APPROVED
By Olivia Yu at 9:28 am, Mar 26, 2018

NMOCD approves of the additional delineation completed for 1RP-4818 and proposed remediation with these conditions:
1) Laboratory analyses of bottom and sidewall confirmation samples.
2) Scaled map with confirmation samples demarcated.

1RP-4818
DELINEATION REPORT
SALADO DRAW RWCS 1RC-11
PRODUCED WATER SPILL

Lea County, New Mexico

Latitude: N32.033822°
Longitude: W-103.638572°

LAI Project No. 17-0186-01

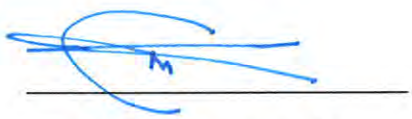
February 5, 2018

Prepared for:

Chevron USA Inc.
6301 Deauville Boulevard
Midland, Texas 79706

Prepared by:

Larson & Associates, Inc.
507 N. Marienfeld Street, Suite 205
Midland, Texas 79701



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

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1.0 INTRODUCTION

This delineation report is submitted to the New Mexico Oil Conservation on behalf of Chevron North America Exploration & Production Company (Chevron) by Larson & Associate, Inc. (LAI) for a produced water (treated) spill at the water recycling facility (Site) located in Unit A (NE 1/4, NE 1/4), Section 23, Township 26 South, Range 32 East, in Lea County, New Mexico. The geodetic position is North 32.033156° and West -103.639194°. Figure 1 presents a location and topographic map.

1.1 Background

The spill occurred on September 13, 2017 and was caused by a leak in a hose on the recirculation system. This leak released approximately 1,105 barrels of treated produced water. The source of the flow was isolated and approximately 500 barrels of treated produced water was recovered by vacuum truck. The spill occurred between the North and South treated water pits located south of the RWCS 1RC treatment facility. The spill flowed from the north side of the South pit to a low area between the South and North pits. The spill then flowed east and west for a distance of about 600 feet and covered an area approximately 20,711 square feet or about 0.47 acres. On September 13, 2017, Chevron verbally notified the OCD District 1 and the Bureau of Land Management, as surface and mineral owner. The OCD assigned the spill remediation permit number 1RP-4818. Appendix A presents the initial C-141.

1.2 Physical Setting

The physical setting is as follows:

- Surface elevation is approximately 3,150 feet above mean sea level (MSL);
- The topography slopes towards the south and southwest;
- The nearest surface water features is a seasonal playa located approximately 3,900 feet southeast of the Site.
- The surface soils are designated as “Pyote and Maljamar fine sands” which consist of approximately 30 inches of fine sand underlain by fine sandy loam to approximately 60 inches below ground surface(bgs);
- The soil is sandy eolian deposits derived from sedimentary rocks and underlain by cemented material (caliche);
- Groundwater occurs at roughly 150 feet below ground surface (bgs) according to records from the New Mexico Office of the State Engineer (NMOSE) and the U.S. Geological Survey.

1.3 Remediation Action Levels

Recommended remediation action levels (RRALs) were calculated for benzene, total BTEX (benzene, ethylbenzene, toluene and xylenes) and total petroleum hydrocarbons (TPH) based on the following criteria established by the OCD in “*Guidelines for Remediation of Leaks, Spills and Releases, August 13,* 1993”:

Criteria	***Result***	***Score***
Depth-to-Groundwater	>100 feet	0
Wellhead Protection Area	No	0
Distance to Surface Water Body	>1000 Horizontal Feet	0

The following RRAL apply to the release for ranking score: 0

- Benzene 10 mg/Kg
- BTEX 50 mg/Kg
- TPH 5,000 mg/Kg

Depth to groundwater greater than 100 feet bgs requires delineation for chloride to 600 milligrams per kilogram (mg/Kg) and maintained 3 to 4 feet farther in depth.

2.0 SPILL DELINEATION

On October 13, 2017, LAI personnel used direct-push technology (DPT) to collect soil samples at ten (10) locations (S-1 through S-4, S-6 and S-8 through S-12). Samples were not collected at location S-5 and S-7 located east of the release due to interference from lay-flat hoses spread across the area. DPT uses hydraulics to push or percussion hammer and stainless steel core barrel approximately 4 feet in length into the subsurface. The core barrel retrieves a soil core approximately 1.7 inches in diameter and about 4 feet in length depending on recovery. The core barrel is equipped with dedicated polyethylene liners to minimize possible cross contamination between samples. Soil samples were collected to a maximum depth of about 16 feet bgs at location S-6 located near the east end of the release. On January 16, 2018, Harrison Cooper, Inc. (HCI), Lubbock, Texas, used an air rotary rig to collect soil samples every 5 feet (10, 15 and 20) feet bgs for vertical delineation of chloride at location S-2 and beginning at ground surface and every 5 feet thereafter to 20 feet bgs at location S-5 to complete spill delineation The borings were plugged with bentonite and locations were recorded with a Trimble® global position system (GPS) receiver. Figure 3 presents the soil sample locations.

The soil samples were collected in glass containers. Soil samples collected on October 13, 2018 were analyzed by Xenco Laboratories. Soil samples collected on January 16, 2018 were analyzed by Permian Basin Environmental Lab. Both laboratories are located in Midland, Texas. The laboratories analyzed the upper sample (0 to 1 foot) from each location for BTEX and TPH, including gasoline range organics (GRO), diesel range organics (DRO) and oil range organics (ORO) by EPA SW-846 Methods 8021B and 8015 modified, respectively. All samples were analyzed for chloride by EPA Method 300. Table 1 presents the delineation sample laboratory analytical data summary. Figure 3 presents the soil sample locations. Attachment B presents the laboratory reports. Attachment C presents photographs.

Referring to Table 1, BTEX and TPH were below the analytical method reporting limit and RRAL in the upper sample (0 to 1 foot) at each location therefore no additional samples were analyzed for these parameters. Chloride was delineated vertically to 600 mg/Kg at all locations and maintained for 3 – 4 feet farther in depth. Chloride was reported above 600 mg/Kg in the following soil samples:

S-1, 0’ to 1’ (5,940 mg/Kg)
S-1, 1’ to 2’ (5,440 mg/Kg)
S-2, 4’ to 5’ (2,030 mg/Kg)
S-2, 5’ to 6’ (5,060 mg/Kg)
S-2, 6’ to 7’ (1,240 mg/Kg
S-2, 10’ (1,420 mg/Kg)
S-3, 0’ to 1’ (3,280 mg/Kg)
S-5, 0’ (773 mg/Kg)
S-6, 0’ to 1’ (1,390 mg/Kg)
S-6, 2’ to 3’ (2,320 mg/Kg)
S-11, 2’ to 3’ (4,410mg/Kg)
S-11, 3’ to 4’ (10,200 mg/Kg)
S-11, 4’ to 5’ (2,890 mg/Kg)

3.0 REMEDIATION PLAN

Per approval from OCD, Chevron will excavate soil in the area presented of S-1 (2 feet), S-2 (4 feet), S-3 (1 foot), S-6 (3 foot) and S-11 (4 feet). Remaining areas will be left as-is, for future site closure activities. The anticipated soil volume is approximately 1,165 cubic yards from the following locations:

S-1 – 125 cubic yards
S-2 – 655 cubic yards
S-3 – 25 cubic yards
S-6 – 125 cubic yards
S-11 – 235 cubic yards

A 20-mil thickness polyethylene liner will be placed in the bottom of the excavation at S-2. All excavations will be backfilled with clean soil and proper working surface. Figure 3 presents the proposed remediation areas.

Tables

Table 1
1RP-4818
Delineation Soil Sample Analytical Data Summary
Chevron North America Exploration and Production Co., Salado Draw RWCS 1RC-11
UL A, Section 23, Township 26 South, Range 32 East
Lea County, New Mexico

Sample	Depth (Feet)	Collection Date	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
RRAL:			**10**	**50**				**5,000**	***600**
S-1	0 - 1	10/13/2017	<0.00196	<0.01176	<15.0	<15.0	<15.0	<15.0	5,940
	1 - 2	10/13/2017	--	--	--	--	--	--	5,440
	2 - 3	10/13/2017	--	--	--	--	--	--	140
	3 - 4	10/13/2017	--	--	--	--	--	--	32.9
	4 -5	10/13/2017	--	--	--	--	--	--	448
	5 - 6	10/13/2017	--	--	--	--	--	--	26.0
	6 - 7	10/13/2017	--	--	--	--	--	--	33.7
	7 - 8	10/13/2017	--	--	--	--	--	--	27.3
S-2	0 - 1	10/13/2017	<0.00198	<0.01189	<15.0	<15.0	<15.0	<15.0	41.1
	1 - 2	10/13/2017	--	--	--	--	--	--	109
	2 - 3	10/13/2017	--	--	--	--	--	--	474
	3 - 4	10/13/2017	--	--	--	--	--	--	673
	4 -5	10/13/2017	--	--	--	--	--	--	**2,030**
	5 - 6	10/13/2017	--	--	--	--	--	--	**5,060**
	6 - 7	10/13/2017	--	--	--	--	--	--	**1,240**
	10	1/16/2018	--	--	--	--	--	--	**1,420**
	15	1/16/2018	--	--	--	--	--	--	**44.2**
	20	1/16/2018	--	--	--	--	--	--	**56.3**
S-3	0 - 1	10/13/2017	<0.00196	<0.01177	<15.0	<15.0	<15.0	<15.0	3,280
	1 - 2	10/13/2017	--	--	--	--	--	--	339
	2 - 3	10/13/2017	--	--	--	--	--	--	96.0
	3 - 4	10/13/2017	--	--	--	--	--	--	89.5
	4 -5	10/13/2017	--	--	--	--	--	--	571
	5 - 6	10/13/2017	--	--	--	--	--	--	45.9

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Sample	Depth (Feet)	Collection Date	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
RRAL:			**10**	**50**				**5,000**	***600**
	6 - 7	10/13/2017	--	--	--	--	--	--	26.0
	7 - 8	10/13/2017	--	--	--	--	--	--	6.19
	8 - 9	10/13/2017	--	--	--	--	--	--	179
	9 - 10	10/13/2017	--	--	--	--	--	--	5.3
	10 - 11	10/13/2017	--	--	--	--	--	--	7.05
S-4	0 - 1	10/13/2017	<0.00197	<0.01182	<15.0	<15.0	<15.0	<15.0	216
	1 - 2	10/13/2017	--	--	--	--	--	--	51.4
	2 - 3	10/13/2017	--	--	--	--	--	--	44.0
	3 - 4	10/13/2017	--	--	--	--	--	--	16.3
	4 -5	10/13/2017	--	--	--	--	--	--	28.9
	5 - 6	10/13/2017	--	--	--	--	--	--	19.5
	6 - 7	10/13/2017	--	--	--	--	--	--	7.01
	7 - 8	10/13/2017	--	--	--	--	--	--	<4.97
S-5	0	10/13/2017	P	P	P	P	P	P	773
	5	10/13/2017	--	--	--	--	--	--	74.9
	10	10/13/2017	--	--	--	--	--	--	28.5
	15	10/13/2017	--	--	--	--	--	--	33.3
	20	10/13/2017	--	--	--	--	--	--	14.3
S-6	0 - 1	10/18/2017	<0.00200	<0.0120	<15.0	<15.0	<15.0	<15.0	1,390
	1 - 2	10/18/2017	--	--	--	--	--	--	974
	2 - 3	10/18/2017	--	--	--	--	--	--	2,320
	3 - 4	10/18/2017	--	--	--	--	--	--	269
	4 -5	10/18/2017	--	--	--	--	--	--	22.5

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Delineation Soil Sample Analytical Data Summary
Chevron North America Exploration and Production Co., Salado Draw RWCS 1RC-11
UL A, Section 23, Township 26 South, Range 32 East
Lea County, New Mexico
N32.033156° W-103.639194°

Sample	Depth (Feet)	Collection Date	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
RRAL:			**10**	**50**				**5,000**	***600**
	5 - 6	10/18/2017	--	--	--	--	--	--	49.4
	6 - 7	10/18/2017	--	--	--	--	--	--	38.4
	7 - 8	10/18/2017	--	--	--	--	--	--	20.9
	8 - 9	10/18/2017	--	--	--	--	--	--	27.3
	9 - 10	10/18/2017	--	--	--	--	--	--	16.2
	10 - 11	10/18/2017	--	--	--	--	--	--	<5.00
	11 - 12	10/18/2017	--	--	--	--	--	--	<4.96
	12 - 13	10/18/2017	--	--	--	--	--	--	103
	13 - 14	10/18/2017	--	--	--	--	--	--	169
	14 - 15	10/18/2017	--	--	--	--	--	--	127
SB-8	0 - 1	10/12/2017	<0.002	<0.01199	<15.0	<15.0	<15.0	<15.0	220
	1 - 2	10/12/2017	--	--	--	--	--	--	3,150
	2 - 3	10/12/2017	--	--	--	--	--	--	533
	3 - 4	10/18/2017	--	--	--	--	--	--	576
	4 - 5	10/18/2017	--	--	--	--	--	--	1,840
	5 - 6	10/18/2017	--	--	--	--	--	--	22.0
	6 - 7	10/18/2017	--	--	--	--	--	--	6.73
SB-9	0 - 1	10/13/2017	<0.002	<0.012	<15.0	<15.0	<15.0	<15.0	37.6
	1 - 2	10/13/2017	--	--	--	--	--	--	23.6
	2 - 3	10/13/2017	--	--	--	--	--	--	30.8
	3 - 4	10/13/2017	--	--	--	--	--	--	24.7
S-10	0 - 1	10/12/2017	<0.00195	<0.01169	<15.0	<15.0	<15.0	<15.0	40.2

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Chevron North America Exploration and Production Co., Salado Draw RWCS 1RC-11
UL A, Section 23, Township 26 South, Range 32 East
Lea County, New Mexico
N32.033156° W-103.639194°

Sample	Depth (Feet)	Collection Date	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
RRAL:			**10**	**50**				**5,000**	***600**
	1 - 2	10/12/2017	--	--	--	--	--	--	28.6
	2 - 3	10/12/2017	--	--	--	--	--	--	16.6
	3 - 4	10/12/2017	--	--	--	--	--	--	<4.97
	4 -5	10/12/2017	--	--	--	--	--	--	5.73
	5 - 6	10/12/2017	--	--	--	--	--	--	<4.92
S-11	0 - 1	10/12/2017	<0.00197	<0.01182	<15.0	<15.0	<15.0	<15.0	13.3
	1 - 2	10/12/2017	--	--	--	--	--	--	61.8
	2 - 3	10/12/2017	--	--	--	--	--	--	4,410
	3 - 4	10/12/2017	--	--	--	--	--	--	10,200
	4 -5	10/12/2017	--	--	--	--	--	--	2,890
	5 - 6	10/12/2017	--	--	--	--	--	--	210
	6 - 7	10/12/2017	--	--	--	--	--	--	12.9
	7 - 8	10/12/2017	--	--	--	--	--	--	9.37
	8 - 9	10/12/2017	--	--	--	--	--	--	<4.92
	9 - 10	10/12/2017	--	--	--	--	--	--	26.7
	10 - 11	10/12/2017	--	--	--	--	--	--	95.9
S-12	0 - 1	10/12/2017	<0.002	<0.01199	<15.0	<15.0	<15.0	<15.0	13.3
	1 - 2	10/12/2017	--	--	--	--	--	--	16.9
	2 - 3	10/12/2017	--	--	--	--	--	--	14.4
	3 - 4	10/12/2017	--	--	--	--	--	--	8.10
	4 - 5	10/12/2017	--	--	--	--	--	--	69.1
	5 - 6	10/12/2017	--	--	--	--	--	--	26.8

Table 1

1RP-4818

Delineation Soil Sample Analytical Data Summary

Chevron North America Exploration and Production Co., Salado Draw RWCS 1RC-11

UL A, Section 23, Township 26 South, Range 32 East

Lea County, New Mexico

N32.033156° W-103.639194°

Sample	Depth (Feet)	Collection Date	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
RRAL:			**10**	**50**				**5,000**	***600**

Notes: Analysis performed by Xenco Laboratories, Lubbock, Texas by EPA SW-846 Methods 8021B (BTEX), 8015M (TPH) and 300 (chloride).

*: OCD delineation limit plus 3 - 4 feet further in depth

Depth in feet below ground surface (bgs)

mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

Figures

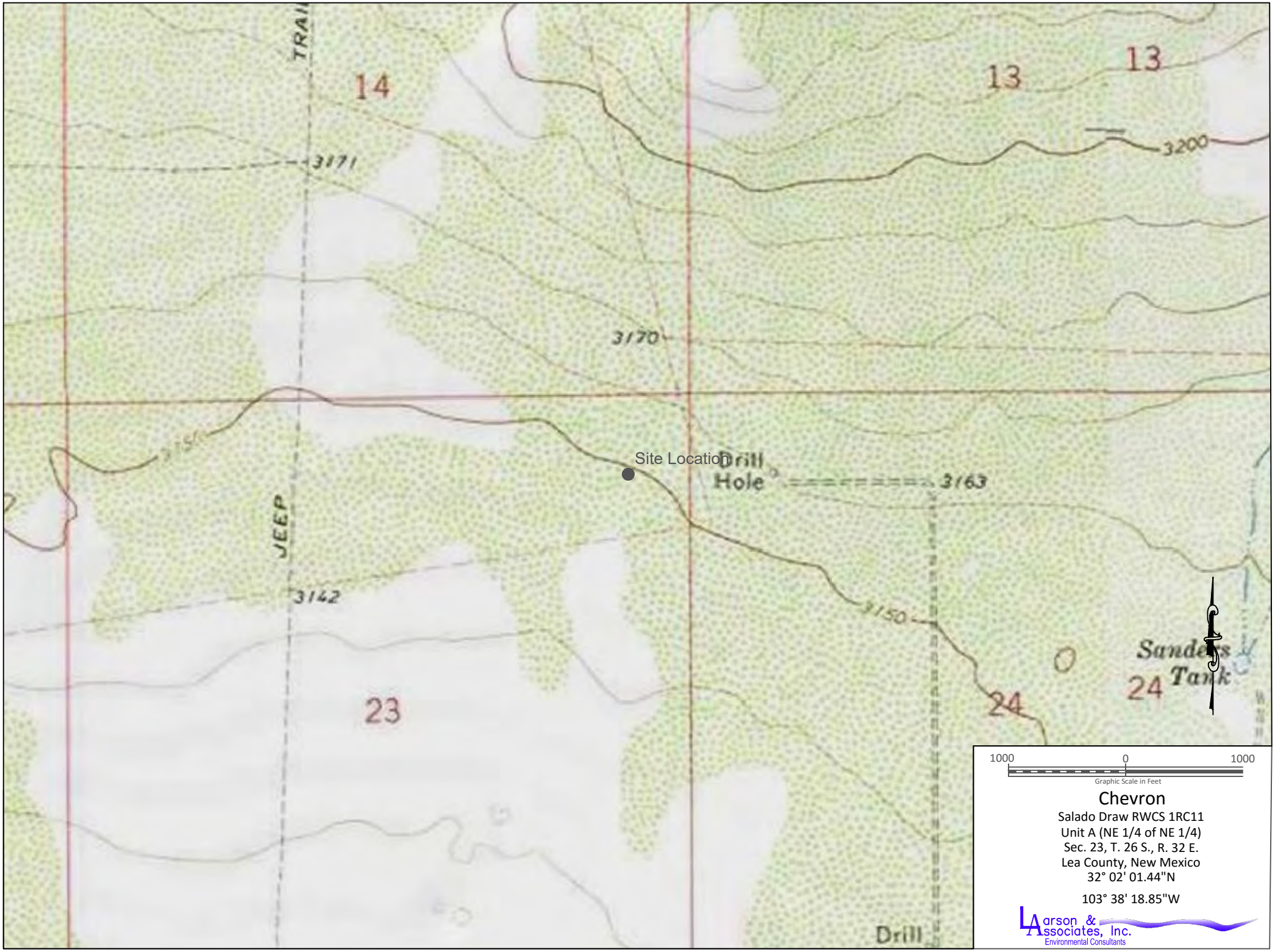

Figure 1 - Topographic Map

Figure 2 - Aerial Map

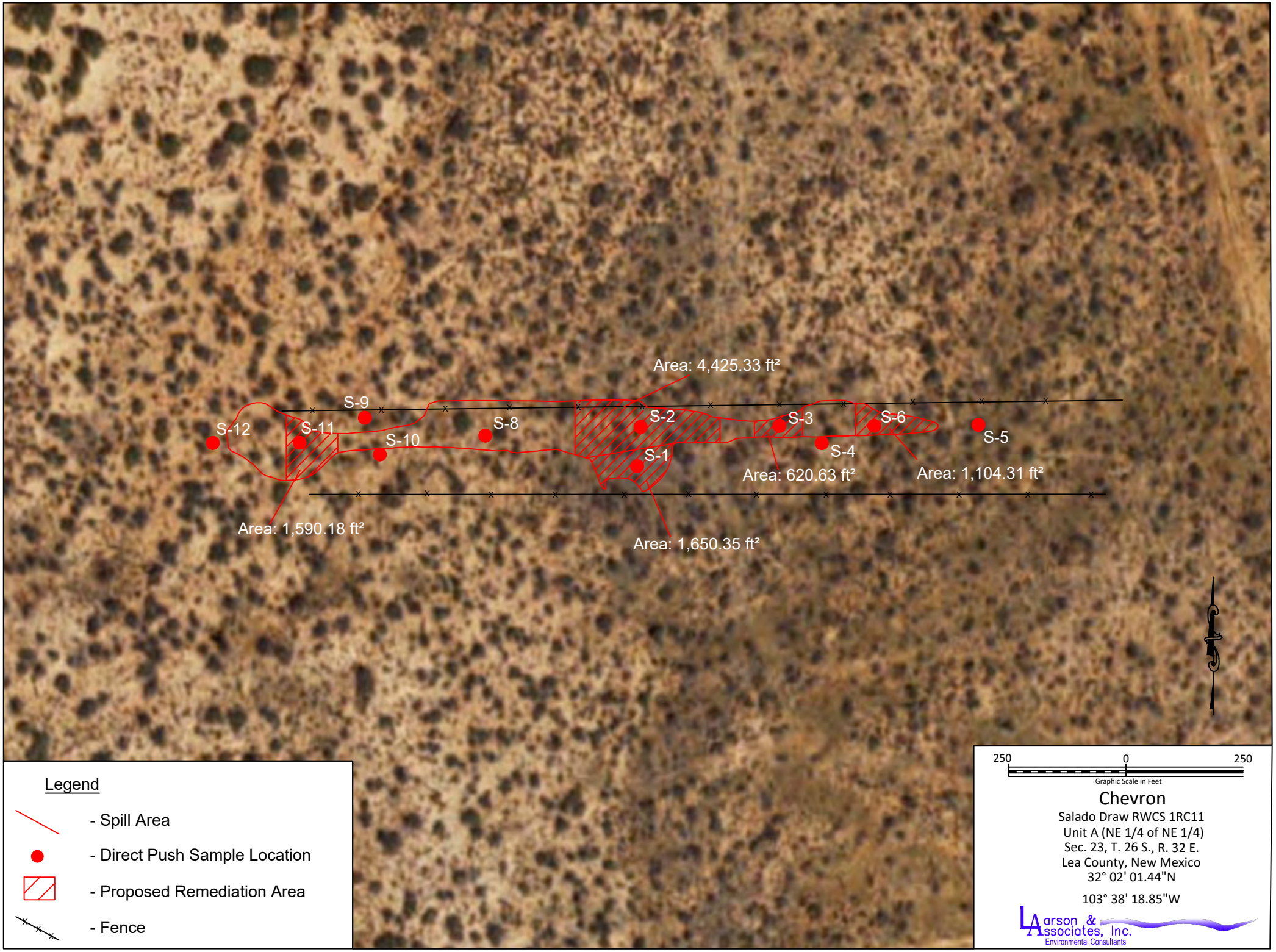

Figure 3 - Aerial Map Showing Soil Sample Locations and Proposed Remediation Area

Appendix A

Initial C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Chevron USA Inc.	Contact Josepha DeLeon
Address 631 Deauville Blvd., Midland TX 79706	Telephone No. 575-263-0424 Cell – 432-425-1528
Facility Name Salado Draw Water Recycling	Facility: Water Recycling North / South

Surface Owner	Mineral Owner	API No's. N/A
Federal	Federal	1RC-11

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	23	26S	32E					Lea

Recycling Facility: Latitude - 32.03634 N Longitude -103.636212 W
Recycling Containment: Latitude - 32.033156 N Longitude -103.639194 W

NATURE OF RELEASE

Type of Release Spill	Volume of Release: 1,105 barrels treated produced water	Volume Recovered: 500 barrels treated produced water
Source of Release: Recirculation System Hose	Date and Hour of Occurrence: 09/13/2017; 02:54 AM	Date and Hour of Discovery 09/13/2017; 10:20 AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Maxey Brown – NMOCD, Olivia Yu – NMOCD Jim Amos – BLM, Shelly Tucker - BLM	
By Whom? Josepha DeLeon	Date and Hour: 09/13/2017; 09:37 PM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

RECEIVED
By Olivia Yu at 8:46 am, Sep 22, 2017

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*

Leak in recirculation system hose caused a spill of 1,105 barrels of treated produced water. A total of 500 barrels were recovered by vacuum truck.

Isolated source of flow and 500 barrels were captured by vacuum truck and hauled.

Describe Area Affected and Cleanup Action Taken.*

Samples of the spilled treated produced water have been collected and sent to analytical lab for analysis. Remediation plan will be submitted to NMOCD and BLM for approval.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: JdeLeon

Printed Name: Josepha DeLeon

Title: HES Compliance Support - Environmental

E-mail Address: jdxd@chevron.com

Date: 09/18/2017 Phone: 575-263-0424

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 9/22/2017 Expiration Date:

Conditions of Approval:
see attached directive

Attached ☑

* Attach Additional Sheets If Necessary

fTO1706148730 1RC-11 1RP-4818 nOY1726532992 pOY1726533422

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _9/19/2017_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-4818__ has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs____ on or before _10/22/2017_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

● Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

● Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

● Nominal detection limits for field and laboratory analyses must be provided.

● Composite sampling is not generally allowed.

● Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

●Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

● If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

● Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

Appendix B

Laboratory Reports

Certificate of Analysis Summary 565814

Larson & Associates, Midland, TX

Project Name: Chevron Salado Draw

Project Id:
Contact: Mark Larson
Project Location: Chevron Salado Draw

Date Received in Lab: Wed Oct-18-17 09:00 am
Report Date: 20-OCT-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	565814-001		565814-002		565814-003		565814-004		565814-005		565814-006	
	Field Id:	S-9 0-1		S-9 1-2		S-9 2-3		S-9 3-4		S-1 0-1		S-1 1-2	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-13-17 11:15		Oct-13-17 11:17		Oct-13-17 11:22		Oct-13-17 11:25		Oct-13-17 11:34		Oct-13-17 11:38	
BTEX by EPA 8021B	***Extracted:***	Oct-18-17 12:00								Oct-18-17 12:00			
	Analyzed:	Oct-18-17 19:50								Oct-18-17 20:09			
	Units/RL:	mg/kg	RL							mg/kg	RL		
Benzene		<0.00200	0.00200							<0.00196	0.00196		
Toluene		<0.00200	0.00200							<0.00196	0.00196		
Ethylbenzene		<0.00200	0.00200							<0.00196	0.00196		
m,p-Xylenes		<0.00400	0.00400							<0.00392	0.00392		
o-Xylene		<0.00200	0.00200							<0.00196	0.00196		
Total Xylenes		<0.00200	0.00200							<0.00196	0.00196		
Total BTEX		<0.00200	0.00200							<0.00196	0.00196		
Chloride by EPA 300	***Extracted:***	Oct-18-17 13:20		Oct-18-17 13:20		Oct-18-17 13:20		Oct-18-17 13:20		Oct-18-17 13:20		Oct-18-17 13:20	
	Analyzed:	Oct-18-17 16:39		Oct-18-17 17:02		Oct-18-17 17:09		Oct-18-17 17:17		Oct-18-17 17:25		Oct-18-17 17:48	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		37.6	4.99	23.6	4.90	30.8	5.00	24.7	4.92	5940	49.1	5440	49.4
TPH By SW8015 Mod	***Extracted:***	Oct-18-17 11:00								Oct-18-17 11:00			
	Analyzed:	Oct-18-17 16:54								Oct-18-17 17:56			
	Units/RL:	mg/kg	RL							mg/kg	RL		
Gasoline Range Hydrocarbons		<15.0	15.0							<15.0	15.0		
Diesel Range Organics		<15.0	15.0							<15.0	15.0		
Oil Range Hydrocarbons		<15.0	15.0							<15.0	15.0		
Total TPH		<15.0	15.0							<15.0	15.0		

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 565814

Larson & Associates, Midland, TX

Project Name: Chevron Salado Draw

Project Id:
Contact: Mark Larson
Project Location: Chevron Salado Draw

Date Received in Lab: Wed Oct-18-17 09:00 am
Report Date: 20-OCT-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	565814-007		565814-008		565814-009		565814-010		565814-011		565814-012	
	Field Id:	S-1 2-3		S-1 3-4		S-1 4-5		S-1 5-6		S-1 6-7		S-1 7-8	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-13-17 11:41		Oct-13-17 11:44		Oct-13-17 11:49		Oct-13-17 11:52		Oct-13-17 11:55		Oct-13-17 12:00	
Chloride by EPA 300	***Extracted:***	Oct-18-17 13:20		Oct-18-17 13:20		Oct-18-17 13:20		Oct-18-17 13:20		Oct-18-17 13:20		Oct-18-17 13:20	
	Analyzed:	Oct-18-17 17:56		Oct-18-17 18:03		Oct-18-17 18:11		Oct-18-17 18:19		Oct-18-17 18:26		Oct-18-17 18:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		140	4.96	32.9	4.90	448	5.00	26.0	4.94	33.7	4.96	27.3	5.00

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 565814

Larson & Associates, Midland, TX

Project Name: Chevron Salado Draw

Project Id:
Contact: Mark Larson
Project Location: Chevron Salado Draw

Date Received in Lab: Wed Oct-18-17 09:00 am
Report Date: 20-OCT-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	565814-013		565814-014		565814-015		565814-016		565814-017		565814-018	
	Field Id:	S-3 0-1		S-3 1-2		S-3 2-3		S-3 3-4		S-3 4-5		S-3 5-6	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-13-17 12:40		Oct-13-17 12:42		Oct-13-17 12:44		Oct-13-17 12:46		Oct-13-17 12:56		Oct-13-17 12:57	
BTEX by EPA 8021B	***Extracted:***	Oct-18-17 12:00											
	Analyzed:	Oct-18-17 20:27											
	Units/RL:	mg/kg	RL										
Benzene		<0.00196	0.00196										
Toluene		<0.00196	0.00196										
Ethylbenzene		<0.00196	0.00196										
m,p-Xylenes		<0.00393	0.00393										
o-Xylene		<0.00196	0.00196										
Total Xylenes		<0.00196	0.00196										
Total BTEX		<0.00196	0.00196										
Chloride by EPA 300	***Extracted:***	Oct-18-17 13:20		Oct-18-17 13:20		Oct-18-17 13:20		Oct-18-17 13:20		Oct-18-17 13:20		Oct-18-17 13:20	
	Analyzed:	Oct-18-17 18:57		Oct-18-17 19:20		Oct-18-17 19:28		Oct-18-17 19:35		Oct-18-17 19:43		Oct-18-17 19:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		3280	25.0	339	4.99	96.0	4.99	89.5	4.97	571	4.97	45.9	4.90
TPH By SW8015 Mod	***Extracted:***	Oct-18-17 11:00											
	Analyzed:	Oct-18-17 18:16											
	Units/RL:	mg/kg	RL										
Gasoline Range Hydrocarbons		<15.0	15.0										
Diesel Range Organics		<15.0	15.0										
Oil Range Hydrocarbons		<15.0	15.0										
Total TPH		<15.0	15.0										

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 565814

Larson & Associates, Midland, TX

Project Name: Chevron Salado Draw

Project Id:

Contact: Mark Larson

Project Location: Chevron Salado Draw

Date Received in Lab: Wed Oct-18-17 09:00 am

Report Date: 20-OCT-17

Project Manager: Kelsey Brooks

Analysis Requested																			
	Lab Id:	565814-019		565814-020		565814-021		565814-022		565814-023		565814-024	
	Field Id:	S-3 6-7		S-3 7-8		S-3 8-9		S-3 9-10		S-3 10-11		S-4 0-1	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-13-17 12:59		Oct-13-17 13:10		Oct-13-17 13:13		Oct-13-17 13:13		Oct-13-17 13:15		Oct-13-17 13:24	
BTEX by EPA 8021B	***Extracted:***											Oct-18-17 12:00	
	Analyzed:											Oct-18-17 20:46	
	Units/RL:											mg/kg	RL
Benzene												<0.00197	0.00197
Toluene												<0.00197	0.00197
Ethylbenzene												<0.00197	0.00197
m,p-Xylenes												<0.00394	0.00394
o-Xylene												<0.00197	0.00197
Total Xylenes												<0.00197	0.00197
Total BTEX												<0.00197	0.00197
Chloride by EPA 300	***Extracted:***	Oct-18-17 13:20		Oct-18-17 13:20		Oct-18-17 17:30		Oct-18-17 17:30		Oct-18-17 17:30		Oct-18-17 17:30	
	Analyzed:	Oct-18-17 19:58		Oct-18-17 20:06		Oct-19-17 06:20		Oct-19-17 06:28		Oct-19-17 06:51		Oct-19-17 06:59	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		26.0	4.95	6.19	4.99	179	4.98	5.27	4.93	7.05	4.91	216	4.94
TPH By SW8015 Mod	***Extracted:***											Oct-18-17 11:00	
	Analyzed:											Oct-18-17 18:36	
	Units/RL:											mg/kg	RL
Gasoline Range Hydrocarbons												<15.0	15.0
Diesel Range Organics												<15.0	15.0
Oil Range Hydrocarbons												<15.0	15.0
Total TPH												<15.0	15.0

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 565814

Larson & Associates, Midland, TX

Project Name: Chevron Salado Draw

Project Id:
Contact: Mark Larson
Project Location: Chevron Salado Draw

Date Received in Lab: Wed Oct-18-17 09:00 am
Report Date: 20-OCT-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	565814-025		565814-026		565814-027		565814-028		565814-029		565814-030	
	Field Id:	S-4 1-2		S-4 2-3		S-4 3-4		S-4 4-5		S-4 5-6		S-4 6-7	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-13-17 13:26		Oct-13-17 13:28		Oct-13-17 13:30		Oct-13-17 13:34		Oct-13-17 13:36		Oct-13-17 13:38	
Chloride by EPA 300	***Extracted:***	Oct-18-17 17:30		Oct-18-17 17:30		Oct-18-17 17:30		Oct-18-17 17:30		Oct-18-17 17:30		Oct-19-17 12:10	
	Analyzed:	Oct-19-17 07:07		Oct-19-17 07:14		Oct-19-17 07:22		Oct-19-17 07:30		Oct-19-17 07:37		** ** ** **	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		51.4	4.90	44.0	4.96	16.3	4.94	28.9	4.93	19.5	4.95	7.01	4.95

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 565814

Larson & Associates, Midland, TX

Project Name: Chevron Salado Draw

Project Id:
Contact: Mark Larson
Project Location: Chevron Salado Draw

Date Received in Lab: Wed Oct-18-17 09:00 am
Report Date: 20-OCT-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	565814-031		565814-032		565814-033		565814-034		565814-035		565814-036	
	Field Id:	S-4 7-8		S-2 0-1		S-2 1-2		S-2 2-3		S-2 3-4		S-2 4-5	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-13-17 13:40		Oct-13-17 13:55		Oct-13-17 13:59		Oct-13-17 14:02		Oct-13-17 14:11		Oct-13-17 14:13	
BTEX by EPA 8021B	***Extracted:***			Oct-18-17 12:00									
	Analyzed:			Oct-18-17 21:05									
	Units/RL:			mg/kg	RL								
Benzene				<0.00198	0.00198								
Toluene				<0.00198	0.00198								
Ethylbenzene				<0.00198	0.00198								
m,p-Xylenes				<0.00397	0.00397								
o-Xylene				<0.00198	0.00198								
Total Xylenes				<0.00198	0.00198								
Total BTEX				<0.00198	0.00198								
Chloride by EPA 300	***Extracted:***	Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10	
	Analyzed:	** ** ** **		** ** ** **		Oct-19-17 12:10		Oct-19-17 12:17		Oct-19-17 12:40		Oct-19-17 12:48	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.97	4.97	41.1	4.95	109	4.96	474	4.97	673	4.97	2030	24.8
TPH By SW8015 Mod	***Extracted:***			Oct-18-17 11:00									
	Analyzed:			Oct-18-17 18:56									
	Units/RL:			mg/kg	RL								
Gasoline Range Hydrocarbons				<15.0	15.0								
Diesel Range Organics				<15.0	15.0								
Oil Range Hydrocarbons				<15.0	15.0								
Total TPH				<15.0	15.0								

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 565814

Larson & Associates, Midland, TX

Project Name: Chevron Salado Draw

Project Id:
Contact: Mark Larson
Project Location: Chevron Salado Draw

Date Received in Lab: Wed Oct-18-17 09:00 am
Report Date: 20-OCT-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	565814-037		565814-038		565814-039		565814-040		565814-041		565814-042	
	Field Id:	S-2 5-6		S-2 6-7		S-12 0-1		S-12 1-2		S-12 2-3		S-12 3-4	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-13-17 14:18		Oct-13-17 14:21		Oct-12-17 12:30		Oct-12-17 12:30		Oct-12-17 12:30		Oct-12-17 12:30	
BTEX by EPA 8021B	***Extracted:***					Oct-18-17 12:00							
	Analyzed:					Oct-18-17 21:24							
	Units/RL:					mg/kg	RL						
Benzene						<0.00200	0.00200						
Toluene						<0.00200	0.00200						
Ethylbenzene						<0.00200	0.00200						
m,p-Xylenes						<0.00399	0.00399						
o-Xylene						<0.00200	0.00200						
Total Xylenes						<0.00200	0.00200						
Total BTEX						<0.00200	0.00200						
Chloride by EPA 300	***Extracted:***	Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10	
	Analyzed:	Oct-19-17 12:56		Oct-19-17 13:04		Oct-19-17 13:11		Oct-19-17 13:19		Oct-19-17 13:42		Oct-19-17 13:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		5060	49.4	1240	24.8	13.3	4.97	16.9	4.97	14.4	4.96	8.10	4.95
TPH By SW8015 Mod	***Extracted:***					Oct-18-17 11:00							
	Analyzed:					Oct-18-17 19:17							
	Units/RL:					mg/kg	RL						
Gasoline Range Hydrocarbons						<15.0	15.0						
Diesel Range Organics						<15.0	15.0						
Oil Range Hydrocarbons						<15.0	15.0						
Total TPH						<15.0	15.0						

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 565814

Larson & Associates, Midland, TX

Project Name: Chevron Salado Draw

Project Id:
Contact: Mark Larson
Project Location: Chevron Salado Draw

Date Received in Lab: Wed Oct-18-17 09:00 am
Report Date: 20-OCT-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	565814-043		565814-044		565814-045		565814-046		565814-047		565814-048	
	Field Id:	S-12 4-5		S-12 5-6		S-11 0-1		S-11 1-2		S-11 2-3		S-11 3-4	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-12-17 12:30		Oct-12-17 12:30		Oct-12-17 13:00		Oct-12-17 13:00		Oct-12-17 13:00		Oct-12-17 13:00	
BTEX by EPA 8021B	***Extracted:***					Oct-18-17 12:00							
	Analyzed:					Oct-18-17 21:43							
	Units/RL:					mg/kg	RL						
Benzene						<0.00197	0.00197						
Toluene						<0.00197	0.00197						
Ethylbenzene						<0.00197	0.00197						
m,p-Xylenes						<0.00394	0.00394						
o-Xylene						<0.00197	0.00197						
Total Xylenes						<0.00197	0.00197						
Total BTEX						<0.00197	0.00197						
Chloride by EPA 300	***Extracted:***	Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10	
	Analyzed:	Oct-19-17 14:13		Oct-19-17 14:20		Oct-19-17 14:28		Oct-19-17 14:36		Oct-19-17 14:43		Oct-19-17 14:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		69.1	4.97	26.8	4.96	13.3	4.94	61.8	4.96	4410	49.3	10200	98.6
TPH By SW8015 Mod	***Extracted:***					Oct-18-17 11:00							
	Analyzed:					Oct-18-17 19:37							
	Units/RL:					mg/kg	RL						
Gasoline Range Hydrocarbons						<15.0	15.0						
Diesel Range Organics						<15.0	15.0						
Oil Range Hydrocarbons						<15.0	15.0						
Total TPH						<15.0	15.0						

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 565814

Larson & Associates, Midland, TX

Project Name: Chevron Salado Draw

Project Id:
Contact: Mark Larson
Project Location: Chevron Salado Draw

Date Received in Lab: Wed Oct-18-17 09:00 am
Report Date: 20-OCT-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	565814-049		565814-050		565814-051		565814-052		565814-053		565814-054	
	Field Id:	S-11 4-5		S-11 5-6		S-11 6-7		S-11 7-8		S-11 8-9		S-11 9-10	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-12-17 13:00		Oct-12-17 13:00		Oct-12-17 13:00		Oct-12-17 13:00		Oct-12-17 13:00		Oct-12-17 13:00	
Chloride by EPA 300	***Extracted:***	Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10	
	Analyzed:	Oct-19-17 14:59		Oct-19-17 15:45		Oct-19-17 16:08		Oct-19-17 16:15		Oct-19-17 16:23		Oct-19-17 16:31	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2890	25.0	210	4.99	12.9	5.00	9.37	4.93	<4.92	4.92	26.7	4.97

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 565814

Larson & Associates, Midland, TX

Project Name: Chevron Salado Draw

Project Id:
Contact: Mark Larson
Project Location: Chevron Salado Draw

Date Received in Lab: Wed Oct-18-17 09:00 am
Report Date: 20-OCT-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	565814-055		565814-056		565814-057		565814-058		565814-059		565814-060	
	Field Id:	S-11 10-11		S-10 0-1		S-10 1-2		S-10 2-3		S-10 3-4		S-10 4-5	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-12-17 13:00		Oct-12-17 14:00		Oct-12-17 14:00		Oct-12-17 14:00		Oct-12-17 14:00		Oct-12-17 14:00	
BTEX by EPA 8021B	***Extracted:***			Oct-18-17 12:00									
	Analyzed:			Oct-18-17 22:01									
	Units/RL:			mg/kg	RL								
Benzene				<0.00195	0.00195								
Toluene				<0.00195	0.00195								
Ethylbenzene				<0.00195	0.00195								
m,p-Xylenes				<0.00389	0.00389								
o-Xylene				<0.00195	0.00195								
Total Xylenes				<0.00195	0.00195								
Total BTEX				<0.00195	0.00195								
Chloride by EPA 300	***Extracted:***	Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10		Oct-19-17 12:10	
	Analyzed:	Oct-19-17 16:54		Oct-19-17 17:02		Oct-19-17 17:09		Oct-19-17 17:17		Oct-19-17 17:25		Oct-19-17 17:32	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		95.9	4.99	40.2	4.92	28.6	4.95	16.6	4.94	<4.97	4.97	5.73	4.92
TPH By SW8015 Mod	***Extracted:***			Oct-18-17 11:00									
	Analyzed:			Oct-18-17 19:57									
	Units/RL:			mg/kg	RL								
Gasoline Range Hydrocarbons				<15.0	15.0								
Diesel Range Organics				<15.0	15.0								
Oil Range Hydrocarbons				<15.0	15.0								
Total TPH				<15.0	15.0								

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 565814

Larson & Associates, Midland, TX

Project Name: Chevron Salado Draw

Project Id:
Contact: Mark Larson
Project Location: Chevron Salado Draw

Date Received in Lab: Wed Oct-18-17 09:00 am
Report Date: 20-OCT-17
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	565814-061	565814-062	565814-063	565814-064		
	Field Id:	S-10 5-6	S-8 0-1	S-8 1-2	S-8 2-3		
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	Oct-12-17 14:00	Oct-12-17 15:10	Oct-12-17 15:10	Oct-12-17 15:10		
BTEX by EPA 8021B	***Extracted:***		Oct-18-17 12:00				
	Analyzed:		Oct-18-17 22:20				
	Units/RL:		mg/kg RL				
Benzene			<0.00200 0.00200				
Toluene			<0.00200 0.00200				
Ethylbenzene			<0.00200 0.00200				
m,p-Xylenes			<0.00399 0.00399				
o-Xylene			<0.00200 0.00200				
Total Xylenes			<0.00200 0.00200				
Total BTEX			<0.00200 0.00200				
Chloride by EPA 300	***Extracted:***	Oct-19-17 12:10	Oct-19-17 12:10	Oct-19-17 12:10	Oct-19-17 12:10		
	Analyzed:	Oct-19-17 17:55	Oct-19-17 18:03	Oct-19-17 18:26	Oct-19-17 18:34		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		<4.92 4.92	220 4.91	3150 24.9	533 4.94		
TPH By SW8015 Mod	***Extracted:***		Oct-18-17 11:00				
	Analyzed:		Oct-18-17 20:18				
	Units/RL:		mg/kg RL				
Gasoline Range Hydrocarbons			<15.0 15.0				
Diesel Range Organics			<15.0 15.0				
Oil Range Hydrocarbons			<15.0 15.0				
Total TPH			<15.0 15.0				

Kelsey Brooks
Project Manager

Analytical Report 565814

for

Larson & Associates

Project Manager: Mark Larson

Chevron Salado Draw

20-OCT-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

20-OCT-17

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

Reference: XENCO Report No(s): **565814**
Chevron Salado Draw
Project Address: Chevron Salado Draw

Mark Larson:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 565814. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 565814 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-9 0-1	S	10-13-17 11:15		565814-001
S-9 1-2	S	10-13-17 11:17		565814-002
S-9 2-3	S	10-13-17 11:22		565814-003
S-9 3-4	S	10-13-17 11:25		565814-004
S-1 0-1	S	10-13-17 11:34		565814-005
S-1 1-2	S	10-13-17 11:38		565814-006
S-1 2-3	S	10-13-17 11:41		565814-007
S-1 3-4	S	10-13-17 11:44		565814-008
S-1 4-5	S	10-13-17 11:49		565814-009
S-1 5-6	S	10-13-17 11:52		565814-010
S-1 6-7	S	10-13-17 11:55		565814-011
S-1 7-8	S	10-13-17 12:00		565814-012
S-3 0-1	S	10-13-17 12:40		565814-013
S-3 1-2	S	10-13-17 12:42		565814-014
S-3 2-3	S	10-13-17 12:44		565814-015
S-3 3-4	S	10-13-17 12:46		565814-016
S-3 4-5	S	10-13-17 12:56		565814-017
S-3 5-6	S	10-13-17 12:57		565814-018
S-3 6-7	S	10-13-17 12:59		565814-019
S-3 7-8	S	10-13-17 13:10		565814-020
S-3 8-9	S	10-13-17 13:13		565814-021
S-3 9-10	S	10-13-17 13:13		565814-022
S-3 10-11	S	10-13-17 13:15		565814-023
S-4 0-1	S	10-13-17 13:24		565814-024
S-4 1-2	S	10-13-17 13:26		565814-025
S-4 2-3	S	10-13-17 13:28		565814-026
S-4 3-4	S	10-13-17 13:30		565814-027
S-4 4-5	S	10-13-17 13:34		565814-028
S-4 5-6	S	10-13-17 13:36		565814-029
S-4 6-7	S	10-13-17 13:38		565814-030
S-4 7-8	S	10-13-17 13:40		565814-031
S-2 0-1	S	10-13-17 13:55		565814-032
S-2 1-2	S	10-13-17 13:59		565814-033
S-2 2-3	S	10-13-17 14:02		565814-034
S-2 3-4	S	10-13-17 14:11		565814-035
S-2 4-5	S	10-13-17 14:13		565814-036
S-2 5-6	S	10-13-17 14:18		565814-037
S-2 6-7	S	10-13-17 14:21		565814-038
S-12 0-1	S	10-12-17 12:30		565814-039
S-12 1-2	S	10-12-17 12:30		565814-040
S-12 2-3	S	10-12-17 12:30		565814-041
S-12 3-4	S	10-12-17 12:30		565814-042
S-12 4-5	S	10-12-17 12:30		565814-043

S-12 5-6	S	10-12-17 12:30	565814-044
S-11 0-1	S	10-12-17 13:00	565814-045
S-11 1-2	S	10-12-17 13:00	565814-046
S-11 2-3	S	10-12-17 13:00	565814-047
S-11 3-4	S	10-12-17 13:00	565814-048
S-11 4-5	S	10-12-17 13:00	565814-049
S-11 5-6	S	10-12-17 13:00	565814-050
S-11 6-7	S	10-12-17 13:00	565814-051
S-11 7-8	S	10-12-17 13:00	565814-052
S-11 8-9	S	10-12-17 13:00	565814-053
S-11 9-10	S	10-12-17 13:00	565814-054
S-11 10-11	S	10-12-17 13:00	565814-055
S-10 0-1	S	10-12-17 14:00	565814-056
S-10 1-2	S	10-12-17 14:00	565814-057
S-10 2-3	S	10-12-17 14:00	565814-058
S-10 3-4	S	10-12-17 14:00	565814-059
S-10 4-5	S	10-12-17 14:00	565814-060
S-10 5-6	S	10-12-17 14:00	565814-061
S-8 0-1	S	10-12-17 15:10	565814-062
S-8 1-2	S	10-12-17 15:10	565814-063
S-8 2-3	S	10-12-17 15:10	565814-064

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3030943 BTEX by EPA 8021B

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

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-9 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-001	Date Collected:	10.13.17 11.15		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**37.6**	4.99	mg/kg	10.18.17 16.39		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.18.17 11.00	Basis:	Wet Weight
Seq Number:	3030818				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	10.18.17 16.54	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	10.18.17 16.54	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	10.18.17 16.54	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.18.17 16.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	10.18.17 16.54	
o-Terphenyl	84-15-1	100	%	70-135	10.18.17 16.54	

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-9 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-001	Date Collected:	10.13.17 11.15		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.18.17 12.00	Basis:	Wet Weight
Seq Number:	3030943				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.18.17 19.50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.18.17 19.50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.18.17 19.50	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.18.17 19.50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.18.17 19.50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.18.17 19.50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.18.17 19.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	80-120	10.18.17 19.50	
1,4-Difluorobenzene	540-36-3	93	%	80-120	10.18.17 19.50	

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-9 1-2**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-002	Date Collected:	10.13.17 11.17		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**23.6**	4.90	mg/kg	10.18.17 17.02		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-9 2-3**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-003	Date Collected:	10.13.17 11.22		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**30.8**	5.00	mg/kg	10.18.17 17.09		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-9 3-4**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-004	Date Collected:	10.13.17 11.25		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**24.7**	4.92	mg/kg	10.18.17 17.17		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-1 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-005	Date Collected:	10.13.17 11.34		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5940**	49.1	mg/kg	10.18.17 17.25		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.18.17 11.00	Basis:	Wet Weight
Seq Number:	3030818				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	10.18.17 17.56	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	10.18.17 17.56	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	10.18.17 17.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.18.17 17.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	10.18.17 17.56	
o-Terphenyl	84-15-1	101	%	70-135	10.18.17 17.56	

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-1 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-005	Date Collected:	10.13.17 11.34		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.18.17 12.00	Basis:	Wet Weight
Seq Number:	3030943				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00196	0.00196	mg/kg	10.18.17 20.09	U	1
Toluene	108-88-3	<0.00196	0.00196	mg/kg	10.18.17 20.09	U	1
Ethylbenzene	100-41-4	<0.00196	0.00196	mg/kg	10.18.17 20.09	U	1
m,p-Xylenes	179601-23-1	<0.00392	0.00392	mg/kg	10.18.17 20.09	U	1
o-Xylene	95-47-6	<0.00196	0.00196	mg/kg	10.18.17 20.09	U	1
Total Xylenes	1330-20-7	<0.00196	0.00196	mg/kg	10.18.17 20.09	U	1
Total BTEX		<0.00196	0.00196	mg/kg	10.18.17 20.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	80-120	10.18.17 20.09	
1,4-Difluorobenzene	540-36-3	94	%	80-120	10.18.17 20.09	

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-1 1-2**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-006	Date Collected:	10.13.17 11.38		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5440**	49.4	mg/kg	10.18.17 17.48		10

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-1 2-3**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-007	Date Collected:	10.13.17 11.41		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**140**	4.96	mg/kg	10.18.17 17.56		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-1 3-4**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-008	Date Collected:	10.13.17 11.44		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**32.9**	4.90	mg/kg	10.18.17 18.03		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-1 4-5**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-009	Date Collected:	10.13.17 11.49		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**448**	5.00	mg/kg	10.18.17 18.11		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-1 5-6**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-010	Date Collected:	10.13.17 11.52		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**26.0**	4.94	mg/kg	10.18.17 18.19		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-1 6-7**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-011	Date Collected:	10.13.17 11.55		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**33.7**	4.96	mg/kg	10.18.17 18.26		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-1 7-8**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-012	Date Collected:	10.13.17 12.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**27.3**	5.00	mg/kg	10.18.17 18.49		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-3 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-013	Date Collected:	10.13.17 12.40		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3280**	25.0	mg/kg	10.18.17 18.57		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.18.17 11.00	Basis:	Wet Weight
Seq Number:	3030818				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	10.18.17 18.16	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	10.18.17 18.16	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	10.18.17 18.16	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.18.17 18.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	10.18.17 18.16	
o-Terphenyl	84-15-1	86	%	70-135	10.18.17 18.16	

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-3 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-013	Date Collected:	10.13.17 12.40		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.18.17 12.00	Basis:	Wet Weight
Seq Number:	3030943				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00196	0.00196	mg/kg	10.18.17 20.27	U	1
Toluene	108-88-3	<0.00196	0.00196	mg/kg	10.18.17 20.27	U	1
Ethylbenzene	100-41-4	<0.00196	0.00196	mg/kg	10.18.17 20.27	U	1
m,p-Xylenes	179601-23-1	<0.00393	0.00393	mg/kg	10.18.17 20.27	U	1
o-Xylene	95-47-6	<0.00196	0.00196	mg/kg	10.18.17 20.27	U	1
Total Xylenes	1330-20-7	<0.00196	0.00196	mg/kg	10.18.17 20.27	U	1
Total BTEX		<0.00196	0.00196	mg/kg	10.18.17 20.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	80-120	10.18.17 20.27	
4-Bromofluorobenzene	460-00-4	96	%	80-120	10.18.17 20.27	

Certificate of Analytical Results 565814

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Chevron Salado Draw

Sample Id:	**S-3 1-2**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-014	Date Collected:	10.13.17 12.42		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**339**	4.99	mg/kg	10.18.17 19.20		1

Certificate of Analytical Results 565814

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Chevron Salado Draw

Sample Id:	**S-3 2-3**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-015	Date Collected:	10.13.17 12.44		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**96.0**	4.99	mg/kg	10.18.17 19.28		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-3 3-4**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-016	Date Collected:	10.13.17 12.46		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**89.5**	4.97	mg/kg	10.18.17 19.35		1

Certificate of Analytical Results 565814

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Chevron Salado Draw

Sample Id:	**S-3 4-5**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-017	Date Collected:	10.13.17 12.56		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**571**	4.97	mg/kg	10.18.17 19.43		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-3 5-6**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-018	Date Collected:	10.13.17 12.57		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**45.9**	4.90	mg/kg	10.18.17 19.51		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-3 6-7**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-019	Date Collected:	10.13.17 12.59		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**26.0**	4.95	mg/kg	10.18.17 19.58		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-3 7-8**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-020	Date Collected:	10.13.17 13.10		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 13.20	Basis:	Wet Weight
Seq Number:	3030886				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.19**	4.99	mg/kg	10.18.17 20.06		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-3 8-9**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-021	Date Collected:	10.13.17 13.13		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 17.30	Basis:	Wet Weight
Seq Number:	3030843				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**179**	4.98	mg/kg	10.19.17 06.20		1

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Chevron Salado Draw

Sample Id:	**S-3 9-10**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-022	Date Collected:	10.13.17 13.13		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 17.30	Basis:	Wet Weight
Seq Number:	3030843				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.27**	4.93	mg/kg	10.19.17 06.28		1

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Chevron Salado Draw

Sample Id:	**S-3 10-11**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-023	Date Collected:	10.13.17 13.15		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 17.30	Basis:	Wet Weight
Seq Number:	3030843				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.05**	4.91	mg/kg	10.19.17 06.51		1

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Chevron Salado Draw

Sample Id:	**S-4 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-024	Date Collected:	10.13.17 13.24		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 17.30	Basis:	Wet Weight
Seq Number:	3030843				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**216**	4.94	mg/kg	10.19.17 06.59		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.18.17 11.00	Basis:	Wet Weight
Seq Number:	3030818				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	10.18.17 18.36	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	10.18.17 18.36	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	10.18.17 18.36	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.18.17 18.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	10.18.17 18.36	
o-Terphenyl	84-15-1	104	%	70-135	10.18.17 18.36	

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Chevron Salado Draw

Sample Id:	**S-4 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-024	Date Collected:	10.13.17 13.24		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.18.17 12.00	Basis:	Wet Weight
Seq Number:	3030943				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00197	0.00197	mg/kg	10.18.17 20.46	U	1
Toluene	108-88-3	<0.00197	0.00197	mg/kg	10.18.17 20.46	U	1
Ethylbenzene	100-41-4	<0.00197	0.00197	mg/kg	10.18.17 20.46	U	1
m,p-Xylenes	179601-23-1	<0.00394	0.00394	mg/kg	10.18.17 20.46	U	1
o-Xylene	95-47-6	<0.00197	0.00197	mg/kg	10.18.17 20.46	U	1
Total Xylenes	1330-20-7	<0.00197	0.00197	mg/kg	10.18.17 20.46	U	1
Total BTEX		<0.00197	0.00197	mg/kg	10.18.17 20.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	80-120	10.18.17 20.46	
1,4-Difluorobenzene	540-36-3	93	%	80-120	10.18.17 20.46	

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Chevron Salado Draw

Sample Id:	**S-4 1-2**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-025	Date Collected:	10.13.17 13.26		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 17.30	Basis:	Wet Weight
Seq Number:	3030843				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**51.4**	4.90	mg/kg	10.19.17 07.07		1

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Chevron Salado Draw

Sample Id:	**S-4 2-3**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-026	Date Collected:	10.13.17 13.28		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 17.30	Basis:	Wet Weight
Seq Number:	3030843				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**44.0**	4.96	mg/kg	10.19.17 07.14		1

Certificate of Analytical Results 565814

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Chevron Salado Draw

Sample Id:	**S-4 3-4**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-027	Date Collected:	10.13.17 13.30		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 17.30	Basis:	Wet Weight
Seq Number:	3030843				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.3**	4.94	mg/kg	10.19.17 07.22		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-4 4-5**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-028	Date Collected:	10.13.17 13.34		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 17.30	Basis:	Wet Weight
Seq Number:	3030843				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**28.9**	4.93	mg/kg	10.19.17 07.30		1

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Chevron Salado Draw

Sample Id:	**S-4 5-6**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-029	Date Collected:	10.13.17 13.36		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.18.17 17.30	Basis:	Wet Weight
Seq Number:	3030843				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**19.5**	4.95	mg/kg	10.19.17 07.37		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-4 6-7**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-030	Date Collected:	10.13.17 13.38		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.01**	4.95	mg/kg	10.19.17 11.31		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-4 7-8**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-031	Date Collected:	10.13.17 13.40		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	10.19.17 11.54	U	1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-2 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-032	Date Collected:	10.13.17 13.55		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**41.1**	4.95	mg/kg	10.19.17 12.02		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.18.17 11.00	Basis:	Wet Weight
Seq Number:	3030818				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	10.18.17 18.56	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	10.18.17 18.56	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	10.18.17 18.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.18.17 18.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	10.18.17 18.56	
o-Terphenyl	84-15-1	104	%	70-135	10.18.17 18.56	

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Chevron Salado Draw

Sample Id:	**S-2 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-032	Date Collected:	10.13.17 13.55		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.18.17 12.00	Basis:	Wet Weight
Seq Number:	3030943				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.18.17 21.05	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.18.17 21.05	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.18.17 21.05	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	10.18.17 21.05	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.18.17 21.05	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.18.17 21.05	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.18.17 21.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	80-120	10.18.17 21.05	
4-Bromofluorobenzene	460-00-4	98	%	80-120	10.18.17 21.05	

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Chevron Salado Draw

Sample Id:	**S-2 1-2**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-033	Date Collected:	10.13.17 13.59		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**109**	4.96	mg/kg	10.19.17 12.10		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-2 2-3**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-034	Date Collected:	10.13.17 14.02		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**474**	4.97	mg/kg	10.19.17 12.17		1

Certificate of Analytical Results 565814

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Chevron Salado Draw

Sample Id:	**S-2 3-4**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-035	Date Collected:	10.13.17 14.11		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**673**	4.97	mg/kg	10.19.17 12.40		1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-2 4-5**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-036	Date Collected:	10.13.17 14.13		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2030**	24.8	mg/kg	10.19.17 12.48		5

Certificate of Analytical Results 565814

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Chevron Salado Draw

Sample Id:	**S-2 5-6**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-037	Date Collected:	10.13.17 14.18		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5060**	49.4	mg/kg	10.19.17 12.56		10

Certificate of Analytical Results 565814

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Chevron Salado Draw

Sample Id:	**S-2 6-7**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-038	Date Collected:	10.13.17 14.21		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1240**	24.8	mg/kg	10.19.17 13.04		5

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-12 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-039	Date Collected:	10.12.17 12.30		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13.3**	4.97	mg/kg	10.19.17 13.11		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.18.17 11.00	Basis:	Wet Weight
Seq Number:	3030818				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	10.18.17 19.17	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	10.18.17 19.17	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	10.18.17 19.17	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.18.17 19.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	10.18.17 19.17	
o-Terphenyl	84-15-1	97	%	70-135	10.18.17 19.17	

Certificate of Analytical Results 565814

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Chevron Salado Draw

Sample Id:	**S-12 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-039	Date Collected:	10.12.17 12.30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.18.17 12.00	Basis:	Wet Weight
Seq Number:	3030943				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.18.17 21.24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.18.17 21.24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.18.17 21.24	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.18.17 21.24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.18.17 21.24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.18.17 21.24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.18.17 21.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	80-120	10.18.17 21.24	
1,4-Difluorobenzene	540-36-3	94	%	80-120	10.18.17 21.24	

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Chevron Salado Draw

Sample Id:	**S-12 1-2**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-040	Date Collected:	10.12.17 12.30		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.9**	4.97	mg/kg	10.19.17 13.19		1

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Chevron Salado Draw

Sample Id:	**S-12 2-3**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-041	Date Collected:	10.12.17 12.30		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.4**	4.96	mg/kg	10.19.17 13.42		1

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Chevron Salado Draw

Sample Id:	**S-12 3-4**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-042	Date Collected:	10.12.17 12.30		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.10**	4.95	mg/kg	10.19.17 13.50		1

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Chevron Salado Draw

Sample Id:	**S-12 4-5**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-043	Date Collected:	10.12.17 12.30		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**69.1**	4.97	mg/kg	10.19.17 14.13		1

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Chevron Salado Draw

Sample Id:	**S-12 5-6**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-044	Date Collected:	10.12.17 12.30		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**26.8**	4.96	mg/kg	10.19.17 14.20		1

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Chevron Salado Draw

Sample Id:	**S-11 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-045	Date Collected:	10.12.17 13.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13.3**	4.94	mg/kg	10.19.17 14.28		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.18.17 11.00	Basis:	Wet Weight
Seq Number:	3030818				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	10.18.17 19.37	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	10.18.17 19.37	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	10.18.17 19.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.18.17 19.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	10.18.17 19.37	
o-Terphenyl	84-15-1	96	%	70-135	10.18.17 19.37	

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Chevron Salado Draw

Sample Id:	**S-11 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-045	Date Collected:	10.12.17 13.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.18.17 12.00	Basis:	Wet Weight
Seq Number:	3030943				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00197	0.00197	mg/kg	10.18.17 21.43	U	1
Toluene	108-88-3	<0.00197	0.00197	mg/kg	10.18.17 21.43	U	1
Ethylbenzene	100-41-4	<0.00197	0.00197	mg/kg	10.18.17 21.43	U	1
m,p-Xylenes	179601-23-1	<0.00394	0.00394	mg/kg	10.18.17 21.43	U	1
o-Xylene	95-47-6	<0.00197	0.00197	mg/kg	10.18.17 21.43	U	1
Total Xylenes	1330-20-7	<0.00197	0.00197	mg/kg	10.18.17 21.43	U	1
Total BTEX		<0.00197	0.00197	mg/kg	10.18.17 21.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	80-120	10.18.17 21.43	
1,4-Difluorobenzene	540-36-3	95	%	80-120	10.18.17 21.43	

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Chevron Salado Draw

Sample Id:	**S-11 1-2**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-046	Date Collected:	10.12.17 13.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**61.8**	4.96	mg/kg	10.19.17 14.36		1

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Chevron Salado Draw

Sample Id:	**S-11 2-3**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-047	Date Collected:	10.12.17 13.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4410**	49.3	mg/kg	10.19.17 14.43		10

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Chevron Salado Draw

Sample Id:	**S-11 3-4**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-048	Date Collected:	10.12.17 13.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10200**	98.6	mg/kg	10.19.17 14.51		20

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Chevron Salado Draw

Sample Id:	**S-11 4-5**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-049	Date Collected:	10.12.17 13.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030941				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2890**	25.0	mg/kg	10.19.17 14.59		5

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Chevron Salado Draw

Sample Id:	**S-11 5-6**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-050	Date Collected:	10.12.17 13.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030944				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**210**	4.99	mg/kg	10.19.17 15.45		1

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Chevron Salado Draw

Sample Id:	**S-11 6-7**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-051	Date Collected:	10.12.17 13.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030944				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.9**	5.00	mg/kg	10.19.17 16.08		1

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Chevron Salado Draw

Sample Id:	**S-11 7-8**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-052	Date Collected:	10.12.17 13.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030944				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.37**	4.93	mg/kg	10.19.17 16.15		1

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Chevron Salado Draw

Sample Id:	**S-11 8-9**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-053	Date Collected:	10.12.17 13.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030944				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.92	4.92	mg/kg	10.19.17 16.23	U	1

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Chevron Salado Draw

Sample Id:	**S-11 9-10**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-054	Date Collected:	10.12.17 13.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030944				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**26.7**	4.97	mg/kg	10.19.17 16.31		1

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Chevron Salado Draw

Sample Id:	**S-11 10-11**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-055	Date Collected:	10.12.17 13.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030944				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**95.9**	4.99	mg/kg	10.19.17 16.54		1

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Chevron Salado Draw

Sample Id:	**S-10 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-056	Date Collected:	10.12.17 14.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030944				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**40.2**	4.92	mg/kg	10.19.17 17.02		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.18.17 11.00	Basis:	Wet Weight
Seq Number:	3030818				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	10.18.17 19.57	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	10.18.17 19.57	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	10.18.17 19.57	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.18.17 19.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	10.18.17 19.57	
o-Terphenyl	84-15-1	98	%	70-135	10.18.17 19.57	

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Chevron Salado Draw

Sample Id:	**S-10 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-056	Date Collected:	10.12.17 14.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.18.17 12.00	Basis:	Wet Weight
Seq Number:	3030943				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00195	0.00195	mg/kg	10.18.17 22.01	U	1
Toluene	108-88-3	<0.00195	0.00195	mg/kg	10.18.17 22.01	U	1
Ethylbenzene	100-41-4	<0.00195	0.00195	mg/kg	10.18.17 22.01	U	1
m,p-Xylenes	179601-23-1	<0.00389	0.00389	mg/kg	10.18.17 22.01	U	1
o-Xylene	95-47-6	<0.00195	0.00195	mg/kg	10.18.17 22.01	U	1
Total Xylenes	1330-20-7	<0.00195	0.00195	mg/kg	10.18.17 22.01	U	1
Total BTEX		<0.00195	0.00195	mg/kg	10.18.17 22.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	80-120	10.18.17 22.01	
4-Bromofluorobenzene	460-00-4	97	%	80-120	10.18.17 22.01	

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Chevron Salado Draw

Sample Id:	**S-10 1-2**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-057	Date Collected:	10.12.17 14.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030944				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**28.6**	4.95	mg/kg	10.19.17 17.09		1

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Chevron Salado Draw

Sample Id:	**S-10 2-3**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-058	Date Collected:	10.12.17 14.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030944				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.6**	4.94	mg/kg	10.19.17 17.17		1

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Chevron Salado Draw

Sample Id:	**S-10 3-4**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-059	Date Collected:	10.12.17 14.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030944				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	10.19.17 17.25	U	1

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Chevron Salado Draw

Sample Id:	**S-10 4-5**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-060	Date Collected:	10.12.17 14.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030944				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.73**	4.92	mg/kg	10.19.17 17.32		1

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Chevron Salado Draw

Sample Id:	**S-10 5-6**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-061	Date Collected:	10.12.17 14.00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030944				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.92	4.92	mg/kg	10.19.17 17.55	U	1

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-8 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-062	Date Collected:	10.12.17 15.10		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030944				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**220**	4.91	mg/kg	10.19.17 18.03		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.18.17 11.00	Basis:	Wet Weight
Seq Number:	3030818				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	10.18.17 20.18	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	10.18.17 20.18	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	10.18.17 20.18	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.18.17 20.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	10.18.17 20.18	
o-Terphenyl	84-15-1	98	%	70-135	10.18.17 20.18	

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-8 0-1**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-062	Date Collected:	10.12.17 15.10		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	10.18.17 12.00	Basis:	Wet Weight
Seq Number:	3030943				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.18.17 22.20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.18.17 22.20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.18.17 22.20	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.18.17 22.20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.18.17 22.20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.18.17 22.20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.18.17 22.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	80-120	10.18.17 22.20	
4-Bromofluorobenzene	460-00-4	101	%	80-120	10.18.17 22.20	

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-8 1-2**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-063	Date Collected:	10.12.17 15.10		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030944				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3150**	24.9	mg/kg	10.19.17 18.26		5

Certificate of Analytical Results 565814

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-8 2-3**	Matrix:	Soil	Date Received:	10.18.17 09.00
Lab Sample Id:	565814-064	Date Collected:	10.12.17 15.10		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 12.10	Basis:	Wet Weight
Seq Number:	3030944				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**533**	4.94	mg/kg	10.19.17 18.34		1

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

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

	Phone	Fax
4147 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(602) 437-0330	

QC Summary 565814

Larson & Associates

Chevron Salado Draw

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3030886 Matrix: Solid Date Prep: 10.18.17
MB Sample Id: 7632813-1-BLK LCS Sample Id: 7632813-1-BKS LCSD Sample Id: 7632813-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	239	96	240	96	90-110	0	20	mg/kg	10.18.17 16:23	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3030843 Matrix: Solid Date Prep: 10.18.17
MB Sample Id: 7632828-1-BLK LCS Sample Id: 7632828-1-BKS LCSD Sample Id: 7632828-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	243	97	240	96	90-110	1	20	mg/kg	10.19.17 03:55	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3030941 Matrix: Solid Date Prep: 10.19.17
MB Sample Id: 7632899-1-BLK LCS Sample Id: 7632899-1-BKS LCSD Sample Id: 7632899-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	261	104	262	105	90-110	0	20	mg/kg	10.19.17 11:16	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3030944 Matrix: Solid Date Prep: 10.19.17
MB Sample Id: 7632901-1-BLK LCS Sample Id: 7632901-1-BKS LCSD Sample Id: 7632901-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	242	97	242	97	90-110	0	20	mg/kg	10.19.17 15:29	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3030886 Matrix: Soil Date Prep: 10.18.17
Parent Sample Id: 565814-001 MS Sample Id: 565814-001 S MSD Sample Id: 565814-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	37.6	250	283	98	284	99	90-110	0	20	mg/kg	10.18.17 16:46	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3030886 Matrix: Soil Date Prep: 10.18.17
Parent Sample Id: 565814-011 MS Sample Id: 565814-011 S MSD Sample Id: 565814-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	33.7	248	282	100	283	101	90-110	0	20	mg/kg	10.18.17 18:34	

QC Summary 565814

Larson & Associates

Chevron Salado Draw

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3030843 Matrix: Soil Date Prep: 10.18.17
Parent Sample Id: 565841-004 MS Sample Id: 565841-004 S MSD Sample Id: 565841-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.92	246	259	105	256	104	90-110	1	20	mg/kg	10.19.17 06:05	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3030843 Matrix: Soil Date Prep: 10.18.17
Parent Sample Id: 565870-021 MS Sample Id: 565870-021 S MSD Sample Id: 565870-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	559	247	768	85	770	85	90-110	0	20	mg/kg	10.19.17 04:18	X

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3030941 Matrix: Soil Date Prep: 10.19.17
Parent Sample Id: 565814-030 MS Sample Id: 565814-030 S MSD Sample Id: 565814-030 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7.01	248	264	104	263	103	90-110	0	20	mg/kg	10.19.17 11:39	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3030941 Matrix: Soil Date Prep: 10.19.17
Parent Sample Id: 565814-040 MS Sample Id: 565814-040 S MSD Sample Id: 565814-040 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	16.9	249	268	101	271	102	90-110	1	20	mg/kg	10.19.17 13:27	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3030944 Matrix: Soil Date Prep: 10.19.17
Parent Sample Id: 565814-050 MS Sample Id: 565814-050 S MSD Sample Id: 565814-050 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	210	250	442	93	444	94	90-110	0	20	mg/kg	10.19.17 15:52	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3030944 Matrix: Soil Date Prep: 10.19.17
Parent Sample Id: 565814-060 MS Sample Id: 565814-060 S MSD Sample Id: 565814-060 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5.73	246	253	101	251	100	90-110	1	20	mg/kg	10.19.17 17:40	

QC Summary 565814

Larson & Associates

Chevron Salado Draw

Analytical Method: **TPH By SW8015 Mod** Prep Method: TX1005P
Seq Number: 3030818 Matrix: Solid Date Prep: 10.18.17
MB Sample Id: 7632853-1-BLK LCS Sample Id: 7632853-1-BKS LCSD Sample Id: 7632853-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	1000	1020	102	1090	109	70-135	7	35	mg/kg	10.18.17 16:12	
Diesel Range Organics	<15.0	1000	1070	107	1140	114	70-135	6	35	mg/kg	10.18.17 16:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		108		106		70-135	%	10.18.17 16:12
o-Terphenyl	92		100		95		70-135	%	10.18.17 16:12

Analytical Method: **TPH By SW8015 Mod** Prep Method: TX1005P
Seq Number: 3030818 Matrix: Soil Date Prep: 10.18.17
Parent Sample Id: 565814-001 MS Sample Id: 565814-001 S MSD Sample Id: 565814-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	999	1090	109	1130	113	70-135	4	35	mg/kg	10.18.17 17:15	
Diesel Range Organics	<15.0	999	1160	116	1170	117	70-135	1	35	mg/kg	10.18.17 17:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		109		70-135	%	10.18.17 17:15
o-Terphenyl	103		106		70-135	%	10.18.17 17:15

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3030943 Matrix: Solid Date Prep: 10.18.17
MB Sample Id: 7632948-1-BLK LCS Sample Id: 7632948-1-BKS LCSD Sample Id: 7632948-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00197	0.0984	0.118	120	0.115	116	70-130	3	35	mg/kg	10.18.17 18:00	
Toluene	<0.00197	0.0984	0.109	111	0.108	109	70-130	1	35	mg/kg	10.18.17 18:00	
Ethylbenzene	<0.00197	0.0984	0.111	113	0.107	108	71-129	4	35	mg/kg	10.18.17 18:00	
m,p-Xylenes	<0.00394	0.197	0.221	112	0.213	108	70-135	4	35	mg/kg	10.18.17 18:00	
o-Xylene	<0.00197	0.0984	0.106	108	0.104	105	71-133	2	35	mg/kg	10.18.17 18:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	87		86		84		80-120	%	10.18.17 18:00
4-Bromofluorobenzene	92		86		91		80-120	%	10.18.17 18:00

QC Summary 565814

Larson & Associates

Chevron Salado Draw

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

Seq Number: 3030943 Matrix: Soil Date Prep: 10.18.17

Parent Sample Id: 565814-001 MS Sample Id: 565814-001 S MSD Sample Id: 565814-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.115	115	0.118	119	70-130	3	35	mg/kg	10.18.17 18:36	
Toluene	<0.00200	0.0998	0.108	108	0.113	114	70-130	5	35	mg/kg	10.18.17 18:36	
Ethylbenzene	<0.00200	0.0998	0.106	106	0.110	111	71-129	4	35	mg/kg	10.18.17 18:36	
m,p-Xylenes	<0.00399	0.200	0.210	105	0.218	110	70-135	4	35	mg/kg	10.18.17 18:36	
o-Xylene	<0.00200	0.0998	0.103	103	0.106	107	71-133	3	35	mg/kg	10.18.17 18:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		100		80-120	%	10.18.17 18:36
4-Bromofluorobenzene	107		110		80-120	%	10.18.17 18:36

XENCO 565814

CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 10/18/2017 PAGE 1 OF 5
PO #: LAB WORK ORDER #:
PROJECT LOCATION OR NAME: Chevron Salado Draw
LAI PROJECT #: 17-0186-01 COLLECTOR: ZLB

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 | UNPRESERVED

ANALYSES: BTEX ☑ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☑ | DIESEL - MOD 8015 ☑ GRO ☑ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☑ ANIONS ☐ ALKALINITY ☐ | 4300

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 NaOH	ICE	UNPRESERVED	BTEX	TRPH	GASOLINE	DIESEL	CHLORIDE	FIELD NOTES
S-9 0-1		10/13	11:15	S	1				✓		✓	✓	✓		✓	
1-2			11:17													
2-3			11:22													
3-4			11:25													
S-1 0-1			11:34								✓	✓	✓			
1-2			11:38													
2-3			11:41													
3-4			11:44													
4-5			11:49													
5-6			11:52													
6-7			11:55													
7-8			12:00													
S-3 0-1			12:40								✓	✓	✓			
1-2			12:42													
2-3			12:44													
TOTAL																

RELINQUISHED BY:(Signature) DATE/TIME 10/18/17 9:00 RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

Temp: -8.8 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: -8.6

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

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

Final 1.000
Page 95 of 100

XENCO 565814

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants

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

Data Reported to:

DATE: 10/18/17 PAGE 2 OF 5
PO #: LAB WORK ORDER #:
PROJECT LOCATION OR NAME: Chevron Salado Draw
LAI PROJECT #: 17-0186-01 COLLECTOR: ZLB

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES	FIELD NOTES
S-3 3-4		10/13	12:46	S	1				✓			
4-5			12:56									
5-6			12:57									
6-7			12:59									
7-8			13:10									
8-9			13:13									
9-10			13:13									
10-11			13:15									
S-4 0-1			13:24								BTEX ☑ MTBE ☐ TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ GASOLINE MOD 8015 ☑ DIESEL - MOD 8015 ☑ 0&G ☑ VOC 8260 ☐ SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ 8082 PCBS ☐ TCLP - METALS (RCRA) ☐ TCLP VOC ☐ TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ TOTAL METALS (RCRA) ☐ OTHER LIST ☐ LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ RCI ☐ TOX ☐ FLASHPOINT ☐ TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ pH ☐ HEXAVALENT CHROMIUM ☐ EXPLOSIVES ☐ PECHLORATE ☐ CHLORIDE ☑ ANIONS ☐ ALKALINITY ☐ M300
1-2			13:26									
2-3			13:28									
3-4			13:30									
4-5			13:34									
5-6			13:36									
6-7			13:38									

TOTAL

RELINQUISHED BY:(Signature) DATE/TIME 10/18/17 9:00 RECEIVED BY: (Signature)
RELINQUISHED BY: RECEIVED BY: (Signature)
RELINQUISHED BY: RECEIVED BY: (Signature)

Temp: -8.8 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: -8.6

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

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

Final 1.000

XENCO 565814

CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 10/18/17 PAGE 3 OF 5

PO #: _____ LAB WORK ORDER #: _____

PROJECT LOCATION OR NAME: Chevron Salado Draw

LAI PROJECT #: 17-0186-01 COLLECTOR: ZLB

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES: BTEX ☑ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☑	DIESEL - MOD 8015 ☑	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☑ ANIONS ☐ ALKALINITY ☐	1300	FIELD NOTES
S-4 7-8		10/13	13:40	S	1				✓																		✓		
S-2 0-1			13:55								✓		✓	✓															
1-2			13:59																										
2-3			14:02																										
3-4			14:11																										
4-5			14:13																										
5-6			14:18																										
6-7			14:21																										
S-12 0-1		10/12	12:30								✓		✓	✓															
1-2																													
2-3																													
3-4																													
4-5																													
5-6																													
S-11 0-1			13:00						✓	✓			✓	✓															
TOTAL																													

RELINQUISHED BY:(Signature) DATE/TIME 10/18/17 7:00 RECEIVED BY: (Signature)

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

RELIN RECEIVED BY: (Signature)

Temp: -8.8 IR ID:R-8

CF:(0-6: -0.2°C)

(6-23: +0.2°C)

Corrected Temp: -8.6

TURN AROUND TIME

NORMAL ☐

1 DAY ☐

2 DAY ☒

OTHER ☐

LABORATORY USE ONLY:

RECEIVING TEMP: _____ THERM #: _____

CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED

☐ CARRIER BILL # _____

☐ HAND DELIVERED

Final 1.000

Page 97 of 100

XENCO 565814

CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 10/18/17 PAGE 4 OF 5
PO #: LAB WORK ORDER #:
PROJECT LOCATION OR NAME: Chevron Salado Draw
LAI PROJECT #: 17-0186-01 COLLECTOR: ZB

TRRP report? ☐ Yes ☒ No

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

TIME ZONE: Time zone/State: MST

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES	FIELD NOTES
S-11 1-2		10/12	13:00	S	1				✓			
2-3												
3-4												
4-5												
5-6												
6-7												
7-8												
8-9												
9-10												
10-11												
S-10 0-1			14:00								✓ ✓ ✓	
1-2												
2-3												
3-4												
4-5												

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ✓ 020 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ✓ ANIONS ☐ ALKALINITY ☐ | M300

TOTAL

RELINQUISHED BY:(Signature) DATE/TIME 10/18/17 9:00 RECEIVED BY: (Signature)

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

RELINQUISHED BY: RECEIVED BY: (Signature)

Temp: -8.8 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: -8.6

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

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

XENCO 565814

CHAIN-OF-CUSTODY

LARSON & ASSOCIATES, INC. Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 10/10/17 PAGE 5 OF 5
PO #: LAB WORK ORDER #:
PROJECT LOCATION OR NAME: Chevron Salado Draw
LAI PROJECT #: 17-01860-01 COLLECTOR: ZLB

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES: BTEX ☐ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☑ ORO ☑	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☑ ANIONS ☐ ALKALINITY ☐ M300	FIELD NOTES
S-10 5-6		10/12	14:00	S	1				✓																		✓	
S-8 0-1		10/12	15:10								✓		✓	✓													✓	
1-2		10/12	15:10																								✓	
2-3		10/12	15:10																								✓	

TOTAL

RELINQUISHED BY:(Signature) DATE/TIME 10/10/17 9:00 RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)
TIME RECEIVED BY: (Signature)

R Temp: -8.8 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: -8.6

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

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

Final 1.000

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Larson & Associates

Date/ Time Received: 10/18/2017 09:00:00 AM

Work Order #: 565814

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	-8.6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst:

PH Device/Lot#:

Checklist completed by: Connie Hernandez Date: 10/18/2017

Checklist reviewed by: Kelsey Brooks Date: 10/19/2017

Certificate of Analysis Summary 565936

Larson & Associates, Midland, TX

Project Name: Chevron Salado Draw

Project Id:
Contact: Mark Larson
Project Location: Chevron Salado Draw

Date Received in Lab: Thu Oct-19-17 10:30 am
Report Date: 24-OCT-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	565936-001		565936-002		565936-003		565936-004		565936-005		565936-006	
	Field Id:	S-6 0-1		S-6 1-2		S-6 2-3		S-6 3-4		S-6 4-5		S-6 5-6	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-18-17 12:35		Oct-18-17 12:35		Oct-18-17 12:35		Oct-18-17 12:35		Oct-18-17 12:40		Oct-18-17 12:40	
BTEX by EPA 8021B	***Extracted:***	Oct-20-17 10:00											
	Analyzed:	Oct-20-17 17:21											
	Units/RL:	mg/kg	RL										
Benzene		<0.00200	0.00200										
Toluene		<0.00200	0.00200										
Ethylbenzene		<0.00200	0.00200										
m,p-Xylenes		<0.00399	0.00399										
o-Xylene		<0.00200	0.00200										
Total Xylenes		<0.00200	0.00200										
Total BTEX		<0.00200	0.00200										
Chloride by EPA 300	***Extracted:***	Oct-19-17 16:15		Oct-19-17 16:15		Oct-19-17 16:15		Oct-19-17 16:15		Oct-19-17 16:15		Oct-19-17 16:15	
	Analyzed:	Oct-19-17 21:46		Oct-19-17 21:53		Oct-19-17 22:01		Oct-19-17 22:09		Oct-19-17 22:16		Oct-19-17 22:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1390	24.6	974	24.8	2320	24.5	269	4.91	22.5	4.89	49.4	4.98
TPH By SW8015 Mod	***Extracted:***	Oct-20-17 17:00											
	Analyzed:	Oct-21-17 05:09											
	Units/RL:	mg/kg	RL										
Gasoline Range Hydrocarbons		<15.0	15.0										
Diesel Range Organics		<15.0	15.0										
Oil Range Hydrocarbons		<15.0	15.0										
Total TPH		<15.0	15.0										

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 565936

Larson & Associates, Midland, TX

Project Name: Chevron Salado Draw

Project Id:
Contact: Mark Larson
Project Location: Chevron Salado Draw

Date Received in Lab: Thu Oct-19-17 10:30 am
Report Date: 24-OCT-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	565936-007		565936-008		565936-009		565936-010		565936-011		565936-012	
	Field Id:	S-6 6-7		S-6 7-8		S-6 8-9		S-6 9-10		S-6 10-11		S-6 11-12	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-18-17 12:40		Oct-18-17 12:40		Oct-18-17 12:45		Oct-18-17 12:45		Oct-18-17 12:45		Oct-18-17 12:45	
Chloride by EPA 300	***Extracted:***	Oct-19-17 16:15		Oct-19-17 16:15		Oct-19-17 16:15		Oct-19-17 16:15		Oct-19-17 16:15		Oct-19-17 16:15	
	Analyzed:	Oct-19-17 22:47		Oct-19-17 23:10		Oct-19-17 23:18		Oct-19-17 23:26		Oct-19-17 23:33		Oct-19-17 23:41	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		38.4	4.95	20.9	4.96	27.3	4.97	16.2	4.90	<5.00	5.00	<4.96	4.96

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 565936

Larson & Associates, Midland, TX

Project Name: Chevron Salado Draw

Project Id:

Contact: Mark Larson

Project Location: Chevron Salado Draw

Date Received in Lab: Thu Oct-19-17 10:30 am

Report Date: 24-OCT-17

Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	565936-013		565936-014		565936-015		565936-016		565936-017		565936-018	
	Field Id:	S-6 12-13		S-6 13-14		S-6 14-15		S-8 3-4		S-8 4-5		S-8 5-6	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-18-17 12:55		Oct-18-17 12:55		Oct-18-17 12:55		Oct-18-17 13:30		Oct-18-17 13:35		Oct-18-17 13:40	
Chloride by EPA 300	***Extracted:***	Oct-19-17 16:15		Oct-19-17 16:15		Oct-23-17 12:00		Oct-23-17 12:00		Oct-23-17 12:00		Oct-23-17 12:00	
	Analyzed:	Oct-19-17 23:49		Oct-19-17 23:56		Oct-23-17 16:35		Oct-23-17 18:01		Oct-23-17 18:08		Oct-23-17 18:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		103	4.91	169	4.97	127	4.91	576	4.97	1840	24.9	22.0	4.94

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 565936

Larson & Associates, Midland, TX

Project Name: Chevron Salado Draw

Project Id:
Contact: Mark Larson
Project Location: Chevron Salado Draw

Date Received in Lab: Thu Oct-19-17 10:30 am
Report Date: 24-OCT-17
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	565936-019					
	Field Id:	S-8 6-7					
	Depth:						
	Matrix:	SOIL					
	Sampled:	Oct-18-17 13:45					
Chloride by EPA 300	***Extracted:***	Oct-23-17 12:00					
	Analyzed:	Oct-23-17 18:22					
	Units/RL:	mg/kg	RL				
Chloride		6.73	4.97				

Kelsey Brooks
Project Manager

Analytical Report 565936

for

Larson & Associates

Project Manager: Mark Larson

Chevron Salado Draw

24-OCT-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

24-OCT-17

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

Reference: XENCO Report No(s): **565936**
Chevron Salado Draw
Project Address: Chevron Salado Draw

Mark Larson:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 565936. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 565936 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-6 0-1	S	10-18-17 12:35		565936-001
S-6 1-2	S	10-18-17 12:35		565936-002
S-6 2-3	S	10-18-17 12:35		565936-003
S-6 3-4	S	10-18-17 12:35		565936-004
S-6 4-5	S	10-18-17 12:40		565936-005
S-6 5-6	S	10-18-17 12:40		565936-006
S-6 6-7	S	10-18-17 12:40		565936-007
S-6 7-8	S	10-18-17 12:40		565936-008
S-6 8-9	S	10-18-17 12:45		565936-009
S-6 9-10	S	10-18-17 12:45		565936-010
S-6 10-11	S	10-18-17 12:45		565936-011
S-6 11-12	S	10-18-17 12:45		565936-012
S-6 12-13	S	10-18-17 12:55		565936-013
S-6 13-14	S	10-18-17 12:55		565936-014
S-6 14-15	S	10-18-17 12:55		565936-015
S-8 3-4	S	10-18-17 13:30		565936-016
S-8 4-5	S	10-18-17 13:35		565936-017
S-8 5-6	S	10-18-17 13:40		565936-018
S-8 6-7	S	10-18-17 13:45		565936-019

Client Name: Larson & Associates
Project Name: Chevron Salado Draw

Project ID:
Work Order Number(s): *565936*

Report Date: *24-OCT-17*
Date Received: *10/19/2017*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:
Batch: LBA-3031040 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 566044-021 S.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 0-1**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-001	Date Collected:	10.18.17 12.35		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 16.15	Basis:	Wet Weight
Seq Number:	3030949				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1390**	24.6	mg/kg	10.19.17 21.46		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	10.20.17 17.00	Basis:	Wet Weight
Seq Number:	3031144				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	10.21.17 05.09	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	10.21.17 05.09	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	10.21.17 05.09	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	10.21.17 05.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	10.21.17 05.09	
o-Terphenyl	84-15-1	105	%	70-135	10.21.17 05.09	

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 0-1**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-001	Date Collected:	10.18.17 12.35		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	10.20.17 10.00	Basis:	Wet Weight
Seq Number:	3031040				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.20.17 17.21	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.20.17 17.21	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.20.17 17.21	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.20.17 17.21	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.20.17 17.21	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.20.17 17.21	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.20.17 17.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	80-120	10.20.17 17.21	
4-Bromofluorobenzene	460-00-4	117	%	80-120	10.20.17 17.21	

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 1-2**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-002	Date Collected:	10.18.17 12.35		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 16.15	Basis:	Wet Weight
Seq Number:	3030949				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**974**	24.8	mg/kg	10.19.17 21.53		5

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 2-3**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-003	Date Collected:	10.18.17 12.35		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 16.15	Basis:	Wet Weight
Seq Number:	3030949				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2320**	24.5	mg/kg	10.19.17 22.01		5

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 3-4**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-004	Date Collected:	10.18.17 12.35		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 16.15	Basis:	Wet Weight
Seq Number:	3030949				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**269**	4.91	mg/kg	10.19.17 22.09		1

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 4-5**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-005	Date Collected:	10.18.17 12.40		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 16.15	Basis:	Wet Weight
Seq Number:	3030949				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**22.5**	4.89	mg/kg	10.19.17 22.16		1

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 5-6**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-006	Date Collected:	10.18.17 12.40		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 16.15	Basis:	Wet Weight
Seq Number:	3030949				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**49.4**	4.98	mg/kg	10.19.17 22.39		1

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 6-7**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-007	Date Collected:	10.18.17 12.40		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 16.15	Basis:	Wet Weight
Seq Number:	3030949				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**38.4**	4.95	mg/kg	10.19.17 22.47		1

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 7-8**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-008	Date Collected:	10.18.17 12.40		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 16.15	Basis:	Wet Weight
Seq Number:	3030949				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**20.9**	4.96	mg/kg	10.19.17 23.10		1

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 8-9**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-009	Date Collected:	10.18.17 12.45		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 16.15	Basis:	Wet Weight
Seq Number:	3030949				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**27.3**	4.97	mg/kg	10.19.17 23.18		1

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 9-10**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-010	Date Collected:	10.18.17 12.45		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 16.15	Basis:	Wet Weight
Seq Number:	3030949				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.2**	4.90	mg/kg	10.19.17 23.26		1

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 10-11**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-011	Date Collected:	10.18.17 12.45		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 16.15	Basis:	Wet Weight
Seq Number:	3030949				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	10.19.17 23.33	U	1

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 11-12**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-012	Date Collected:	10.18.17 12.45		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 16.15	Basis:	Wet Weight
Seq Number:	3030949				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	10.19.17 23.41	U	1

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 12-13**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-013	Date Collected:	10.18.17 12.55		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 16.15	Basis:	Wet Weight
Seq Number:	3030949				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**103**	4.91	mg/kg	10.19.17 23.49		1

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 13-14**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-014	Date Collected:	10.18.17 12.55		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.19.17 16.15	Basis:	Wet Weight
Seq Number:	3030949				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**169**	4.97	mg/kg	10.19.17 23.56		1

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-6 14-15**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-015	Date Collected:	10.18.17 12.55		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.23.17 12.00	Basis:	Wet Weight
Seq Number:	3031231				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**127**	4.91	mg/kg	10.23.17 16.35		1

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-8 3-4**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-016	Date Collected:	10.18.17 13.30		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.23.17 12.00	Basis:	Wet Weight
Seq Number:	3031231				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**576**	4.97	mg/kg	10.23.17 18.01		1

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-8 4-5**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-017	Date Collected:	10.18.17 13.35		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.23.17 12.00	Basis:	Wet Weight
Seq Number:	3031231				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1840**	24.9	mg/kg	10.23.17 18.08		5

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-8 5-6**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-018	Date Collected:	10.18.17 13.40		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.23.17 12.00	Basis:	Wet Weight
Seq Number:	3031231				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**22.0**	4.94	mg/kg	10.23.17 18.15		1

Certificate of Analytical Results 565936

Larson & Associates, Midland, TX

Chevron Salado Draw

Sample Id:	**S-8 6-7**	Matrix:	Soil	Date Received:	10.19.17 10.30
Lab Sample Id:	565936-019	Date Collected:	10.18.17 13.45		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MNV			% Moisture:	
Analyst:	MNV	Date Prep:	10.23.17 12.00	Basis:	Wet Weight
Seq Number:	3031231				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.73**	4.97	mg/kg	10.23.17 18.22		1

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

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

QC Summary 565936

Larson & Associates

Chevron Salado Draw

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3030949 Matrix: Solid Date Prep: 10.19.17
MB Sample Id: 7632950-1-BLK LCS Sample Id: 7632950-1-BKS LCSD Sample Id: 7632950-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	246	98	246	98	90-110	0	20	mg/kg	10.19.17 20:14	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3031231 Matrix: Solid Date Prep: 10.23.17
MB Sample Id: 7633092-1-BLK LCS Sample Id: 7633092-1-BKS LCSD Sample Id: 7633092-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	247	99	246	98	90-110	0	20	mg/kg	10.23.17 16:22	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3030949 Matrix: Soil Date Prep: 10.19.17
Parent Sample Id: 565936-005 MS Sample Id: 565936-005 S MSD Sample Id: 565936-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	22.5	245	277	104	275	103	90-110	1	20	mg/kg	10.19.17 22:24	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3030949 Matrix: Soil Date Prep: 10.19.17
Parent Sample Id: 565937-001 MS Sample Id: 565937-001 S MSD Sample Id: 565937-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.92	246	242	98	244	99	90-110	1	20	mg/kg	10.19.17 20:37	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3031231 Matrix: Soil Date Prep: 10.23.17
Parent Sample Id: 565936-015 MS Sample Id: 565936-015 S MSD Sample Id: 565936-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	127	246	365	97	369	98	90-110	1	20	mg/kg	10.23.17 16:42	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3031231 Matrix: Soil Date Prep: 10.23.17
Parent Sample Id: 565936-019 MS Sample Id: 565936-019 S MSD Sample Id: 565936-019 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.73	249	258	101	259	101	90-110	0	20	mg/kg	10.23.17 18:28	

QC Summary 565936

Larson & Associates

Chevron Salado Draw

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3031144 — Matrix: Solid — Date Prep: 10.20.17
MB Sample Id: 7633054-1-BLK — LCS Sample Id: 7633054-1-BKS — LCSD Sample Id: 7633054-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	1000	1120	112	1050	105	70-135	6	35	mg/kg	10.21.17 04:28	
Diesel Range Organics	<15.0	1000	1120	112	1110	111	70-135	1	35	mg/kg	10.21.17 04:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		122		110		70-135	%	10.21.17 04:28
o-Terphenyl	109		120		104		70-135	%	10.21.17 04:28

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3031144 — Matrix: Soil — Date Prep: 10.20.17
Parent Sample Id: 565936-001 — MS Sample Id: 565936-001 S — MSD Sample Id: 565936-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	997	1040	104	1050	105	70-135	1	35	mg/kg	10.21.17 05:29	
Diesel Range Organics	<15.0	997	1120	112	1110	111	70-135	1	35	mg/kg	10.21.17 05:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		108		70-135	%	10.21.17 05:29
o-Terphenyl	107		100		70-135	%	10.21.17 05:29

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3031040 — Matrix: Solid — Date Prep: 10.20.17
MB Sample Id: 7632991-1-BLK — LCS Sample Id: 7632991-1-BKS — LCSD Sample Id: 7632991-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0988	0.0967	98	0.0970	98	70-130	0	35	mg/kg	10.20.17 14:15	
Toluene	<0.00198	0.0988	0.0974	99	0.0961	97	70-130	1	35	mg/kg	10.20.17 14:15	
Ethylbenzene	<0.00198	0.0988	0.0997	101	0.0981	99	71-129	2	35	mg/kg	10.20.17 14:15	
m,p-Xylenes	<0.00395	0.198	0.196	99	0.193	97	70-135	2	35	mg/kg	10.20.17 14:15	
o-Xylene	<0.00198	0.0988	0.0959	97	0.0945	95	71-133	1	35	mg/kg	10.20.17 14:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		90		84		80-120	%	10.20.17 14:15
4-Bromofluorobenzene	118		103		102		80-120	%	10.20.17 14:15

QC Summary 565936

Larson & Associates

Chevron Salado Draw

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

Seq Number: 3031040 Matrix: Soil Date Prep: 10.20.17

Parent Sample Id: 566044-021 MS Sample Id: 566044-021 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00197	0.0986	0.0372	38	70-130	mg/kg	10.20.17 14:51	X
Toluene	<0.00197	0.0986	0.0345	35	70-130	mg/kg	10.20.17 14:51	X
Ethylbenzene	<0.00197	0.0986	0.0332	34	71-129	mg/kg	10.20.17 14:51	X
m,p-Xylenes	<0.00394	0.197	0.0639	32	70-135	mg/kg	10.20.17 14:51	X
o-Xylene	<0.00197	0.0986	0.0314	32	71-133	mg/kg	10.20.17 14:51	X

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	114		80-120	%	10.20.17 14:51
4-Bromofluorobenzene	137		80-120	%	10.20.17 14:51

565936

CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 10-19-2017 PAGE 1 OF 2

PO #: _____ LAB WORK ORDER #: _____

PROJECT LOCATION OR NAME: Chevron Salado Draw

LAI PROJECT #: 17-01806-01 COLLECTOR: ZLB

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 | UNPRESERVED

ANALYSES: BTEX ☑ MTBE ☐ | TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☑ | DIESEL - MOD 8015 ☑ ORO ☑ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☑ ANIONS ☐ ALKALINITY ☐ | 9056 300

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 NaOH	ICE	UNPRESERVED	BTEX	MTBE	TRPH 418.1	TPH 1005	TPH 1006	GASOLINE MOD 8015	DIESEL - MOD 8015	ORO	VOC 8260	SVOC 8270	PAH 8270	HOLDPAH	8081 PESTICIDES	8151 HERBICIDES	8082 PCBS	TCLP - METALS (RCRA)	TCLP VOC	TCLP - PEST	HERB	Semi-VOC	TOTAL METALS (RCRA)	OTHER LIST	LEAD - TOTAL	D.W. 200.8	TCLP	RCI	TOX	TDS	TSS	FLASHPOINT	pH	% MOISTURE	CYANIDE	EXPLOSIVES	HEXAVALENT CHROMIUM	PECHLORATE	CHLORIDE	ANIONS	ALKALINITY	9056 300	FIELD NOTES
S-6 0-1		10/18	12:35	S	1				✓		✓			✓		✓	✓																																		
1-2																																																		
2-3																																																		
3-4																																																		
4-5			12:40																																															
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7-8																																																		
8-9			12:45																																															
9-10																																																		
10-11																																																		
11-12																																																		
12-13			12:55																																															
13-14																																																		
14-15																																																		
TOTAL																																																		

Temp: -1.3 IR ID:R-8

CF:(0-6: -0.2°C)
(6-23: +0.2°C)

Corrected Temp: -1.1

RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	10:19:17	[signature] 10.19.17 10:30
(RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)

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

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

Xenco

Final 1.000

565936

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants

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

Data Reported to:

DATE: 10-18-2017 PAGE 2 OF 2

PO #: LAB WORK ORDER #:

PROJECT LOCATION OR NAME: Chevron Salado Draw

LAI PROJECT #: 17-0186-01 COLLECTOR: ZCB

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 | UNPRESERVED

ANALYSES: BTEX ☒ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ D.W. 200.8 ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐ | 300

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	FIELD NOTES
S-8 3-4'		10/18	13:30	S	1				✓		
4-5'			13:35								
5-6'			13:40								
6-7'			13:45								

Temp: -1.3 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: -1.1

TOTAL

RELINQUISHED BY:(Signature) DATE/TIME 10/19/17 RECEIVED BY: (Signature) 10-19-17 1050

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

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

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

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

VP010

Final 1.000

Page 34 of 37

CHAIN OF CUSTODY RECORD

APEX

Office Location: Midland
505 N. Big Spring St. Suite 301A
Midland, TX 79701
Project Manager: Sharon Hall-Hunt

Laboratory: Xenco Labs
Address: 1211 W. Florida Ave
Midland, TX 79701
Contact: Kelsey Brooks
Phone:
PO/SO #: 7250715107

Sampler's Name: Simion Hudgens
Sampler's Signature:

Proj. No.: 7250715107
Project Name: Magellan Colorado City
No/Type of Containers: 8 plastic

ANALYSIS REQUESTED: Alkalinity, pH, Chlorides, TDS, Sulfate, Nitrates/Nitrite, Fecal Coliform, Hardness (Ca, Mg, Fe)

Lab use only
Due Date:
Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5
Page 1 of 1

565940
Lab Sample ID (Lab Use Only)

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O
W	10/19/17	0835		X	Pre-Filter							4
W	10/19/17	0845		X	Post-Filter							4

NFE

Temp: 5.8 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 5.6

Turn around time: ☒ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10/19/17	1012		10/19/17	10:15
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:
* Fecal Coliform hold time is only 30 hrs. Please rush. *

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - Sludge; O - Oil
Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other

Inter-Office Shipment

IOS Number **1050622**

Date/Time: 10/20/17 11:14
Lab# From: **Midland**
Lab# To: **Lubbock**

Created by: Shawnee Smith
Delivery Priority:
Air Bill No.:

Please send report to: Kelsey Brooks
Address: 1211 W. Florida Ave, Midland TX 79701
Phone:
E-Mail: kelsey.brooks@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
565936-001	S	S-6 0-1	10/18/17 12:35	SW8021B	BTEX by EPA 8021B	10/23/17	11/01/17	KEB	BR4FBZ BZ BZME EBZ X	

Inter Office Shipment or Sample Comments:

Relinquished By Shawnee Smith

Shawnee Smith

Date Relinquished: 10/20/2017

Received By: _____

Date Received: _____

Cooler Temperature: _____

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Larson & Associates

Date/ Time Received: 10/19/2017 10:30:00 AM

Work Order #: 565936

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	-1.1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst:

PH Device/Lot#:

Checklist completed by: Shawnee Smith Date: 10/20/2017
Shawnee Smith

Checklist reviewed by: Kelsey Brooks Date: 10/20/2017
Kelsey Brooks

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: RWCS Solodo Draw
Project Number: 17-0186-01
Location:

Lab Order Number: 8A17002

NELAP/TCEQ # T104704516-16-7

Report Date: 01/18/18

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

Project: RWCS Solodo Draw
Project Number: 17-0186-01
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-2 (5')	8A17002-01	Soil	01/16/18 12:20	01-17-2018 08:40
S-2 (10')	8A17002-02	Soil	01/16/18 12:21	01-17-2018 08:40
S-2 (15')	8A17002-03	Soil	01/16/18 12:22	01-17-2018 08:40
S-2 (20')	8A17002-04	Soil	01/16/18 12:23	01-17-2018 08:40
S-5 (0)	8A17002-06	Soil	01/16/18 12:38	01-17-2018 08:40
S-5 (5')	8A17002-07	Soil	01/16/18 12:33	01-17-2018 08:40
S-5 (10')	8A17002-08	Soil	01/16/18 12:34	01-17-2018 08:40
S-5 (15')	8A17002-09	Soil	01/16/18 12:35	01-17-2018 08:40
S-5 (20')	8A17002-10	Soil	01/16/18 12:36	01-17-2018 08:40

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

Project: RWCS Solodo Draw
Project Number: 17-0186-01
Project Manager: Mark Larson

Fax: (432) 687-0456

S-2 (5')

8A17002-01 (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	**2270**	10.9	mg/kg dry	10	P8A1704	01/17/18	01/18/18	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P8A1710	01/17/18	01/17/18	ASTM D2216	

Larson & Associates, Inc.	Project: RWCS Solodo Draw	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 17-0186-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-2 (10')

8A17002-02 (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	**1420**	5.43	mg/kg dry	5	P8A1704	01/17/18	01/18/18	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P8A1710	01/17/18	01/17/18	ASTM D2216	

Larson & Associates, Inc.	Project: RWCS Solodo Draw	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 17-0186-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-2 (15')

8A17002-03 (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	**44.2**	1.10	mg/kg dry	1	P8A1704	01/17/18	01/18/18	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P8A1710	01/17/18	01/17/18	ASTM D2216	

Larson & Associates, Inc.	Project: RWCS Solodo Draw	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 17-0186-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-2 (20')

8A17002-04 (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	**56.3**	1.06	mg/kg dry	1	P8A1704	01/17/18	01/18/18	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P8A1710	01/17/18	01/17/18	ASTM D2216	

Larson & Associates, Inc.	Project: RWCS Solodo Draw	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 17-0186-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-5 (0)

8A17002-06 (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	**773**	5.38	mg/kg dry	5	P8A1704	01/17/18	01/18/18	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P8A1710	01/17/18	01/17/18	ASTM D2216	

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

Project: RWCS Solodo Draw
Project Number: 17-0186-01
Project Manager: Mark Larson

Fax: (432) 687-0456

S-5 (5')

8A17002-07 (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	**74.9**	1.10	mg/kg dry	1	P8A1704	01/17/18	01/18/18	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P8A1710	01/17/18	01/17/18	ASTM D2216	

Larson & Associates, Inc.	Project: RWCS Solodo Draw	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 17-0186-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-5 (10')

8A17002-08 (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	**28.5**	1.08	mg/kg dry	1	P8A1704	01/17/18	01/18/18	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P8A1710	01/17/18	01/17/18	ASTM D2216	

Larson & Associates, Inc.	Project: RWCS Solodo Draw	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 17-0186-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-5 (15')

8A17002-09 (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	**33.3**	1.04	mg/kg dry	1	P8A1704	01/17/18	01/18/18	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P8A1710	01/17/18	01/17/18	ASTM D2216	

Larson & Associates, Inc.	Project: RWCS Solodo Draw	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 17-0186-01	
Midland TX, 79710	Project Manager: Mark Larson	

S-5 (20')

8A17002-10 (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	**14.3**	1.04	mg/kg dry	1	P8A1704	01/17/18	01/18/18	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P8A1710	01/17/18	01/17/18	ASTM D2216	

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

Project: RWCS Solodo Draw
Project Number: 17-0186-01
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 P8A1704 - * DEFAULT PREP *** **										
Blank (P8A1704-BLK1)				Prepared: 01/17/18 Analyzed: 01/18/18						
Chloride	ND	1.00	mg/kg wet							
LCS (P8A1704-BS1)				Prepared: 01/17/18 Analyzed: 01/18/18						
Chloride	407	1.00	mg/kg wet	400		102	80-120			
LCS Dup (P8A1704-BSD1)				Prepared: 01/17/18 Analyzed: 01/18/18						
Chloride	411	1.00	mg/kg wet	400		103	80-120	1.14	20	
Duplicate (P8A1704-DUP1)		**Source: 8A17001-01**		Prepared: 01/17/18 Analyzed: 01/18/18						
Chloride	721	1.05	mg/kg dry		651			10.1	20	
Duplicate (P8A1704-DUP2)		**Source: 8A17002-01**		Prepared: 01/17/18 Analyzed: 01/18/18						
Chloride	2280	10.9	mg/kg dry		2270			0.755	20	
Matrix Spike (P8A1704-MS1)		**Source: 8A17001-01**		Prepared: 01/17/18 Analyzed: 01/18/18						
Chloride	1730	1.05	mg/kg dry	1050	651	103	80-120			
Batch P8A1710 - * DEFAULT PREP *** **										
Blank (P8A1710-BLK1)				Prepared & Analyzed: 01/17/18						
% Moisture	ND	0.1	%							
Duplicate (P8A1710-DUP1)		**Source: 8A13003-02**		Prepared & Analyzed: 01/17/18						
% Moisture	14.0	0.1	%		15.0			6.90	20	
Duplicate (P8A1710-DUP2)		**Source: 8A13004-05**		Prepared & Analyzed: 01/17/18						
% Moisture	5.0	0.1	%		4.0			22.2	20	

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 P8A1710 - * DEFAULT PREP *** **										
Duplicate (P8A1710-DUP3)	**Source: 8A13005-08**			Prepared & Analyzed: 01/17/18						
% Moisture	6.0	0.1	%		7.0			15.4	20	
Duplicate (P8A1710-DUP4)	**Source: 8A15010-12**			Prepared & Analyzed: 01/17/18						
% Moisture	6.0	0.1	%		6.0			0.00	20	
Duplicate (P8A1710-DUP5)	**Source: 8A15010-34**			Prepared & Analyzed: 01/17/18						
% Moisture	2.0	0.1	%		3.0			40.0	20	
Duplicate (P8A1710-DUP6)	**Source: 8A17002-11**			Prepared & Analyzed: 01/17/18						
% Moisture	4.0	0.1	%		4.0			0.00	20	

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

Project: RWCS Solodo Draw
Project Number: 17-0186-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Notes and Definitions

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:  Date: 1/18/2018

Brent Barron, Laboratory Director/Technical Director

CHAIN-OF-CUSTODY

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

DATE: 1/17/18 PAGE 1 OF

PO #: LAB WORK ORDER #: 18A17002

PROJECT LOCATION OR NAME: RWLS Salado Draw

LAI PROJECT #: 17-0186-01 COLLECTOR: AT

Page 15 of 15

Data Reported to:

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 | UNPRESERVED

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐ | Hg Ld

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 NaOH	ICE	UNPRESERVED	ANALYSES	FIELD NOTES
S-2 (5 ft)	1	1/16/18	12:20	S	1					X	Hg Ld	
(10 ft)	2		12:21								X	
(15 ft)	3		12:22								X	
(20 ft)	4		12:23								X	
(25 ft)	5		12:24									X
S-5 (0 ft)	6		12:38								X	
(5 ft)	7		12:33								X	
(10 ft)	8		12:34								X	
(15 ft)	9		12:35								X	
(20 ft)	10		12:36								X	
(25 ft)	11		12:37									X

TOTAL

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

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

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

1/17/18 840

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

LABORATORY USE ONLY:
RECEIVING TEMP: -0.8 +0.4 THERM #:
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

frozen

Appendix C

Photographs

Source of Spill Viewing South

East End of Spill Viewing West

West End of Spill Viewing East

West End of Spill Viewing East