General Information

NMOCD District:	Artesia	Incident ID:	NAPP2317746199
Landowner:	Mosaic Potash Carlsbad, Inc.	Lat & Long:	32.299221, -103.97480
Client:	Devon Energy Production Company, LP	Site Location:	Laguna Salado 22 Federal #004H
Date:	3/14/2025	Project #:	23E-01414-02
Client Contact:	Jim Raley	Phone #:	575.689.7597
Vertex PM:	Chad Hensley	Phone #:	575.200.6167

Objective

The objective of the Environmental Site Remediation Work Plan is to identify areas of exceedance for areas of concern following a site investigation, during which background samples were collected for potential naturally elevated chloride levels, to address the open releases at Laguna Salado 22 Federal #004H (hereafter referred to as "the site"). The areas of environmental concern include a flowline from the site that was observed spraying liquid off pad. The initial C-141 Release Notification was submitted on August 25, 2023. (Attachment 1). Closure criteria have been selected as per New Mexico Administrative Code 19.15.29.12. All applicable research as it pertains to closure criteria selection is presented in Attachment 4. The closure criteria for the site are presented below in Table 1.

Table 1. Closure Criteria for Soils Impacted by a Release

Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Limit
< 50 feet	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

TDS - Total dissolved solids
TPH - Total petroleum hydrocarbons = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO)
BTEX - Benzene, toluene, ethylbenzene, and xylenes

Site Assessment/Characterization

Site characterization was completed on July 21, 2023. A total of 21 sample points (boreholes) were established, and 52 samples were collected for field screening. Fifty-two samples, including at the deepest vertical distance investigated, were submitted to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico, for analysis. All sample points are presented in Figure 1 (Attachment 2). Based on the description of the release area, samples were collected within the area around the wellhead, working outward. Laboratory analysis results have been compared to the closure criteria and the results from the characterization activity are presented in Attachment 3.

Remedial Activities

General

Areas identified with contaminant concentrations above closure criteria will be remediated through excavation. Laboratory results from the site assessment/characterization have been referenced to estimate both the vertical and horizontal limits of the impacts. Soil will be excavated to the extents of the known contamination or in 2 feet increments until reaching the subsurface water table. Subsurface water table is based on the current and historical brine lake elevations and corroboration with excavation spud 16 State 10H. Field screening will be utilized to confirm removal of contaminated soil below the applicable closure criteria. Contaminated soils will be stored on a 30mil liner prior to disposal at an approved facility. Once excavation is complete, confirmatory samples will be collected and laboratory analysis completed to confirm closure criteria guidelines are met. Excavations will be backfilled with clean soil sourced locally.

Sample Point	Excavation Depth	Remediation Method
BH23-01	2'-4'	Backhoe
BH23-02	2'-4'	Backhoe
BH23-03	2'-4'	Backhoe
BH23-04	2'-4'	Backhoe
BH23-05	2'-4'	Backhoe
BH23-08	2'-4'	Backhoe
BH23-11	2'-4'	Backhoe
BH23-12	2'-4'	Backhoe
BH23-14	2'-4'	Backhoe
BH23-15	2'-4'	Backhoe
BH23-16	2'-4'	Backhoe
BH23-18	2'-4'	Backhoe

Should you have any questions or concerns, please do not hesitate to contact the undersigned at 575.200.6167 or chensley@vertexresource.com.

Stephanie McCarty — 3/14/2025

Stephanie McCarty
ENVIRONMENTAL SPECIALIST, REPORTING

Date

3/14/2025

Chad Hensley
SENIOR PROJECT MANAGER, REPORT REVIEW

Date

Attachments

Attachment 1 Initial C-141 Report
Attachment 2 Sample Locations - Characterization Sampling Site Schematic
Attachment 3 Laboratory Results Table and Laboratory Analysis
Attachment 4 Closure Criteria Research

ATTACHMENT 1

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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAPP2317746199
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # *(assigned by OCD)*
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered 6/26/2023	API# *(if applicable)*

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2317746199
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

- ☐ The source of the release has been stopped.
- ☐ The impacted area has been secured to protect human health and the environment.
- ☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☐ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Dale Woodall Title: Env. Professional

Signature: Dale Woodall Date:

email: dale.woodall@dvn.com Telephone: 575-748-1838

OCD Only

Received by: Shelly Wells Date: 8/25/2023

Laguna Salado 22 Fed 4H

6/26/2023

OCD incident # nAPP2317746199

Spill Volume(Bbls) Calculator	
Inputs in blue, Outputs in red	
Contaminated Soil measurement	
Area (square feet)	Depth(inches)
597	2.000
Cubic Feet of Soil Impacted	99.500
Barrels of Soil Impacted	17.74
Soil Type	Clay/Sand
Barrels of Oil Assuming 100% Saturation	2.66
Saturation	Fluid present with shovel/backhoe
Estimated Barrels of Oil Released	2.66
Free Standing Fluid Only	
Area (square feet)	Depth(inches)
597	0.500
Standing fluid	4.434
Total fluids spilled	**7.094**

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

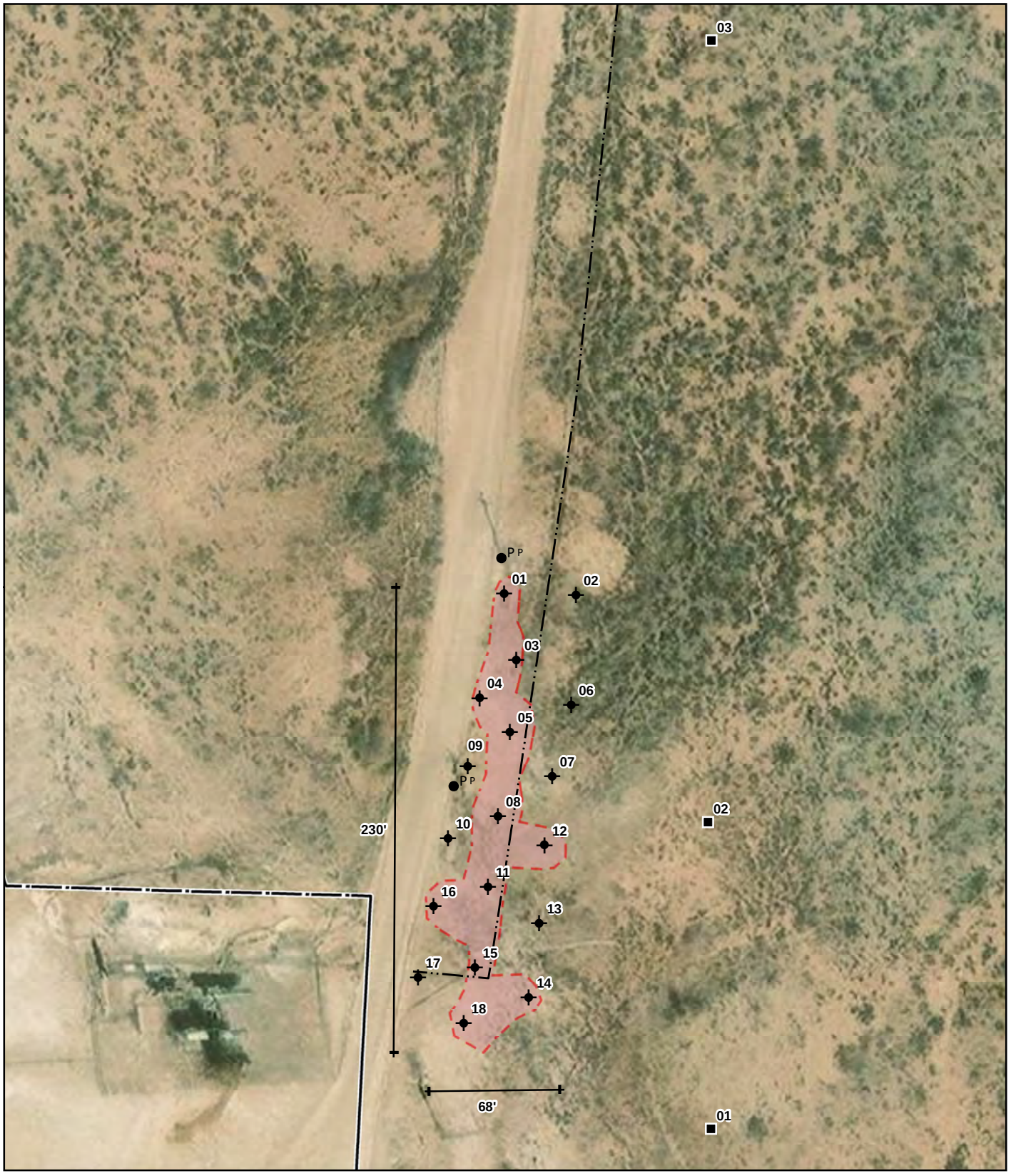
CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 257823
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	8/25/2023

ATTACHMENT 2



Background Sample (Prefixed by "BG23-")

Borehole (Prefixed by "BH23-")

Power Pole

Pipeline (Underground)

Approximate Release Area (~5,646 sq.ft.)

Approximate Lease Boundary (Laguna Salado 22 Federal #005H)

VERTEX

0 10 20 40 ft

NAD 1983 UTM Zone 13N
Date: Nov 02/23

Map Center:
Lat: 32.292899,
Long:-103.973959

N

Characterization Sampling Site Schematic
Laguna Salado 22 Federal #004H

FIGURE: 1

devon

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Georeferenced image from Esri, 2022. Site features from GPS by Vertex Professional Services Ltd., 2023.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Devon Energy Corporation\2023\23E-01414- Laguna Salado 22 Federal #4\Figure 1 Characterization Sampling Site Schematic (23E-01414)ID17335.mxd

ATTACHMENT 3

Client Name: Devon Energy Production Company, LP
Site Name: Laguna Salado 22 Federal #004 (Phase 2)
NMOCD Tracking #: nAPP2317746199
Project #: 23E-01414-02
Lab Reports: 2307983, 2307A39 and 2307B06

Table 1. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater <50 feet bgs

Sample Description			Petroleum Hydrocarbons						Inorganic
			Volatile		Extractable				
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BG23-01	0	July 19, 2023	ND	ND	ND	ND	ND	ND	2,500
	2	July 19, 2023	ND	ND	ND	ND	ND	ND	6,100
BG23-02	0	July 19, 2023	ND	ND	ND	ND	ND	ND	34,000
	2	July 19, 2023	ND	ND	ND	ND	ND	ND	6,000
BG23-03	0	July 19, 2023	ND	ND	ND	ND	ND	ND	970
	2	July 19, 2023	ND	ND	ND	ND	ND	ND	620
Average	0	-	-	-	-	-	-	-	12,490
	2	-	-	-	-	-	-	-	4,240
BH23-01	0	July 19, 2023	ND	ND	ND	10	ND	10	35,000
	2	July 19, 2023	ND	ND	ND	ND	ND	ND	6,500
BH23-02	0	July 19, 2023	ND	ND	ND	ND	ND	ND	19,000
	2	July 19, 2023	ND	ND	ND	ND	ND	ND	6,600
BH23-03	0	July 20, 2023	ND	ND	ND	ND	ND	ND	29,000
	2	July 20, 2023	ND	ND	ND	ND	ND	ND	13,000
BH23-04	0	July 20, 2023	ND	ND	ND	11	ND	11	41,000
	2	July 20, 2023	ND	ND	ND	ND	ND	ND	4,500
	4	July 20, 2023	ND	ND	ND	ND	ND	ND	3,300
BH23-05	0	July 20, 2023	ND	ND	ND	ND	ND	ND	77,000
	2	July 20, 2023	ND	ND	ND	ND	ND	ND	3,100
	4	July 20, 2023	ND	ND	ND	ND	ND	ND	2,500
BH23-06	0	July 20, 2023	ND	ND	ND	ND	ND	ND	21,000
	2	July 20, 2023	ND	ND	ND	ND	ND	ND	4,400
	4	July 20, 2023	ND	ND	ND	ND	ND	ND	4,500
BH23-07	0	July 20, 2023	ND	ND	ND	ND	ND	ND	27,000
	2	July 20, 2023	ND	ND	ND	ND	ND	ND	3,400
BH23-08	0	July 20, 2023	ND	ND	ND	ND	ND	ND	42,000
	2	July 20, 2023	ND	ND	ND	ND	ND	ND	5,500
BH23-09	0	July 20, 2023	ND	ND	ND	ND	ND	ND	25,000
	2	July 20, 2023	ND	ND	ND	ND	ND	ND	5,600
	4	July 20, 2023	ND	ND	ND	ND	ND	ND	3,300
BH23-10	0	July 21, 2023	ND	ND	ND	ND	ND	ND	29,000
	2	July 21, 2023	ND	ND	ND	ND	ND	ND	3,600
	3.5	July 21, 2023	ND	ND	ND	ND	ND	ND	3,900
BH23-11	0	July 21, 2023	ND	ND	ND	ND	ND	ND	41,000
	2	July 21, 2023	ND	ND	ND	ND	ND	ND	4,400
BH23-12	0	July 21, 2023	ND	ND	ND	ND	ND	ND	9,700
	2	July 21, 2023	ND	ND	ND	ND	ND	ND	8,900
BH23-13	0	July 21, 2023	ND	ND	ND	ND	ND	ND	13,000
	2	July 21, 2023	ND	ND	ND	ND	ND	ND	4,900

Client Name: Devon Energy Production Company, LP
Site Name: Laguna Salado 22 Federal #004 (Phase 2)
NMOCD Tracking #: nAPP2317746199
Project #: 23E-01414-02
Lab Reports: 2307983, 2307A39 and 2307B06

Table 1. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater <50 feet bgs

Sample Description			Petroleum Hydrocarbons						Inorganic
			Volatile		Extractable				
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH23-14	0	July 21, 2023	ND	ND	ND	ND	ND	ND	40,000
	2	July 21, 2023	ND	ND	ND	ND	ND	ND	7,500
	4	July 21, 2023	ND	ND	ND	ND	ND	ND	8,600
BH23-15	0	July 21, 2023	ND	ND	ND	ND	ND	ND	27,000
	2	July 21, 2023	ND	ND	ND	ND	ND	ND	6,500
	4	July 21, 2023	ND	ND	ND	ND	ND	ND	7,500
BH23-16	0	July 21, 2023	ND	ND	ND	ND	ND	ND	37,000
	2	July 21, 2023	ND	ND	ND	ND	ND	ND	8,300
	4	July 21, 2023	ND	ND	ND	ND	ND	ND	5,600
BH23-17	0	July 21, 2023	ND	ND	ND	ND	ND	ND	22,000
	2	July 21, 2023	ND	ND	ND	ND	ND	ND	5,700
	4	July 21, 2023	ND	ND	ND	ND	ND	ND	7,000
BH23-18	0	July 21, 2023	ND	ND	ND	ND	ND	ND	48,000
	2	July 21, 2023	ND	ND	ND	ND	ND	ND	5,900
	4	July 21, 2023	ND	ND	ND	ND	ND	ND	9,300

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 31, 2023

Kent Stallings

Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (505) 350-1336
FAX:

RE: Laguna Salado Fed 4 OrderNo.: 2307983

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 10 sample(s) on 7/21/2023 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2307983**
Date Reported: **7/31/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado Fed 4
Lab ID: 2307983-001 **Matrix:** SOIL

Client Sample ID: BG23-01 0.0'
Collection Date: 7/19/2023 10:00:00 AM
Received Date: 7/21/2023 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/23/2023 12:23:57 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/23/2023 12:23:57 PM
Surr: DNOP	105	69-147		%Rec	1	7/23/2023 12:23:57 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/24/2023 9:38:52 PM
Surr: BFB	95.5	15-244		%Rec	1	7/24/2023 9:38:52 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/24/2023 9:38:52 PM
Toluene	ND	0.048		mg/Kg	1	7/24/2023 9:38:52 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/24/2023 9:38:52 PM
Xylenes, Total	ND	0.096		mg/Kg	1	7/24/2023 9:38:52 PM
Surr: 4-Bromofluorobenzene	119	39.1-146		%Rec	1	7/24/2023 9:38:52 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	2500	150		mg/Kg	50	7/26/2023 9:53:56 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2307983**
Date Reported: **7/31/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado Fed 4
Lab ID: 2307983-002 **Matrix:** SOIL

Client Sample ID: BG23-01 2.0'
Collection Date: 7/19/2023 10:10:00 AM
Received Date: 7/21/2023 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/23/2023 12:48:23 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/23/2023 12:48:23 PM
Surr: DNOP	88.2	69-147		%Rec	1	7/23/2023 12:48:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/24/2023 10:49:22 PM
Surr: BFB	92.6	15-244		%Rec	1	7/24/2023 10:49:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	7/24/2023 10:49:22 PM
Toluene	ND	0.050		mg/Kg	1	7/24/2023 10:49:22 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/24/2023 10:49:22 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/24/2023 10:49:22 PM
Surr: 4-Bromofluorobenzene	116	39.1-146		%Rec	1	7/24/2023 10:49:22 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	6100	300		mg/Kg	100	7/26/2023 10:06:21 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2307983**
Date Reported: **7/31/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado Fed 4
Lab ID: 2307983-003 **Matrix:** SOIL

Client Sample ID: BG23-02 0.0'
Collection Date: 7/19/2023 10:20:00 AM
Received Date: 7/21/2023 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/23/2023 1:12:51 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/23/2023 1:12:51 PM
Surr: DNOP	91.2	69-147		%Rec	1	7/23/2023 1:12:51 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/24/2023 11:59:42 PM
Surr: BFB	92.6	15-244		%Rec	1	7/24/2023 11:59:42 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	7/24/2023 11:59:42 PM
Toluene	ND	0.050		mg/Kg	1	7/24/2023 11:59:42 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/24/2023 11:59:42 PM
Xylenes, Total	ND	0.099		mg/Kg	1	7/24/2023 11:59:42 PM
Surr: 4-Bromofluorobenzene	117	39.1-146		%Rec	1	7/24/2023 11:59:42 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	34000	1500		mg/Kg	500	7/26/2023 10:18:46 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2307983**
Date Reported: **7/31/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado Fed 4
Lab ID: 2307983-004 **Matrix:** SOIL

Client Sample ID: BG23-02 2.0'
Collection Date: 7/19/2023 10:30:00 AM
Received Date: 7/21/2023 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/23/2023 1:37:25 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/23/2023 1:37:25 PM
Surr: DNOP	89.4	69-147		%Rec	1	7/23/2023 1:37:25 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/25/2023 12:23:08 AM
Surr: BFB	94.8	15-244		%Rec	1	7/25/2023 12:23:08 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 12:23:08 AM
Toluene	ND	0.049		mg/Kg	1	7/25/2023 12:23:08 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/25/2023 12:23:08 AM
Xylenes, Total	ND	0.097		mg/Kg	1	7/25/2023 12:23:08 AM
Surr: 4-Bromofluorobenzene	120	39.1-146		%Rec	1	7/25/2023 12:23:08 AM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	6000	300		mg/Kg	100	7/26/2023 10:31:10 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2307983**
Date Reported: **7/31/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado Fed 4
Lab ID: 2307983-005 **Matrix:** SOIL

Client Sample ID: BG23-03 0.0'
Collection Date: 7/19/2023 10:40:00 AM
Received Date: 7/21/2023 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/23/2023 2:01:58 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/23/2023 2:01:58 PM
Surr: DNOP	79.0	69-147		%Rec	1	7/23/2023 2:01:58 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/25/2023 12:46:30 AM
Surr: BFB	93.6	15-244		%Rec	1	7/25/2023 12:46:30 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 12:46:30 AM
Toluene	ND	0.048		mg/Kg	1	7/25/2023 12:46:30 AM
Ethylbenzene	ND	0.048		mg/Kg	1	7/25/2023 12:46:30 AM
Xylenes, Total	ND	0.096		mg/Kg	1	7/25/2023 12:46:30 AM
Surr: 4-Bromofluorobenzene	118	39.1-146		%Rec	1	7/25/2023 12:46:30 AM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	970	60		mg/Kg	20	7/25/2023 9:07:50 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307983**
Date Reported: **7/31/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado Fed 4
Lab ID: 2307983-006 **Matrix:** SOIL

Client Sample ID: BG23-03 2.0'
Collection Date: 7/19/2023 10:50:00 AM
Received Date: 7/21/2023 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/23/2023 2:26:32 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/23/2023 2:26:32 PM
Surr: DNOP	80.9	69-147		%Rec	1	7/23/2023 2:26:32 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/25/2023 1:10:05 AM
Surr: BFB	94.2	15-244		%Rec	1	7/25/2023 1:10:05 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	7/25/2023 1:10:05 AM
Toluene	ND	0.050		mg/Kg	1	7/25/2023 1:10:05 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/25/2023 1:10:05 AM
Xylenes, Total	ND	0.099		mg/Kg	1	7/25/2023 1:10:05 AM
Surr: 4-Bromofluorobenzene	119	39.1-146		%Rec	1	7/25/2023 1:10:05 AM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	620	61		mg/Kg	20	7/25/2023 9:20:15 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307983**
Date Reported: **7/31/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado Fed 4
Lab ID: 2307983-007 **Matrix:** SOIL

Client Sample ID: BH23-01 0.0'
Collection Date: 7/19/2023 11:00:00 AM
Received Date: 7/21/2023 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/23/2023 2:51:05 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/23/2023 2:51:05 PM
Surr: DNOP	92.1	69-147		%Rec	1	7/23/2023 2:51:05 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/25/2023 1:33:29 AM
Surr: BFB	91.7	15-244		%Rec	1	7/25/2023 1:33:29 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 1:33:29 AM
Toluene	ND	0.048		mg/Kg	1	7/25/2023 1:33:29 AM
Ethylbenzene	ND	0.048		mg/Kg	1	7/25/2023 1:33:29 AM
Xylenes, Total	ND	0.097		mg/Kg	1	7/25/2023 1:33:29 AM
Surr: 4-Bromofluorobenzene	116	39.1-146		%Rec	1	7/25/2023 1:33:29 AM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	35000	1500		mg/Kg	500	7/26/2023 10:43:34 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2307983**
Date Reported: **7/31/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado Fed 4
Lab ID: 2307983-008 **Matrix:** SOIL

Client Sample ID: BH23-01 2.0'
Collection Date: 7/19/2023 11:10:00 AM
Received Date: 7/21/2023 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/23/2023 3:15:40 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/23/2023 3:15:40 PM
Surr: DNOP	92.4	69-147		%Rec	1	7/23/2023 3:15:40 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/25/2023 1:56:52 AM
Surr: BFB	95.5	15-244		%Rec	1	7/25/2023 1:56:52 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 1:56:52 AM
Toluene	ND	0.047		mg/Kg	1	7/25/2023 1:56:52 AM
Ethylbenzene	ND	0.047		mg/Kg	1	7/25/2023 1:56:52 AM
Xylenes, Total	ND	0.095		mg/Kg	1	7/25/2023 1:56:52 AM
Surr: 4-Bromofluorobenzene	120	39.1-146		%Rec	1	7/25/2023 1:56:52 AM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	6500	300		mg/Kg	100	7/26/2023 10:55:59 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307983**
Date Reported: **7/31/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado Fed 4
Lab ID: 2307983-009 **Matrix:** SOIL

Client Sample ID: BH23-02 0.0'
Collection Date: 7/19/2023 11:20:00 AM
Received Date: 7/21/2023 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/23/2023 4:04:54 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/23/2023 4:04:54 PM
Surr: DNOP	96.6	69-147		%Rec	1	7/23/2023 4:04:54 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/25/2023 2:20:16 AM
Surr: BFB	92.9	15-244		%Rec	1	7/25/2023 2:20:16 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 2:20:16 AM
Toluene	ND	0.049		mg/Kg	1	7/25/2023 2:20:16 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/25/2023 2:20:16 AM
Xylenes, Total	ND	0.097		mg/Kg	1	7/25/2023 2:20:16 AM
Surr: 4-Bromofluorobenzene	118	39.1-146		%Rec	1	7/25/2023 2:20:16 AM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	19000	1200		mg/Kg	400	7/26/2023 11:08:23 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2307983**
Date Reported: **7/31/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado Fed 4
Lab ID: 2307983-010 **Matrix:** SOIL

Client Sample ID: BH23-02 2.0'
Collection Date: 7/19/2023 11:30:00 AM
Received Date: 7/21/2023 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/23/2023 4:29:31 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/23/2023 4:29:31 PM
Surr: DNOP	91.8	69-147		%Rec	1	7/23/2023 4:29:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/25/2023 2:43:41 AM
Surr: BFB	93.6	15-244		%Rec	1	7/25/2023 2:43:41 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 2:43:41 AM
Toluene	ND	0.048		mg/Kg	1	7/25/2023 2:43:41 AM
Ethylbenzene	ND	0.048		mg/Kg	1	7/25/2023 2:43:41 AM
Xylenes, Total	ND	0.095		mg/Kg	1	7/25/2023 2:43:41 AM
Surr: 4-Bromofluorobenzene	118	39.1-146		%Rec	1	7/25/2023 2:43:41 AM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	6600	300		mg/Kg	100	7/26/2023 11:20:48 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307983**

31-Jul-23

Client: Devon Energy

Project: Laguna Salado Fed 4

Sample ID: **MB-76439**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **76439**	RunNo: **98504**
Prep Date: **7/25/2023**	Analysis Date: **7/25/2023**	SeqNo: **3586441** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-76439**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **76439**	RunNo: **98504**
Prep Date: **7/25/2023**	Analysis Date: **7/25/2023**	SeqNo: **3586442** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.8	90	110			

Sample ID: **MB-76448**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **76448**	RunNo: **98504**
Prep Date: **7/25/2023**	Analysis Date: **7/25/2023**	SeqNo: **3586471** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-76448**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **76448**	RunNo: **98504**
Prep Date: **7/25/2023**	Analysis Date: **7/25/2023**	SeqNo: **3586472** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.2	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307983**

31-Jul-23

Client: Devon Energy

Project: Laguna Salado Fed 4

Sample ID: **LCS-76387**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **76387**	RunNo: **98368**
Prep Date: **7/21/2023**	Analysis Date: **7/23/2023**	SeqNo: **3583070** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.3	61.9	130			
Surr: DNOP	4.6		5.000		91.4	69	147			

Sample ID: **MB-76387**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **76387**	RunNo: **98451**
Prep Date: **7/21/2023**	Analysis Date: **7/24/2023**	SeqNo: **3583918** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		107	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307983**

31-Jul-23

Client: Devon Energy

Project: Laguna Salado Fed 4

Sample ID: **lcs-76381**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **76381**	RunNo: **98452**
Prep Date: **7/21/2023**	Analysis Date: **7/24/2023**	SeqNo: **3583843** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.4	70	130			
Surr: BFB	2000		1000		197	15	244			

Sample ID: **mb-76381**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **76381**	RunNo: **98452**
Prep Date: **7/21/2023**	Analysis Date: **7/24/2023**	SeqNo: **3583844** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		95.2	15	244			

Sample ID: **2307983-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BG23-01 0.0'**	Batch ID: **76381**	RunNo: **98452**
Prep Date: **7/21/2023**	Analysis Date: **7/24/2023**	SeqNo: **3584038** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	23.99	0	89.5	70	130			
Surr: BFB	1900		959.7		199	15	244			

Sample ID: **2307983-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BG23-01 0.0'**	Batch ID: **76381**	RunNo: **98452**
Prep Date: **7/21/2023**	Analysis Date: **7/24/2023**	SeqNo: **3584039** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	24.04	0	87.0	70	130	2.62	20	
Surr: BFB	1800		961.5		190	15	244	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307983**

31-Jul-23

Client: Devon Energy

Project: Laguna Salado Fed 4

Sample ID: **LCS-76381**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **76381**	RunNo: **98452**
Prep Date: **7/21/2023**	Analysis Date: **7/24/2023**	SeqNo: **3583856** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	114	70	130			
Toluene	1.1	0.050	1.000	0	115	70	130			
Ethylbenzene	1.2	0.050	1.000	0	117	70	130			
Xylenes, Total	3.5	0.10	3.000	0	118	70	130			
Surr: 4-Bromofluorobenzene	1.2		1.000		120	39.1	146			

Sample ID: **mb-76381**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **76381**	RunNo: **98452**
Prep Date: **7/21/2023**	Analysis Date: **7/24/2023**	SeqNo: **3583857** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		119	39.1	146			

Sample ID: **2307983-002ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BG23-01 2.0'**	Batch ID: **76381**	RunNo: **98452**
Prep Date: **7/21/2023**	Analysis Date: **7/24/2023**	SeqNo: **3584057** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9950	0	105	70	130			
Toluene	1.1	0.050	0.9950	0	108	70	130			
Ethylbenzene	1.1	0.050	0.9950	0	110	70	130			
Xylenes, Total	3.3	0.10	2.985	0	109	70	130			
Surr: 4-Bromofluorobenzene	1.2		0.9950		119	39.1	146			

Sample ID: **2307983-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BG23-01 2.0'**	Batch ID: **76381**	RunNo: **98452**
Prep Date: **7/21/2023**	Analysis Date: **7/24/2023**	SeqNo: **3584058** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9930	0	101	70	130	3.57	20	
Toluene	1.0	0.050	0.9930	0	102	70	130	5.27	20	
Ethylbenzene	1.0	0.050	0.9930	0	103	70	130	6.15	20	
Xylenes, Total	3.1	0.099	2.979	0	105	70	130	4.57	20	
Surr: 4-Bromofluorobenzene	1.2		0.9930		119	39.1	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Devon Energy | Work Order Number: 2307983 | RcptNo: 1

Received By: Juan Rojas 7/21/2023 7:50:00 AM

Completed By: Tracy Casarrubias 7/21/2023 8:15:29 AM

Reviewed By: JR 7/21/23

Chain of Custody

1. Is Chain of Custody complete?	Yes ☐	No ☑	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: SCM 07/21/23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions: Mailing address, phone number and Email/Fax are missing on COC - TMC 7/21/23

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.7	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Devon

Direct Bill

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☑ Rush 5 Day

Project Name: Laguna Salado Fed #4

Project #: 23E-01414

Project Manager: Kent Stallings

Sampler: AH

On Ice: ☐ Yes ☐ No

# of Coolers: 1 4oz

Cooler Temp(including CF): 0.6+0.1=0.7 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name		Container Type and #	Preservative Type	HEAL No. 2307983	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7-19-23	1000	Soil	BG23-01	0.0'	4oz	ICE	001										
	1010		BG23-01	2.0'			002										
	1020		BG23-02	0.0'			003										
	1030		BG23-02	2.0'			004										
	1040		BG23-03	0.0'			005										
	1050		BG23-03	2.0'			006										
	1100		BH23-01	0.0'			007										
	1110		BH23-01	2.0'			008										
	1120		BH23-02	0.0'			009										
	1130		BH23-02	2.0'			010										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
			Accuming		7/20/23	800
Date: 7/20/23	Time: 1900	Relinquished by: Accuming	Received by:	Via: Courier	Date 7/21/23	Time 7:50

Remarks: CC: Kent Stallings

Kstallings@vertex.ca

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 04, 2023

Kent Stallings

Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (505) 350-1336
FAX:

RE: Laguna Salado Fed 22 Federal 4 OrderNo.: 2307A39

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 18 sample(s) on 7/22/2023 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued August 03, 2023.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-03 0.0'
Project: Laguna Salado Fed 22 Federal 4
Collection Date: 7/20/2023 9:00:00 AM
Lab ID: 2307A39-001 **Matrix:** SOIL
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/25/2023 4:28:50 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/25/2023 4:28:50 PM
Surr: DNOP	105	69-147		%Rec	1	7/25/2023 4:28:50 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/25/2023 11:33:07 AM
Surr: BFB	93.0	15-244		%Rec	1	7/25/2023 11:33:07 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	7/25/2023 11:33:07 AM
Toluene	ND	0.049		mg/Kg	1	7/25/2023 11:33:07 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/25/2023 11:33:07 AM
Xylenes, Total	ND	0.098		mg/Kg	1	7/25/2023 11:33:07 AM
Surr: 4-Bromofluorobenzene	115	39.1-146		%Rec	1	7/25/2023 11:33:07 AM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	29000	1500		mg/Kg	500	7/27/2023 10:34:45 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado Fed 22 Federal 4
Lab ID: 2307A39-002 **Matrix:** SOIL

Client Sample ID: BH23-03 2.0'
Collection Date: 7/20/2023 9:10:00 AM
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/25/2023 4:39:43 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/25/2023 4:39:43 PM
Surr: DNOP	107	69-147		%Rec	1	7/25/2023 4:39:43 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/25/2023 12:43:42 PM
Surr: BFB	95.7	15-244		%Rec	1	7/25/2023 12:43:42 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	7/25/2023 12:43:42 PM
Toluene	ND	0.049		mg/Kg	1	7/25/2023 12:43:42 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/25/2023 12:43:42 PM
Xylenes, Total	ND	0.099		mg/Kg	1	7/25/2023 12:43:42 PM
Surr: 4-Bromofluorobenzene	118	39.1-146		%Rec	1	7/25/2023 12:43:42 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	13000	600		mg/Kg	200	7/27/2023 10:47:10 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-04 0.0'
Project: Laguna Salado Fed 22 Federal 4
Collection Date: 7/20/2023 9:20:00 AM
Lab ID: 2307A39-003 **Matrix:** SOIL
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/25/2023 4:50:37 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/25/2023 4:50:37 PM
Surr: DNOP	109	69-147		%Rec	1	7/25/2023 4:50:37 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/25/2023 1:54:38 PM
Surr: BFB	98.8	15-244		%Rec	1	7/25/2023 1:54:38 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 1:54:38 PM
Toluene	ND	0.047		mg/Kg	1	7/25/2023 1:54:38 PM
Ethylbenzene	ND	0.047		mg/Kg	1	7/25/2023 1:54:38 PM
Xylenes, Total	ND	0.095		mg/Kg	1	7/25/2023 1:54:38 PM
Surr: 4-Bromofluorobenzene	120	39.1-146		%Rec	1	7/25/2023 1:54:38 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	41000	1500		mg/Kg	500	7/27/2023 10:59:35 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-04 2.0'
Project: Laguna Salado Fed 22 Federal 4
Collection Date: 7/20/2023 9:30:00 AM
Lab ID: 2307A39-004 **Matrix:** SOIL
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/25/2023 5:01:30 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/25/2023 5:01:30 PM
Surr: DNOP	102	69-147		%Rec	1	7/25/2023 5:01:30 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/25/2023 2:18:23 PM
Surr: BFB	99.7	15-244		%Rec	1	7/25/2023 2:18:23 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 2:18:23 PM
Toluene	ND	0.048		mg/Kg	1	7/25/2023 2:18:23 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/25/2023 2:18:23 PM
Xylenes, Total	ND	0.096		mg/Kg	1	7/25/2023 2:18:23 PM
Surr: 4-Bromofluorobenzene	122	39.1-146		%Rec	1	7/25/2023 2:18:23 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	4500	300		mg/Kg	100	7/27/2023 11:12:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado Fed 22 Federal 4
Lab ID: 2307A39-005 **Matrix:** SOIL

Client Sample ID: BH23-04 4.0'
Collection Date: 7/20/2023 9:40:00 AM
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/25/2023 5:12:27 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/25/2023 5:12:27 PM
Surr: DNOP	111	69-147		%Rec	1	7/25/2023 5:12:27 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/25/2023 2:42:10 PM
Surr: BFB	96.3	15-244		%Rec	1	7/25/2023 2:42:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 2:42:10 PM
Toluene	ND	0.047		mg/Kg	1	7/25/2023 2:42:10 PM
Ethylbenzene	ND	0.047		mg/Kg	1	7/25/2023 2:42:10 PM
Xylenes, Total	ND	0.095		mg/Kg	1	7/25/2023 2:42:10 PM
Surr: 4-Bromofluorobenzene	118	39.1-146		%Rec	1	7/25/2023 2:42:10 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	3300	150		mg/Kg	50	7/27/2023 11:24:24 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-05 0.0'
Project: Laguna Salado Fed 22 Federal 4
Collection Date: 7/20/2023 9:50:00 AM
Lab ID: 2307A39-006 **Matrix:** SOIL
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/25/2023 5:23:23 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/25/2023 5:23:23 PM
Surr: DNOP	113	69-147		%Rec	1	7/25/2023 5:23:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/25/2023 3:06:00 PM
Surr: BFB	97.9	15-244		%Rec	1	7/25/2023 3:06:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 3:06:00 PM
Toluene	ND	0.047		mg/Kg	1	7/25/2023 3:06:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	7/25/2023 3:06:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	7/25/2023 3:06:00 PM
Surr: 4-Bromofluorobenzene	120	39.1-146		%Rec	1	7/25/2023 3:06:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	77000	3000		mg/Kg	1000	7/27/2023 11:36:48 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado Fed 22 Federal 4
Lab ID: 2307A39-007 **Matrix:** SOIL

Client Sample ID: BH23-05 2.0'
Collection Date: 7/20/2023 10:00:00 AM
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/25/2023 5:34:17 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/25/2023 5:34:17 PM
Surr: DNOP	113	69-147		%Rec	1	7/25/2023 5:34:17 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/25/2023 3:29:48 PM
Surr: BFB	99.1	15-244		%Rec	1	7/25/2023 3:29:48 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 3:29:48 PM
Toluene	ND	0.048		mg/Kg	1	7/25/2023 3:29:48 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/25/2023 3:29:48 PM
Xylenes, Total	ND	0.095		mg/Kg	1	7/25/2023 3:29:48 PM
Surr: 4-Bromofluorobenzene	122	39.1-146		%Rec	1	7/25/2023 3:29:48 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	3100	150		mg/Kg	50	7/27/2023 11:49:13 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-05 4.0'
Project: Laguna Salado Fed 22 Federal 4
Collection Date: 7/20/2023 10:10:00 AM
Lab ID: 2307A39-008 **Matrix:** SOIL
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/25/2023 5:56:20 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/25/2023 5:56:20 PM
Surr: DNOP	116	69-147		%Rec	1	7/25/2023 5:56:20 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/25/2023 3:53:42 PM
Surr: BFB	99.0	15-244		%Rec	1	7/25/2023 3:53:42 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 3:53:42 PM
Toluene	ND	0.048		mg/Kg	1	7/25/2023 3:53:42 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/25/2023 3:53:42 PM
Xylenes, Total	ND	0.095		mg/Kg	1	7/25/2023 3:53:42 PM
Surr: 4-Bromofluorobenzene	122	39.1-146		%Rec	1	7/25/2023 3:53:42 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	2500	150		mg/Kg	50	7/27/2023 12:01:38 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-06 0.0'
Project: Laguna Salado Fed 22 Federal 4
Collection Date: 7/20/2023 10:20:00 AM
Lab ID: 2307A39-009 **Matrix:** SOIL
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/25/2023 6:07:35 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/25/2023 6:07:35 PM
Surr: DNOP	97.2	69-147		%Rec	1	7/25/2023 6:07:35 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/25/2023 4:17:32 PM
Surr: BFB	100	15-244		%Rec	1	7/25/2023 4:17:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	7/25/2023 4:17:32 PM
Toluene	ND	0.047		mg/Kg	1	7/25/2023 4:17:32 PM
Ethylbenzene	ND	0.047		mg/Kg	1	7/25/2023 4:17:32 PM
Xylenes, Total	ND	0.094		mg/Kg	1	7/25/2023 4:17:32 PM
Surr: 4-Bromofluorobenzene	123	39.1-146		%Rec	1	7/25/2023 4:17:32 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	21000	1200		mg/Kg	400	7/27/2023 12:14:03 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-06 2.0'
Project: Laguna Salado Fed 22 Federal 4
Collection Date: 7/20/2023 10:30:00 AM
Lab ID: 2307A39-010 **Matrix:** SOIL
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/25/2023 6:18:40 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/25/2023 6:18:40 PM
Surr: DNOP	98.9	69-147		%Rec	1	7/25/2023 6:18:40 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/25/2023 4:41:22 PM
Surr: BFB	101	15-244		%Rec	1	7/25/2023 4:41:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 4:41:22 PM
Toluene	ND	0.048		mg/Kg	1	7/25/2023 4:41:22 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/25/2023 4:41:22 PM
Xylenes, Total	ND	0.096		mg/Kg	1	7/25/2023 4:41:22 PM
Surr: 4-Bromofluorobenzene	123	39.1-146		%Rec	1	7/25/2023 4:41:22 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	4400	300		mg/Kg	100	7/27/2023 12:51:16 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-06 4.0'
Project: Laguna Salado Fed 22 Federal 4
Collection Date: 7/20/2023 10:40:00 AM
Lab ID: 2307A39-011 **Matrix:** SOIL
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	7/25/2023 6:29:48 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	7/25/2023 6:29:48 PM
Surr: DNOP	90.6	69-147		%Rec	1	7/25/2023 6:29:48 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/25/2023 5:29:04 PM
Surr: BFB	99.9	15-244		%Rec	1	7/25/2023 5:29:04 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 5:29:04 PM
Toluene	ND	0.047		mg/Kg	1	7/25/2023 5:29:04 PM
Ethylbenzene	ND	0.047		mg/Kg	1	7/25/2023 5:29:04 PM
Xylenes, Total	ND	0.095		mg/Kg	1	7/25/2023 5:29:04 PM
Surr: 4-Bromofluorobenzene	122	39.1-146		%Rec	1	7/25/2023 5:29:04 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	4500	150		mg/Kg	50	7/27/2023 1:03:41 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-07 0.0'
Project: Laguna Salado Fed 22 Federal 4
Collection Date: 7/20/2023 10:50:00 AM
Lab ID: 2307A39-012 **Matrix:** SOIL
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/25/2023 6:40:50 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/25/2023 6:40:50 PM
Surr: DNOP	96.3	69-147		%Rec	1	7/25/2023 6:40:50 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/25/2023 5:52:46 PM
Surr: BFB	98.4	15-244		%Rec	1	7/25/2023 5:52:46 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 5:52:46 PM
Toluene	ND	0.048		mg/Kg	1	7/25/2023 5:52:46 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/25/2023 5:52:46 PM
Xylenes, Total	ND	0.097		mg/Kg	1	7/25/2023 5:52:46 PM
Surr: 4-Bromofluorobenzene	120	39.1-146		%Rec	1	7/25/2023 5:52:46 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	27000	1200		mg/Kg	400	7/27/2023 1:16:06 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-07 2.0'
Project: Laguna Salado Fed 22 Federal 4
Collection Date: 7/20/2023 11:00:00 AM
Lab ID: 2307A39-013 **Matrix:** SOIL
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/25/2023 6:51:54 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/25/2023 6:51:54 PM
Surr: DNOP	97.0	69-147		%Rec	1	7/25/2023 6:51:54 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/25/2023 6:16:36 PM
Surr: BFB	99.5	15-244		%Rec	1	7/25/2023 6:16:36 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 6:16:36 PM
Toluene	ND	0.047		mg/Kg	1	7/25/2023 6:16:36 PM
Ethylbenzene	ND	0.047		mg/Kg	1	7/25/2023 6:16:36 PM
Xylenes, Total	ND	0.094		mg/Kg	1	7/25/2023 6:16:36 PM
Surr: 4-Bromofluorobenzene	123	39.1-146		%Rec	1	7/25/2023 6:16:36 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	3400	150		mg/Kg	50	7/27/2023 1:28:31 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-08 0.0'
Project: Laguna Salado Fed 22 Federal 4
Collection Date: 7/20/2023 11:10:00 AM
Lab ID: 2307A39-014 **Matrix:** SOIL
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/25/2023 7:02:57 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/25/2023 7:02:57 PM
Surr: DNOP	102	69-147		%Rec	1	7/25/2023 7:02:57 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/25/2023 6:40:23 PM
Surr: BFB	98.7	15-244		%Rec	1	7/25/2023 6:40:23 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 6:40:23 PM
Toluene	ND	0.047		mg/Kg	1	7/25/2023 6:40:23 PM
Ethylbenzene	ND	0.047		mg/Kg	1	7/25/2023 6:40:23 PM
Xylenes, Total	ND	0.095		mg/Kg	1	7/25/2023 6:40:23 PM
Surr: 4-Bromofluorobenzene	122	39.1-146		%Rec	1	7/25/2023 6:40:23 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	42000	3000		mg/Kg	1000	7/27/2023 1:40:55 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-08 2.0'
Project: Laguna Salado Fed 22 Federal 4
Collection Date: 7/20/2023 11:20:00 AM
Lab ID: 2307A39-015 **Matrix:** SOIL
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/25/2023 7:13:56 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/25/2023 7:13:56 PM
Surr: DNOP	101	69-147		%Rec	1	7/25/2023 7:13:56 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/25/2023 7:04:01 PM
Surr: BFB	95.4	15-244		%Rec	1	7/25/2023 7:04:01 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 7:04:01 PM
Toluene	ND	0.049		mg/Kg	1	7/25/2023 7:04:01 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/25/2023 7:04:01 PM
Xylenes, Total	ND	0.097		mg/Kg	1	7/25/2023 7:04:01 PM
Surr: 4-Bromofluorobenzene	118	39.1-146		%Rec	1	7/25/2023 7:04:01 PM
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Chloride	5500	300		mg/Kg	100	7/28/2023 9:55:41 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-09 0.0'
Project: Laguna Salado Fed 22 Federal 4
Collection Date: 7/20/2023 11:30:00 AM
Lab ID: 2307A39-016 **Matrix:** SOIL
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	7/25/2023 7:24:51 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	7/25/2023 7:24:51 PM
Surr: DNOP	104	69-147		%Rec	1	7/25/2023 7:24:51 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/25/2023 7:27:40 PM
Surr: BFB	97.9	15-244		%Rec	1	7/25/2023 7:27:40 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/25/2023 7:27:40 PM
Toluene	ND	0.047		mg/Kg	1	7/25/2023 7:27:40 PM
Ethylbenzene	ND	0.047		mg/Kg	1	7/25/2023 7:27:40 PM
Xylenes, Total	ND	0.095		mg/Kg	1	7/25/2023 7:27:40 PM
Surr: 4-Bromofluorobenzene	121	39.1-146		%Rec	1	7/25/2023 7:27:40 PM
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Chloride	25000	1200		mg/Kg	400	7/28/2023 10:08:05 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-09 2.0'
Project: Laguna Salado Fed 22 Federal 4
Collection Date: 7/20/2023 11:40:00 AM
Lab ID: 2307A39-017 **Matrix:** SOIL
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/25/2023 7:57:42 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/25/2023 7:57:42 PM
Surr: DNOP	102	69-147		%Rec	1	7/25/2023 7:57:42 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/25/2023 7:51:19 PM
Surr: BFB	96.0	15-244		%Rec	1	7/25/2023 7:51:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	7/25/2023 7:51:19 PM
Toluene	ND	0.049		mg/Kg	1	7/25/2023 7:51:19 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/25/2023 7:51:19 PM
Xylenes, Total	ND	0.099		mg/Kg	1	7/25/2023 7:51:19 PM
Surr: 4-Bromofluorobenzene	120	39.1-146		%Rec	1	7/25/2023 7:51:19 PM
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Chloride	5600	300		mg/Kg	100	7/28/2023 10:20:30 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307A39**
Date Reported: **8/4/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-09 4.0'
Project: Laguna Salado Fed 22 Federal 4
Collection Date: 7/20/2023 11:50:00 AM
Lab ID: 2307A39-018 **Matrix:** SOIL
Received Date: 7/22/2023 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/25/2023 8:08:36 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/25/2023 8:08:36 PM
Surr: DNOP	103	69-147		%Rec	1	7/25/2023 8:08:36 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/25/2023 8:14:52 PM
Surr: BFB	95.8	15-244		%Rec	1	7/25/2023 8:14:52 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	7/25/2023 8:14:52 PM
Toluene	ND	0.046		mg/Kg	1	7/25/2023 8:14:52 PM
Ethylbenzene	ND	0.046		mg/Kg	1	7/25/2023 8:14:52 PM
Xylenes, Total	ND	0.092		mg/Kg	1	7/25/2023 8:14:52 PM
Surr: 4-Bromofluorobenzene	119	39.1-146		%Rec	1	7/25/2023 8:14:52 PM
EPA METHOD 300.0: ANIONS						Analyst: **JTT**
Chloride	3300	150		mg/Kg	50	7/28/2023 10:32:55 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307A39**

04-Aug-23

Client: Devon Energy

Project: Laguna Salado Fed 22 Federal 4

Sample ID: **MB-76484**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **76484**	RunNo: **98503**							
Prep Date: **7/26/2023**	Analysis Date: **7/26/2023**	SeqNo: **3587802**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-76484**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **76484**	RunNo: **98503**							
Prep Date: **7/26/2023**	Analysis Date: **7/26/2023**	SeqNo: **3587803**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.3	90	110			

Sample ID: **MB-76506**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **76506**	RunNo: **98546**							
Prep Date: **7/27/2023**	Analysis Date: **7/27/2023**	SeqNo: **3589322**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-76506**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **76506**	RunNo: **98546**							
Prep Date: **7/27/2023**	Analysis Date: **7/27/2023**	SeqNo: **3589323**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307A39**

04-Aug-23

Client: Devon Energy

Project: Laguna Salado Fed 22 Federal 4

Sample ID: **2307A39-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BH23-03 0.0'**	Batch ID: **76429**	RunNo: **98469**
Prep Date: **7/24/2023**	Analysis Date: **7/25/2023**	SeqNo: **3586051** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	9.9	49.50	0	106	54.2	135			
Surr: DNOP	5.0		4.950		102	69	147			

Sample ID: **2307A39-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BH23-03 0.0'**	Batch ID: **76429**	RunNo: **98469**
Prep Date: **7/24/2023**	Analysis Date: **7/25/2023**	SeqNo: **3586052** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	9.7	48.73	0	110	54.2	135	2.40	29.2	
Surr: DNOP	5.1		4.873		105	69	147	0	0	

Sample ID: **LCS-76429**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **76429**	RunNo: **98469**
Prep Date: **7/24/2023**	Analysis Date: **7/25/2023**	SeqNo: **3586101** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	61.9	130			
Surr: DNOP	4.5		5.000		90.8	69	147			

Sample ID: **MB-76429**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **76429**	RunNo: **98469**
Prep Date: **7/24/2023**	Analysis Date: **7/25/2023**	SeqNo: **3586105** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		114	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307A39**

04-Aug-23

Client: Devon Energy

Project: Laguna Salado Fed 22 Federal 4

Sample ID: **lcs-76413**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **76413**	RunNo: **98484**
Prep Date: **7/24/2023**	Analysis Date: **7/25/2023**	SeqNo: **3585304** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.5	70	130			
Surr: BFB	1900		1000		189	15	244			

Sample ID: **mb-76413**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **76413**	RunNo: **98484**
Prep Date: **7/24/2023**	Analysis Date: **7/25/2023**	SeqNo: **3585305** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		93.4	15	244			

Sample ID: **2307a39-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH23-03 0.0'**	Batch ID: **76413**	RunNo: **98484**
Prep Date: **7/24/2023**	Analysis Date: **7/25/2023**	SeqNo: **3585307** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.9	24.68	0	97.2	70	130			
Surr: BFB	2000		987.2		199	15	244			

Sample ID: **2307a39-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH23-03 0.0'**	Batch ID: **76413**	RunNo: **98484**
Prep Date: **7/24/2023**	Analysis Date: **7/25/2023**	SeqNo: **3585308** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	24.75	0	113	70	130	15.6	20	
Surr: BFB	2200		990.1		222	15	244	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307A39**

04-Aug-23

Client: Devon Energy

Project: Laguna Salado Fed 22 Federal 4

Sample ID: **LCS-76413**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **76413**	RunNo: **98484**
Prep Date: **7/24/2023**	Analysis Date: **7/25/2023**	SeqNo: **3585317** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	70	130			
Toluene	1.1	0.050	1.000	0	109	70	130			
Ethylbenzene	1.1	0.050	1.000	0	111	70	130			
Xylenes, Total	3.4	0.10	3.000	0	112	70	130			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	39.1	146			

Sample ID: **mb-76413**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **76413**	RunNo: **98484**
Prep Date: **7/24/2023**	Analysis Date: **7/25/2023**	SeqNo: **3585318** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		118	39.1	146			

Sample ID: **2307a39-002ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH23-03 2.0'**	Batch ID: **76413**	RunNo: **98484**
Prep Date: **7/24/2023**	Analysis Date: **7/25/2023**	SeqNo: **3585321** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	0.9843	0	117	70	130			
Toluene	1.2	0.049	0.9843	0	120	70	130			
Ethylbenzene	1.2	0.049	0.9843	0	123	70	130			
Xylenes, Total	3.6	0.098	2.953	0	123	70	130			
Surr: 4-Bromofluorobenzene	1.2		0.9843		119	39.1	146			

Sample ID: **2307a39-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH23-03 2.0'**	Batch ID: **76413**	RunNo: **98484**
Prep Date: **7/24/2023**	Analysis Date: **7/25/2023**	SeqNo: **3585322** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	0.9911	0	115	70	130	1.48	20	
Toluene	1.2	0.050	0.9911	0	117	70	130	1.67	20	
Ethylbenzene	1.2	0.050	0.9911	0	120	70	130	1.89	20	
Xylenes, Total	3.6	0.099	2.973	0	121	70	130	1.48	20	
Surr: 4-Bromofluorobenzene	1.2		0.9911		121	39.1	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Devon Energy | Work Order Number: 2307A39 | RcptNo: 1

Received By: **Tracy Casarrubias** 7/22/2023 10:30:00 AM

Completed By: **Tracy Casarrubias** 7/22/2023 10:46:19 AM

Reviewed By: JM 7/24/23

Chain of Custody

1. Is Chain of Custody complete?	Yes ☐	No ☑	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: TMC 7/22/23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: Mailing address, phone number, and Email/Fax are missing on COC- TMC 7/22/23

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.9	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Devon

Direct Bill

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☑ Rush 5 Day Push Per E.C. 7/20/23

Project Name: Laguna Salado 22 Federal 4H

Project #: 23E-01414

Project Manager: Kent Stallings

Sampler: AH

On Ice: ☑ Yes ☐ No 4093

# of Coolers: 1

Cooler Temp(Including CF): 0.9-0=0.9 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name		Container Type and #	Preservative Type	HEAL No. 2307A39	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7-20-23	0900	Soil	BH23-03	0.0'	4 oz	ICE	001										
	0910		BH23-03	2.0'			002										
	0920		BH23-04	0.0'			003										
	0930		BH23-04	2.0'			004										
	0940		BH23-04	4.0'			005										
	0950		BH23-05	0.0'			006										
	1000		BH23-05	2.0'			007										
	1010		BH23-05	4.0'			008										
	1020		BH23-06	0.0'			009										
	1030		BH23-06	2.0'			010										
	1040		BH23-06	4.0'			011										
	1050		BH23-07	0.0'			012										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					7/20/23	810
7/21/23	1900			courier	7/22/23	10:30

Remarks: CC: Kent Stallings

Kstallings@vertex.ca

Chain-of-Custody Record

Client: Devon

Direct Bill

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☑ Rush

Project Name: Laguna Salado 22 Federal 4

Project #: 23E-01414

Project Manager: Kent Stallings

Sampler: AH

On Ice: ☑ Yes ☐ No 4001

# of Coolers: 1

Cooler Temp(including CF): 0.9-0+0.9 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2307A39	BTEX / MTBE / TMB's (8021)	TPH: 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7-20-23	1100	Soil	BH23-07 2.0'	4 oz	ICE	013										
	1110		BH23-08 0.0'			014										
	1120		BH23-08 2.0'			015										
	1130		BH23-09 0.0'			016										
	1140		BH23-09 2.0'			017										
	1150		BH23-09 4.0'			018										
			~~BH23-~~ ~~BH25~~ AH													

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					7/21/23	810
7/21/23	900			Courier	7/22/23	10:30

Remarks: CC: Kent Stallings

KStallings@vertex.ca

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 03, 2023

Kent Stallings

Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (575) 748-0176
FAX:

RE: Laguna Salado 22 Federal 4 OrderNo.: 2307B06

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 24 sample(s) on 7/25/2023 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-001 **Matrix:** SOIL

Client Sample ID: BH23-10 0.0
Collection Date: 7/21/2023 8:00:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/27/2023 2:05:14 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/27/2023 2:05:14 PM
Surr: DNOP	96.6	69-147		%Rec	1	7/27/2023 2:05:14 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/27/2023 7:16:00 PM
Surr: BFB	96.3	15-244		%Rec	1	7/27/2023 7:16:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	7/27/2023 7:16:00 PM
Toluene	ND	0.047		mg/Kg	1	7/27/2023 7:16:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	7/27/2023 7:16:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	7/27/2023 7:16:00 PM
Surr: 4-Bromofluorobenzene	117	39.1-146		%Rec	1	7/27/2023 7:16:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	29000	1500		mg/Kg	500	7/31/2023 3:32:48 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-002 **Matrix:** SOIL

Client Sample ID: BH23-10 2.0
Collection Date: 7/21/2023 8:10:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	7/27/2023 2:29:16 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	7/27/2023 2:29:16 PM
Surr: DNOP	96.1	69-147		%Rec	1	7/27/2023 2:29:16 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/27/2023 7:39:33 PM
Surr: BFB	96.8	15-244		%Rec	1	7/27/2023 7:39:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/27/2023 7:39:33 PM
Toluene	ND	0.049		mg/Kg	1	7/27/2023 7:39:33 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/27/2023 7:39:33 PM
Xylenes, Total	ND	0.098		mg/Kg	1	7/27/2023 7:39:33 PM
Surr: 4-Bromofluorobenzene	118	39.1-146		%Rec	1	7/27/2023 7:39:33 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	3600	150		mg/Kg	50	7/31/2023 3:45:08 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-10 3.5
Project: Laguna Salado 22 Federal 4
Collection Date: 7/21/2023 8:20:00 AM
Lab ID: 2307B06-003 **Matrix:** SOIL **Received Date:** 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/27/2023 2:53:24 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/27/2023 2:53:24 PM
Surr: DNOP	94.6	69-147		%Rec	1	7/27/2023 2:53:24 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/27/2023 8:03:05 PM
Surr: BFB	96.4	15-244		%Rec	1	7/27/2023 8:03:05 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	7/27/2023 8:03:05 PM
Toluene	ND	0.049		mg/Kg	1	7/27/2023 8:03:05 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/27/2023 8:03:05 PM
Xylenes, Total	ND	0.098		mg/Kg	1	7/27/2023 8:03:05 PM
Surr: 4-Bromofluorobenzene	119	39.1-146		%Rec	1	7/27/2023 8:03:05 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	3900	150		mg/Kg	50	7/31/2023 3:57:29 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-004 **Matrix:** SOIL

Client Sample ID: BH23-11 0.0
Collection Date: 7/21/2023 8:30:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/27/2023 3:17:25 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/27/2023 3:17:25 PM
Surr: DNOP	96.9	69-147		%Rec	1	7/27/2023 3:17:25 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/27/2023 8:26:37 PM
Surr: BFB	94.9	15-244		%Rec	1	7/27/2023 8:26:37 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/27/2023 8:26:37 PM
Toluene	ND	0.048		mg/Kg	1	7/27/2023 8:26:37 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/27/2023 8:26:37 PM
Xylenes, Total	ND	0.096		mg/Kg	1	7/27/2023 8:26:37 PM
Surr: 4-Bromofluorobenzene	118	39.1-146		%Rec	1	7/27/2023 8:26:37 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	41000	1500		mg/Kg	500	7/31/2023 4:09:49 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-005 **Matrix:** SOIL

Client Sample ID: BH23-11 2.0
Collection Date: 7/21/2023 8:40:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	7/27/2023 4:05:24 PM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	7/27/2023 4:05:24 PM
Surr: DNOP	96.5	69-147		%Rec	1	7/27/2023 4:05:24 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/27/2023 11:10:34 PM
Surr: BFB	94.4	15-244		%Rec	1	7/27/2023 11:10:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	7/27/2023 11:10:34 PM
Toluene	ND	0.050		mg/Kg	1	7/27/2023 11:10:34 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/27/2023 11:10:34 PM
Xylenes, Total	ND	0.099		mg/Kg	1	7/27/2023 11:10:34 PM
Surr: 4-Bromofluorobenzene	117	39.1-146		%Rec	1	7/27/2023 11:10:34 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	4400	150		mg/Kg	50	7/31/2023 4:22:10 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-006 **Matrix:** SOIL

Client Sample ID: BH23-12 0.0
Collection Date: 7/21/2023 8:50:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/27/2023 4:54:11 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/27/2023 4:54:11 PM
Surr: DNOP	95.2	69-147		%Rec	1	7/27/2023 4:54:11 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/27/2023 11:33:54 PM
Surr: BFB	94.2	15-244		%Rec	1	7/27/2023 11:33:54 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/27/2023 11:33:54 PM
Toluene	ND	0.048		mg/Kg	1	7/27/2023 11:33:54 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/27/2023 11:33:54 PM
Xylenes, Total	ND	0.097		mg/Kg	1	7/27/2023 11:33:54 PM
Surr: 4-Bromofluorobenzene	116	39.1-146		%Rec	1	7/27/2023 11:33:54 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	9700	300		mg/Kg	100	7/31/2023 4:34:31 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-12 2.0
Project: Laguna Salado 22 Federal 4
Collection Date: 7/21/2023 9:00:00 AM
Lab ID: 2307B06-007 **Matrix:** SOIL **Received Date:** 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	7/27/2023 5:18:43 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	7/27/2023 5:18:43 PM
Surr: DNOP	96.1	69-147		%Rec	1	7/27/2023 5:18:43 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/27/2023 11:57:16 PM
Surr: BFB	91.6	15-244		%Rec	1	7/27/2023 11:57:16 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/27/2023 11:57:16 PM
Toluene	ND	0.048		mg/Kg	1	7/27/2023 11:57:16 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/27/2023 11:57:16 PM
Xylenes, Total	ND	0.095		mg/Kg	1	7/27/2023 11:57:16 PM
Surr: 4-Bromofluorobenzene	114	39.1-146		%Rec	1	7/27/2023 11:57:16 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	8900	300		mg/Kg	100	7/31/2023 4:46:51 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-008 **Matrix:** SOIL

Client Sample ID: BH23-13 0.0
Collection Date: 7/21/2023 9:10:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/27/2023 5:43:23 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/27/2023 5:43:23 PM
Surr: DNOP	92.9	69-147		%Rec	1	7/27/2023 5:43:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/28/2023 12:20:42 AM
Surr: BFB	93.1	15-244		%Rec	1	7/28/2023 12:20:42 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/28/2023 12:20:42 AM
Toluene	ND	0.048		mg/Kg	1	7/28/2023 12:20:42 AM
Ethylbenzene	ND	0.048		mg/Kg	1	7/28/2023 12:20:42 AM
Xylenes, Total	ND	0.097		mg/Kg	1	7/28/2023 12:20:42 AM
Surr: 4-Bromofluorobenzene	116	39.1-146		%Rec	1	7/28/2023 12:20:42 AM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	13000	1500		mg/Kg	500	7/31/2023 4:59:10 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-009 **Matrix:** SOIL

Client Sample ID: BH23-13 2.0
Collection Date: 7/21/2023 9:20:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/27/2023 6:08:23 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/27/2023 6:08:23 PM
Surr: DNOP	94.4	69-147		%Rec	1	7/27/2023 6:08:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/28/2023 12:44:17 AM
Surr: BFB	94.1	15-244		%Rec	1	7/28/2023 12:44:17 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/28/2023 12:44:17 AM
Toluene	ND	0.048		mg/Kg	1	7/28/2023 12:44:17 AM
Ethylbenzene	ND	0.048		mg/Kg	1	7/28/2023 12:44:17 AM
Xylenes, Total	ND	0.096		mg/Kg	1	7/28/2023 12:44:17 AM
Surr: 4-Bromofluorobenzene	117	39.1-146		%Rec	1	7/28/2023 12:44:17 AM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	4900	150		mg/Kg	50	7/31/2023 5:11:31 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-010 **Matrix:** SOIL

Client Sample ID: BH23-14 0.0
Collection Date: 7/21/2023 9:30:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/27/2023 6:33:20 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/27/2023 6:33:20 PM
Surr: DNOP	95.7	69-147		%Rec	1	7/27/2023 6:33:20 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/28/2023 1:07:36 AM
Surr: BFB	91.9	15-244		%Rec	1	7/28/2023 1:07:36 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	7/28/2023 1:07:36 AM
Toluene	ND	0.049		mg/Kg	1	7/28/2023 1:07:36 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/28/2023 1:07:36 AM
Xylenes, Total	ND	0.098		mg/Kg	1	7/28/2023 1:07:36 AM
Surr: 4-Bromofluorobenzene	114	39.1-146		%Rec	1	7/28/2023 1:07:36 AM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	40000	1500		mg/Kg	500	7/31/2023 5:48:35 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-011 **Matrix:** SOIL

Client Sample ID: BH23-14 2.0
Collection Date: 7/21/2023 9:40:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/27/2023 7:22:55 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/27/2023 7:22:55 PM
Surr: DNOP	94.2	69-147		%Rec	1	7/27/2023 7:22:55 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/28/2023 1:30:57 AM
Surr: BFB	93.6	15-244		%Rec	1	7/28/2023 1:30:57 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/28/2023 1:30:57 AM
Toluene	ND	0.048		mg/Kg	1	7/28/2023 1:30:57 AM
Ethylbenzene	ND	0.048		mg/Kg	1	7/28/2023 1:30:57 AM
Xylenes, Total	ND	0.095		mg/Kg	1	7/28/2023 1:30:57 AM
Surr: 4-Bromofluorobenzene	115	39.1-146		%Rec	1	7/28/2023 1:30:57 AM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	7500	300		mg/Kg	100	7/31/2023 6:00:56 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-012 **Matrix:** SOIL

Client Sample ID: BH23-14 4.0
Collection Date: 7/21/2023 9:50:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/27/2023 7:47:37 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/27/2023 7:47:37 PM
Surr: DNOP	97.0	69-147		%Rec	1	7/27/2023 7:47:37 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/28/2023 1:54:18 AM
Surr: BFB	93.6	15-244		%Rec	1	7/28/2023 1:54:18 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/28/2023 1:54:18 AM
Toluene	ND	0.048		mg/Kg	1	7/28/2023 1:54:18 AM
Ethylbenzene	ND	0.048		mg/Kg	1	7/28/2023 1:54:18 AM
Xylenes, Total	ND	0.097		mg/Kg	1	7/28/2023 1:54:18 AM
Surr: 4-Bromofluorobenzene	117	39.1-146		%Rec	1	7/28/2023 1:54:18 AM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	8600	300		mg/Kg	100	7/31/2023 6:13:16 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-013 **Matrix:** SOIL

Client Sample ID: BH23-15 0.0'
Collection Date: 7/21/2023 10:00:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/27/2023 8:12:23 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/27/2023 8:12:23 PM
Surr: DNOP	97.3	69-147		%Rec	1	7/27/2023 8:12:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/28/2023 2:17:38 AM
Surr: BFB	91.3	15-244		%Rec	1	7/28/2023 2:17:38 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	7/28/2023 2:17:38 AM
Toluene	ND	0.049		mg/Kg	1	7/28/2023 2:17:38 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/28/2023 2:17:38 AM
Xylenes, Total	ND	0.097		mg/Kg	1	7/28/2023 2:17:38 AM
Surr: 4-Bromofluorobenzene	114	39.1-146		%Rec	1	7/28/2023 2:17:38 AM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	27000	1500		mg/Kg	500	7/31/2023 6:25:37 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-014 **Matrix:** SOIL

Client Sample ID: BH23-15 2.0'
Collection Date: 7/21/2023 10:10:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/27/2023 8:37:06 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/27/2023 8:37:06 PM
Surr: DNOP	99.0	69-147		%Rec	1	7/27/2023 8:37:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/28/2023 2:41:01 AM
Surr: BFB	95.3	15-244		%Rec	1	7/28/2023 2:41:01 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	7/28/2023 2:41:01 AM
Toluene	ND	0.049		mg/Kg	1	7/28/2023 2:41:01 AM
Ethylbenzene	ND	0.049		mg/Kg	1	7/28/2023 2:41:01 AM
Xylenes, Total	ND	0.098		mg/Kg	1	7/28/2023 2:41:01 AM
Surr: 4-Bromofluorobenzene	118	39.1-146		%Rec	1	7/28/2023 2:41:01 AM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	6500	300		mg/Kg	100	7/31/2023 6:37:57 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-015 **Matrix:** SOIL

Client Sample ID: BH23-15 3.0'
Collection Date: 7/21/2023 10:20:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/28/2023 10:35:43 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/28/2023 10:35:43 PM
Surr: DNOP	98.5	69-147		%Rec	1	7/28/2023 10:35:43 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/28/2023 12:00:00 PM
Surr: BFB	83.9	15-244		%Rec	1	7/28/2023 12:00:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**
Benzene	ND	0.024		mg/Kg	1	7/28/2023 12:00:00 PM
Toluene	ND	0.048		mg/Kg	1	7/28/2023 12:00:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/28/2023 12:00:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	7/28/2023 12:00:00 PM
Surr: 4-Bromofluorobenzene	81.3	39.1-146		%Rec	1	7/28/2023 12:00:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	7500	300		mg/Kg	100	7/31/2023 6:50:19 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-016 **Matrix:** SOIL

Client Sample ID: BH23-16 0.0'
Collection Date: 7/21/2023 10:30:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/28/2023 10:46:49 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/28/2023 10:46:49 PM
Surr: DNOP	103	69-147		%Rec	1	7/28/2023 10:46:49 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/28/2023 1:06:00 PM
Surr: BFB	80.4	15-244		%Rec	1	7/28/2023 1:06:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**
Benzene	ND	0.025		mg/Kg	1	7/28/2023 1:06:00 PM
Toluene	ND	0.049		mg/Kg	1	7/28/2023 1:06:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/28/2023 1:06:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	7/28/2023 1:06:00 PM
Surr: 4-Bromofluorobenzene	79.7	39.1-146		%Rec	1	7/28/2023 1:06:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	37000	1500		mg/Kg	500	7/31/2023 7:02:39 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-017 **Matrix:** SOIL

Client Sample ID: BH23-16 2.0'
Collection Date: 7/21/2023 10:40:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	7/28/2023 10:57:53 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/28/2023 10:57:53 PM
Surr: DNOP	99.6	69-147		%Rec	1	7/28/2023 10:57:53 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/28/2023 2:11:00 PM
Surr: BFB	82.8	15-244		%Rec	1	7/28/2023 2:11:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**
Benzene	ND	0.024		mg/Kg	1	7/28/2023 2:11:00 PM
Toluene	ND	0.048		mg/Kg	1	7/28/2023 2:11:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/28/2023 2:11:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	7/28/2023 2:11:00 PM
Surr: 4-Bromofluorobenzene	80.4	39.1-146		%Rec	1	7/28/2023 2:11:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	8300	300		mg/Kg	100	7/31/2023 7:15:01 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-018 **Matrix:** SOIL

Client Sample ID: BH23-16 4.0'
Collection Date: 7/21/2023 10:50:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	7/28/2023 11:08:59 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	7/28/2023 11:08:59 PM
Surr: DNOP	92.7	69-147		%Rec	1	7/28/2023 11:08:59 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/28/2023 2:33:00 PM
Surr: BFB	81.1	15-244		%Rec	1	7/28/2023 2:33:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**
Benzene	ND	0.024		mg/Kg	1	7/28/2023 2:33:00 PM
Toluene	ND	0.048		mg/Kg	1	7/28/2023 2:33:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/28/2023 2:33:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	7/28/2023 2:33:00 PM
Surr: 4-Bromofluorobenzene	79.4	39.1-146		%Rec	1	7/28/2023 2:33:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	5600	300		mg/Kg	100	7/31/2023 7:27:21 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-019 **Matrix:** SOIL

Client Sample ID: BH23-17 0.0'
Collection Date: 7/21/2023 11:00:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	7/28/2023 11:20:03 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	7/28/2023 11:20:03 PM
Surr: DNOP	97.6	69-147		%Rec	1	7/28/2023 11:20:03 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/28/2023 2:55:00 PM
Surr: BFB	83.3	15-244		%Rec	1	7/28/2023 2:55:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**
Benzene	ND	0.024		mg/Kg	1	7/28/2023 2:55:00 PM
Toluene	ND	0.049		mg/Kg	1	7/28/2023 2:55:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/28/2023 2:55:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	7/28/2023 2:55:00 PM
Surr: 4-Bromofluorobenzene	80.4	39.1-146		%Rec	1	7/28/2023 2:55:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	22000	1500		mg/Kg	500	7/31/2023 7:39:41 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-020 **Matrix:** SOIL

Client Sample ID: BH23-17 2.0'
Collection Date: 7/21/2023 11:10:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	7/28/2023 11:31:07 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	7/28/2023 11:31:07 PM
Surr: DNOP	100	69-147		%Rec	1	7/28/2023 11:31:07 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/28/2023 3:17:00 PM
Surr: BFB	86.5	15-244		%Rec	1	7/28/2023 3:17:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**
Benzene	ND	0.024		mg/Kg	1	7/28/2023 3:17:00 PM
Toluene	ND	0.049		mg/Kg	1	7/28/2023 3:17:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/28/2023 3:17:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	7/28/2023 3:17:00 PM
Surr: 4-Bromofluorobenzene	79.4	39.1-146		%Rec	1	7/28/2023 3:17:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	5700	150		mg/Kg	50	7/31/2023 8:16:43 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-021 **Matrix:** SOIL

Client Sample ID: BH23-17 4.0'
Collection Date: 7/21/2023 11:20:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	7/28/2023 11:42:15 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	7/28/2023 11:42:15 PM
Surr: DNOP	98.0	69-147		%Rec	1	7/28/2023 11:42:15 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/28/2023 3:39:00 PM
Surr: BFB	82.0	15-244		%Rec	1	7/28/2023 3:39:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**
Benzene	ND	0.024		mg/Kg	1	7/28/2023 3:39:00 PM
Toluene	ND	0.048		mg/Kg	1	7/28/2023 3:39:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/28/2023 3:39:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	7/28/2023 3:39:00 PM
Surr: 4-Bromofluorobenzene	80.8	39.1-146		%Rec	1	7/28/2023 3:39:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	7000	300		mg/Kg	100	7/31/2023 8:29:04 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-022 **Matrix:** SOIL

Client Sample ID: BH23-18 0.0'
Collection Date: 7/21/2023 11:30:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/28/2023 11:53:15 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/28/2023 11:53:15 PM
Surr: DNOP	108	69-147		%Rec	1	7/28/2023 11:53:15 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/28/2023 4:01:00 PM
Surr: BFB	83.7	15-244		%Rec	1	7/28/2023 4:01:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**
Benzene	ND	0.025		mg/Kg	1	7/28/2023 4:01:00 PM
Toluene	ND	0.049		mg/Kg	1	7/28/2023 4:01:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/28/2023 4:01:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	7/28/2023 4:01:00 PM
Surr: 4-Bromofluorobenzene	81.0	39.1-146		%Rec	1	7/28/2023 4:01:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	48000	1500		mg/Kg	500	7/31/2023 8:41:25 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-023 **Matrix:** SOIL

Client Sample ID: BH23-18 2.0'
Collection Date: 7/21/2023 11:40:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/29/2023 12:15:12 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/29/2023 12:15:12 AM
Surr: DNOP	106	69-147		%Rec	1	7/29/2023 12:15:12 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/28/2023 4:23:00 PM
Surr: BFB	86.5	15-244		%Rec	1	7/28/2023 4:23:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**
Benzene	ND	0.024		mg/Kg	1	7/28/2023 4:23:00 PM
Toluene	ND	0.049		mg/Kg	1	7/28/2023 4:23:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	7/28/2023 4:23:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	7/28/2023 4:23:00 PM
Surr: 4-Bromofluorobenzene	80.9	39.1-146		%Rec	1	7/28/2023 4:23:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	5900	300		mg/Kg	100	7/31/2023 8:53:46 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2307B06**
Date Reported: **8/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Laguna Salado 22 Federal 4
Lab ID: 2307B06-024 **Matrix:** SOIL

Client Sample ID: BH23-18 4.0"
Collection Date: 7/21/2023 11:50:00 AM
Received Date: 7/25/2023 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/29/2023 12:26:16 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/29/2023 12:26:16 AM
Surr: DNOP	105	69-147		%Rec	1	7/29/2023 12:26:16 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **KMN**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/28/2023 5:07:00 PM
Surr: BFB	83.1	15-244		%Rec	1	7/28/2023 5:07:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **KMN**
Benzene	ND	0.025		mg/Kg	1	7/28/2023 5:07:00 PM
Toluene	ND	0.050		mg/Kg	1	7/28/2023 5:07:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/28/2023 5:07:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	7/28/2023 5:07:00 PM
Surr: 4-Bromofluorobenzene	79.9	39.1-146		%Rec	1	7/28/2023 5:07:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	9300	300		mg/Kg	100	7/31/2023 9:06:07 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307B06**

03-Aug-23

Client: Devon Energy

Project: Laguna Salado 22 Federal 4

Sample ID: **MB-76528**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **76528**	RunNo: **98582**
Prep Date: **7/27/2023**	Analysis Date: **7/28/2023**	SeqNo: **3589673** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-76528**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **76528**	RunNo: **98582**
Prep Date: **7/27/2023**	Analysis Date: **7/28/2023**	SeqNo: **3589674** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.3	90	110			

Sample ID: **MB-76546**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **76546**	RunNo: **98582**
Prep Date: **7/28/2023**	Analysis Date: **7/28/2023**	SeqNo: **3589705** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-76546**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **76546**	RunNo: **98582**
Prep Date: **7/28/2023**	Analysis Date: **7/28/2023**	SeqNo: **3589706** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.7	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307B06**

03-Aug-23

Client: Devon Energy

Project: Laguna Salado 22 Federal 4

Sample ID: **MB-76478**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **76478**	RunNo: **98560**
Prep Date: **7/26/2023**	Analysis Date: **7/27/2023**	SeqNo: **3589110** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	13		10.00		126	69	147			

Sample ID: **LCS-76478**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **76478**	RunNo: **98560**
Prep Date: **7/26/2023**	Analysis Date: **7/27/2023**	SeqNo: **3589111** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.9	61.9	130			
Surr: DNOP	5.0		5.000		101	69	147			

Sample ID: **2307B06-015AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BH23-15 3.0'**	Batch ID: **76487**	RunNo: **98583**
Prep Date: **7/26/2023**	Analysis Date: **7/29/2023**	SeqNo: **3589726** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.6	48.08	0	91.4	54.2	135			
Surr: DNOP	4.6		4.808		95.7	69	147			

Sample ID: **2307B06-015AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BH23-15 3.0'**	Batch ID: **76487**	RunNo: **98583**
Prep Date: **7/26/2023**	Analysis Date: **7/29/2023**	SeqNo: **3589727** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.8	49.16	0	93.5	54.2	135	4.45	29.2	
Surr: DNOP	4.8		4.916		97.8	69	147	0	0	

Sample ID: **LCS-76487**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **76487**	RunNo: **98583**
Prep Date: **7/26/2023**	Analysis Date: **7/28/2023**	SeqNo: **3589774** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.9	61.9	130			
Surr: DNOP	4.9		5.000		97.9	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307B06**

03-Aug-23

Client: Devon Energy

Project: Laguna Salado 22 Federal 4

Sample ID: **MB-76487**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **76487**	RunNo: **98583**
Prep Date: **7/26/2023**	Analysis Date: **7/28/2023**	SeqNo: **3589776** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.5		10.00		95.4	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307B06**

03-Aug-23

Client: Devon Energy

Project: Laguna Salado 22 Federal 4

Sample ID: **lcs-76462**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **76462**	RunNo: **98551**							
Prep Date: **7/26/2023**	Analysis Date: **7/27/2023**	SeqNo: **3588303**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.0	70	130			
Surr: BFB	1900		1000		192	15	244			

Sample ID: **mb-76462**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **76462**	RunNo: **98551**							
Prep Date: **7/26/2023**	Analysis Date: **7/27/2023**	SeqNo: **3588304**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	970		1000		96.7	15	244			

Sample ID: **lcs-76468**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **76468**	RunNo: **98596**							
Prep Date: **7/26/2023**	Analysis Date: **7/28/2023**	SeqNo: **3590488**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.8	70	130			
Surr: BFB	2000		1000		199	15	244			

Sample ID: **mb-76468**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **76468**	RunNo: **98596**							
Prep Date: **7/26/2023**	Analysis Date: **7/28/2023**	SeqNo: **3590489**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		85.1	15	244			

Sample ID: **2307B06-015ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **BH23-15 3.0'**	Batch ID: **76468**	RunNo: **98596**							
Prep Date: **7/26/2023**	Analysis Date: **7/28/2023**	SeqNo: **3590492**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	23.88	0	86.1	70	130			
Surr: BFB	1800		955.1		184	15	244			

Sample ID: **2307B06-015amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **BH23-15 3.0'**	Batch ID: **76468**	RunNo: **98596**							
Prep Date: **7/26/2023**	Analysis Date: **7/28/2023**	SeqNo: **3590493**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307B06**

03-Aug-23

Client: Devon Energy

Project: Laguna Salado 22 Federal 4

Sample ID: **2307B06-015amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH23-15 3.0'**	Batch ID: **76468**	RunNo: **98596**
Prep Date: **7/26/2023**	Analysis Date: **7/28/2023**	SeqNo: **3590493** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	23.97	0	86.8	70	130	1.26	20	
Surr: BFB	1900		958.8		198	15	244	0	0	

Sample ID: **lcs-76457**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **76457**	RunNo: **98596**
Prep Date: **7/25/2023**	Analysis Date: **7/28/2023**	SeqNo: **3590513** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	2000		1000		197	15	244			

Sample ID: **mb-76457**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **76457**	RunNo: **98596**
Prep Date: **7/25/2023**	Analysis Date: **7/28/2023**	SeqNo: **3590514** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	800		1000		80.2	15	244			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307B06**

03-Aug-23

Client: Devon Energy

Project: Laguna Salado 22 Federal 4

Sample ID: **LCS-76462**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **76462**	RunNo: **98551**
Prep Date: **7/26/2023**	Analysis Date: **7/27/2023**	SeqNo: **3588339** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.4	70	130			
Toluene	0.93	0.050	1.000	0	93.2	70	130			
Ethylbenzene	0.95	0.050	1.000	0	95.2	70	130			
Xylenes, Total	2.9	0.10	3.000	0	96.4	70	130			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	39.1	146			

Sample ID: **mb-76462**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **76462**	RunNo: **98551**
Prep Date: **7/26/2023**	Analysis Date: **7/27/2023**	SeqNo: **3588340** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		118	39.1	146			

Sample ID: **lcs-76468**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **76468**	RunNo: **98596**
Prep Date: **7/26/2023**	Analysis Date: **7/28/2023**	SeqNo: **3590566** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.025	1.000	0	87.5	70	130			
Toluene	0.88	0.050	1.000	0	88.5	70	130			
Ethylbenzene	0.90	0.050	1.000	0	90.5	70	130			
Xylenes, Total	2.7	0.10	3.000	0	90.8	70	130			
Surr: 4-Bromofluorobenzene	0.82		1.000		82.1	39.1	146			

Sample ID: **mb-76468**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **76468**	RunNo: **98596**
Prep Date: **7/26/2023**	Analysis Date: **7/28/2023**	SeqNo: **3590567** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.80		1.000		80.4	39.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2307B06**

03-Aug-23

Client: Devon Energy

Project: Laguna Salado 22 Federal 4

Sample ID: **2307B06-016ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH23-16 0.0'**	Batch ID: **76468**	RunNo: **98596**
Prep Date: **7/26/2023**	Analysis Date: **7/28/2023**	SeqNo: **3590572** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.025	0.9843	0	84.7	70	130			
Toluene	0.86	0.049	0.9843	0	87.4	70	130			
Ethylbenzene	0.89	0.049	0.9843	0	90.5	70	130			
Xylenes, Total	2.7	0.098	2.953	0	91.1	70	130			
Surr: 4-Bromofluorobenzene	0.80		0.9843		80.9	39.1	146			

Sample ID: **2307B06-016amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH23-16 0.0'**	Batch ID: **76468**	RunNo: **98596**
Prep Date: **7/26/2023**	Analysis Date: **7/28/2023**	SeqNo: **3590573** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	0.9852	0	87.5	70	130	3.34	20	
Toluene	0.88	0.049	0.9852	0	89.6	70	130	2.53	20	
Ethylbenzene	0.92	0.049	0.9852	0	93.3	70	130	3.17	20	
Xylenes, Total	2.8	0.099	2.956	0	93.5	70	130	2.64	20	
Surr: 4-Bromofluorobenzene	0.78		0.9852		79.5	39.1	146	0	0	

Sample ID: **lcs-76457**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **76457**	RunNo: **98596**
Prep Date: **7/25/2023**	Analysis Date: **7/28/2023**	SeqNo: **3590592** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.80		1.000		80.3	39.1	146			

Sample ID: **mb-76457**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **76457**	RunNo: **98596**
Prep Date: **7/25/2023**	Analysis Date: **7/28/2023**	SeqNo: **3590593** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.79		1.000		79.0	39.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Devon Energy | Work Order Number: 2307B06 | RcptNo: 1

Received By: Cheyenne Cason 7/25/2023 7:10:00 AM

Completed By: Cheyenne Cason 7/25/2023 7:22:20 AM

Reviewed By: SCM 07/25/23

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: JM 7/25/23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.6	Good	Not Present	Yogi		
2	1.4	Good	Not Present	Yogi		
3	0.5	Good	Not Present	Yogi		

Chain-of-Custody Record

Client: Devon
Direct Bill

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☑ Rush 5 Day

Project Name:
Laguna Salado 22 Federal #4

Project #: 23E-01414

Project Manager:
Kent Stallings

Sampler: JH

On Ice: ☑ Yes ☐ No Yogi

# of Coolers: 3

Cooler Temp(including CF): See Remarks (°C)

2307806
HEAL No.
2366 cmc 7/25/23

Date	Time	Matrix	Sample Name		Container Type and #	Preservative Type	
7-21-23	0800	Soil	BH23-10	0.0	4/02	ICE	001
	0810		BH23-10	2.0			002
	0820		BH23-10	3.5			003
	0830		BH23-11	0.0			004
	0840		BH23-11	2.0			005
	0850		BH23-12	0.0			006
	0900		BH23-12	2.0			007
	0910		BH23-13	0.0			008
	0920		BH23-13	2.0			009
	0930		BH23-14	0.0			010
	0940		BH23-14	2.0			011
	0950		BH23-14	4.0			012

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					7/24/23	900
7/24/23	1900				Date	Time
			Cmc cmc		7/25/23	0710

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
✓	✓					✓			

Remarks:
cmc 7/25/23
~~4.6-0=~~ CC: Kent Stallings
4.6-0=4.6 Kstallings@vertex.ca
1.4-0=1.4
0.5-0=0.5

Chain-of-Custody Record

Client: Devon

Direct Bill

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☑ Standard ☐ Rush 5 Day

Project Name: Laguna Salado 22 Federal #4

Project #: 23E-01414

Project Manager: Kent Stallings

Sampler: AH

On Ice: ☑ Yes ☐ No

# of Coolers: 3

Cooler Temp(Including CF): 5cx 1.5 page (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2307806	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
7-21-23	1000	Soil	BH23-15 6.0'	4oz	ICE	013										
	1010		BH23-15 2.0'			014										
	1020		BH23-15 3.0'			015										
	1030		BH23-16 0.0'			016										
	1040		BH23-16 2.0'			017										
	1050		BH23-16 4.0'			018										
	1100		BH23-17 0.0'			019										
	1110		BH23-17 2.0'			020										
	1120		BH23-17 4.0'			021										
	1130		BH23-18 0.0'			022										
	1140		BH23-18 2.0'			023										
	1150		BH23-18 4.0'			024										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					7/24/23	900
Date: 7/24/23	Time: 1900	Relinquished by:	Received by:	Via:	Date	Time
			CMC courier		7/25/23	0710

Remarks: CC: Kent Stallings

Kstallings@vertex.ca

ATTACHMENT 4

Closure Criteria Worksheet			
Site Name: LAGUNA SALADO 22 FEDERAL #004H			
Spill Coordinates: 32.294426,-103.9730835			
Site Specific Conditions		Value	Unit
1	Depth to Groundwater	**<50**	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	15,734	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	385	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	19,430	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, **or**	19,430	feet
	ii) Within 1000 feet of any fresh water well or spring		feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	8,606	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Medium	Critical High Medium Low
10	Within a 100-year Floodplain	500	year
11	Soil Type	Loam	
12	Ecological Classification	Gyp Upland	
13	Geology	Qpl	
NMAC 19.15.29.12 E (Table 1) Closure Criteria		<50'	<50' 51-100' >100'

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02797		CUB	ED		2	3	22	23S	29E	596540	3572895*	656	200		
C 02716		CUB	ED	4	4	4	16	23S	29E	595818	3574002*	988	400		
C 02715		CUB	ED	4	1	3	15	23S	29E	596221	3574411*	993	400		
C 02717		CUB	ED	4	2	4	16	23S	29E	595817	3574407*	1233	400		
C 01217 S		CUB	ED	4	1	4	16	23S	29E	595413	3574403*	1543	350		
C 02718		CUB	ED	4	4	2	16	23S	29E	595816	3574812*	1547	400		
C 04326 POD14		CUB	ED	4	2	3	23	23S	29E	598191	3572765	1687	58	54	4
C 04326 POD16		CUB	ED	2	4	3	23	23S	29E	598209	3572664	1751	64	54	10
C 02720		CUB	ED		2	1	21	23S	29E	594911	3573690*	1784	150		
C 02721		CUB	ED		2	3	21	23S	29E	594915	3572879*	1890	150		
C 02808		CUB	ED		2	3	16	23S	29E	594909	3574501*	2025	100		
C 02809		CUB	ED		2	3	16	23S	29E	594909	3574501*	2025	100		
C 02707		C	ED			2	28	23S	29E	595535	3571868*	2026	40	18	22
C 03057 EXPLORE		CUB	ED	4	1	1	21	23S	29E	594605	3573586*	2084	150		
C 02794		CUB	ED		4	3	10	23S	29E	596518	3575731*	2203	100		
C 02795		CUB	ED		4	3	10	23S	29E	596518	3575731*	2203	200		
C 02613		CUB	ED	4	4	2	20	23S	29E	594203	3573176*	2511	400		
C 03058 EXPLORE		CUB	ED	4	1	1	16	23S	29E	594605	3575206*	2671	150		

C_01627	C	ED	1	4	4	28	23S	29E	595649	3570959*	2777	170		
C_02705	C	ED			2	17	23S	29E	593902	3575093*	3193	68	28	40
C_02608	CUB	ED	3	1	4	17	23S	29E	593598	3574387*	3206	400		
C_04597 POD1	CUB	ED	1	1	4	24	23S	29E	600124	3573002	3476			
C_04597 POD2	CUB	ED	1	1	4	24	23S	29E	600122	3572959	3481			
C_04597 POD4	CUB	ED	1	1	4	24	23S	29E	600159	3572947	3519			
C_04597 POD3	CUB	ED	1	1	4	24	23S	29E	600172	3572991	3524			
C_04597 POD5	CUB	ED	2	1	4	24	23S	29E	600198	3572931	3560			
C_03059 EXPLORE	CUB	ED	4	1	3	17	23S	29E	592993	3574378*	3790		65	
C_02806	CUB	ED		1	1	09	23S	29E	594473	3576927*	4052	100		
C_02807	CUB	ED		1	1	09	23S	29E	594473	3576927*	4052	100		
C_04472 POD1	CUB	ED	2	2	4	13	23S	29E	600639	3574619	4096		37	
C_02792	CUB	ED		4	3	04	23S	29E	594868	3577336*	4215	200		
C_02793	CUB	ED		4	3	04	23S	29E	594868	3577336*	4215	100		
C_04594 POD2	CUB	ED	4	2	2	13	23S	29E	600604	3575232	4267	42	34	8
C_04594 POD5	CUB	ED	4	2	2	13	23S	29E	600626	3575236	4289	30	30	0
C_04594 POD1	CUB	ED	4	2	2	13	23S	29E	600629	3575241	4294	36	31	5
C_04594 POD7	CUB	ED	4	2	2	13	23S	29E	600659	3575217	4311	34	28	6
C_04594 POD6	CUB	ED	4	2	2	13	23S	29E	600659	3575220	4313	34	28	6
C_04594 POD3	CUB	ED	4	2	2	13	23S	29E	600645	3575280	4324	38	27	11
C_03587 POD1	CUB	ED	1	4	3	29	23S	29E	593338	3570754	4353	99	44	55
C_04594 POD4	CUB	ED	4	2	2	13	23S	29E	600704	3575224	4356	45	28	17
C_02706	C	ED			4	18	23S	29E	592302	3574291*	4451	17	10	7
C_03587 POD2	CUB	ED	1	2	4	19	23S	29E	592213	3572706	4551	77	16	61
C_02486	C	ED	3	2	3	19	23S	30E	601304	3572832*	4668	350		
C_02804	CUB	ED		2	1	08	23S	29E	593262	3576905*	4806	100		

C 02805	CUB	ED	2	1	08	23S	29E	593262	3576905*		4806	100	

Average Depth to Water: **33 feet**

Minimum Depth: **10 feet**

Maximum Depth: **65 feet**

Record Count: 45

UTMNAD83 Radius Search (in meters):

Easting (X): 596688.75 **Northing (Y):** 3573534.32 **Radius:** 5000

***UTM location was derived from PLSS - see Help**

3/21/23 8:21 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 02797		2	3	22	23S	29E	596540	3572895*

Driller License: 1348 **Driller Company:** TAYLOR WATER WELL SERVICE

Driller Name: TAYLOR, CLINTON E.

Drill Start Date: **Drill Finish Date:** **Plug Date:**

Log File Date: **PCW Rcv Date:** **Source:**

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 3.00 **Depth Well:** 200 feet **Depth Water:**

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	C 04326 POD14	4	2	3	23	23S	29E	598191	3572765

Driller License:	1664	**Driller Company:**	CASCADE DRILLING, LP		
Driller Name:	CAIN, SHAWN N.NJR.L.NER				
Drill Start Date:	05/11/2019	**Drill Finish Date:**	05/11/2019	**Plug Date:**	
Log File Date:	08/28/2019	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	2.06	**Depth Well:**	58 feet	**Depth Water:**	54 feet

Water Bearing Stratifications:	Top	Bottom	Description
	45	54	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	48	58

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD 14	BH 14	C-4326

WELL OWNER NAME(S)	PHONE (OPTIONAL)
XTO Energy, Inc.	432-221-7331

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
522 W Mermond, Suite 704	Carlsbad	NM	88220

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	17	14.49	N
	LONGITUDE	103	57	25.95	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

North East Quarter of South West Quarter of Section 23, Township 23 South, Range 29 East, Eddy County, New Mexico

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1664	Shawn Cain	Cascade Drilling

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
5/11/2019	5/11/2019	58	58	54

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 48

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Sonic

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	58	6					
0	48		2" PVC Blank	Flush Thread SCH 40	2.067	.154"	
48	58		2" PVC Screen	Flush Thread SCH 40	2.067	.154"	.020

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	2	6	Concrete	.5	Poured
2	45	6	Bentonite Chips	7.5	Poured
45	58	6	12-20 Sand	2.5	Poured

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO. C-4326	POD NO. 14	TRN NO. 648985	
LOCATION 23S.29E.23.324		WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	4	4	Open Excavation	Y ✓ N	
4	10	6	brown-tan clayey SAND	Y ✓ N	
10	20	10	pinkish-tan silty SAND	Y ✓ N	
20	45	25	off white-tan CALICHE	Y ✓ N	
45	54	9	gray-light green DOLOMITE	✓ Y N	
54	58	4	dark gray-light gray CLAY	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.

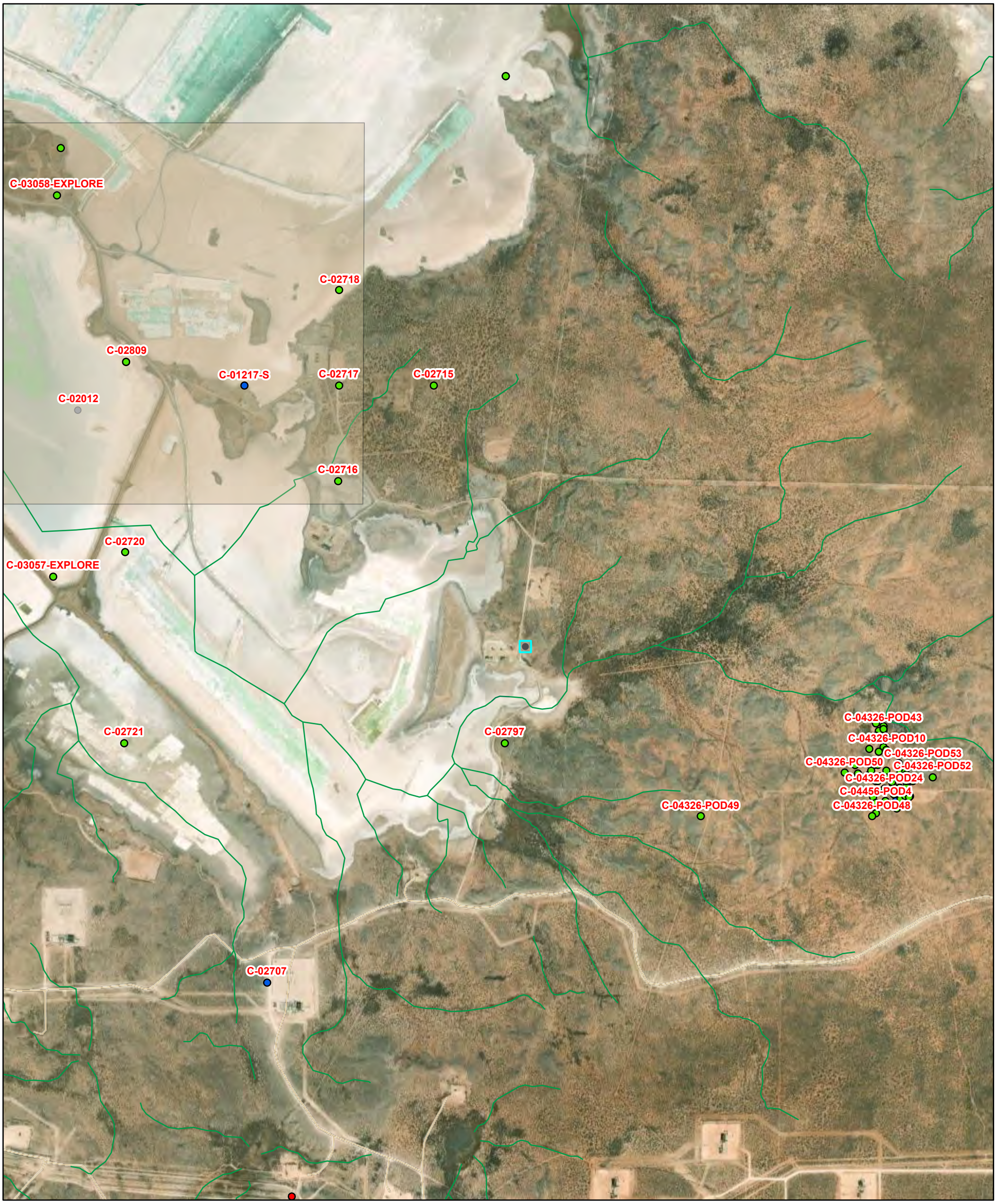
Shawn C. Shawn Cain — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

8-23-19 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

Laguna Salado 22 Federal#004 OSE POD Location Map



10/30/2023, 7:19:19 AM

GIS WATERS PODs
- Active
- Pending
- Plugged

OSE District Boundary

New Mexico State Trust Lands

Subsurface Estate

NHD Flowlines
- Artificial Path
- Connector
- Stream River

1:18,056

0 0.17 0.35 0.7 mi

0 0.28 0.55 1.1 km

Esri, HERE, iPC, Esri, HERE, Garmin, iPC, Maxar

Online web user

This is an unofficial map from the OSE's online application.

Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

USGS 321717103561001 23S.29E.24.41321

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

Well Site

DESCRIPTION:

Latitude 32°17'17", Longitude 103°56'10" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: not determined.
Land surface altitude: 3,034 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1983-02-02	2003-01-29	4
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

---

Title: NWIS Site Information for USA: Site Inventory
URL: https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=321717103561001

Page Contact Information: New Mexico Water Data Support Team
Page Last Modified: 2023-03-21 17:18:20 EDT
0.31 0.29 caww01

National Water Information System: Web Interface

USGS Water Resources

Data Category: Water Quality | Geographic Area: United States | GO

Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

Water Quality Samples for the Nation

To view additional data-quality attributes, output the results using these options: one result per row, expanded attributes.
Additional precautions are here.

USGS 321742103552601 23S.30E.19.123421

Water-Quality: Field/Lab samples | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°17'42", Longitude 103°55'26" NAD27
Land-surface elevation 3,034 feet above NAVD88
The depth of the well is 100 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Parameter Group Period of Record table
Inventory of available water-quality data for printing
Inventory of water-quality data with retrieval

Tab-separated data, one result per row

Tab-separated data one sample per row with remark codes combined with values

Tab-separated data one sample per row with tab-delimiter for remark codes

Reselect output format

Sample Datetime	Time datum	Time datum reliability code	Sample Medium Code	Hydro-logic Event	Hydro-logic Condition	Geo-logic unit	Sample type	Specif-ic conduc-tance, wat unf uS/cm @ 25 degC (00095)
1972-09-20	MDT	T	WG	9	A	312RSLR	9	2630

Questions or Comments
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

U.S. Department of the Interior | U.S. Geological Survey
Title: Water Quality Samples for USA: Sample Data
URL: https://nwis.waterdata.usgs.gov/nwis/qwdata?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2023-09-21 09:41:11 EDT
0.45 0.39 nadww02

U.S. Fish and Wildlife Service
National Wetlands Inventory

LagunaSalado22Fed4 River 2.98 Miles

March 21, 2023

Wetlands

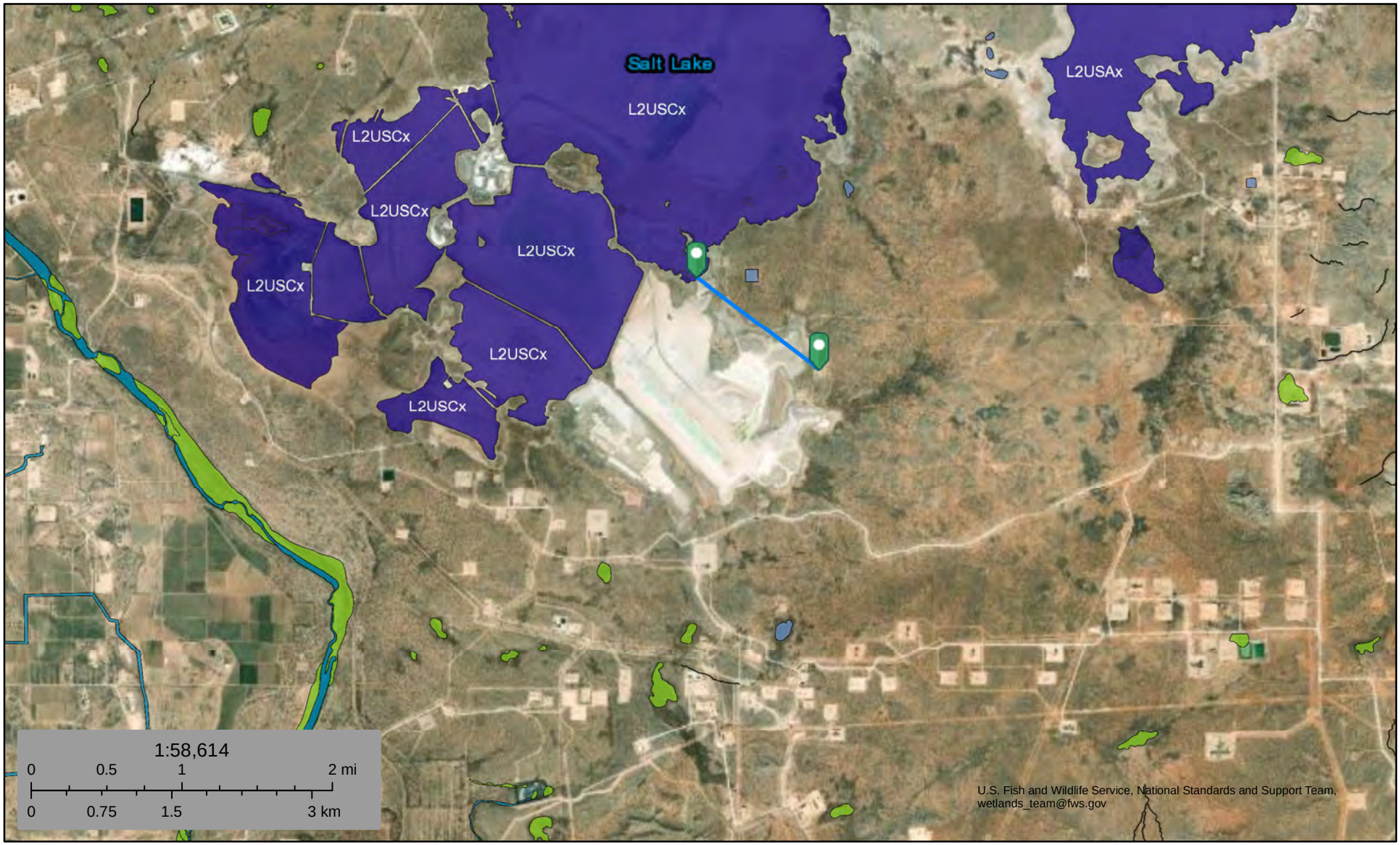
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

U.S. Fish and Wildlife Service
National Wetlands Inventory

Laguna Salado 22 Fed 4 Lake 0.86 Miles



March 21, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

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U.S. Fish and Wildlife Service
National Wetlands Inventory

Laguna Salado 22 Federal #004H
Playa 0.1

October 30, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
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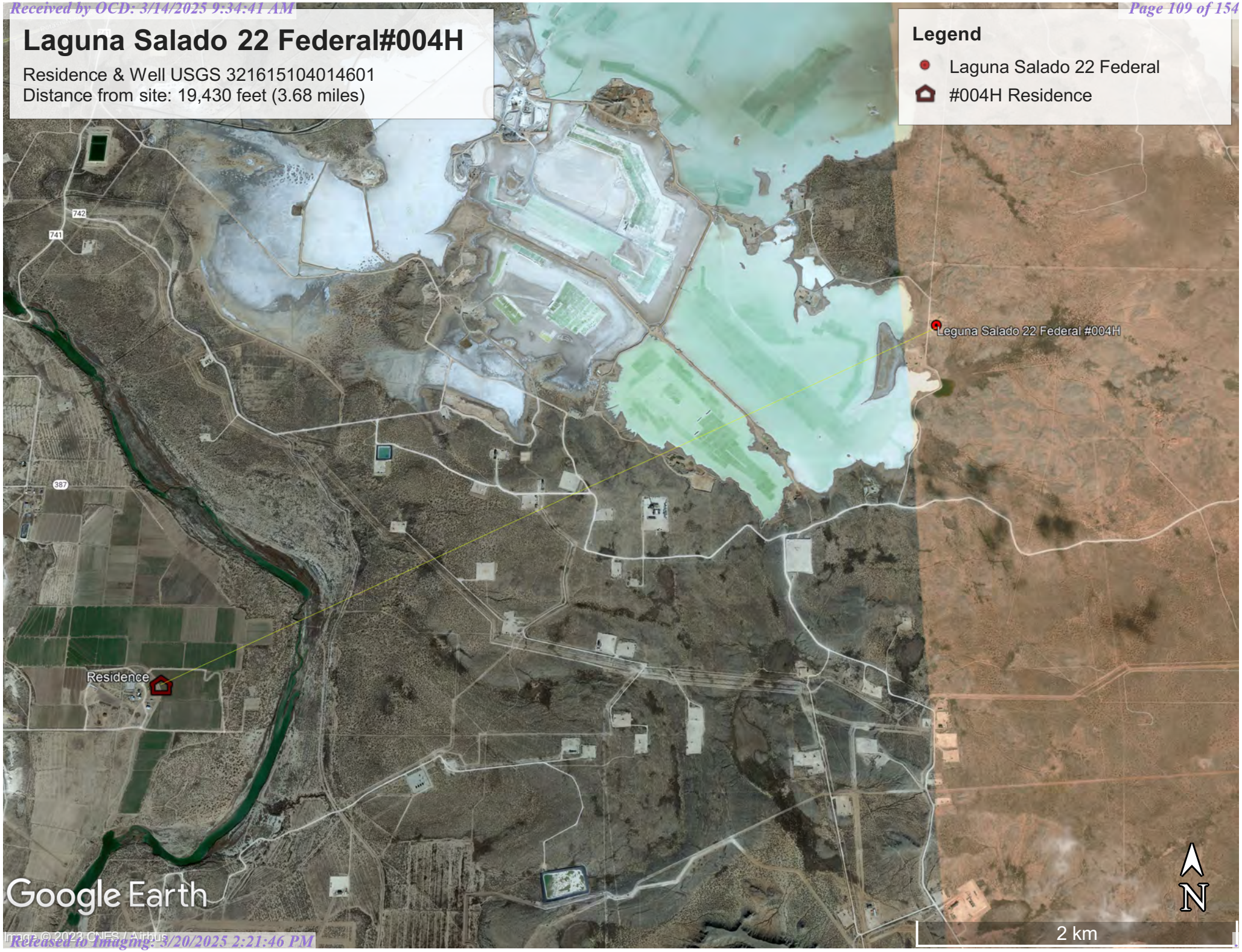
National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Laguna Salado 22 Federal#004H

Residence & Well USGS 321615104014601
Distance from site: 19,430 feet (3.68 miles)



Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

USGS 321615104014601 23S.29E.30.331322

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

Well Site

DESCRIPTION:

Latitude 32°16'15", Longitude 104°01'46" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 89 feet
Land surface altitude: 2,962 feet above NAVD88.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1954-11-08	1954-11-08	1
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

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Subscribe for system changes
News

Title: NWIS Site Information for USA: Site Inventory
URL: https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=321615104014601

Page Contact Information: New Mexico Water Data Support Team
Page Last Modified: 2023-03-21 17:57:26 EDT
0.31 0.29 caww01

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum) (R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in me

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q 64	q 16	q 4	Sec	Tws	Rng	X	Y
C 02797	CUB	MON	0	IMC	ED	C 02797						2	3	22	23S	29E	596540	3572895*
C 02716	CUB	MON	0	UNITED SALT CORPORATION	ED	C 02716					4	4	4	16	23S	29E	595818	3574002*
C 02715	CUB	MON	0	UNITED SALT CORPORATION	ED	C 02715					4	1	3	15	23S	29E	596221	3574411*
C 04326	CUB	MON	0	LT ENVIRONMENTAL INC	ED	C 04326 POD49	NA				2	4	3	23	23S	29E	597378	3572591
C 02717	CUB	MON	0	UNITED SALT CORPORATION	ED	C 02717					4	2	4	16	23S	29E	595817	3574407*
C 04326	CUB	MON	0	XTO ENERGY INC	ED	C 04326 POD50	NA				3	2	3	23	23S	29E	597992	3572782
					ED	C 04326 POD51					3	2	3	23	23S	29E	598034	3572817
					ED	C 04326 POD1					1	2	3	23	23S	29E	598124	3572992
C 01217	CUB	COM	150	INTREPID MINING NM LLC US BANK NATIONAL ASSOCIATION	ED	C 01217 S				Shallow	4	1	4	16	23S	29E	595413	3574403*
C 02622	CUB	COM	0	UNITED SALT CORPORATION	ED	C 01217 S				Shallow	4	1	4	16	23S	29E	595413	3574403*
C 02718	CUB	MON	0	UNITED SALT CORPORATION	ED	C 02718					4	4	2	16	23S	29E	595816	3574812*
C 04326	CUB	MON	0	XTO ENERGY INC	ED	C 04326 POD8	NA				3	2	3	23	23S	29E	598097	3572884
					ED	C 04326 POD6					1	2	3	23	23S	29E	598125	3572940
					ED	C 04326 POD44					3	2	3	23	23S	29E	598050	3572781
					ED	C 04326 POD4					1	2	3	23	23S	29E	598135	3572962
					ED	C 04326 POD2					1	2	3	23	23S	29E	598156	3572980
					ED	C 04326 POD43						2	3	23	23S	29E	598153	3572971
					ED	C 04326 POD3					1	2	3	23	23S	29E	598156	3572962
					ED	C 04326 POD45					3	2	3	23	23S	29E	598095	3572822
					ED	C 04326 POD9					3	2	3	23	23S	29E	598136	3572873
					ED	C 04326 POD5					2	2	3	23	23S	29E	598169	3572940
					ED	C 04326 POD40						2	3	23	23S	29E	598114	3572815
C 04456	CUB	MON	0	XTO ENERGY INC	ED	C 04456 POD2	NA				3	2	3	23	23S	29E	598103	3572791
C 04326	CUB	MON	0	XTO ENERGY INC	ED	C 04326 POD41	NA					2	3	23	23S	29E	598097	3572775
					ED	C 04326 POD7					3	2	3	23	23S	29E	598157	3572894

Record Count: 25

UTMNAD83 Radius Search (in meters):

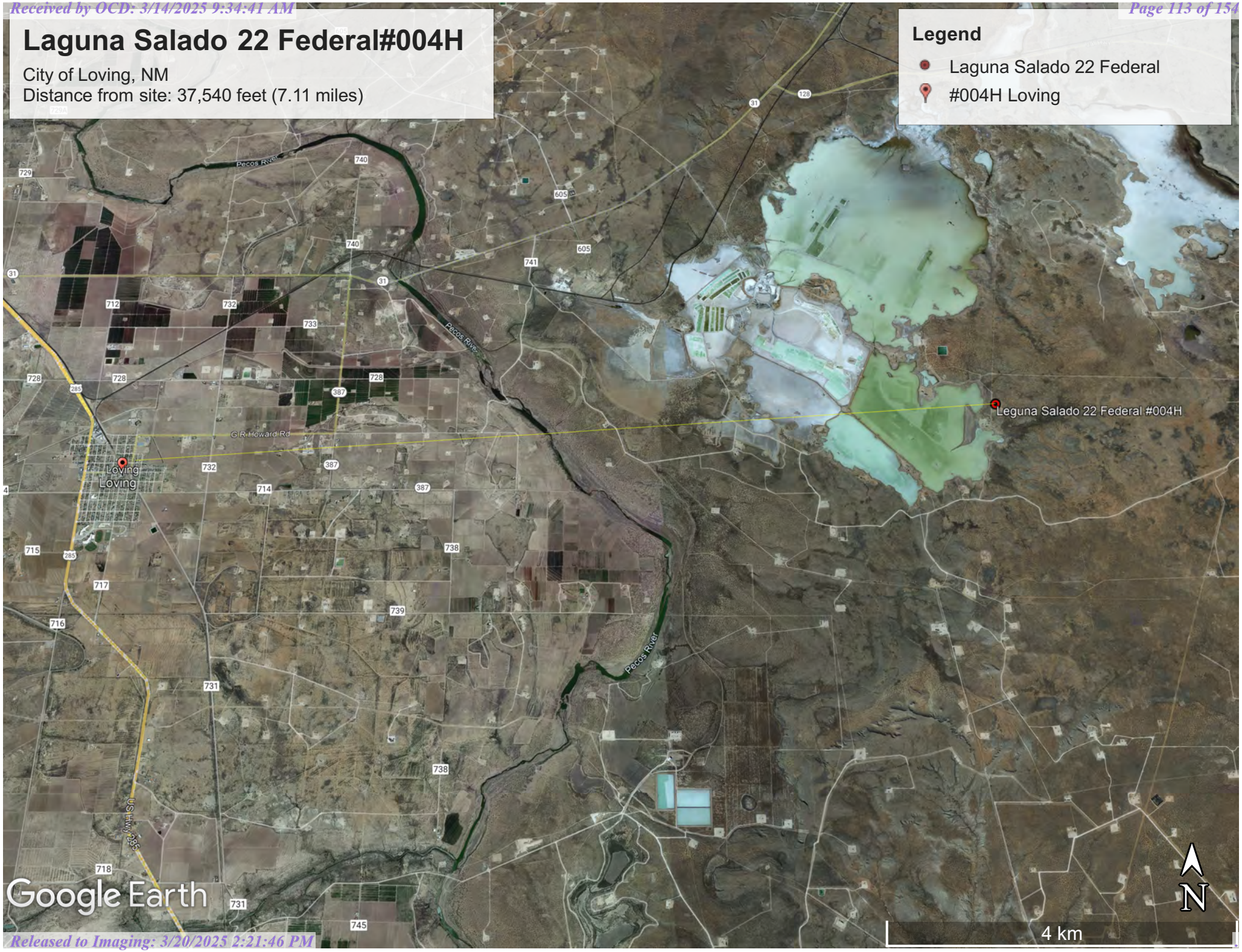
Easting (X): 596688 **Northing (Y):** 3573534 **Radius:** 1610

Sorted by: Distance

***UTM location was derived from PLSS - see Help**

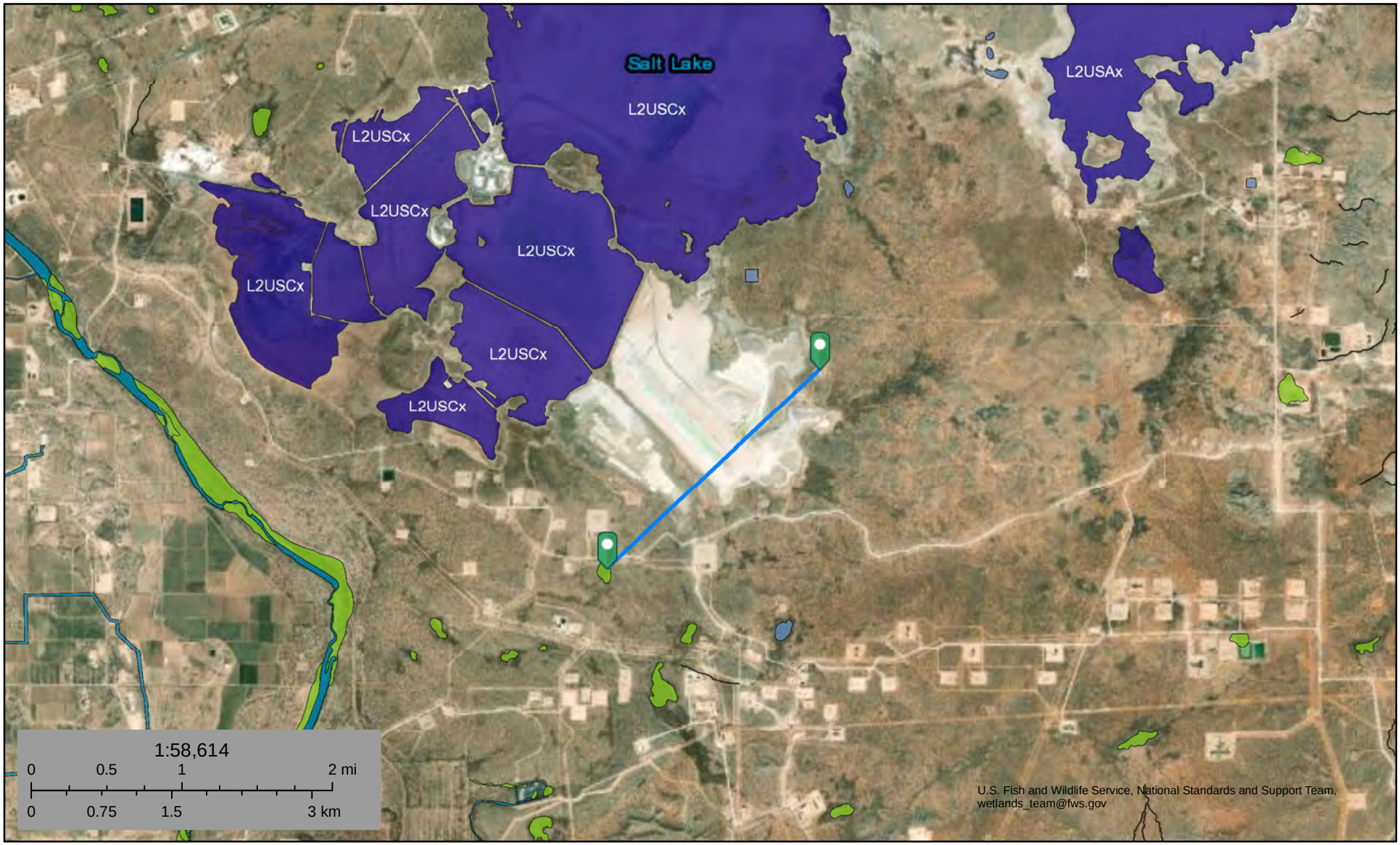
Laguna Salado 22 Federal#004H

City of Loving, NM
Distance from site: 37,540 feet (7.11 miles)



U.S. Fish and Wildlife Service
National Wetlands Inventory

LagunaSalado22Fed4 Wetland 1.63 Miles



March 21, 2023

Wetlands

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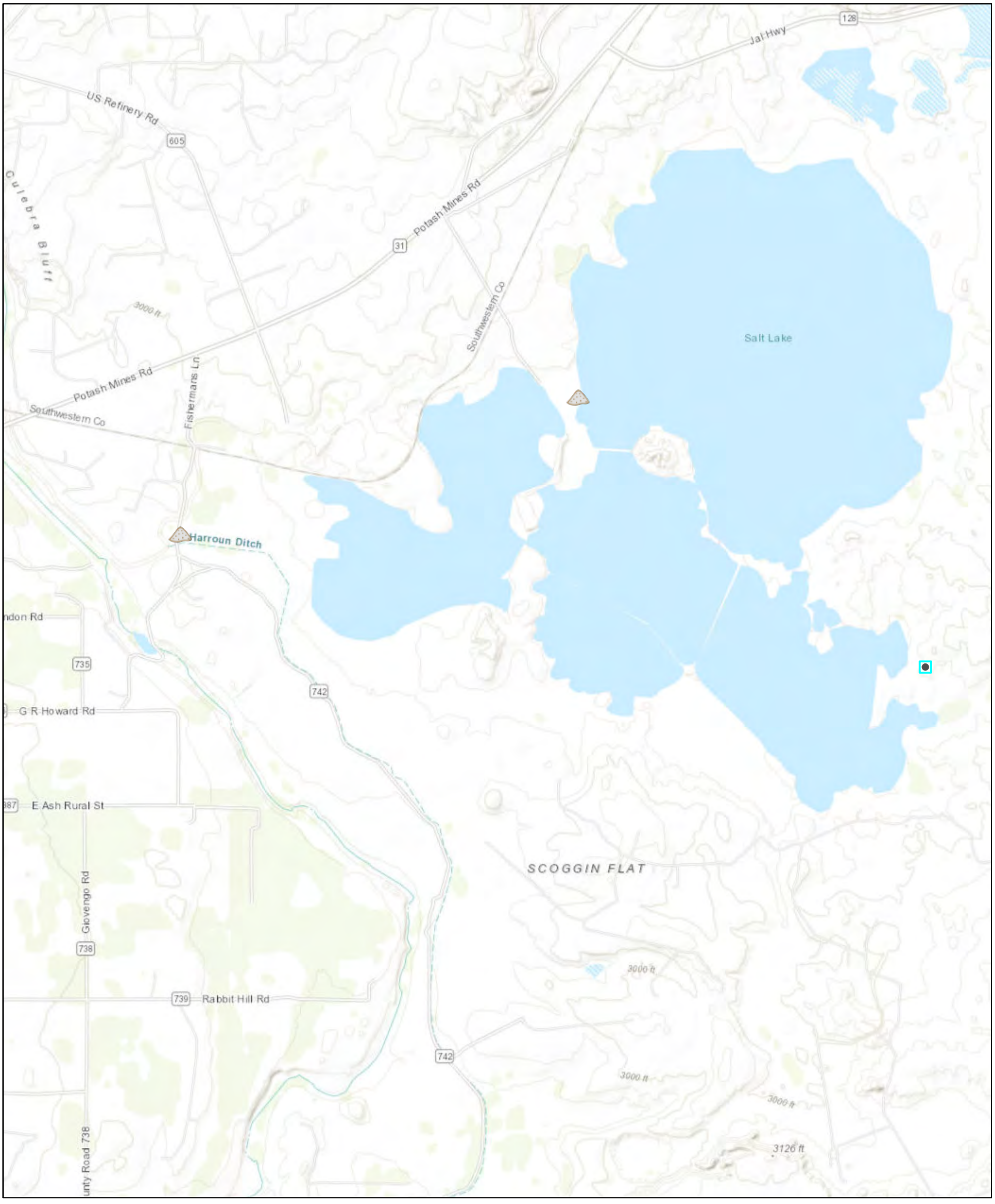
Leguna Salado 22 Fed 4H



3/21/2023, 5:28:16 PM

Registered Mines

- Aggregate, Stone etc.
- Salt

1:36,112

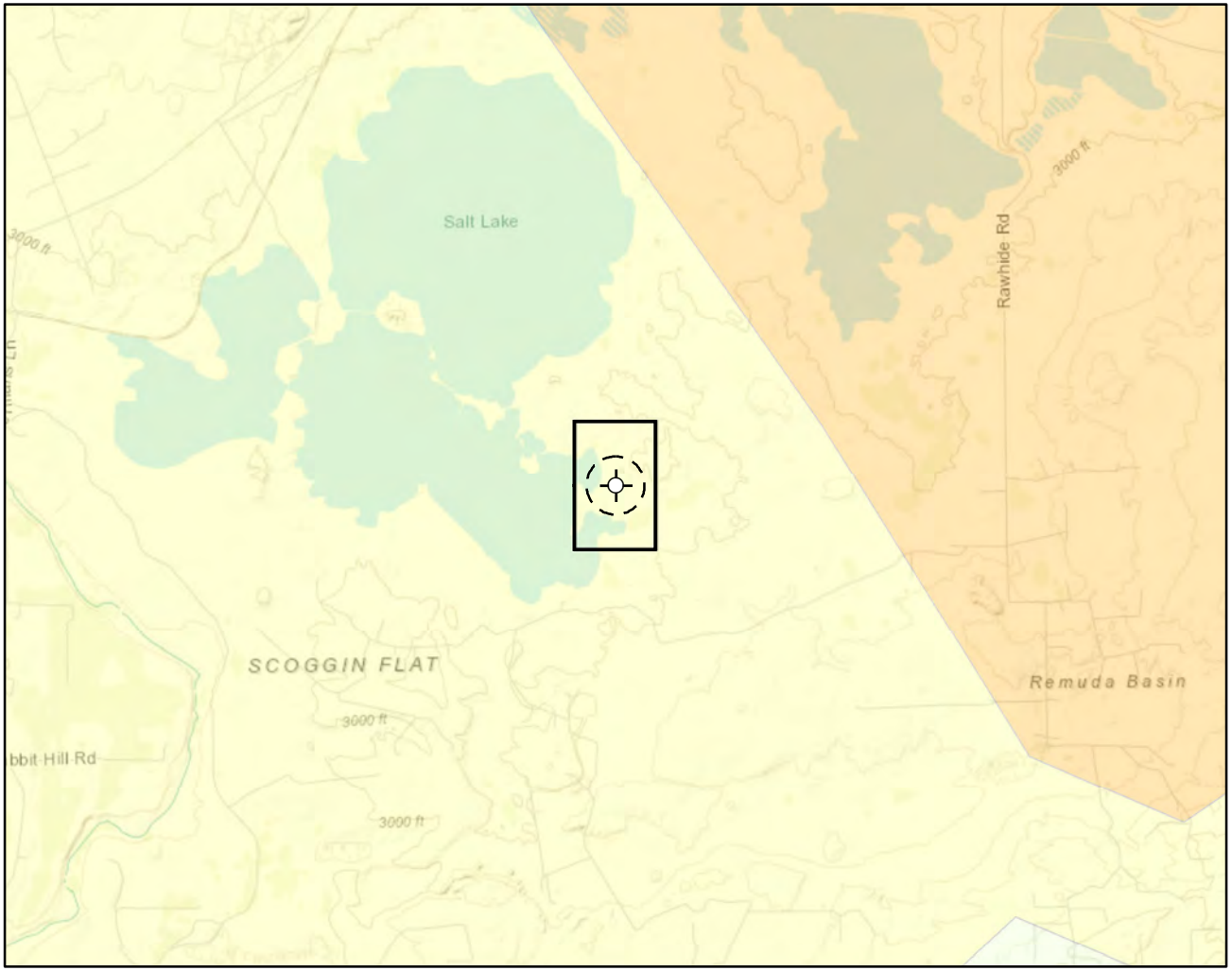
0 0.35 0.7 1.4 mi

0 0.5 1 2 km

Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

EMNRD MMD GIS Coordinator

NM Energy, Minerals and Natural Resources Department (http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=1b5e57974664d689b47790897ca2795)



Karst Potential

- Critical
- High
- Medium
- Low

- Site Location
- Site Buffer (1,000 ft.)

Overview Map

0 0.25 0.5 1 mi

Detail Map

0 150 300 600 ft.

VERTEX

Map Center:
Lat/Long: 32.294426, -103.973084

NAD 1983 UTM Zone 13N
Date: Apr 10/23

N

Karst Potential Schematic
Laguna Salado #4

FIGURE:
X

devon

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Inset Map, ESRI 2023; Overview Map: ESRI World Topographic. Karst potential data sourced from Rosswell Field Office, Bureau of Land Management, 2020 or United States Department of the Interior, Bureau of Land Management. (2018). Karst Potential.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Devon Energy Corporation\2023\23E-01414- Laguna Salado 22 Federal #4\Figure X Karst Potential Schematic_ Laguna Salado 22 Federal #4(23E-01414).mxd

National Flood Hazard Layer FIRMette

FEMA

103°58'42"W 32°17'55"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

103°58'4"W 32°17'25"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/21/2023 at 1:35 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

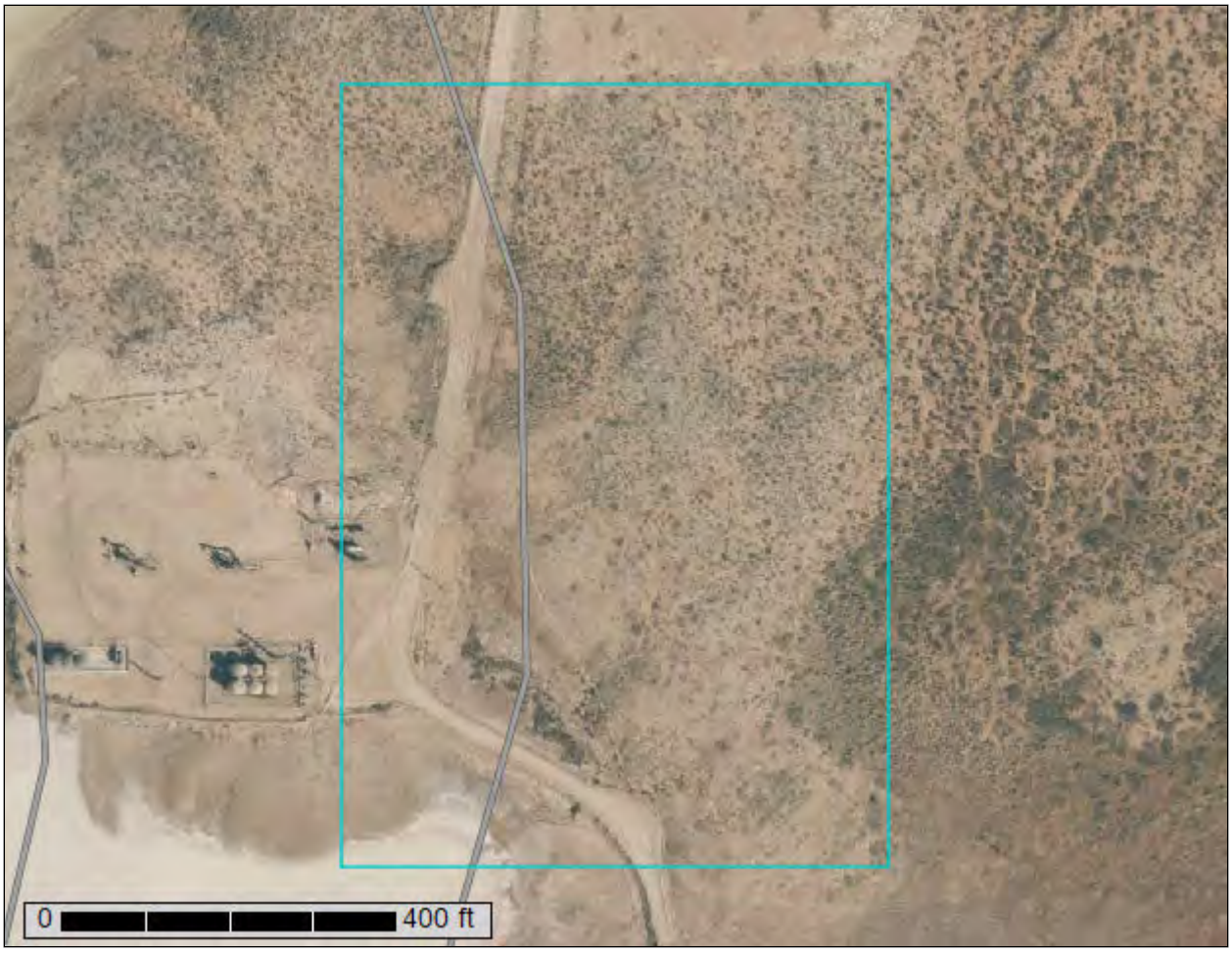
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Eddy Area, New Mexico



October 30, 2023

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

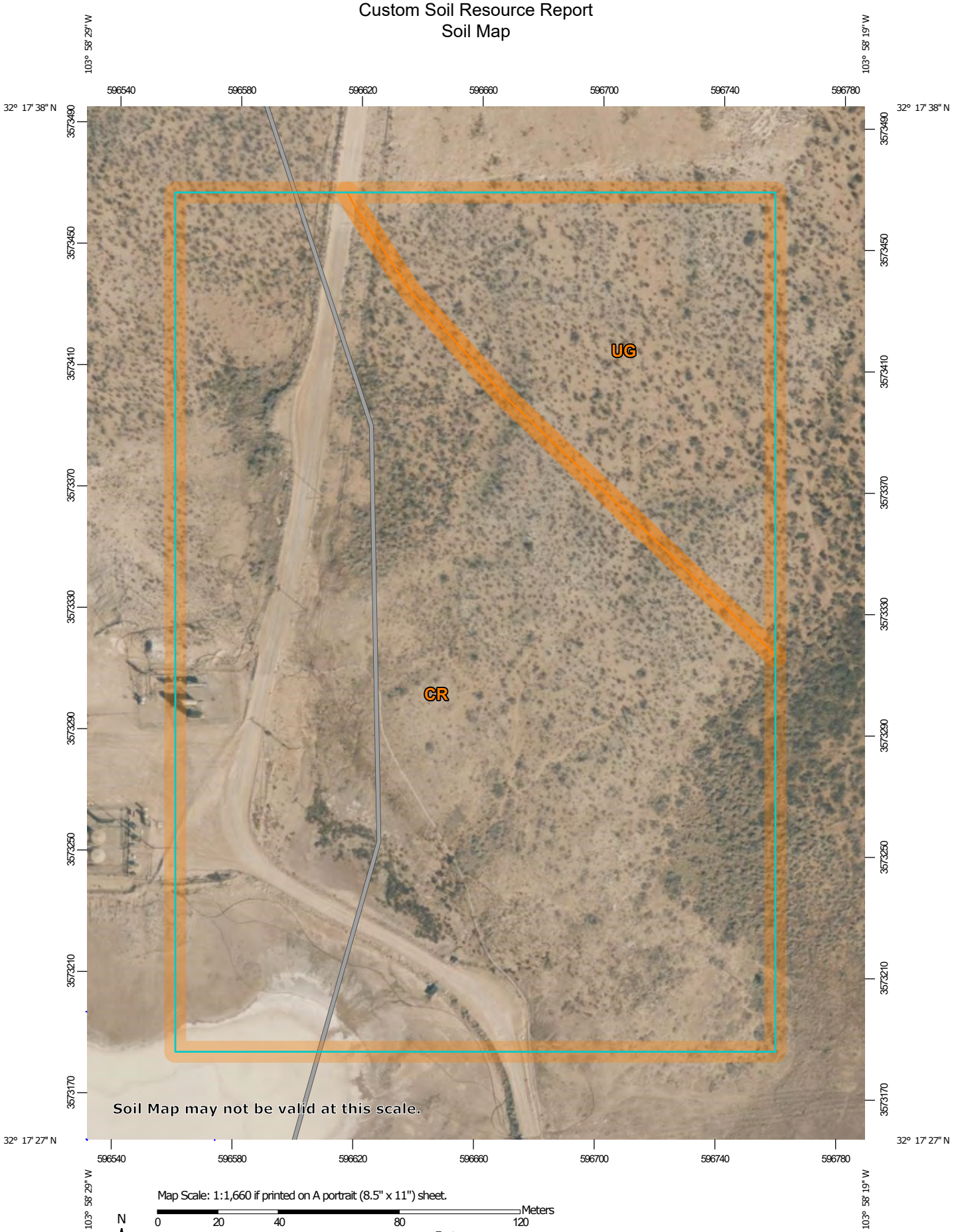
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,660 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 19, Sep 7, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CR	Cottonwood-Reeves loams, overflow, 0 to 3 percent slopes	11.1	79.1%
UG	Upton gravelly loam, 0 to 9 percent slopes	2.9	20.9%
Totals for Area of Interest		**14.0**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Eddy Area, New Mexico

CR—Cottonwood-Reeves loams, overflow, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w47
Elevation: 3,000 to 4,300 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 60 to 64 degrees F
Frost-free period: 200 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Cottonwood and similar soils: 60 percent
Reeves and similar soils: 35 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cottonwood

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope
Landform position (three-dimensional): Side slope, head slope, nose slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from gypsum

Typical profile

H1 - 0 to 9 inches: loam
H2 - 9 to 60 inches: bedrock

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 3 to 12 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Gypsum, maximum content: 20 percent
Maximum salinity: Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Ecological site: R070BB006NM - Gyp Upland
Hydric soil rating: No

Description of Reeves

Setting

Landform: Plains, ridges, hills
Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope
Landform position (three-dimensional): Side slope, head slope, nose slope, crest
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from gypsum

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 32 inches: clay loam
H3 - 32 to 60 inches: gypsiferous material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: OccasionalNone
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Gypsum, maximum content: 20 percent
Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: B
Ecological site: R070BB006NM - Gyp Upland
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 5 percent
Hydric soil rating: No

UG—Upton gravelly loam, 0 to 9 percent slopes

Map Unit Setting

National map unit symbol: 1w64
Elevation: 1,100 to 4,400 feet

Mean annual precipitation: 7 to 15 inches
Mean annual air temperature: 60 to 70 degrees F
Frost-free period: 200 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Upton and similar soils: 96 percent
Minor components: 4 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Upton

Setting

Landform: Ridges, fans
Landform position (three-dimensional): Side slope, rise
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Typical profile

H1 - 0 to 9 inches: gravelly loam
H2 - 9 to 13 inches: gravelly loam
H3 - 13 to 21 inches: cemented
H4 - 21 to 60 inches: very gravelly loam

Properties and qualities

Slope: 0 to 9 percent
Depth to restrictive feature: 7 to 20 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 75 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R070BC025NM - Shallow
Hydric soil rating: No

Minor Components

Reagan

Percent of map unit: 1 percent
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Upton

Percent of map unit: 1 percent
Ecological site: R070BC025NM - Shallow

Hydric soil rating: No

Atoka

Percent of map unit: 1 percent
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Atoka

Percent of map unit: 1 percent
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

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USDA Natural Resources Conservation Service

Ecological site R070BB006NM
Gyp Upland

Accessed: 10/30/2023

General information

Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

Figure 1. Mapped extent

Areas shown in blue indicate the maximum mapped extent of this ecological site. Other ecological sites likely occur within the highlighted areas. It is also possible for this ecological site to occur outside of highlighted areas if detailed soil survey has not been completed or recently updated.

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site occurs on valley floors, plains, fan piedmonts, piedmont slopes or relic lakebeds on basins. The parent material consists of mixed alluvium and or eolian deposits derived from sedimentary rock or residuum weathered from gypsum. Slopes range from 0 to 35 percent and average less than 8 percent. The soil does not meet hydric critera, the calcium carbonate equivalent with in the control section is less than 20 percent and gypsum percent greater than 40 percent. Elevations range from 2,800 to 5,000 feet.

Table 2. Representative physiographic features

Landforms	(1) Fan piedmont (2) Fan remnant (3) Basin-floor remnant
Flooding duration	Very brief (4 to 48 hours)
Flooding frequency	None to occasional
Ponding duration	Very brief (4 to 48 hours)
Ponding frequency	None to rare
Elevation	2,800–5,000 ft
Slope	0–35%
Aspect	Aspect is not a significant factor

Climatic features

The frost free season ranges from180 to 221 days between early April and late October. The optimum growing season of the major native warm season plants coincides with the summer rains during June, July, August, and September. However, plants can make some growth at any time during the frost free period when moisture is available and minimum daily temperatures stay above 51 degrees F.

Vegetation on this site will be limited to plants which can take advantage of moisture at the time it falls, since the

soil profiles have large amounts of available water for short periods of time and then rapidly dry. The majority of precipitation comes in the form of high intensity, short duration thunderstorms. Little or no available moisture can be stored in the soil profiles of this site. Strong winds from the southwest blow during January through June which accelerate soil drying within the plant root zone and further discourage cool season plant growth or occupancy of the site.

Climate data was obtained from http://www.wrcc.sage.dri.edu/summary/climsmnm.html web site using 50% probability for freeze-free and frost-free seasons using 28.5 degrees F and 32.5 degrees F respectively.

Table 3. Representative climatic features

Frost-free period (average)	221 days
Freeze-free period (average)	240 days
Precipitation total (average)	13 in

Influencing water features

This site is not influenced by water from wetlands or streams.

Soil features

Soils are shallow to moderately deep to gypsum material. Surface and subsurface textures range from loam, fine sandy loam or sandy loam. Substratum is a dense layers of soft or cemented gypsum material and gypsiferous earth at various depths. The gypsum materials commonly outcrop to the surface as inclusions of raw gypsumland which are void of vegetation and not part of the ecological site. In the lower part of the profile the semi indurated gypsum and caliche make up about 75 percent of the mass and are restrictive to root development. The plant, soil, air, water relationship is poor. The site has a droughty appearance because of the soils inability to support a dense stand of vegetation. If unprotected by plant cover or organic residue, the soil becomes easily wind blown and water eroded.

Minimum and maximum values listed below represent the characteristic soils for this site.

Characteristic Soils:
Holloman
Alamogordo
Aztec
Cottonwood
McCullough
Malargo
Reeves
Reflection
Yesum

Table 4. Representative soil features

Surface texture	(1) Gypsiferous fine sandy loam (2) Loam (3) Sandy loam
Family particle size	(1) Loamy
Drainage class	Moderately well drained to well drained
Permeability class	Moderately slow to moderate

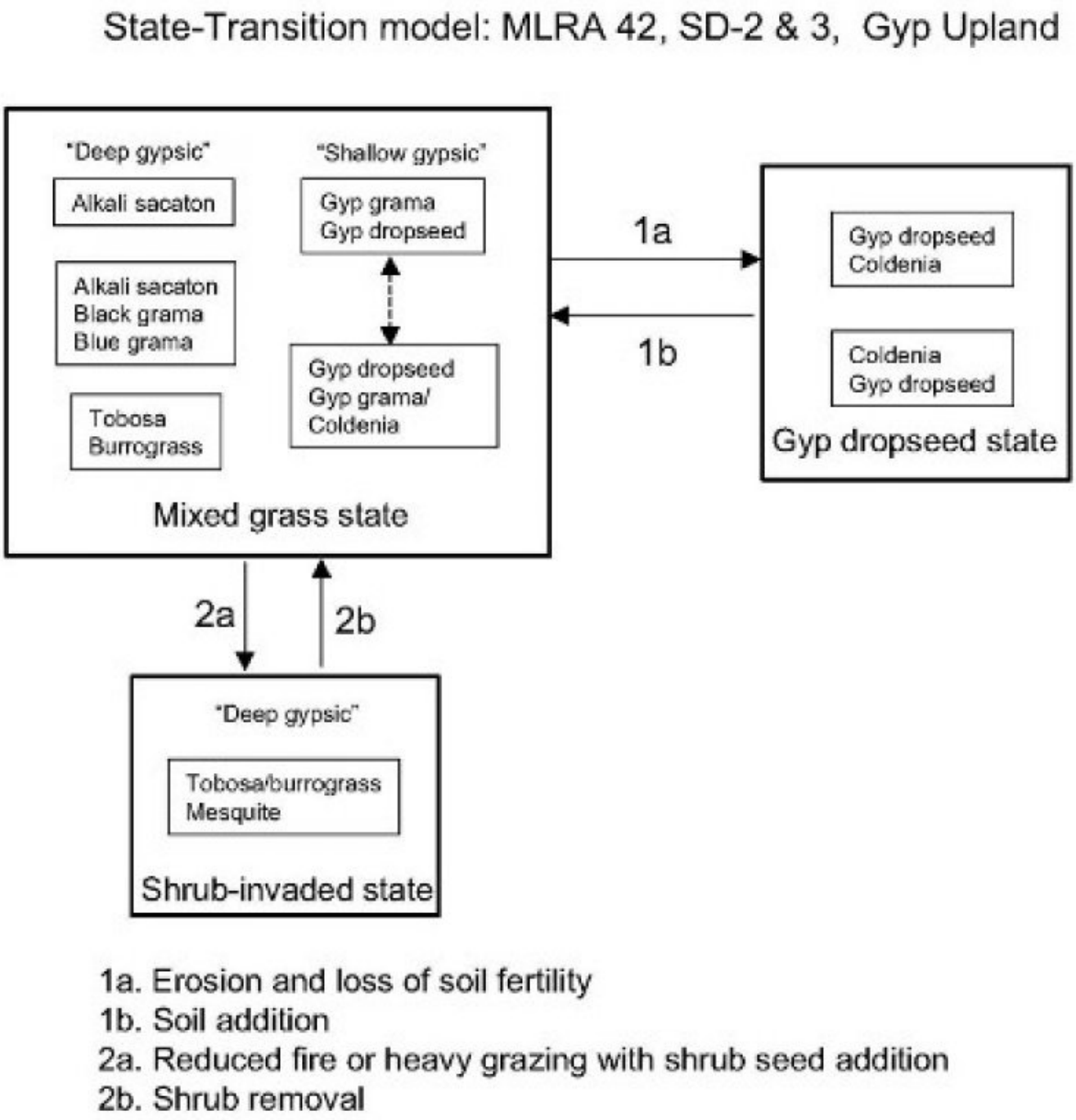
Soil depth	25–72 in
Surface fragment cover <=3"	0–3%
Surface fragment cover >3"	0–1%
Available water capacity (0-40in)	4–8 in
Calcium carbonate equivalent (0-40in)	5–30%
Electrical conductivity (0-40in)	2–16 mmhos/cm
Sodium adsorption ratio (0-40in)	0–1
Soil reaction (1:1 water) (0-40in)	7.4–8.6
Subsurface fragment volume <=3" (Depth not specified)	0–8%
Subsurface fragment volume >3" (Depth not specified)	0%

Ecological dynamics

Overview

The vegetation of this site often intergrades with that of Loamy sites, depending on the amounts of gypsum, soil texture, and depths of gypsic horizons. Low-lying areas where run-in water occurs behave like draws. Areas where gypsum outcrops are exposed harbor little vegetation. Gyp Uplands may intergrade with the Salt Flats site depending on salinity levels. Thus, the vegetation of this site is very patchy, variable, and difficult to characterize. The historic plant community types that are likely to be associated with the gyp uplands site include 1) an alkali sacaton (*Sporobolus airoides*) and black grama (*Bouteloua eriopoda*) or blue grama (*B. gracilis*)-dominated community associated with soils having relatively deep (> 10 “) gypsic horizons and 2) a gyp grama (*Bouteloua breviseta*) and gyp dropseed (*Sporobolus nealleyi*)-dominated community on soils with shallow (< 10”) gypsic horizons. Tobosa (*Pleuraphis mutica*), burrograss (*Scleropogon brevifolius*), and/or saltbush (*Atriplex canescens*) may also dominate depending on texture, land-use history, or other features. The subshrub Coldenia (Coldenia spp) increasingly dominates sites with very shallow gypsic horizons as grasses decline. Gyp upland sites are susceptible to erosion when vegetation cover is reduced due to drought and overgrazing. Mesquite (*Prosopis glandulosa*) may invade soils with deeper gypsic horizons within the site that are dominated by tobosa or burrograss. Erosion of A horizons bring gypsic horizons closer to the surface and can shift community composition to dominance by gyp dropseed, coldenia, and bare soil.

State and transition model



State 1
Historic Climax Plant Community

Community 1.1
Historic Climax Plant Community

This site has a grassland aspect with patches of bare or lichen covered soil surface exposed between patches of vegetation. The potential plant community is dominated by alkali sacaton, short and mid grass perennials and forbs, with half shrubs and shrubs sparsely and evenly distributed. Mixed grassland State: Alkali sacaton, black grama, and blue grama (only in SD-3) dominate soils that have relatively deep gypsic horizons that are deeper than 10" (e.g. Reeves series). Saltbush may be an abundant shrub. Alkali sacaton cover may be continuous in run-in settings surrounded by sparsely vegetated areas (alkali sacaton community). On fine-silty or fine loamy calcareous gypsid soils (e.g. Milner or Reeves series), tobosa or burrograss may be dominant. Dominance by burrograss or tobosa

might represent grazing-induced retrogression from an alkali sacaton-grama community type on these soils, but this has not been confirmed. In some cases, saltbush may be extremely dominant, (e.g. Malargo series) but it is not clear why. Gyp grama, black grama, and gyp dropseed dominate soils with shallow gypsic horizons and gyp dropseed, mormon tea (Ephedra spp.), and coldenia tend to dominate where the gypsic horizon is shallowest (< 3”). These communities exhibit low production, perhaps due to the comparatively shallow infiltration in gypsic soil and other chemical properties (Campbell and Campbell 1938). Outcrops of gypsum, often revealing a whitish floury mass at the surface, may be devoid of vegetation. Heavy grazing may reduce grama grasses and increase the dominance of gyp dropseed and coldenia, but it is important to recognize that these plants may dominate some patches without heavy grazing. Soil degradation due to surface compaction and reduced infiltration may be important on this site and result in reduced grass cover. Slight variations in the depth to the gypsic horizon, whether human induced or not, exert a powerful control on plant community composition. Where gypsic horizons are deep, soil texture or soil chemistry may govern composition. Diagnosis: Soils with deeper gypsic horizons should have continuous grass cover with a high representation of alkali sacaton and black grama. Shallower soils should have gyp grama and black grama but gyp outcrops will be dominated by gyp dropseeds or coldenia. Depending upon the depths to a gypsic horizon, large (< 1 m) bare patches may be common but they should not be common where the depth to gypsic horizon is greater than 5”. This site has a grassland aspect with patches of bare or lichen covered soil surface exposed between patches of vegetation. The potential plant community is dominated by alkali sacaton, short and mid grass perennials and forbs, with half shrubs and shrubs sparsely and evenly distributed.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	300	470	640
Forb	45	71	96
Shrub/Vine	30	47	64
Total	**375**	**588**	**800**

Table 6. Ground cover

Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	25%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	16%
Surface fragments >0.25" and <=3"	0%
Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	57%

Figure 5. Plant community growth curve (percent production by month). NM2806, R042XC006NM Gyp Upland HCPC. R042XC006NM Gyp Upland HCPC Warm Season Plant Community.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0	5	10	10	25	30	15	5	0	0

State 2
Transition to gyp dropseed

Community 2.1
Transition to gyp dropseed

Transition to gyp dropseed state (1a): Reduced grass cover caused by poor grazing management and/or drought may result in erosion of surface horizons. As the depth to the gypsic horizon decreases, plant communities will become increasingly dominated by gyp dropseed and/or coldenia. Mechanical disturbance of the soil surface and soil degradation may contribute to this effect. Key indicators of approach to transition: Increased bare ground, pedestalling, water flow patterns, blowouts, and eventually the loss of the A horizon.

State 3
Transition to shrub-invaded state

Community 3.1
Transition to shrub-invaded state

Transition to shrub-invaded state (2a): Reduced grass cover in deep gypsic soils may result in mesquite invasion. Key indicators of approach to transition: Increasing bare ground, presence of mesquite seedlings. Shrub-invaded: On deep gypsic soils and soils with less strong gypsic horizons (i.e. have a lower percentage of gypsum) within this site, mesquite may invade and cause some reduction in grass cover due to competition with grasses. These communities are dominated by tobosa or burrograss. Saltbush may also be an important component. It is not known if shrub presence and resulting erosion may result in the loss of dominant perennial grasses across broad areas on gypsic soils. As soil characteristics grade toward those of the loamy ecological site, widespread grass loss may be increasingly probable. Diagnosis: Moderate densities of mesquite, bare ground patches associated with mesquite patches.

State 4
Transition to mixed grassland (2b)

Community 4.1
Transition to mixed grassland (2b)

Transition to mixed grassland (2b): Shrub removal may result in the eventual recovery of perennial grasses. Gyp dropseed: These communities are dominated by gyp dropseed or coldenia, and often exhibit high amounts of bare ground and exposed gypsum at the surface. Gyp grama, black grama, and alkali sacaton may persist in small patches, especially in low-lying spots receiving run-in water and/or in which soils are protected from erosion. The frequency with which these community types represent degradation from mixed grassland due to poor management versus “natural” is unknown. The conditions under which gyp dropseed and coldenia dominate are unknown. Diagnosis: Dominance by gyp dropseed or coldenia, high amounts of bare ground, sometimes associated with a high cover of microbiotic crusts.

State 5
Transition to mixed grassland (1b)

Community 5.1
Transition to mixed grassland (1b)

Transition to mixed grassland (1b): Restoration or recovery of a non-gypsic A horizon would be required. Information sources and theoretical background: Communities, states, and transitions are based upon information in the ecological site description and observations by Brandon Bestelmeyer, Jornada Experimental Range and David Trujillo, NRCS. Information on the the role of gypsum in concert with soil chemical features in determining plant composition is sorely needed.

Additional community tables

Table 7. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)

Grass/Grasslike					
1	**Warm Season**			266–323	
	alkali sacaton	SPAI	*Sporobolus airoides*	266–323	–
2	**Warm Season**			29–88	
	black grama	BOER4	*Bouteloua eriopoda*	29–88	–
3	**Warm Season**			6–59	
	gypsum grama	BOBR	*Bouteloua breviseta*	6–59	–
4	**Warm Season**			18–88	
	bush muhly	MUPO2	*Muhlenbergia porteri*	18–88	–
	plains bristlegrass	SEVU2	*Setaria vulpiseta*	18–88	–
5	**Warm Season**			6–18	
	gyp dropseed	SPNE	*Sporobolus nealleyi*	6–18	–
6	**Warm Season**			6–18	
	sand dropseed	SPCR	*Sporobolus cryptandrus*	6–18	–
7	**Warm Season**			6–18	
	blue grama	BOGR2	*Bouteloua gracilis*	6–18	–
8	**Warm Season**			18–88	
	threeawn	ARIST	*Aristida*	18–88	–
	low woollygrass	DAPU7	*Dasyochloa pulchella*	18–88	–
	ear muhly	MUAR	*Muhlenbergia arenacea*	18–88	–
Shrub/Vine					
9	**Shrub**			18–41	
	fourwing saltbush	ATCA2	*Atriplex canescens*	18–41	–
	jointfir	EPHED	*Ephedra*	18–41	–
	littleleaf sumac	RHMI3	*Rhus microphylla*	18–41	–
10	**Shrub**			6–18	
	javelina bush	COER5	*Condalia ericoides*	6–18	–
	knifeleaf condalia	COSP3	*Condalia spathulata*	6–18	–
	crown of thorns	KOSP	*Koeberlinia spinosa*	6–18	–
11	**Cactus**			6–18	
	pricklypear	OPUNT	*Opuntia*	6–18	–
	yucca	YUCCA	*Yucca*	6–18	–
Forb					
12	**Forb**			29–59	
	woody crinklemat	TICAC	*Tiquilia canescens var. canescens*	29–59	–
13	**Forb**			6–88	
	Forb, annual	2FA	*Forb, annual*	6–88	–
	trailing windmills	ALIN	*Allionia incarnata*	6–88	–
	daisy	CHRYS2	*Chrysanthemum*	6–88	–
	golden tickseed	COTI3	*Coreopsis tinctoria*	6–88	–
	leatherweed	CRPOP	*Croton pottsii var. pottsii*	6–88	–
	Seven River Hills buckwheat	ERGY	*Eriogonum gypsophilum*	6–88	–

	blazingstar	MENTZ	*Mentzelia*	6–88	–
	fiddleleaf	NAMA4	*Nama*	6–88	–
	whitest evening primrose	OEAL	*Oenothera albicaulis*	6–88	–
	beardtongue	PENST	*Penstemon*	6–88	–
	Texan phacelia	PHINT	*Phacelia integrifolia var. texana*	6–88	–
	white milkwort	POAL4	*Polygala alba*	6–88	–
	desert unicorn-plant	PRAL4	*Proboscidea althaeifolia*	6–88	–
	whitestem paperflower	PSCO2	*Psilostrophe cooperi*	6–88	–
	threadleaf ragwort	SEFLF	*Senecio flaccidus var. flaccidus*	6–88	–
	Hopi tea greenthread	THME	*Thelesperma megapotamicum*	6–88	–

Animal community

This site provides habitats which support a resident animal community that is characterized by coyote, hooded skunk, desert cottontail, whitethroated woodrat, sparrow hawk, cactus wern, scaled quail, logggerhead shrike, mourning dove, and a number of ground nesting birds including, varied bunting, grasshopper sparrow, and Baird's sparrow Texas horned lizard, lesser earless lizard, and western diamondback rattlesnake.

Fourwing saltbush, littleleaf sumac, spiny allthorn, common javilinabush, and knifeleaf condalia provide protective cover for scaled quail. Seed, green herbage and fruit from a variety of grasses, forbs and shrubs provide food for a number of birds and mamals, including scaled and Gambel’s quail, mourning dove and prairie dogs. The fruit of tesajo cactus is relished by quail.

Hydrological functions

The runoff curve numbers are determined by field investigations using hydraulic cover conditions and hydrologic soil groups.

Hydrologic Interpretations
Soil Series Hydrologic Group
Cottonwood C
Holloman C
Yesum B
Alamogordo B
Aztec C
Malargo B
Reeves C
Reflection B

Recreational uses

This site offers recreation potential for hiking, horseback riding, rock, gem, and mineral collecting, nature observation and photography, and quail, dove, and predator hunting.
During years of abundant moisture, a colorful array of wildflowers can be observed from spring through fall.

Wood products

This site provides little or no wood products other than curiosities and small furniture which can be made from the roots and stems of mesquite where it has invaded the site. The woody pods of devils claw are also used in curiosities.

Other products

This site is suitable for grazing during all seasons of the year. Care must be taken to leave enough vegetation cover for soil protection during windy and rainy periods or severe soil erosion will result. About 300 pounds per acre of total vegetation and litter is minimal for soil protection. This site is best suited and most efficiently utilized by cattle. It can also be utilized by small numbers of goats and sheep in combination with cattle where control or protection from predators can be provided. Grazing management that results in a mosaic of use patterns provides diversity for wildlife.

Other information

Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month

Similarity Index Ac/AUM
100 - 76 5.5 – 8.0
75 – 51 7.5 – 11.0
50 – 26 11.0 – 15.0
25 – 0 25.0 +

Type locality

Location 1: Eddy County, NM	
Township/Range/Section	T26S R24E S27

Other references

Contributors

Don Sylvester
Dr. Brandon Bestelmeyer

Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:**

2. **Presence of water flow patterns:**

---

3. **Number and height of erosional pedestals or terracettes:**

---

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):**

---

5. **Number of gullies and erosion associated with gullies:**

---

6. **Extent of wind scoured, blowouts and/or depositional areas:**

---

7. **Amount of litter movement (describe size and distance expected to travel):**

---

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):**

---

9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):**

---

10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:**

---

11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):**

---

12. **Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):**

    Dominant:

    Sub-dominant:

    Other:

    Additional:

---

13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):**

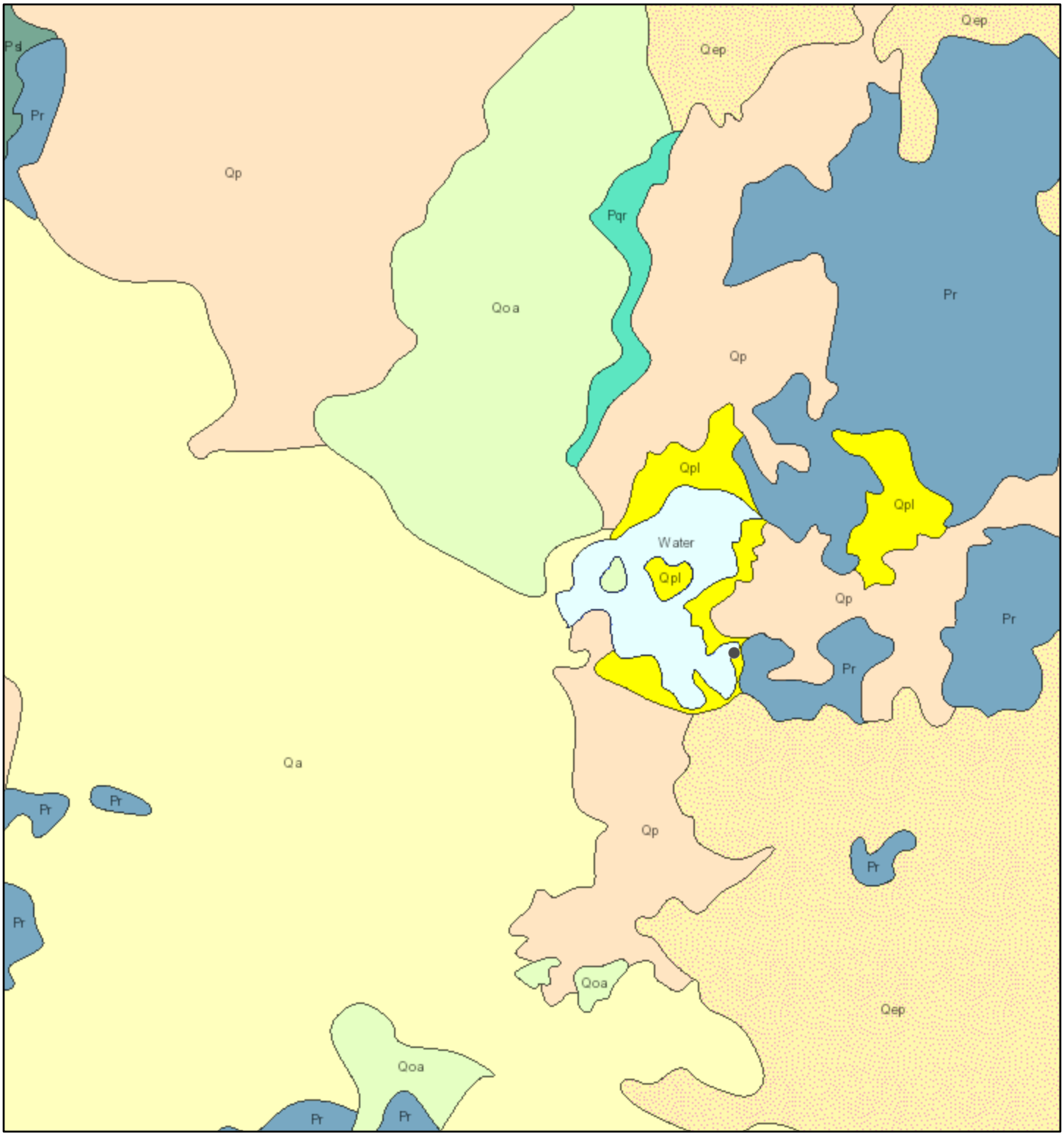
14. **Average percent litter cover (%) and depth (in):**

15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):**

16. **Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:**

17. **Perennial plant reproductive capability:**

Laguna Salado 22 Federal #004H



3/22/2023, 6:11:46 PM

1:144,448

0 1 2 4 mi

0 1.5 3 6 km

Lithologic Units

- Playa——Alluvium and evaporite deposits (Holocene)
- Water——Perenial standing water
- Qa——Alluvium (Holocene to upper Pleistocene)

Esri, NASA, NGA, USGS, USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data;

ArcGIS Web AppBuilder

USGS Structures | Maxar | 3/20/2025 2:21:46 PM 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National

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

QUESTIONS

Action 442520

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 442520
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2317746199**
Incident Name	**NAPP2317746199 LAGUNA SALADO 22 FEDERAL #004H @ 30-015-36461**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Plan Received**
Incident Well	**[30-015-36461] LAGUNA SALADO 22 FEDERAL #004H**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	LAGUNA SALADO 22 FEDERAL #004H
Date Release Discovered	06/26/2023
Surface Owner	Private

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Equipment Failure | Pipeline (Any) | Produced Water | Released: 7 BBL | Recovered: 0 BBL | Lost: 7 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Mist was seen coming from flow line off pad. A Devon flowline coming from the Laguna Salado 22-4 had a leak and was spraying liquid. The unit was shut off and the line was isolated. Estimated that 7 bbls of produced water released offsite. Recovered volumes are not available at the time of this notification.

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QUESTIONS (continued)

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QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	recovered volumes are not available as of this notification
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dvn.com Date: 03/14/2025

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QUESTIONS (continued)

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QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 26 and 50 (ft.)
What method was used to determine the depth to ground water	Estimate or Other
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 300 and 500 (ft.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Between 1 and 5 (mi.)
An (non-karst) unstable area	Between ½ and 1 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Zero feet, overlying, or within area
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	48000
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	11
GRO+DRO (EPA SW-846 Method 8015M)	11
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	06/10/2025
On what date will (or did) the final sampling or liner inspection occur	07/01/2025
On what date will (or was) the remediation complete(d)	08/01/2025
What is the estimated surface area (in square feet) that will be reclaimed	5646
What is the estimated volume (in cubic yards) that will be reclaimed	836
What is the estimated surface area (in square feet) that will be remediated	0
What is the estimated volume (in cubic yards) that will be remediated	0
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	LEA LAND LANDFILL [fEEM0112342028]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dvn.com Date: 03/14/2025
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	*{Unavailable.}*

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Confirmation samples should be collected every 200 ft2. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides to define the edge of the release or meet background sample numbers that were properly obtained. Vertical delineation will need to meet composite background numbers for each depth included on the analytical data table.	3/20/2025