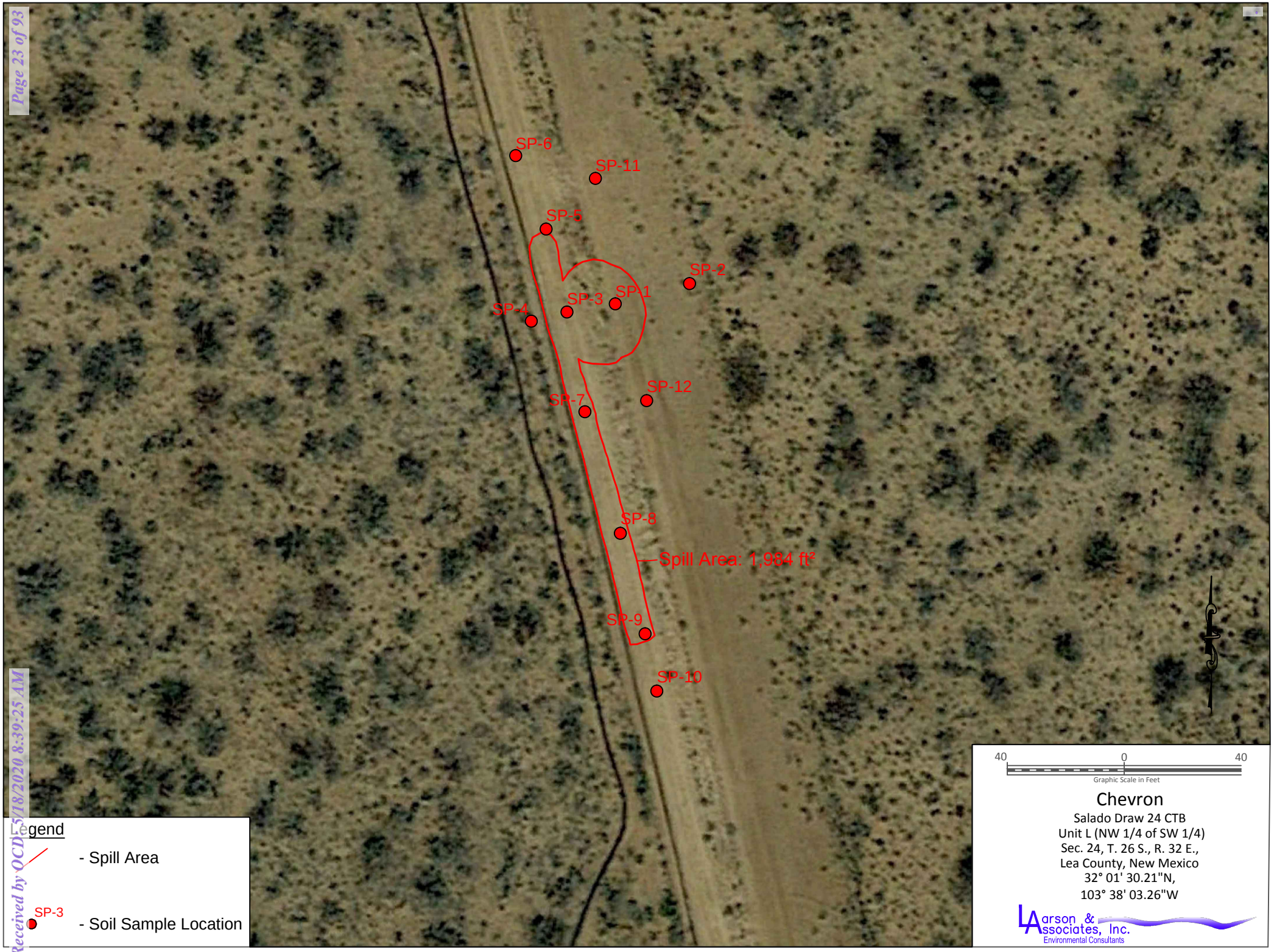

Figure 2 - Aerial Map

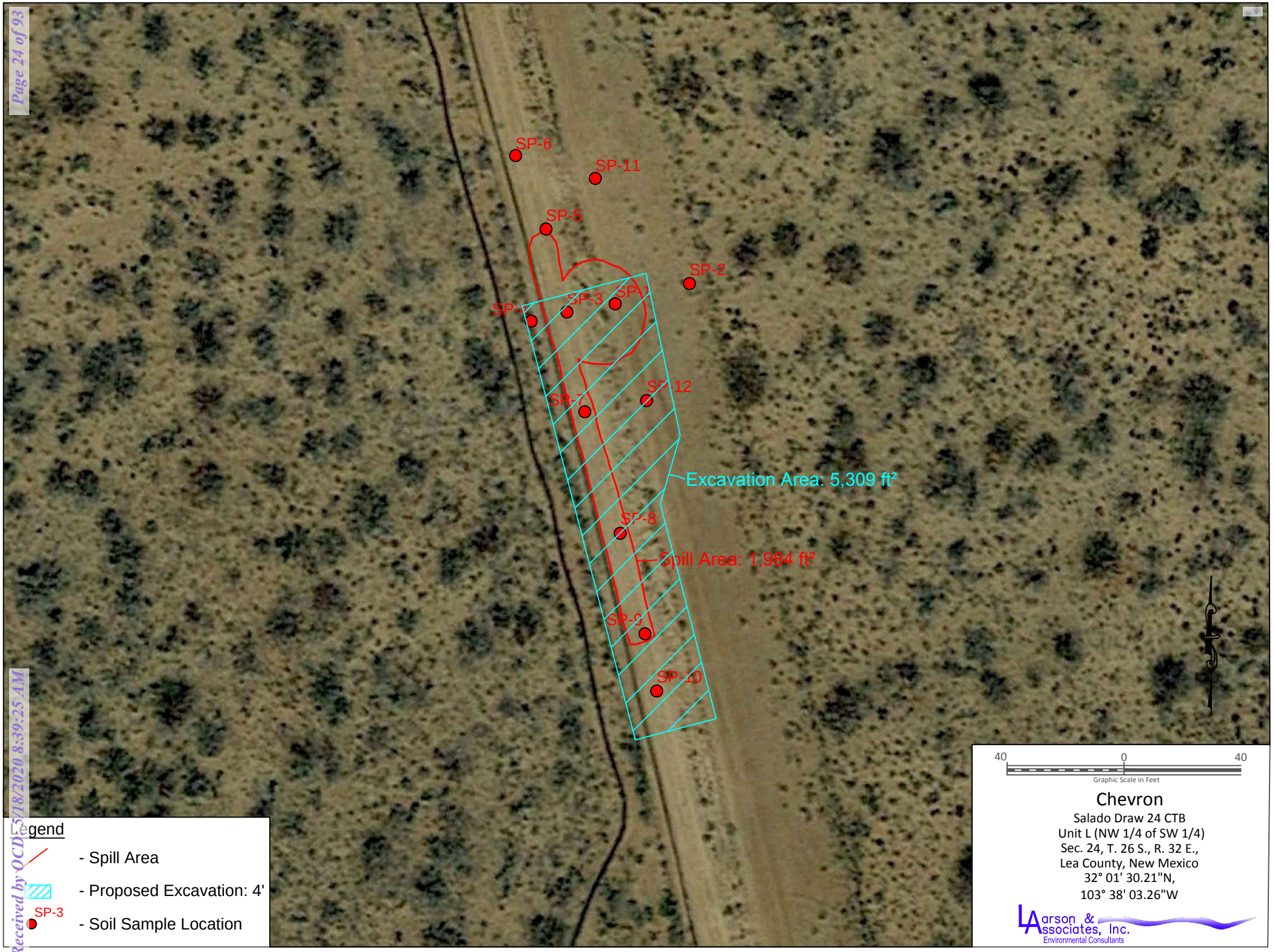

Figure 3 - Aerial Map Showing Proposed Excavation Location

Appendix A

Chevron Spill Calculation

Incident ID	
District RP	
Facility ID	
Application ID	

Area	size	**Standing Liquid** Oil/Water mixture (bbl)	**In Soil**, water only no oil (bbl)	**Oil Volume** (bbl)	**Water Volume** (bbl)
1	50'x9'	0	0	0	6.68
2	40'x9'	0	0	0	5.34
3	12'x 6'	0	0	0	120.9
4	20'x9’	0	0	0	2.67
Total Fluid spilled				**0**	**135.6**
Total Fluid recovered				**0**	**undetermined**

Calculations: Assumed soil pore space: 15%

Appendix B

Laboratory Reports

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Salado Draw 24 CTB Line

Project Number: 19-0180-01

Location:

Lab Order Number: 9J08008

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-18-9

Report Date: 10/18/19

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Salado Draw 24 CTB Line
Project Number: 19-0180-01
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP-12 @ (0-1')	9J08008-01	Soil	10/07/19 12:17	10-08-2019 10:17
SP-2 @ (0-1')	9J08008-02	Soil	10/07/19 12:22	10-08-2019 10:17
SP-1 @ (0-1')	9J08008-03	Soil	10/07/19 12:38	10-08-2019 10:17
SP-11 @ (0-1')	9J08008-04	Soil	10/07/19 12:31	10-08-2019 10:17
SP-6 @ (0-1')	9J08008-05	Soil	10/07/19 12:40	10-08-2019 10:17
SP-5 @ (0-1')	9J08008-06	Soil	10/07/19 12:46	10-08-2019 10:17
SP-4 @ (0-1')	9J08008-07	Soil	10/07/19 12:50	10-08-2019 10:17
SP-3 @ (0-1')	9J08008-08	Soil	10/07/19 12:54	10-08-2019 10:17
SP-7 @ (0-1')	9J08008-09	Soil	10/07/19 13:00	10-08-2019 10:17
SP-8 @ (0-1')	9J08008-10	Soil	10/07/19 13:04	10-08-2019 10:17
SP-9 @ (0-1')	9J08008-11	Soil	10/07/19 13:09	10-08-2019 10:17
SP-10 @ (0-1')	9J08008-12	Soil	10/07/19 13:14	10-08-2019 10:17

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-12 @ (0-1')

9J08008-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00103	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*102 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*101 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1440**	10.3	mg/kg dry	10	P9J0902	10/09/19	10/09/19	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P9J0901	10/09/19	10/09/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P9J0816	10/08/19	10/10/19	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P9J0816	10/08/19	10/10/19	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P9J0816	10/08/19	10/10/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*82.3 %*	*70-130*		*P9J0816*	*10/08/19*	*10/10/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*85.6 %*	*70-130*		*P9J0816*	*10/08/19*	*10/10/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	10/08/19	10/10/19	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-2 @ (0-1')

9J08008-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00105	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Toluene	ND	0.00105	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*102 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*90.3 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**6.17**	1.05	mg/kg dry	1	P9J0902	10/09/19	10/09/19	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P9J0901	10/09/19	10/09/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.3	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*104 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*110 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.3	mg/kg dry	1	[CALC]	10/10/19	10/11/19	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-1 @ (0-1')

9J08008-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00109	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Toluene	ND	0.00109	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Ethylbenzene	ND	0.00109	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00217	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (o)	ND	0.00109	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*106 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*97.3 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**3280**	27.2	mg/kg dry	25	P9J0902	10/09/19	10/09/19	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P9J0901	10/09/19	10/09/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*88.5 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*92.8 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	10/10/19	10/11/19	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-11 @ (0-1')

9J08008-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00104	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*104 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*106 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**347**	1.04	mg/kg dry	1	P9J0903	10/09/19	10/10/19	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P9J0901	10/09/19	10/09/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*79.7 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*83.4 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	10/10/19	10/11/19	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-6 @ (0-1')

9J08008-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00112	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*107 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*99.6 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**18.1**	1.12	mg/kg dry	1	P9J0903	10/09/19	10/10/19	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P9J0901	10/09/19	10/09/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*80.7 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*84.6 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	10/10/19	10/11/19	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-5 @ (0-1')

9J08008-06 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00108	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Toluene	ND	0.00108	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Ethylbenzene	ND	0.00108	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00215	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (o)	ND	0.00108	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*99.3 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*113 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**13.4**	1.08	mg/kg dry	1	P9J0903	10/09/19	10/10/19	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P9J0901	10/09/19	10/09/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*88.0 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*93.5 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.9	mg/kg dry	1	[CALC]	10/10/19	10/11/19	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-4 @ (0-1')

9J08008-07 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00103	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*93.2 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*106 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**5590**	25.8	mg/kg dry	25	P9J0903	10/09/19	10/10/19	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P9J0901	10/09/19	10/09/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*73.9 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*79.6 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	10/10/19	10/11/19	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-3 @ (0-1')

9J08008-08 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00114	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Toluene	ND	0.00114	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Ethylbenzene	ND	0.00114	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00227	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (o)	ND	0.00114	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*115 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*95.3 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1280**	28.4	mg/kg dry	25	P9J0903	10/09/19	10/10/19	EPA 300.0	
% Moisture	**12.0**	0.1	%	1	P9J0901	10/09/19	10/09/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.4	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*119 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*128 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	10/10/19	10/11/19	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-7 @ (0-1')

9J08008-09 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P9J1002	10/10/19	10/10/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*120 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*101 %*	*75-125*		*P9J1002*	*10/10/19*	*10/10/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**3380**	10.6	mg/kg dry	10	P9J0903	10/09/19	10/10/19	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P9J0901	10/09/19	10/09/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*87.8 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*92.9 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	10/10/19	10/11/19	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-8 @ (0-1')

9J08008-10 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00103	mg/kg dry	1	P9J1002	10/10/19	10/16/19	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P9J1002	10/10/19	10/16/19	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P9J1002	10/10/19	10/16/19	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P9J1002	10/10/19	10/16/19	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P9J1002	10/10/19	10/16/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*104 %*	*75-125*		*P9J1002*	*10/10/19*	*10/16/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*103 %*	*75-125*		*P9J1002*	*10/10/19*	*10/16/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**111**	1.03	mg/kg dry	1	P9J0903	10/09/19	10/10/19	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P9J0901	10/09/19	10/09/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*108 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	10/10/19	10/11/19	calc	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-9 @ (0-1')

9J08008-11 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00104	mg/kg dry	1	P9J1002	10/10/19	10/16/19	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P9J1002	10/10/19	10/16/19	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P9J1002	10/10/19	10/16/19	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P9J1002	10/10/19	10/16/19	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P9J1002	10/10/19	10/16/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*93.5 %*	*75-125*		*P9J1002*	*10/10/19*	*10/16/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*100 %*	*75-125*		*P9J1002*	*10/10/19*	*10/16/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**783**	1.04	mg/kg dry	1	P9J0903	10/09/19	10/10/19	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P9J0901	10/09/19	10/09/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*104 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*109 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	10/10/19	10/11/19	calc	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
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Midland TX, 79710	Project Manager: Mark Larson	

SP-10 @ (0-1')

9J08008-12 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00104	mg/kg dry	1	P9J1002	10/10/19	10/16/19	EPA 8021B	
Toluene	ND	0.00104	mg/kg dry	1	P9J1002	10/10/19	10/16/19	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P9J1002	10/10/19	10/16/19	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P9J1002	10/10/19	10/16/19	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P9J1002	10/10/19	10/16/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*104 %*	*75-125*		*P9J1002*	*10/10/19*	*10/16/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*105 %*	*75-125*		*P9J1002*	*10/10/19*	*10/16/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**4660**	1.04	mg/kg dry	1	P9J0903	10/09/19	10/10/19	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P9J0808	10/08/19	10/08/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P9J1006	10/10/19	10/11/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*118 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*120 %*	*70-130*		*P9J1006*	*10/10/19*	*10/11/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	10/10/19	10/11/19	calc	

Larson & Associates, Inc.
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Midland TX, 79710

Project: Salado Draw 24 CTB Line
Project Number: 19-0180-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9J1002 - General Preparation (GC)										
Blank (P9J1002-BLK1)				Prepared & Analyzed: 10/10/19						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	*0.113*		*"*	*0.120*		*93.9*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.139*		*"*	*0.120*		*116*	*75-125*			
LCS (P9J1002-BS1)				Prepared & Analyzed: 10/10/19						
Benzene	0.0885	0.00100	mg/kg wet	0.100		88.5	70-130			
Toluene	0.112	0.00100	"	0.100		112	70-130			
Ethylbenzene	0.114	0.00100	"	0.100		114	70-130			
Xylene (p/m)	0.233	0.00200	"	0.200		117	70-130			
Xylene (o)	0.116	0.00100	"	0.100		116	70-130			
Surrogate: 4-Bromofluorobenzene	*0.121*		*"*	*0.120*		*101*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.144*		*"*	*0.120*		*120*	*75-125*			
LCS Dup (P9J1002-BSD1)				Prepared & Analyzed: 10/10/19						
Benzene	0.0904	0.00100	mg/kg wet	0.100		90.4	70-130	2.09	20	
Toluene	0.117	0.00100	"	0.100		117	70-130	4.28	20	
Ethylbenzene	0.120	0.00100	"	0.100		120	70-130	5.08	20	
Xylene (p/m)	0.220	0.00200	"	0.200		110	70-130	5.75	20	
Xylene (o)	0.105	0.00100	"	0.100		105	70-130	9.84	20	
Surrogate: 4-Bromofluorobenzene	*0.123*		*"*	*0.120*		*103*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.137*		*"*	*0.120*		*114*	*75-125*			
Calibration Blank (P9J1002-CCB1)				Prepared & Analyzed: 10/10/19						
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	*0.116*		*"*	*0.120*		*96.9*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.101*		*"*	*0.120*		*84.1*	*75-125*			

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Midland TX, 79710

Project: Salado Draw 24 CTB Line
Project Number: 19-0180-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9J1002 - General Preparation (GC)										
Calibration Blank (P9J1002-CCB2)				Prepared & Analyzed: 10/10/19						
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.137*		*"*	*0.120*		*114*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.139*		*"*	*0.120*		*115*	*75-125*			
Calibration Blank (P9J1002-CCB3)				Prepared: 10/10/19 Analyzed: 10/16/19						
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.132*		*"*	*0.120*		*110*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.125*		*"*	*0.120*		*104*	*75-125*			
Calibration Check (P9J1002-CCV1)				Prepared & Analyzed: 10/10/19						
Benzene	0.108	0.00100	mg/kg wet	0.100		108	80-120			
Toluene	0.116	0.00100	"	0.100		116	80-120			
Ethylbenzene	0.117	0.00100	"	0.100		117	80-120			
Xylene (p/m)	0.237	0.00200	"	0.200		119	80-120			
Xylene (o)	0.113	0.00100	"	0.100		113	80-120			
Surrogate: 1,4-Difluorobenzene	*0.122*		*"*	*0.120*		*102*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.107*		*"*	*0.120*		*89.0*	*75-125*			
Calibration Check (P9J1002-CCV2)				Prepared & Analyzed: 10/10/19						
Benzene	0.0823	0.00100	mg/kg wet	0.100		82.3	80-120			
Toluene	0.119	0.00100	"	0.100		119	80-120			
Ethylbenzene	0.120	0.00100	"	0.100		120	80-120			
Xylene (p/m)	0.223	0.00200	"	0.200		111	80-120			
Xylene (o)	0.106	0.00100	"	0.100		106	80-120			
Surrogate: 4-Bromofluorobenzene	*0.137*		*"*	*0.120*		*114*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.132*		*"*	*0.120*		*110*	*75-125*			

Larson & Associates, Inc.
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Midland TX, 79710

Project: Salado Draw 24 CTB Line
Project Number: 19-0180-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9J1002 - General Preparation (GC)										
Calibration Check (P9J1002-CCV3)				Prepared: 10/10/19 Analyzed: 10/16/19						
Benzene	0.0982	0.00100	mg/kg wet	0.100		98.2	80-120			
Toluene	0.0976	0.00100	"	0.100		97.6	80-120			
Ethylbenzene	0.103	0.00100	"	0.100		103	80-120			
Xylene (p/m)	0.165	0.00200	"	0.200		82.3	80-120			
Xylene (o)	0.0901	0.00100	"	0.100		90.1	80-120			
Surrogate: 1,4-Difluorobenzene	*0.139*		*"*	*0.120*		*116*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.122*		*"*	*0.120*		*102*	*75-125*			
Matrix Spike (P9J1002-MS1)		**Source: 9J08008-01**		Prepared: 10/10/19 Analyzed: 10/16/19						
Benzene	0.0707	0.00103	mg/kg dry	0.103	ND	68.6	80-120			QM-05
Toluene	0.0650	0.00103	"	0.103	ND	63.1	80-120			QM-05
Ethylbenzene	0.0659	0.00103	"	0.103	ND	63.9	80-120			QM-05
Xylene (p/m)	0.0815	0.00206	"	0.206	ND	39.5	80-120			QM-05
Xylene (o)	0.0442	0.00103	"	0.103	ND	42.8	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*0.138*		*"*	*0.124*		*111*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.104*		*"*	*0.124*		*83.7*	*75-125*			
Matrix Spike Dup (P9J1002-MSD1)		**Source: 9J08008-01**		Prepared: 10/10/19 Analyzed: 10/16/19						
Benzene	0.0761	0.00103	mg/kg dry	0.103	ND	73.8	80-120	7.35	20	QM-05
Toluene	0.0695	0.00103	"	0.103	ND	67.4	80-120	6.58	20	QM-05
Ethylbenzene	0.0743	0.00103	"	0.103	ND	72.1	80-120	12.0	20	QM-05
Xylene (p/m)	0.101	0.00206	"	0.206	ND	49.1	80-120	21.5	20	QM-05
Xylene (o)	0.0583	0.00103	"	0.103	ND	56.5	80-120	27.5	20	QM-05
Surrogate: 4-Bromofluorobenzene	*0.101*		*"*	*0.124*		*82.0*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.140*		*"*	*0.124*		*113*	*75-125*			

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P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9J0808 - * DEFAULT PREP *** **										
Blank (P9J0808-BLK1)				Prepared & Analyzed: 10/08/19						
% Moisture	ND	0.1	%							
Batch P9J0901 - * DEFAULT PREP *** **										
Blank (P9J0901-BLK1)				Prepared & Analyzed: 10/09/19						
% Moisture	ND	0.1	%							
Duplicate (P9J0901-DUP1)	**Source: 9J08007-02**			Prepared & Analyzed: 10/09/19						
% Moisture	6.0	0.1	%		5.0			18.2	20	
Batch P9J0902 - * DEFAULT PREP *** **										
Blank (P9J0902-BLK1)				Prepared & Analyzed: 10/09/19						
Chloride	ND	1.00	mg/kg wet							
LCS (P9J0902-BS1)				Prepared & Analyzed: 10/09/19						
Chloride	432	1.00	mg/kg wet	400		108	80-120			
LCS Dup (P9J0902-BSD1)				Prepared & Analyzed: 10/09/19						
Chloride	431	1.00	mg/kg wet	400		108	80-120	0.248	20	
Calibration Blank (P9J0902-CCB1)				Prepared & Analyzed: 10/09/19						
Chloride	0.00		mg/kg wet							
Calibration Blank (P9J0902-CCB2)				Prepared & Analyzed: 10/09/19						
Chloride	0.00		mg/kg wet							

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9J0902 - * DEFAULT PREP *** **										
Calibration Check (P9J0902-CCV1)				Prepared & Analyzed: 10/09/19						
Chloride	19.8		mg/kg	20.0		99.2	0-200			
Calibration Check (P9J0902-CCV2)				Prepared & Analyzed: 10/09/19						
Chloride	20.1		mg/kg	20.0		101	0-200			
Calibration Check (P9J0902-CCV3)				Prepared & Analyzed: 10/09/19						
Chloride	1.54		mg/kg	20.0		7.72	0-200			
Matrix Spike (P9J0902-MS1)		**Source: 9J07006-01**		Prepared & Analyzed: 10/09/19						
Chloride	1920	5.21	mg/kg dry	521	1290	120	80-120			
Matrix Spike (P9J0902-MS2)		**Source: 9J07006-19**		Prepared & Analyzed: 10/09/19						
Chloride	4150	10.4	mg/kg dry	1040	3090	101	80-120			
Matrix Spike Dup (P9J0902-MSD1)		**Source: 9J07006-01**		Prepared & Analyzed: 10/09/19						
Chloride	1900	5.21	mg/kg dry	521	1290	116	80-120	1.23	20	
Matrix Spike Dup (P9J0902-MSD2)		**Source: 9J07006-19**		Prepared & Analyzed: 10/09/19						
Chloride	4080	10.4	mg/kg dry	1040	3090	94.5	80-120	1.65	20	
Batch P9J0903 - * DEFAULT PREP *** **										
Blank (P9J0903-BLK1)				Prepared: 10/09/19 Analyzed: 10/10/19						
Chloride	ND	1.00	mg/kg wet							
LCS (P9J0903-BS1)				Prepared: 10/09/19 Analyzed: 10/10/19						
Chloride	426	1.00	mg/kg wet	400		106	80-120			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9J0903 - * DEFAULT PREP *** **										
LCS Dup (P9J0903-BSD1)				Prepared: 10/09/19 Analyzed: 10/10/19						
Chloride	419	1.00	mg/kg wet	400		105	80-120	1.64	20	
Calibration Blank (P9J0903-CCB1)				Prepared: 10/09/19 Analyzed: 10/10/19						
Chloride	0.00		mg/kg wet							
Calibration Blank (P9J0903-CCB2)				Prepared: 10/09/19 Analyzed: 10/10/19						
Chloride	0.00		mg/kg wet							
Calibration Check (P9J0903-CCV1)				Prepared: 10/09/19 Analyzed: 10/10/19						
Chloride	20.0		mg/kg	20.0		99.8	0-200			
Calibration Check (P9J0903-CCV2)				Prepared: 10/09/19 Analyzed: 10/10/19						
Chloride	20.4		mg/kg	20.0		102	0-200			
Calibration Check (P9J0903-CCV3)				Prepared: 10/09/19 Analyzed: 10/10/19						
Chloride	21.6		mg/kg	20.0		108	0-200			
Matrix Spike (P9J0903-MS1)		**Source: 9J08008-07**		Prepared: 10/09/19 Analyzed: 10/10/19						
Chloride	8360	25.8	mg/kg dry	2580	5590	107	80-120			
Matrix Spike (P9J0903-MS2)		**Source: 9J09003-02**		Prepared: 10/09/19 Analyzed: 10/10/19						
Chloride	1440	11.6	mg/kg dry	1160	119	114	80-120			
Matrix Spike Dup (P9J0903-MSD1)		**Source: 9J08008-07**		Prepared: 10/09/19 Analyzed: 10/10/19						
Chloride	8030	25.8	mg/kg dry	2580	5590	94.6	80-120	3.97	20	
Matrix Spike Dup (P9J0903-MSD2)		**Source: 9J09003-02**		Prepared: 10/09/19 Analyzed: 10/10/19						
Chloride	1380	11.6	mg/kg dry	1160	119	108	80-120	4.35	20	

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Midland TX, 79710	Project Manager: Mark Larson	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9J0816 - TX 1005										
Blank (P9J0816-BLK1)				Prepared: 10/08/19 Analyzed: 10/10/19						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*134*		*"*	*140*		*95.6*	*70-130*			
Surrogate: o-Terphenyl	*69.8*		*"*	*70.0*		*99.7*	*70-130*			
LCS (P9J0816-BS1)				Prepared: 10/08/19 Analyzed: 10/10/19						
C6-C12	1040	25.0	mg/kg wet	1000		104	75-125			
>C12-C28	1070	25.0	"	1000		107	75-125			
Surrogate: 1-Chlorooctane	*125*		*"*	*100*		*125*	*70-130*			
Surrogate: o-Terphenyl	*62.3*		*"*	*50.0*		*125*	*70-130*			
LCS Dup (P9J0816-BSD1)				Prepared: 10/08/19 Analyzed: 10/10/19						
C6-C12	1020	25.0	mg/kg wet	1000		102	75-125	2.38	20	
>C12-C28	1040	25.0	"	1000		104	75-125	2.59	20	
Surrogate: 1-Chlorooctane	*120*		*"*	*100*		*120*	*70-130*			
Surrogate: o-Terphenyl	*63.2*		*"*	*50.0*		*126*	*70-130*			
Calibration Blank (P9J0816-CCB1)				Prepared: 10/08/19 Analyzed: 10/10/19						
C6-C12	10.6		mg/kg wet							
>C12-C28	11.5		"							
Surrogate: 1-Chlorooctane	*132*		*"*	*140*		*94.2*	*70-130*			
Surrogate: o-Terphenyl	*70.3*		*"*	*70.0*		*100*	*70-130*			
Calibration Blank (P9J0816-CCB2)				Prepared: 10/08/19 Analyzed: 10/10/19						
C6-C12	5.36		mg/kg wet							
>C12-C28	22.8		"							
Surrogate: 1-Chlorooctane	*133*		*"*	*140*		*95.1*	*70-130*			
Surrogate: o-Terphenyl	*71.7*		*"*	*70.0*		*102*	*70-130*			

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9J0816 - TX 1005										
Calibration Check (P9J0816-CCV1)				Prepared: 10/08/19 Analyzed: 10/10/19						
C6-C12	504	25.0	mg/kg wet	500		101	85-115			
>C12-C28	503	25.0	"	500		101	85-115			
Surrogate: 1-Chlorooctane	*121*		*"*	*100*		*121*	*70-130*			
Surrogate: o-Terphenyl	*61.2*		*"*	*50.0*		*122*	*70-130*			
Calibration Check (P9J0816-CCV2)				Prepared: 10/08/19 Analyzed: 10/10/19						
C6-C12	501	25.0	mg/kg wet	500		100	85-115			
>C12-C28	475	25.0	"	500		94.9	85-115			
Surrogate: 1-Chlorooctane	*122*		*"*	*100*		*122*	*70-130*			
Surrogate: o-Terphenyl	*61.0*		*"*	*50.0*		*122*	*70-130*			
Calibration Check (P9J0816-CCV3)				Prepared: 10/08/19 Analyzed: 10/10/19						
C6-C12	456	25.0	mg/kg wet	500		91.2	85-115			
>C12-C28	477	25.0	"	500		95.3	85-115			
Surrogate: 1-Chlorooctane	*128*		*"*	*100*		*128*	*70-130*			
Surrogate: o-Terphenyl	*56.8*		*"*	*50.0*		*114*	*70-130*			
Matrix Spike (P9J0816-MS1)		**Source: 9J08007-01**		Prepared: 10/08/19 Analyzed: 10/10/19						
C6-C12	872	26.9	mg/kg dry	1080	ND	81.1	75-125			
>C12-C28	919	26.9	"	1080	ND	85.5	75-125			
Surrogate: 1-Chlorooctane	*129*		*"*	*108*		*120*	*70-130*			
Surrogate: o-Terphenyl	*52.5*		*"*	*53.8*		*97.7*	*70-130*			
Matrix Spike Dup (P9J0816-MSD1)		**Source: 9J08007-01**		Prepared: 10/08/19 Analyzed: 10/10/19						
C6-C12	875	26.9	mg/kg dry	1080	ND	81.4	75-125	0.348	20	
>C12-C28	936	26.9	"	1080	ND	87.1	75-125	1.87	20	
Surrogate: 1-Chlorooctane	*135*		*"*	*108*		*125*	*70-130*			
Surrogate: o-Terphenyl	*53.0*		*"*	*53.8*		*98.5*	*70-130*			

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9J1006 - TX 1005										
Blank (P9J1006-BLK1)				Prepared: 10/10/19 Analyzed: 10/11/19						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*139*		*"*	*140*		*99.0*	*70-130*			
Surrogate: o-Terphenyl	*71.7*		*"*	*70.0*		*102*	*70-130*			
LCS (P9J1006-BS1)				Prepared: 10/10/19 Analyzed: 10/11/19						
C6-C12	1080	25.0	mg/kg wet	1000		108	75-125			
>C12-C28	1160	25.0	"	1000		116	75-125			
Surrogate: 1-Chlorooctane	*159*		*"*	*140*		*113*	*70-130*			
Surrogate: o-Terphenyl	*70.9*		*"*	*70.0*		*101*	*70-130*			
LCS Dup (P9J1006-BSD1)				Prepared: 10/10/19 Analyzed: 10/11/19						
C6-C12	1100	25.0	mg/kg wet	1000		110	75-125	2.22	20	
>C12-C28	1120	25.0	"	1000		112	75-125	3.60	20	
Surrogate: 1-Chlorooctane	*173*		*"*	*140*		*123*	*70-130*			
Surrogate: o-Terphenyl	*72.4*		*"*	*70.0*		*103*	*70-130*			
Calibration Blank (P9J1006-CCB1)				Prepared: 10/10/19 Analyzed: 10/11/19						
C6-C12	2.48		mg/kg wet							
>C12-C28	20.1		"							
Surrogate: 1-Chlorooctane	*144*		*"*	*140*		*103*	*70-130*			
Surrogate: o-Terphenyl	*74.6*		*"*	*70.0*		*106*	*70-130*			
Calibration Blank (P9J1006-CCB2)				Prepared: 10/10/19 Analyzed: 10/11/19						
C6-C12	2.61		mg/kg wet							
>C12-C28	22.8		"							
Surrogate: 1-Chlorooctane	*146*		*"*	*140*		*104*	*70-130*			
Surrogate: o-Terphenyl	*75.2*		*"*	*70.0*		*107*	*70-130*			

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P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9J1006 - TX 1005										
Calibration Check (P9J1006-CCV1)				Prepared: 10/10/19 Analyzed: 10/11/19						
C6-C12	558	25.0	mg/kg wet	500		112	85-115			
>C12-C28	561	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	*154*		*"*	*140*		*110*	*70-130*			
Surrogate: o-Terphenyl	*67.0*		*"*	*70.0*		*95.7*	*70-130*			
Calibration Check (P9J1006-CCV2)				Prepared: 10/10/19 Analyzed: 10/11/19						
C6-C12	511	25.0	mg/kg wet	500		102	85-115			
>C12-C28	535	25.0	"	500		107	85-115			
Surrogate: 1-Chlorooctane	*139*		*"*	*140*		*99.4*	*70-130*			
Surrogate: o-Terphenyl	*61.9*		*"*	*70.0*		*88.4*	*70-130*			
Calibration Check (P9J1006-CCV3)				Prepared: 10/10/19 Analyzed: 10/11/19						
C6-C12	428	25.0	mg/kg wet	500		85.7	85-115			
>C12-C28	459	25.0	"	500		91.8	85-115			
Surrogate: 1-Chlorooctane	*116*		*"*	*140*		*83.0*	*70-130*			
Surrogate: o-Terphenyl	*53.0*		*"*	*70.0*		*75.8*	*70-130*			
Matrix Spike (P9J1006-MS1)	**Source: 9J08008-11**			Prepared: 10/10/19 Analyzed: 10/11/19						
C6-C12	1060	26.0	mg/kg dry	1040	10.2	100	75-125			
>C12-C28	1070	26.0	"	1040	15.7	101	75-125			
Surrogate: 1-Chlorooctane	*117*		*"*	*146*		*80.2*	*70-130*			
Surrogate: o-Terphenyl	*56.9*		*"*	*72.9*		*78.0*	*70-130*			
Matrix Spike Dup (P9J1006-MSD1)	**Source: 9J08008-11**			Prepared: 10/10/19 Analyzed: 10/11/19						
C6-C12	1070	26.0	mg/kg dry	1040	10.2	102	75-125	1.80	20	
>C12-C28	1100	26.0	"	1040	15.7	104	75-125	3.07	20	
Surrogate: 1-Chlorooctane	*119*		*"*	*146*		*81.9*	*70-130*			
Surrogate: o-Terphenyl	*56.5*		*"*	*72.9*		*77.5*	*70-130*			

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

Notes and Definitions

ROI	Received on Ice
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 10/18/2019

Brent Barron, Laboratory Director/Technical Director

№ 0785

CHAIN-OF-CUSTOD

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

DATE: 10/8/19 PAGE 1 OF 1

PO#: LAB WORK ORDER#: 9J08008

PROJECT LOCATION OR NAME: Salado Draw 24 CTB Line

LAI PROJECT #: 19-0180-01 COLLECTOR: RO

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

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 ☐ | CHLORIDES ☒ ANIONS ☐ ALKALINITY ☐

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	BTEX ☒	TRPH 418.1 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☐	CHLORIDES ☒	FIELD NOTES
Sp-12 (0-1')	1	10/7/19	12:17	S					X		X		X	X	X	X	~~DELTA~~ RO
Sp-2 (0-1')	2		12:22														
Sp-1 (0-1')	3		12:38														
Sp-11 (0-1')	4		12:31														
Sp-6 (0-1')	5		12:40														
Sp-5 (0-1')	6		12:46														
Sp-4 (0-1')	7		12:50														
Sp-3 (0-1')	8		12:54														
Sp-7 (0-1')	9		13:00														
Sp-8 (0-1')	10		13:04														
Sp-9 (0-1')	11		13:09														
Sp-10 (0-1')	12		13:14														

TOTAL

RELINQUISHED BY:(Signature) DATE/TIME 10/8/19 10:07 RECEIVED BY: (Signature) Trina Bledsoe

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

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

LABORATORY: PBEL

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

LABORATORY USE ONLY:
RECEIVING TEMP: 2.3 3.3 CF+1 L2 THERM#:
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Salado Draw 24 CTB Line

Project Number: 19-0180-01

Location:

Lab Order Number: 9K04002

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-17-8

Report Date: 11/15/19

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Salado Draw 24 CTB Line
Project Number: 19-0180-01
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP-11 (5')	9K04002-01	Soil	10/30/19 11:50	11-04-2019 11:35
SP-11 (9')	9K04002-02	Soil	10/30/19 11:56	11-04-2019 11:35
SP-1 (5')	9K04002-03	Soil	10/30/19 12:05	11-04-2019 11:35
SP-1 (9')	9K04002-04	Soil	10/30/19 12:11	11-04-2019 11:35
SP-12 (5')	9K04002-05	Soil	10/30/19 12:19	11-04-2019 11:35
SP-12 (9')	9K04002-06	Soil	10/30/19 12:26	11-04-2019 11:35
SP-4 (5')	9K04002-07	Soil	10/30/19 12:34	11-04-2019 11:35
SP-4 (9')	9K04002-08	Soil	10/30/19 12:43	11-04-2019 11:35

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-11 (5')

9K04002-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2.29**	1.03	mg/kg dry	1	P9K1203	11/12/19	11/12/19	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P9K0501	11/05/19	11/05/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-11 (9')

9K04002-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	ND	1.03	mg/kg dry	1	P9K1203	11/12/19	11/13/19	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P9K0501	11/05/19	11/05/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-1 (5')

9K04002-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**826**	10.5	mg/kg dry	10	P9K1203	11/12/19	11/13/19	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P9K0501	11/05/19	11/05/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-1 (9')

9K04002-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**667**	1.03	mg/kg dry	1	P9K1204	11/12/19	11/13/19	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P9K0501	11/05/19	11/05/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-12 (5')

9K04002-05 (Soil)

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	**448**	1.05	mg/kg dry	1	P9K1204	11/12/19	11/13/19	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P9K0501	11/05/19	11/05/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-12 (9')

9K04002-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**4.23**	1.03	mg/kg dry	1	P9K1204	11/12/19	11/13/19	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P9K0501	11/05/19	11/05/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-4 (5')

9K04002-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**4700**	10.4	mg/kg dry	10	P9K1204	11/12/19	11/13/19	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P9K0501	11/05/19	11/05/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-4 (9')

9K04002-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**624**	1.03	mg/kg dry	1	P9K1204	11/12/19	11/13/19	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P9K0501	11/05/19	11/05/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9K0501 - * DEFAULT PREP *** **										
Blank (P9K0501-BLK1)				Prepared & Analyzed: 11/05/19						
% Moisture	ND	0.1	%							
Duplicate (P9K0501-DUP1)		**Source: 9K04002-06**		Prepared & Analyzed: 11/05/19						
% Moisture	3.0	0.1	%		3.0			0.00	20	
Batch P9K1203 - * DEFAULT PREP *** **										
Blank (P9K1203-BLK1)				Prepared & Analyzed: 11/12/19						
Chloride	ND	0.100	mg/kg wet							
LCS (P9K1203-BS1)				Prepared & Analyzed: 11/12/19						
Chloride	417	1.00	mg/kg wet	400		104	80-120			
LCS Dup (P9K1203-BSD1)				Prepared & Analyzed: 11/12/19						
Chloride	418	1.00	mg/kg wet	400		105	80-120	0.362	20	
Calibration Blank (P9K1203-CCB1)				Prepared & Analyzed: 11/12/19						
Chloride	-0.0590		mg/kg wet							
Calibration Blank (P9K1203-CCB2)				Prepared & Analyzed: 11/12/19						
Chloride	0.00		mg/kg wet							
Calibration Check (P9K1203-CCV1)				Prepared & Analyzed: 11/12/19						
Chloride	19.5		mg/kg	20.0		97.6	0-200			
Calibration Check (P9K1203-CCV2)				Prepared & Analyzed: 11/12/19						
Chloride	19.8		mg/kg	20.0		99.1	0-200			

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Salado Draw 24 CTB Line
Project Number: 19-0180-01
Project Manager: Mark Larson

Fax: (432) 687-0456

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9K1203 - * DEFAULT PREP *** **										
Calibration Check (P9K1203-CCV3)				Prepared: 11/12/19 Analyzed: 11/13/19						
Chloride	20.0		mg/kg	20.0		99.8	0-200			
Matrix Spike (P9K1203-MS1)		Source: 9K12001-01		Prepared & Analyzed: 11/12/19						
Chloride	1260	10.9	mg/kg dry	1090	95.5	108	80-120			
Matrix Spike (P9K1203-MS2)		Source: 9K04002-03		Prepared: 11/12/19 Analyzed: 11/13/19						
Chloride	1940	10.5	mg/kg dry	1050	826	106	80-120			
Matrix Spike Dup (P9K1203-MSD1)		Source: 9K12001-01		Prepared & Analyzed: 11/12/19						
Chloride	1290	10.9	mg/kg dry	1090	95.5	110	80-120	1.72	20	
Matrix Spike Dup (P9K1203-MSD2)		Source: 9K04002-03		Prepared: 11/12/19 Analyzed: 11/13/19						
Chloride	1910	10.5	mg/kg dry	1050	826	103	80-120	1.56	20	
Batch P9K1204 - * DEFAULT PREP *** **										
Blank (P9K1204-BLK1)				Prepared: 11/12/19 Analyzed: 11/13/19						
Chloride	ND	0.100	mg/kg wet							
LCS (P9K1204-BS1)				Prepared: 11/12/19 Analyzed: 11/13/19						
Chloride	420	1.00	mg/kg wet	400		105	80-120			
LCS Dup (P9K1204-BSD1)				Prepared: 11/12/19 Analyzed: 11/13/19						
Chloride	422	1.00	mg/kg wet	400		105	80-120	0.504	20	
Calibration Blank (P9K1204-CCB1)				Prepared: 11/12/19 Analyzed: 11/13/19						
Chloride	-0.0430		mg/kg wet							

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9K1204 - * DEFAULT PREP *** **										
Calibration Blank (P9K1204-CCB2)				Prepared: 11/12/19 Analyzed: 11/13/19						
Chloride	0.00		mg/kg wet							
Calibration Check (P9K1204-CCV1)				Prepared: 11/12/19 Analyzed: 11/13/19						
Chloride	20.0		mg/kg	20.0		99.8	0-200			
Calibration Check (P9K1204-CCV2)				Prepared: 11/12/19 Analyzed: 11/13/19						
Chloride	19.9		mg/kg	20.0		99.5	0-200			
Calibration Check (P9K1204-CCV3)				Prepared: 11/12/19 Analyzed: 11/13/19						
Chloride	20.4		mg/kg	20.0		102	0-200			
Matrix Spike (P9K1204-MS1)		**Source: 9K04002-07**		Prepared: 11/12/19 Analyzed: 11/13/19						
Chloride	5560	10.4	mg/kg dry	1040	4700	82.8	80-120			
Matrix Spike (P9K1204-MS2)		**Source: 9K05018-03**		Prepared: 11/12/19 Analyzed: 11/13/19						
Chloride	9830	26.3	mg/kg dry	2630	7080	105	80-120			
Matrix Spike Dup (P9K1204-MSD1)		**Source: 9K04002-07**		Prepared: 11/12/19 Analyzed: 11/13/19						
Chloride	5520	10.4	mg/kg dry	1040	4700	79.4	80-120	0.636	20	
Matrix Spike Dup (P9K1204-MSD2)		**Source: 9K05018-03**		Prepared: 11/12/19 Analyzed: 11/13/19						
Chloride	9770	26.3	mg/kg dry	2630	7080	102	80-120	0.631	20	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

Notes and Definitions

ROI	Received on Ice
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 11/15/2019

Brent Barron, Laboratory Director/Technical Director

№ 0791

CHAIN-OF-CUSTOD

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

DATE: 11/4/2019 PAGE 1 OF 1

PO#: LAB WORK ORDER#: 9K04002

PROJECT LOCATION OR NAME: SD 24 CTB Line

LAI PROJECT #: 19-0180-01 COLLECTOR: RN/EC

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

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 ☐ | CHLORIDES ☒ ANIONS ☐ ALKALINITY ☐ | M300

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES	FIELD NOTES
SP-11 (5')		10/30/19	11:50	S	1				X		CHLORIDES ☒ M300	
(9')			11:56									
SP-1 (5')			12:05									
(9')			12:11									
SP-12 (5')			12:19									
(9')			12:26									
SP-4 (5')			12:34									
(9')			12:43									
TOTAL		8										

RELINQUISHED BY:(Signature) Rachel Cuen DATE/TIME 11-4-19 11:35 RECEIVED BY: (Signature)

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

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

LABORATORY: PBEL

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

LABORATORY USE ONLY:
RECEIVING TEMP: 5.9 -4.9 CF+1 L2 THERM#:
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Salado Draw 24 CTB Line

Project Number: 19-0180-01

Location:

Lab Order Number: 9K11001

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-17-8

Report Date: 11/20/19

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Salado Draw 24 CTB Line
Project Number: 19-0180-01
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-10 @ (5')	9K11001-01	Soil	11/08/19 11:39	11-11-2019 08:52
S-10 @ (9')	9K11001-02	Soil	11/08/19 11:49	11-11-2019 08:52
S-9 @ (5')	9K11001-03	Soil	11/08/19 11:53	11-11-2019 08:52
S-9 @ (9')	9K11001-04	Soil	11/08/19 12:02	11-11-2019 08:52
S-8 @ (5')	9K11001-05	Soil	11/08/19 12:07	11-11-2019 08:52
S-8 @ (9')	9K11001-06	Soil	11/08/19 12:16	11-11-2019 08:52
S-7 @ (5')	9K11001-07	Soil	11/08/19 12:20	11-11-2019 08:52
S-7 @ (9')	9K11001-08	Soil	11/08/19 12:27	11-11-2019 08:52
S-3 @ (5')	9K11001-09	Soil	11/08/19 12:32	11-11-2019 08:52
S-3 @ (9')	9K11001-10	Soil	11/08/19 12:40	11-11-2019 08:52

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-10 @ (5')

9K11001-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2760**	10.6	mg/kg dry	10	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P9K1202	11/12/19	11/12/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-10 @ (9')

9K11001-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**69.0**	1.12	mg/kg dry	1	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P9K1202	11/12/19	11/12/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-9 @ (5')

9K11001-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**9450**	25.8	mg/kg dry	25	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P9K1202	11/12/19	11/12/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-9 @ (9')

9K11001-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**99.0**	1.03	mg/kg dry	1	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P9K1202	11/12/19	11/12/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-8 @ (5')

9K11001-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**4040**	10.9	mg/kg dry	10	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P9K1202	11/12/19	11/12/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-8 @ (9')

9K11001-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**9.22**	1.03	mg/kg dry	1	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P9K1202	11/12/19	11/12/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-7 @ (5')

9K11001-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2520**	10.6	mg/kg dry	10	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P9K1202	11/12/19	11/12/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-7 @ (9')

9K11001-08 (Soil)

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	**73.4**	1.02	mg/kg dry	1	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P9K1202	11/12/19	11/12/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-3 @ (5')

9K11001-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**305**	1.05	mg/kg dry	1	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P9K1202	11/12/19	11/12/19	ASTM D2216	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-3 @ (9')

9K11001-10 (Soil)

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	**2620**	10.3	mg/kg dry	10	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P9K1202	11/12/19	11/12/19	ASTM D2216	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Salado Draw 24 CTB Line
Project Number: 19-0180-01
Project Manager: Mark Larson

Fax: (432) 687-0456

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9K1202 - * DEFAULT PREP *** **										
Blank (P9K1202-BLK1)				Prepared & Analyzed: 11/12/19						
% Moisture	ND	0.1	%							
Duplicate (P9K1202-DUP1)		**Source: 9K08011-12**		Prepared & Analyzed: 11/12/19						
% Moisture	7.0	0.1	%		20.0			96.3	20	
Duplicate (P9K1202-DUP2)		**Source: 9K08006-04**		Prepared & Analyzed: 11/12/19						
% Moisture	18.0	0.1	%		6.0			100	20	
Duplicate (P9K1202-DUP3)		**Source: 9K08012-24**		Prepared & Analyzed: 11/12/19						
% Moisture	11.0	0.1	%		9.0			20.0	20	
Duplicate (P9K1202-DUP4)		**Source: 9K08019-01**		Prepared & Analyzed: 11/12/19						
% Moisture	14.0	0.1	%		15.0			6.90	20	
Duplicate (P9K1202-DUP5)		**Source: 9K08023-18**		Prepared & Analyzed: 11/12/19						
% Moisture	5.0	0.1	%		11.0			75.0	20	
Duplicate (P9K1202-DUP6)		**Source: 9K11001-06**		Prepared & Analyzed: 11/12/19						
% Moisture	3.0	0.1	%		3.0			0.00	20	
Batch P9K1807 - * DEFAULT PREP *** **										
Blank (P9K1807-BLK1)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	ND	0.100	mg/kg wet							
LCS (P9K1807-BS1)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	431	1.00	mg/kg wet	400		108	80-120			

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Salado Draw 24 CTB Line
Project Number: 19-0180-01
Project Manager: Mark Larson

Fax: (432) 687-0456

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9K1807 - * DEFAULT PREP *** **										
LCS Dup (P9K1807-BSD1)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	432	1.00	mg/kg wet	400		108	80-120	0.399	20	
Calibration Blank (P9K1807-CCB1)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	0.00		mg/kg wet							
Calibration Blank (P9K1807-CCB2)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	0.00		mg/kg wet							
Calibration Check (P9K1807-CCV1)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	21.2		mg/kg	20.0		106	0-200			
Calibration Check (P9K1807-CCV2)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	21.4		mg/kg	20.0		107	0-200			
Calibration Check (P9K1807-CCV3)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	20.6		mg/kg	20.0		103	0-200			
Matrix Spike (P9K1807-MS1)		**Source: 9K08023-18**		Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	1820	5.62	mg/kg dry	562	1260	101	80-120			
Matrix Spike (P9K1807-MS2)		**Source: 9K11001-10**		Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	3690	10.3	mg/kg dry	1030	2620	104	80-120			
Matrix Spike Dup (P9K1807-MSD1)		**Source: 9K08023-18**		Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	1820	5.62	mg/kg dry	562	1260	100	80-120	0.216	20	
Matrix Spike Dup (P9K1807-MSD2)		**Source: 9K11001-10**		Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	3990	10.3	mg/kg dry	1030	2620	133	80-120	7.86	20	

Larson & Associates, Inc.	Project: Salado Draw 24 CTB Line	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-01	
Midland TX, 79710	Project Manager: Mark Larson	

Notes and Definitions

ROI	Received on Ice
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 11/20/2019

Brent Barron, Laboratory Director/Technical Director

№ 0573

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants

507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 11/11/2019 PAGE 1 OF 1
PO#:
LAB WORK ORDER#: 9K11001
PROJECT LOCATION OR NAME: Chevron – Salado Draw 24
LAI PROJECT #: 19-0180-01 COLLECTOR: RN/EG

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

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 ☐; 8062 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 ☐ M300; FIELD NOTES

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	ICE	CHLORIDE
S-10 (5')	1	11/8/19	11:39	S	1	X	X
S-10 (9')	2		11:49				
S-9 (5')	3		11:53				
S-9 (9')	4		12:02				
S-8 (5')	5		12:07				
S-8 (9')	6		12:16				
S-7 (5')	7		12:20				
S-7 (9')	8		12:27				
S-3 (5')	9		12:32				
S-3 (9')	10		12:40				

TOTAL 10

RELINQUISHED BY:(Signature) [signature] DATE/TIME 11/11/19 8:52 RECEIVED BY: (Signature)

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

RELINQUISHED BY:(Signature) DATE/TIME 11-11-19 8:52 RECEIVED BY: (Signature) [signature]

LABORATORY: PBEL

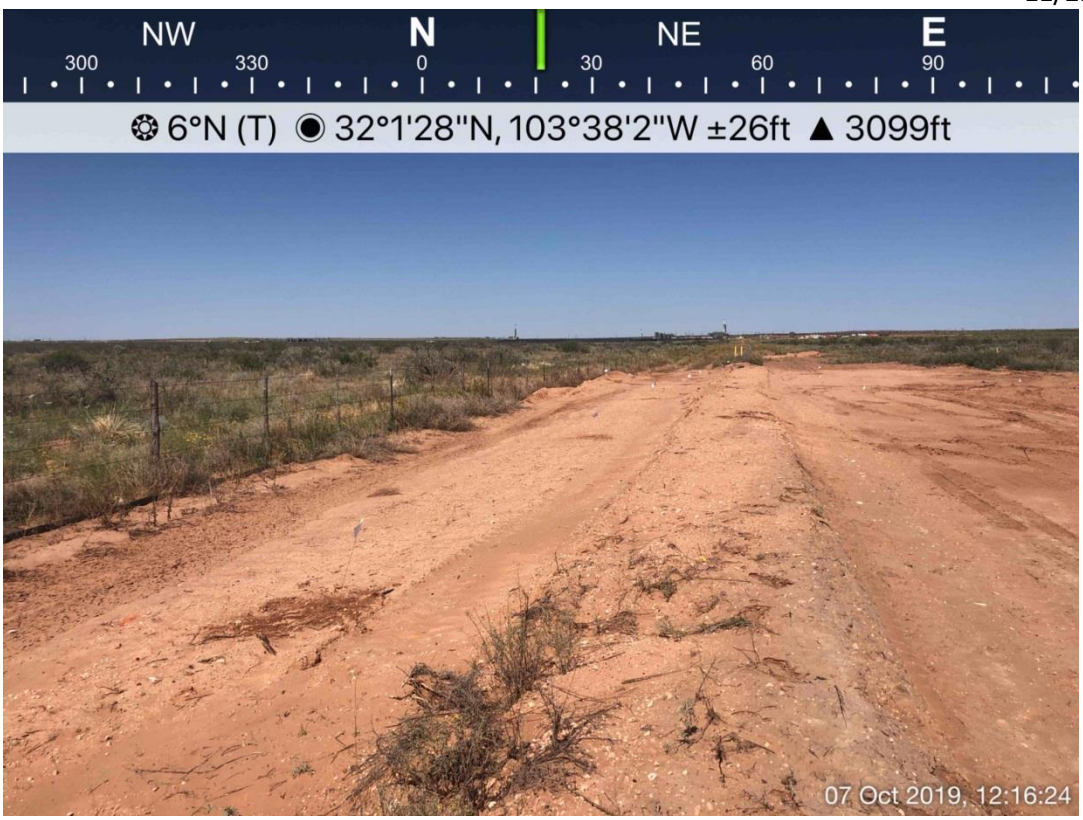
TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 5.0-6.0 THERM#:
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☐ CARRIER BILL #
☒ HAND DELIVERED

Appendix C

Photographs

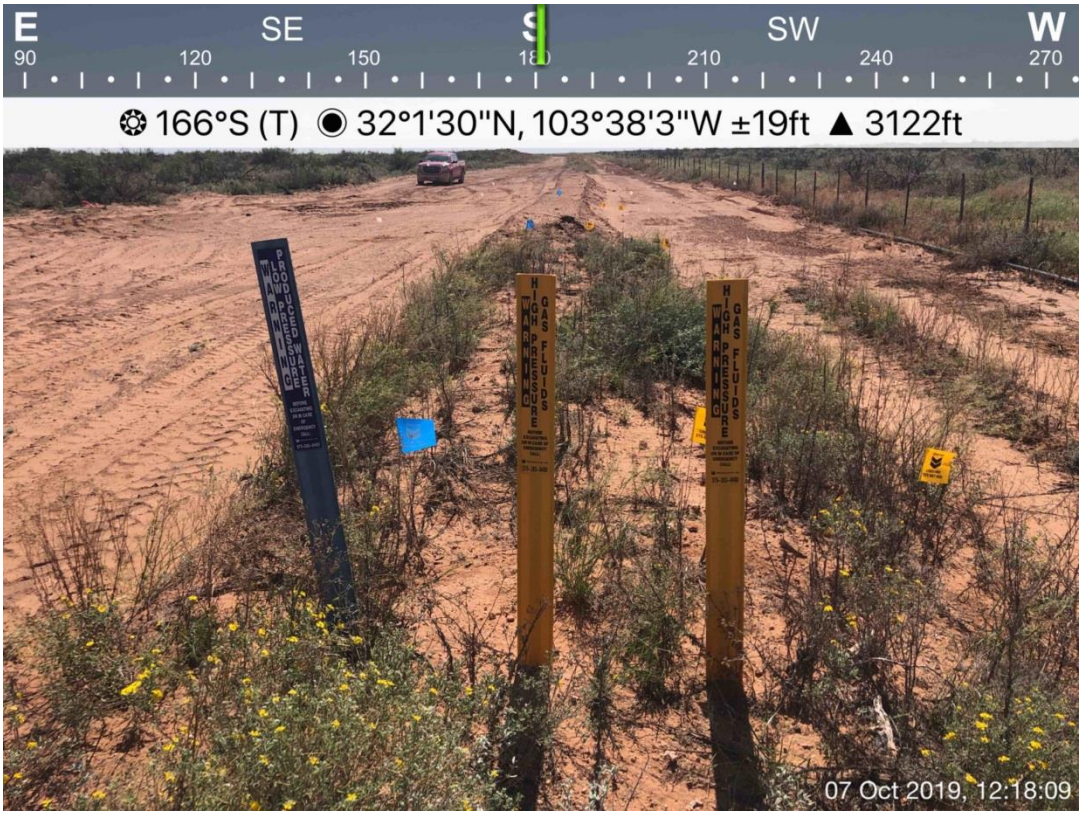
1RP-5695
Chevron USA, Inc., Salado Draw 24 CTB Line
11/25/2019



Spill Area Viewing North, October 7, 2019

Spill Area Viewing Northwest, October 7, 2019

1RP-5695
Chevron USA, Inc., Salado Draw 24 CTB Line
11/25/2019



Spill Area Viewing South, October 7, 2019

Appendix B

OCD Communications

Hamlet, Robert, EMNRD

From: Hamlet, Robert, EMNRD
Sent: Thursday, January 23, 2020 9:17 AM
To: Barnhill, Amy D. (ABarnhill@chevron.com)
Cc: Bratcher, Mike, EMNRD; Venegas, Victoria, EMNRD; Eads, Cristina, EMNRD; blm_nm_cfo_spill@blm.gov
Subject: Remediation Denied - Chevron - Salado Draw 24 CTB Line - (1RP-5695) 8-27-2019
Attachments: Remediation Denied - Chevron - Salado Draw 24 CTB Line - (1RP-5695) 1.22.20.pdf

Amy,

We have received your Workplan/Remediation Proposal for **1RP-5695 Salado Draw 24 CTB Line**, thank you. This Workplan/Remediation proposal is denied.

- The Depth to groundwater has not been correctly assessed. The closest well is 2.84 miles from the site. There are no wells within a 1/2 radius of the well location over 100' depth to groundwater. If you feel the depth to groundwater is >100', a shallow borehole can be drilled to 105' allowing for verification of the depth. If water is not visible after reaching bottom-hole and waiting 72 hours, the OCD will accept this as evidence. We would just need a copy of the driller's log.

Please let me know if you have any further questions.

Regards,

Robert J Hamlet
State of New Mexico
Energy, Minerals, and Natural Resources
Oil Conservation Division
811 S. First St., Artesia NM 88210
(575) 748-1283
Robert.Hamlet@state.nm.us

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ 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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Robert Hamlet Date: 1/23/2020

☐ Approved ☐ Approved with Attached Conditions of Approval ☒ Denied ☐ Deferral Approved

Signature: _____ Date: 1/23/2020

Appendix C

SB-1 Boring Log

BORING RECORD

Start: 10:35 MDT
Finish: 15:15

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG
	0	Silty Sand, 5YR 5/4, Reddish Brown, Very Fine Grained Quartz Sand, Poorly Sorted, Dry	ML	
	5			
	7	Caliche, 2.5YR 8/3, Pink, Very Fine Grained, Poorly Sorted, Dry	Caliche	
	10			
	15			
	20			
	25	Silty Sand, 5YR 5/4, Reddish Brown, Fine Grained Quartz Sand with Caliche Clasts (~10mm), Poorly Sorted	ML	
	30			
	35	Caliche, 2.5YR 8/3, Pink, Very Fine Grained, Poorly Sorted with Subangular Clasts (~10mm)	Caliche	
	39			
	40	Silty Sand, 5YR 6/4, Light Reddish Brown, Very Fine Grained Quartz Sand, Poorly Sorted with Subangular Caliche Clasts (~10mm)	ML	
	45			
	50			
	55			
	60			

PID READING: PPM X 1 (2 4 6 8 10 12 14 16 18)

SAMPLE NUMBER	PID READING	RECOVERY	DEPTH	REMARKS: BACKGROUND PID READING
1			5	SOIL : ____ PPM
			7	SOIL : ____ PPM
			10	
			15	
			20	
2			25	
			30	
3			35	
4			39	
			40	
			45	
			50	
			55	
			60	

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
LABORATORY TEST LOCATION
PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : Chevron/ 19-0180-01
HOLE DIAMETER : 2"
LOCATION : Salado Draw 24 CTB
LAI GEOLOGIST : E. Chavez
DRILLING CONTRACTOR : Scarborough
DRILLING METHOD : Air Rotary

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 04-14-2020

BORING NUMBER : SB-01

BORING RECORD

Start: 10:35 MDT
Finish: 15:15

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING PPM X 1 (2 4 6 8 10 12 14 16 18)	SAMPLE NUMBER	SAMPLE PID READING	SAMPLE RECOVERY	SAMPLE DEPTH	REMARKS BACKGROUND PID READING SOIL : PPM SOIL : PPM
	65	Silty Sand, 5YR 5/6, Yellowish Red, Very Fine Grained, Poorly Sorted with Subangular Caliche and Black Chert Clasts (~0.5mm)	ML			5			66	
	70								70	
	75								75	
	80								80	
	85								85	
	90	Silty Sand, 5YR 4/6, Yellowish Red, Fine Grained, Poorly Sorted with Subangular Caliche (~2mm)	ML						90	
	95								95	
	100					6			100	
		TD:101.5' *Dry After 72 Hours*							101.5	
	105								105	

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : Chevron/ 19-0180-01
HOLE DIAMETER : 2"
LOCATION : Salado Draw 24 CTB
LAI GEOLOGIST : E. Chavez
DRILLING CONTRACTOR : Scarborough
DRILLING METHOD : Air Rotary

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 04-14-2020

BORING NUMBER : SB-01