



209 W. McKay Street
Carlsbad, New Mexico 88220
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September 23, 2024

Mike Bratcher
District Supervisor
Oil Conservation Division, District 2
811 S. First Street
Artesia, New Mexico 88210

**Re: Site Characterization and Deferral Request
Chevron USA, Inc.
Cotton Hills 23 26 27 Federal Com #001H
Unit B, Section 23, Township 26S, Range 27E
Site Coordinates: 32.0345573, -104.1587753
Eddy County, New Mexico
Incident ID: nAPP2300450334**

Mr. Bratcher:

Introduction

On behalf of Chevron USA, Inc. (Chevron), New Tech Global Environmental, LLC (NTGE) has prepared this Site Characterization and Deferral Request for submittal to the New Mexico Oil Conservation Division (NMCOD) District 2 Office in Artesia, New Mexico to document site assessment, proposed remedial action activities, and sample analysis results for Cotton Hills 23 26 27 Federal Com #001H (Site). The Site is located in Unit Letter B, Section 23, of Township 26 South and Range 27 East in Eddy County, New Mexico. The GPS coordinates for the release site are 32.0345573° N latitude and 104.1587753° W longitude. The site location with respect to the nearest town is shown in Figure 1 and the topography of the area is shown in Figure 2.

Background

Based on the initial C-141 obtained from the NMOCD, the release was discovered on December 25, 2022. The release was due to a pinhole leak in a three-inch ball valve resulting in the release of approximately eleven (11) barrels (bbls) of produced water and eleven (11) bbls of crude oil of which zero (0) were recovered for a net loss of eleven (11) bbls of produced water and eleven (11) bbls crude oil. Upon discovery, the equipment was shut-in, and the area secured. The release area is shown on Figure 3.

Site Characterization

Based on a review of the New Mexico Office of State Engineers and USGS databases, there are no known water sources within a ½-mile radius of the Site. No other receptors (playas, wetlands, waterways, lakebeds, or ordinance boundaries) are located within each specific boundary or distance from the Site. According to the Karst Potential Map, the site is located within a Medium Karst area.

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The Site characterization documentation (Points of Diversion, Karst Potential, Significant Watercourse Map, Wetlands Map, and FEMA Map) is attached to the end of this report.

NTGE characterized the Site according to Table I, Closure Criteria for Soils Impacted by a Release, from the New Mexico Administrative Code (NMCA) Title 19, Chapter 15, Part 29, Section 12 (NMAC 19.15.29.12).

General Site Characterization and Groundwater:

Site Characterization	Average Groundwater Depth (ft)
Medium Karst	Unknown

Table 3.1 Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29.12 & 19.15.29.13)

Regulatory Standard	Chloride	TPH (GRO+DRO+MRO)	TPH (GRO+MRO)	BTEX	Benzene
19.15.23.12 Remediation and Closure Criteria for Soils Impacted by a Release	600 mg/kg	100 mg/kg	---	50 mg/kg	10 mg/kg
Notes: --- = not defined					

Site Assessment

On February 9, 2023, Larson and Associates, Inc (LAI) personnel used a stainless-steel hand auger to collect soil samples from five (5) locations inside of the spill area (S-1 through S-5) and in each cardinal direction (north, south, east, and west) outside of the spill (S-6 through S-9). The samples were collected in half foot intervals from zero (0) to one (1) ft bgs. The soil samples were delivered under chain of custody to Permian Basin Environmental Laboratories (PBEL), located in Midland, Texas. The samples were analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) (by EPA Method 8021B), total petroleum hydrocarbon (TPH) (by EPA method 8015 modified), and chloride (method SM4500Cl-B). Analytical results indicated that five sample points, S-1, S-2, S-3, S-4, and S-5 exhibited TPH and/or chloride over Table I Closure Criteria.

On April 3, 2023, LAI personnel returned to the site to further delineate sample locations S-2 and S-3. The samples were collected at one (1), three (3), five (5), and ten (10) feet bgs. PBEL analyzed the samples for BTEX, TPH and chloride. The laboratory results indicated the release was fully delineated to NMOCD Closure Criteria. The work plan prepared by LAI is attached at the end of this report.

Remedial Action Activities and Confirmation Sampling

Based on the analytical results, Chevron proceeded with the remedial actions at the Site to include the excavation and disposal of impacted soils above the regulatory limits. Confirmation soil samples were five (5) point composite samples and were collected from areas representing no greater than 200 square feet. The confirmation samples were submitted to Cardinal Laboratories in Hobbs, New Mexico for analysis of BTEX (EPA Method 8021B), TPH (EPA Method 8015B Modified), and

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chloride (SM4500 CL-B).

On July 15, 2024, NTGE and Chevron's contractor Hydro-Con mobilized to the site to begin remediation activities. After excavation activities were completed NTGE conducted a confirmation sampling event on August 9, 2024. A total of six (6) composite confirmation samples from the excavation base (CS-1 through CS-6) and nine (9) composite confirmation samples from the excavation sidewalls (SW-1 through SW-9) were collected to ensure impacted soil was removed. Analytical results indicated all samples exhibited benzene, BTEX, TPH, and chloride concentrations below NMOCD Closure Criteria with the exception of CS-1, CS-3, CS-4, SW-2, SW-5, SW-6, SW-8, and SW-9

On August 22, 2024, NTGE and Hydro-Con returned to the site to conduct further remediation activities. On August 29, 2024, NTGE collected a total of three (3) composite confirmation samples from the excavation base (CS-1A, CS-3A, and CS-4A) and four composite confirmation samples from the excavation sidewalls (SW-2A, SW-5A, SW-6A, and SW-10) to ensure impacted soil was removed. Analytical results indicated SW-2A exhibited chloride concentrations above NMOCD Closure Criteria.

September 13, 2024, NTGE and Hydro-Con mobilized back to the site to conduct further remediation activities. NTGE collected a total of one (1) composite confirmation sample from the excavation base (CS-7) and one (1) composite confirmation sample from the excavation sidewall (SW-2B) to ensure impacted soil was removed. Analytical results indicated both samples exhibited concentrations below Table I Closure Criteria.

Soil samples were placed directly into laboratory provided sample containers, placed on ice, and transported under proper chain-of-custody protocol to Cardinal Laboratories in Hobbs, New Mexico. Confirmation samples were collected every 200 square feet and analyzed for TPH (EPA method 8015 modified), BTEX (EPA Method 8021B), and chloride (method SM4500Cl-B). The final excavation extent and confirmation sample locations are shown on Figure 4 and analytical results of all confirmation samples are included in Table 2 with laboratory reports attached.

Approximately 180 cubic yards of impacted soil were disposed of at the Red Bluff R360 disposal facility near Orla, Texas. The manifests are not included in this report, but are available upon request.

Deferral Request


Chevron personnel have expressed that the excavation areas of SW-8 and SW-9 cannot be expanded further as they were collected from the soils directly under the heater treater unit and associated piping. Excavation of these sidewalls would require major facility deconstruction. The deferral area was fully delineated by all the confirmation samples collected around the small island of which the heater treater unit and piping sit upon.


On behalf of Chevron, NTG Environmental formally requests a deferral to address the remaining soil impacts at the time of facility decommissioning or in the event infrastructure modifications are made in the area that would alleviate the safety concerns, whichever is sooner. Should the deferral request be granted, a remedial action report documenting excavation expansion and confirmation sampling activities will be prepared and filed following completion of the further actions to be completed at a future date.

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If you have any questions regarding this report or need additional information, please contact us at 432-766-1918.

Sincerely,
NTG Environmental


Becky Haskell
Environmental Manager

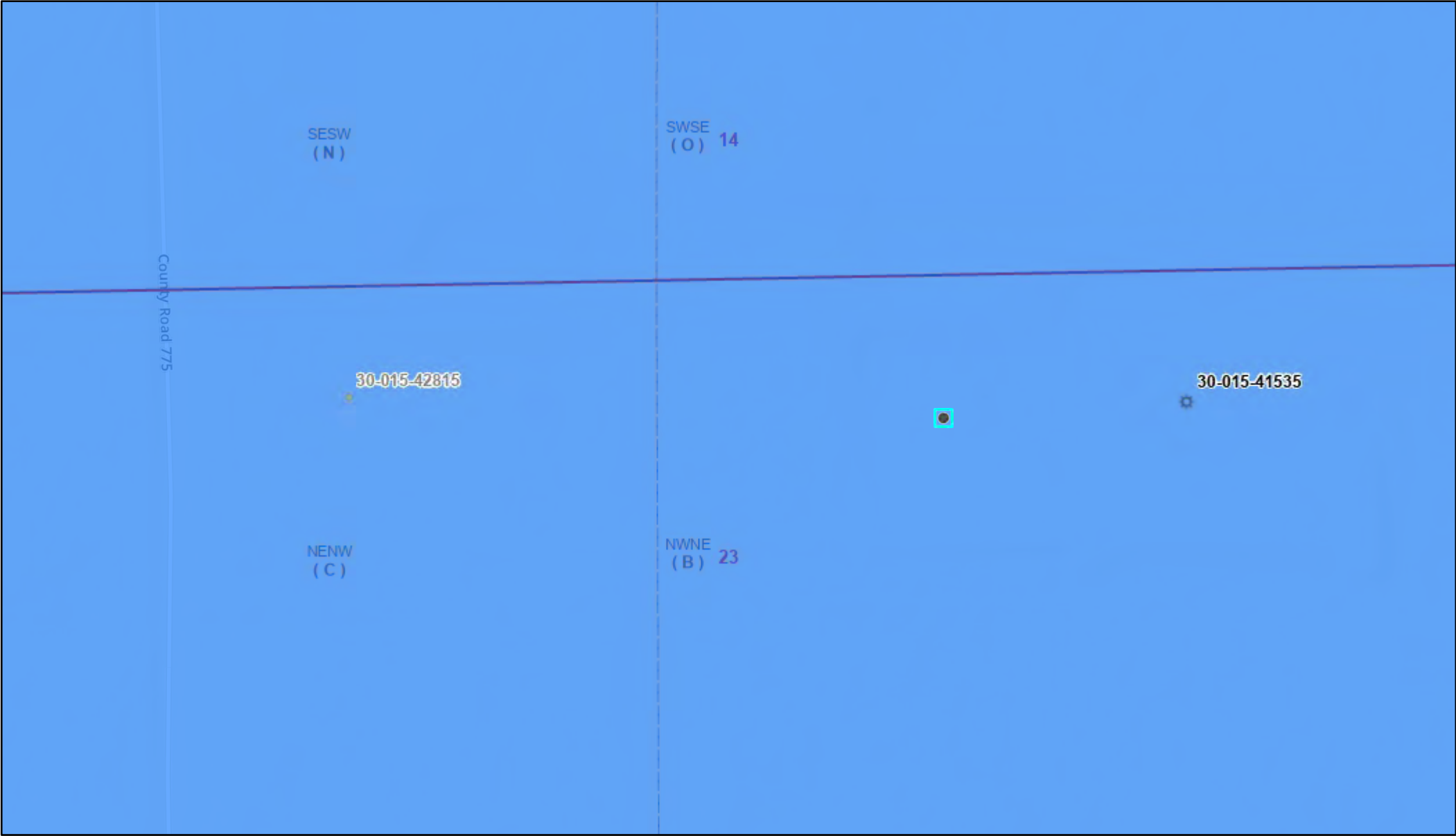

Tyler Kimball
Field Technician

Attachments:

Site Characterization Information
Tables
Figures
Photographic Log
Confirmation Sampling Notifications
Extension Request Approval
Laboratory Reports and Chain-of-Custody
Larson and Associates Incorporated workplan

ATTACHEMENT A: SITE CHARACTERIZATION DOCUMENTATION

OCD Well Locations

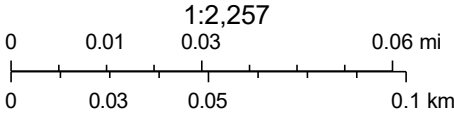


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Wells - Large Scale Karst Occurrence Potential PLSS First Division

⚙ Gas, Active Medium

● Oil, Cancelled PLSS Second Division



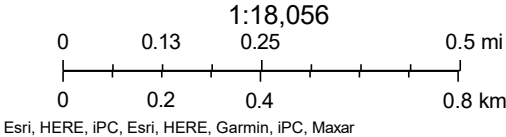
BLM, OCD, New Mexico Tech, Esri Community Maps Contributors, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Oil Conservation Division of the New Mexico Energy,

OSE POD Location Map



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- OSE District Boundary
- New Mexico State Trust Lands
- Surface Water Basins
- Both Estates
- Lower Pecos

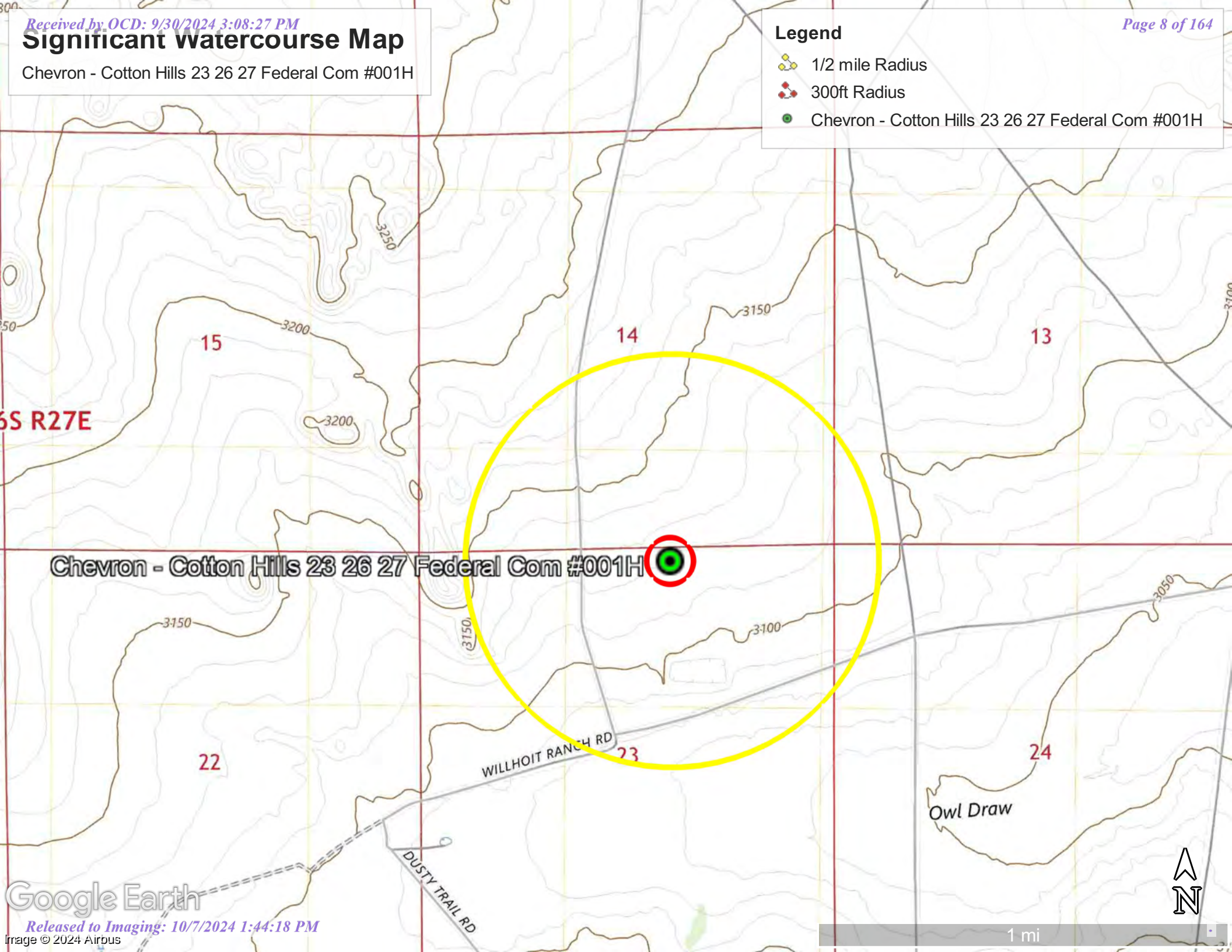


Significant Watercourse Map

Chevron - Cotton Hills 23 26 27 Federal Com #001H

Legend

- 1/2 mile Radius
- 300ft Radius
- Chevron - Cotton Hills 23 26 27 Federal Com #001H



National Flood Hazard Layer FIRMette



104°9'54"W 32°2'19"N



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		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped

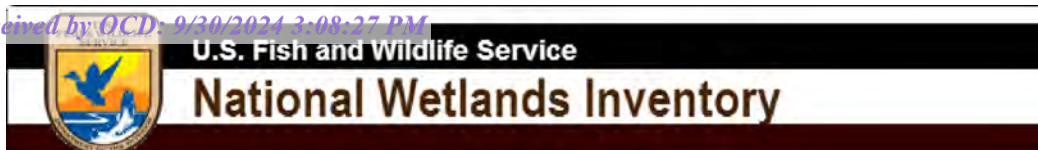


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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 8/15/2024 at 10:31 AM 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.



Wetlands (Chevron) - Cotton Hills 23 26 27



September 20, 2024

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.

ATTACHEMENT B: TABLES

Table 1
Summary of Soil Analytical Data - Initial Assessment Samples
 Cotton Hills 23 26 27 Federal Com #001H
 Chevron USA, Inc
 Eddy Co., NM

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH					Chloride	
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	GRO (C6-C-10)	DRO (C10-C28)	GRO + DRO	MRO (C28-C35)	Total GRO/DRO/MRO		
			Table I Closure Criteria for Soil ≤ 50 feet Depth to Groundwater 19.15.29 NMAC											
			10 mg/kg	---	---	---	50 mg/kg	---	---	---	---	100 mg/kg		600 mg/kg
Vertical Delineation Samples														
S-1	2/9/2023	0-0.5	<0.00202	<0.00202	0.0043	0.00208	0.00638	<49.8	1,070	1,070	<49.8	1,070	125	
	2/9/2023	0.5-1	<0.00198	<0.00198	<0.00198	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	245	
S-2	2/9/2023	0-0.5	<0.00200	<0.00200	0.0044	0.0324	0.00368	157	615	772	<49.9	772	267	
	2/9/2023	0.5-1	<0.00201	0.00258	<0.00201	<0.00201	<0.00402	<49.8	112	112	<49.8	112	609	
	4/3/2023	1	<0.00115	<0.00115	<0.00115	<0.00115	<0.0023	<28.7	432	432	96	528	246	
	4/3/2023	3	<0.00128	<0.00128	<0.00128	<0.00128	<0.00256	<32.1	<32.1	<32.1	<32.1	<32.1	146	
	4/3/2023	5	<0.00123	<0.00123	<0.00123	<0.00123	<0.00247	<30.9	<30.9	<30.9	<30.9	<30.9	214	
	4/3/2023	10	<0.0012	<0.0012	<0.0012	<0.0012	<0.00241	<30.1	<30.2	<30.3	<30.4	<30.5	15.0	
S-3	2/9/2023	0-0.5	<0.00202	0.00787	0.0577	0.746	0.812	650	1,850	2,500	<49.8	2,500	101	
	2/9/2023	0.5-1	<0.00199	<0.00199	<0.00199	<0.00199	<0.00398	<49.9	56	56	<49.9	56	3,740	
	4/3/2023	1	<0.00112	<0.00112	<0.00112	<0.00112	<0.00225	<28.1	<28.1	<28.1	<28.1	<28.1	25.9	
	4/3/2023	3	<0.00125	<0.00125	<0.00125	<0.00125	<0.0025	<31.2	<31.2	<31.2	<31.2	<31.2	107	
	4/3/2023	5	<0.0012	<0.0012	<0.0012	<0.0012	<0.00241	<30.1	<30.1	<30.1	<30.1	<30.1	109	
	4/3/2023	10	<0.00118	<0.00118	<0.00118	<0.00118	<0.00235	<29.4	<29.4	<29.4	<29.4	<29.4	35.9	
S-4	2/9/2023	0-0.5	<0.00199	0.0169	0.0338	0.413	0.464	242	895	1,140	<50.0	1,140	20.9	
	2/9/2023	0.5-1	<0.00200	<0.00200	<0.00200	0.0106	0.0106	<50.0	<50.0	<50.0	<50.0	<50.0	248	
S-5	2/9/2023	0-0.5	<0.00201	0.0159	0.0387	0.581	0.636	248	721	969	<49.9	969	91.1	
	2/9/2023	0.5-1	<0.00199	<0.00199	<0.00199	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	204	
S-6	2/9/2023	0-0.5	<0.00198	<0.00198	<0.00198	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	9.78	
	2/9/2023	0.5-1	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	29.5	
S-7	2/9/2023	0-0.5	<0.00199	<0.00199	<0.00199	<0.00396	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	37.2	
	2/9/2023	0.5-1	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	226	
S-8	2/9/2023	0-0.5	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	131	
	2/9/2023	0.5-1	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	56.0	
S-9	2/9/2023	0-0.5	<0.00199	<0.00199	<0.00199	<0.00396	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	118	
	2/9/2023	0.5-1	<0.00199	<0.00199	<0.00199	<0.00396	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	191	

Notes:

Site delineation was completed by Larson and Associates Incorporated.

1. Values reported in mg/kg

5. TPH analyses by EPA Method SW 8015 Mod.

2. < = Value Less Than Reporting Limit (RL)

6. GRO/DRO/MRO - Gasoline/Diesel/Motor Oil

3. Bold indicates Analyte Detected

7. Yellow shaded cells indicate analytical samples that exceed the NMAC 19.15.29.12 Table I Closure Criteria for the site.

4. BTEX analyses by EPA Method SW 8021B

8. Peach shaded cells indicate analytical samples that exceed the NMAC 19.15.29.13 Table I Closure Criteria for the site (Surface to 4 Feet Below Grade).

SP-1

Sample Point Excavated

9. --- Not Analyzed

Table 2
Summary of Soil Analytical Data - Confirmation Assessment Samples
 Cotton Hills 23 26 27 Federal Com #001H
 Chevron USA, Inc
 Eddy Co., NM

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH					Chloride	
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	GRO (C6-C-10)	DRO (C10-C28)	GRO + DRO	MRO (C28-C35)	Total GRO/DRO/MRO		
			Table I Closure Criteria for Soil ≤ 50 feet Depth to Groundwater 19.15.29 NMAC											
			10 mg/kg	---	---	---	50 mg/kg	---	---	---	---	100 mg/kg		600 mg/kg
Base Confirmation Samples														
CS-1	8/9/2024	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	93.6	93.6	31.3	124.9	1,300	
CS-1A	8/29/2024	3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	13.3	13.3	<10.0	13.3	416	
CS-2	8/9/2024	2'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0	
CS-3	8/9/2024	2'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	608	
CS-3A	8/29/2024	3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176	
CS-4	8/9/2024	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,000	
CS-4A	8/29/2024	0-3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	368	
CS-5	8/9/2024	2'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176	
CS-6	8/9/2024	3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	560	
CS-7	9/13/2024	3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128	
Sidewall Samples														
SW-1	8/9/2024	0-2'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256	
SW-2	8/9/2024	0-3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	10,000	
SW-2A	8/29/2024	0-3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	784	
SW-2B	9/13/2024	0-3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128	
SW-3	8/9/2024	2-3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	640	
SW-4	8/9/2024	1-3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	864	
SW-5	8/9/2024	1-2'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	320	
SW-5A	8/29/2024	2'-3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	11.7	11.7	<10.0	11.7	560	
SW-6	8/9/2024	0-1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,160	
SW-6A	8/29/2024	0-3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	224	
SW-7	8/9/2024	0-2'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	448	
SW-8	8/9/2024	0-1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	125	125	61.8	186.8	1,200	
SW-9	8/9/2024	0-3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,790	
SW-10	8/29/2024	2'-3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0	

Notes:

- Values reported in mg/kg
- < = Value Less Than Reporting Limit (RL)
- Bold indicates Analyte Detected
- BTEX analyses by EPA Method SW 8021B

- TPH analyses by EPA Method SW 8015 Mod.
- GRO/DRO/MRO - Gasoline/Diesel/Motor Oil

7. Yellow shaded cells indicate analytical samples that exceed the NMAC 19.15.29.12 Table I Closure Criteria for the site.

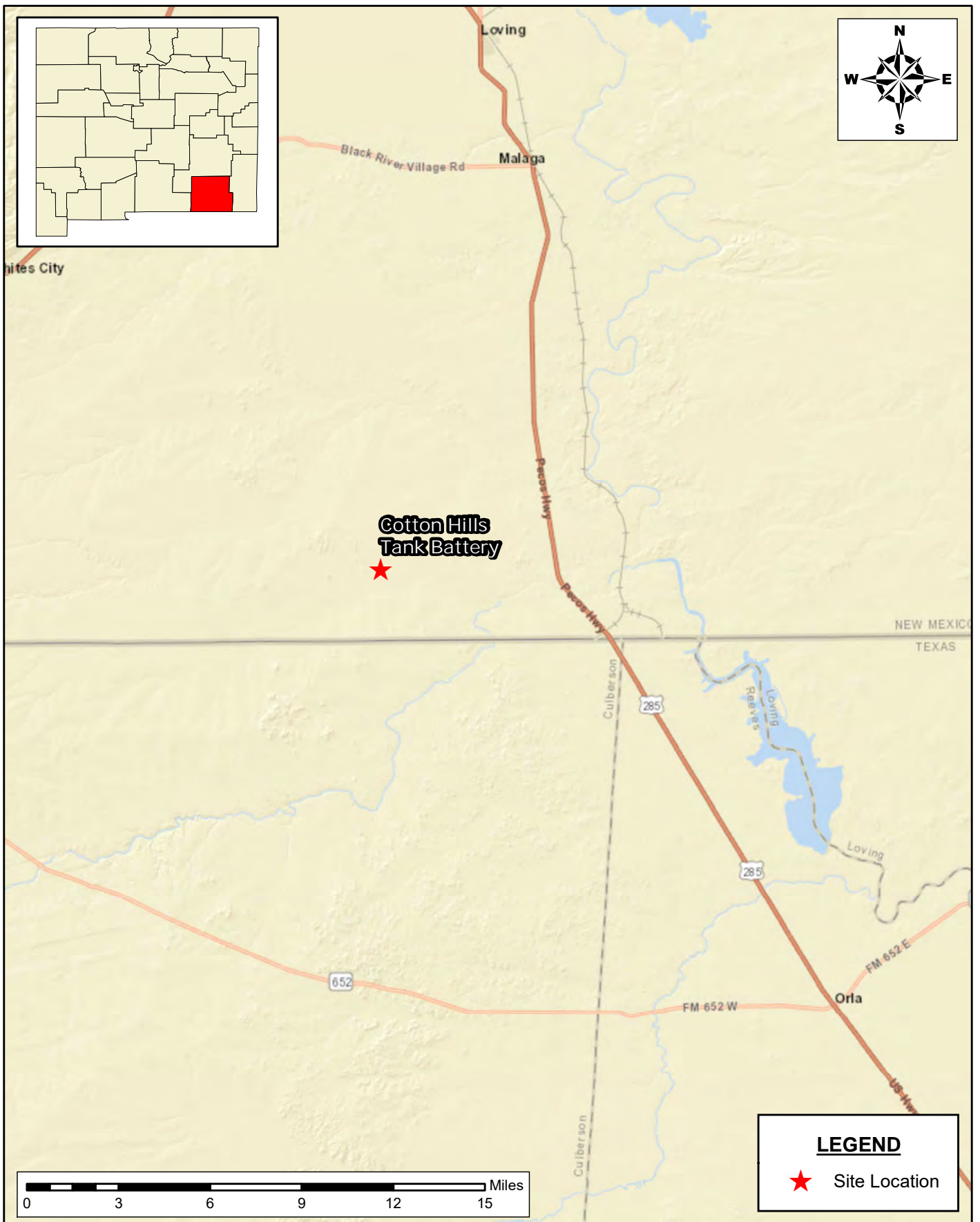
8. Peach shaded cells indicate analytical samples that exceed the NMAC 19.15.29.13 Table I Closure Criteria for the site (Surface to 4 Feet Below Grade).

9. --- Not Analyzed

SP-1 Sample Point Excavated

ATTACHEMENT C: FIGURES

Document Path: C:\Users\ntg\gis\New Tech Global\NTGE - Projects\2024 PROJECTS\CHEVRON\RSC\248738 Cotton Hills 23 26 27 Federal Com #001H7 - Figures\GIS\Figure_1_TK.mxd



SITE LOCATION MAP
SITE CHARACTERIZATION AND REMEDIATION DEFERRAL REQUEST
 COTTON HILLS 23 26 27 FEDERAL COM #001H
 CHEVRON USA INC
 EDDY COUNTY, NEW MEXICO

SCALE: As Shown Date: 9/19/2024 PROJECT #: 248738

New Tech Global Environmental, LLC
 911 Regional Park Drive
 Houston, Texas 77060
 T - 281.872.9300
 F - 281.872.4521
 Web: www.ntgenviroinmental.com



NOTES:

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983

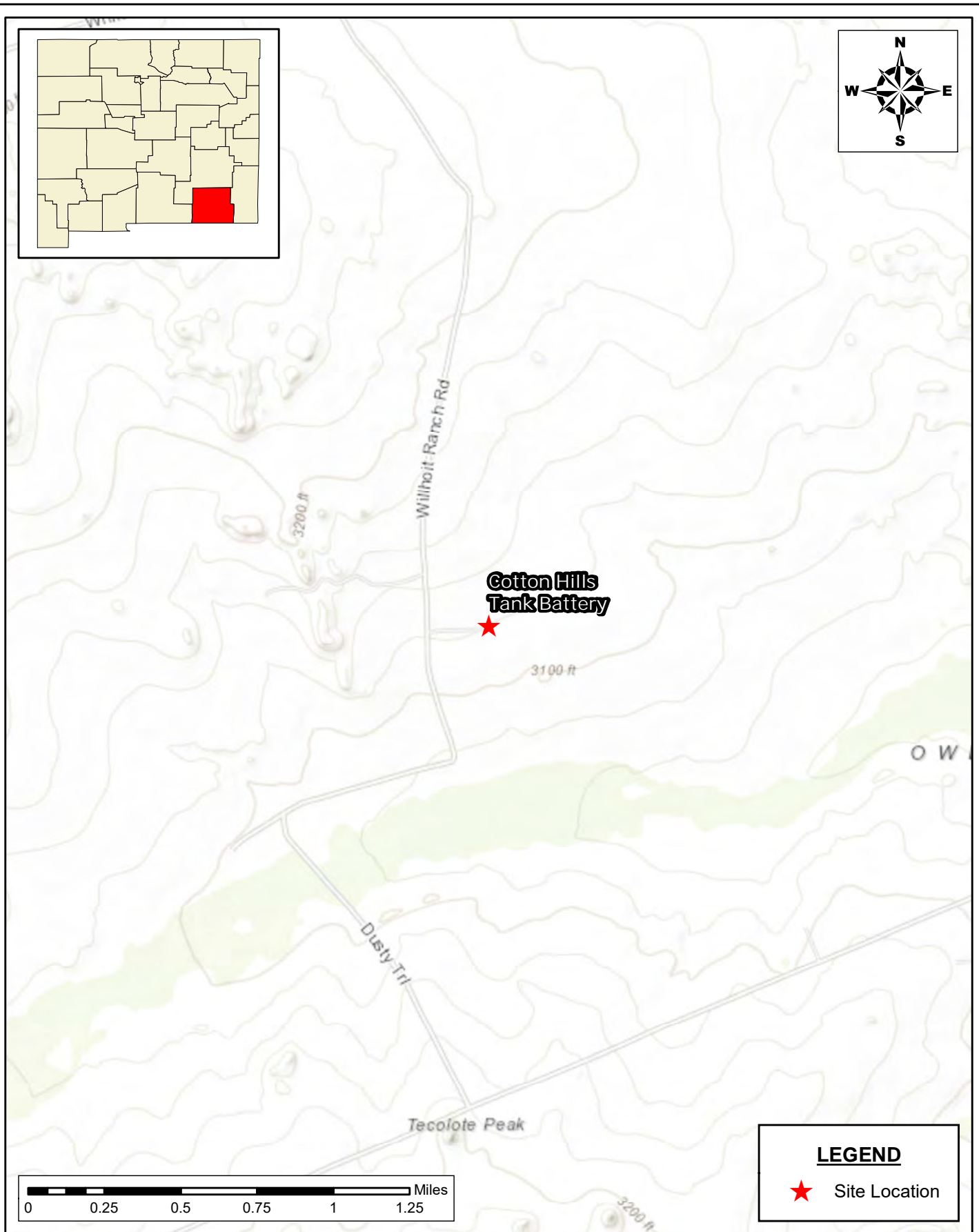
DRAWING NUMBER:

FIGURE 1

SHEET NUMBER:

1 of 1

Document Path: C:\Users\ntg\gis\New Tech Global\NTGE - Projects\2024 PROJECTS\CHEVRON\RSC\248738 Cotton Hills 23 26 27 Federal Com #001H7 - Figures\GIS\Figure_2_TK.mxd



TOPOGRAPHIC MAP
SITE CHARACTERIZATION AND REMEDIATION DEFERAL REQUEST
COTTON HILLS 23 26 27 FEDERAL COM #001H
CHEVRON USA INC
EDDY COUNTY, NEW MEXICO

SCALE: As Shown

Date: 9/19/2024

PROJECT #: 248738



New Tech Global Environmental, LLC
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Houston, Texas 77060
T - 281.872.9300
F - 281.872.4521
Web: www.ntgenviroinmental.com

NOTES:

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983

DRAWING NUMBER:

FIGURE 2

SHEET NUMBER:

1 of 1

Document Path: C:\Users\ntgegis\New Tech Global\NTGE - Documents\NTGE - Projects\2024 PROJECTS\CHEVRONRSC\248738 Cotton Hills 23 26 27 Federal Com #001H\7 - Figures\GIS\Figure_3 IA.mxd



INITIAL ASSESSMENT MAP
SITE CHARACTERIZATION AND DEFERRAL REQUEST
CHEVRON USA, INC.
COTTON HILLS 23 26 27 FEDERAL COM #001H
EDDY COUNTY, NEW MEXICO

SCALE: As Shown Date: 9/20/2024 PROJECT #:248738

New Tech Global Environmental, LLC
911 Regional Park Drive
Houston, Texas 77060
T - 281.872.9300
F - 281.872.4521
Web: www.ntgenviroinmental.com



NOTES:

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983
3. Delineation was completed by Larson and Associates Inc.

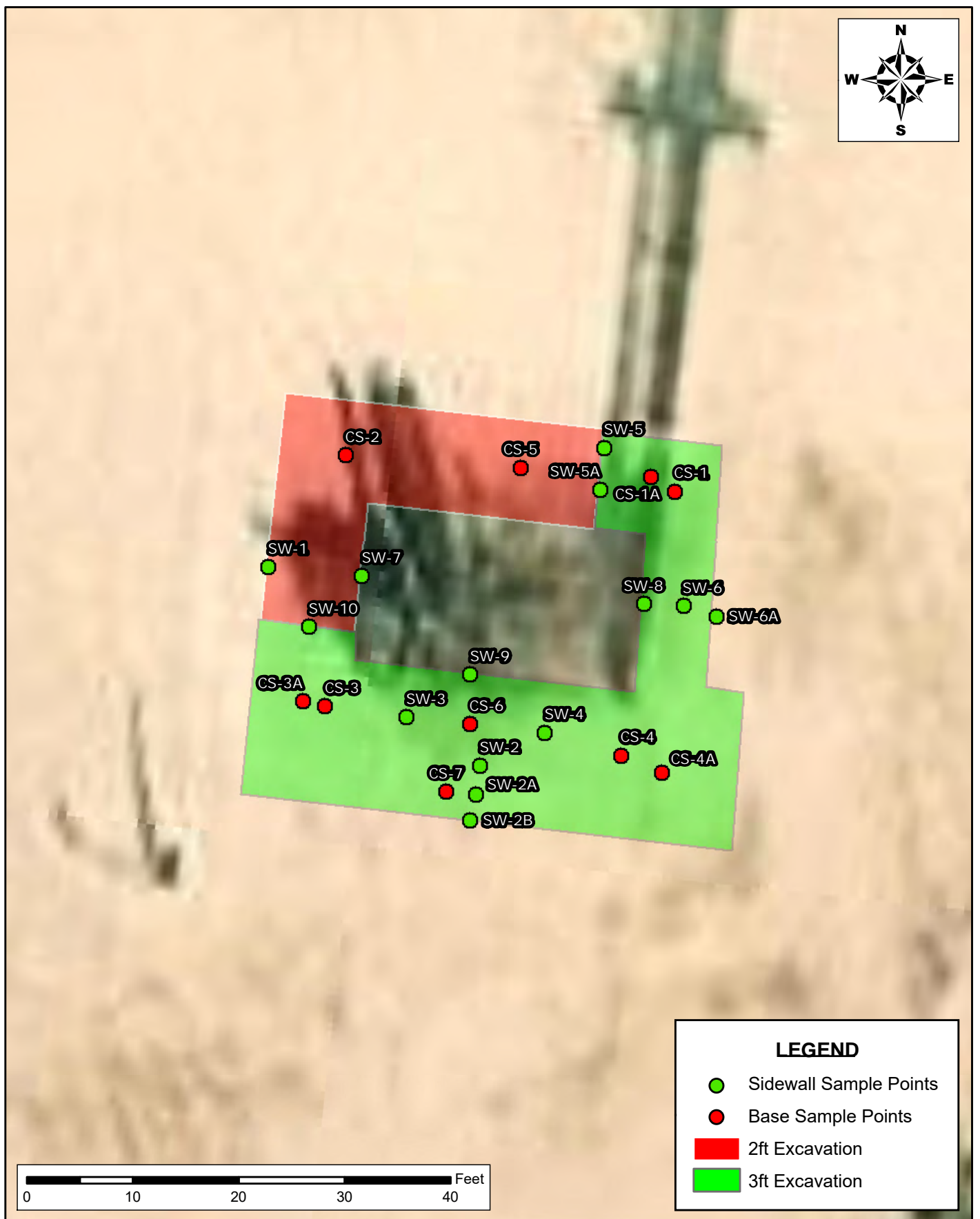
DRAWING NUMBER:

FIGURE 3

SHEET NUMBER:

1 of 1

Document Path: C:\Users\ntgegis\New Tech Global\NTGE - Documents\NTGE - Projects\2024 PROJECTS\CHEVRON\SC248738 Cotton Hills 23 26 27 Federal Com #001H7 - Figures\Figure_4.mxd



CONFIRMATION SAMPLING MAP
SITE CHARACTERIZATION AND DEFERRAL REQUEST
CHEVRON USA INC
COTTON HILLS 23 26 27 FEDERAL COM #001H
EDDY COUNTY, NEW MEXICO

SCALE: AS SHOWN

DATE: 09/09/2024

PROJECT #: 248738



New Tech Global Environmental, LLC
911 Regional Park Drive
Houston, Texas 77060
T - 281.872.9300
F - 281.872.4521
Web: www.ntgenviroinmental.com

NOTES:

1. Base Image: ESRI Maps & Data 2017
2. Map Projection: NAD 1983

DRAWING NUMBER:

FIGURE 4

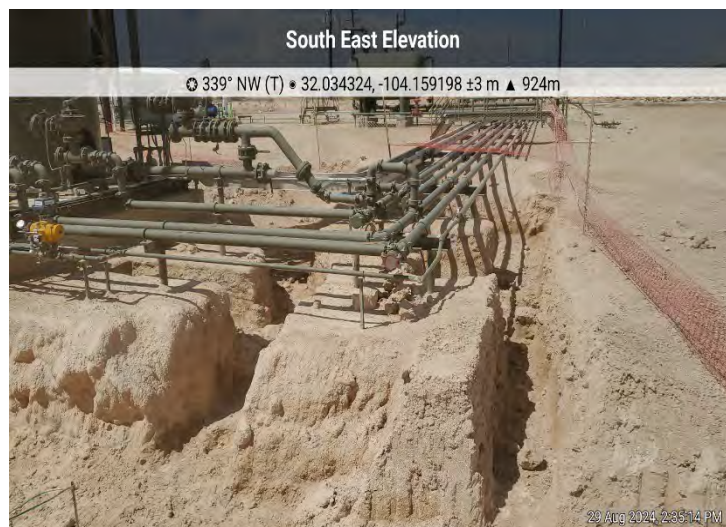
SHEET NUMBER:

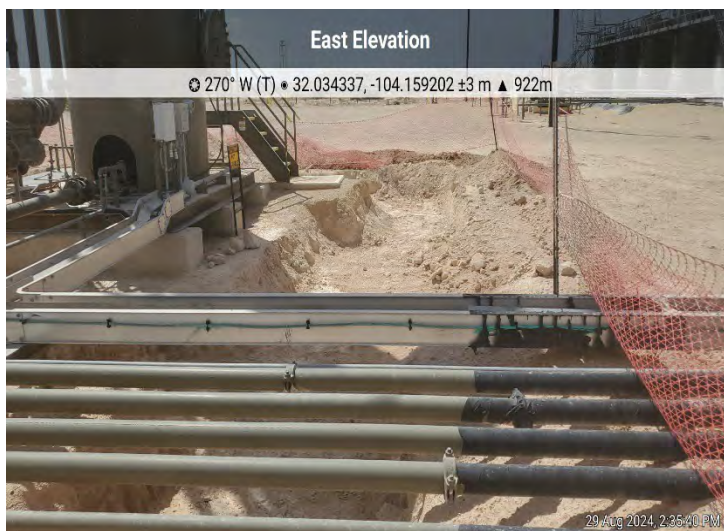
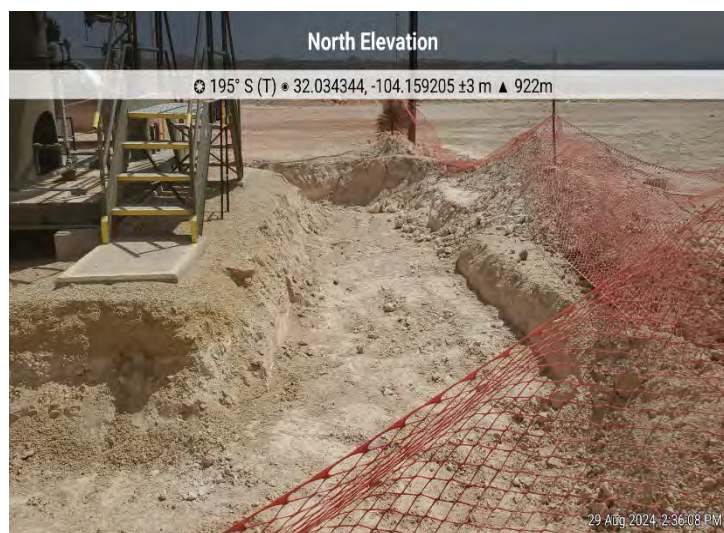
1 of 1

ATTACHEMENT D: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Chevron USA INC

Photograph No. 1**Facility:** Cotton Hills Tank Battery**County:** Eddy County, New Mexico**Description:**
View of Excavation**Photograph No. 2****Facility:** Cotton Hills Tank Battery**County:** Eddy County, New Mexico**Description:**
View of Excavation**Photograph No. 3****Facility:** Cotton Hills Tank Battery**County:** Eddy County, New Mexico**Description:**
View of Excavation

PHOTOGRAPHIC LOG**Chevron USA INC****Photograph No. 4****Facility:** Cotton Hills Tank Battery**County:** Eddy County, New Mexico**Description:**
View of Excavation**Photograph No. 5****Facility:** Cotton Hills Tank Battery**County:** Eddy County, New Mexico**Description:**
View of Excavation

CONFIRMATION SAMPLING NOTIFICATIONS

OCD Permitting

Home Operator Data Action Status Action Search Results Action Status Item Details

[NOTIFY] Notification Of Sampling (C-141N) Application

Submission Information

Submission ID:	371138	Districts:	Artesia
Operator:	[4323] CHEVRON U S A INC	Counties:	Eddy
Description:	CHEVRON U S A INC [4323] , COTTON HILLS TANK BATTERY , nAPP2300450334		
Status:	APPROVED		
Status Date:	08/07/2024		
References (2):	fAPP2131333664, nAPP2300450334		

Forms

This application type does not have attachments.

Questions

Prerequisites

Incident ID (n#)	nAPP2300450334
Incident Name	NAPP2300450334 COTTON HILLS TANK BATTERY @ 0
Incident Type	Oil Release
Incident Status	Remediation Plan Approved
Incident Facility	[fAPP2131333664] Cotton Hills Tank Battery

Location of Release Source

Site Name	COTTON HILLS TANK BATTERY
Date Release Discovered	12/25/2022
Surface Owner	Federal

Sampling Event General Information

Please answer all the questions in this group.

What is the sampling surface area in square feet	950
What is the estimated number of samples that will be gathered	15
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	08/09/2024
Time sampling will commence	09:30 AM
Warning: Notification can not be less than two business days prior to conducting final sampling.	
Please provide any information necessary for observers to contact samplers	Tyler Kimball (432) 582-4051
Please provide any information necessary for navigation to sampling site	32.03451,-104.159725

Comments

No comments found for this submission.

Conditions

Summary: *abarnhill* (8/7/2024), Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.

Reasons

No reasons found for this submission.

Go Back

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OCD Permitting

Home Operator Data Action Status Action Search Results Action Status Item Details

[NOTIFY] Notification Of Sampling (C-141N) Application

Submission Information

Submission ID:	378407	Districts:	Artesia
Operator:	[4323] CHEVRON U S A INC	Counties:	Eddy
Description:	CHEVRON U S A INC [4323] , COTTON HILLS TANK BATTERY , nAPP2300450334		
Status:	APPROVED		
Status Date:	08/27/2024		
References (2):	fAPP2131333664, nAPP2300450334		

Forms

This application type does not have attachments.

Questions

Prerequisites

Incident ID (n#)	nAPP2300450334
Incident Name	NAPP2300450334 COTTON HILLS TANK BATTERY @ 0
Incident Type	Oil Release
Incident Status	Remediation Plan Approved
Incident Facility	[fAPP2131333664] Cotton Hills Tank Battery

Location of Release Source

Site Name	COTTON HILLS TANK BATTERY
Date Release Discovered	12/25/2022
Surface Owner	Federal

Sampling Event General Information

Please answer all the questions in this group.

What is the sampling surface area in square feet	936
What is the estimated number of samples that will be gathered	7
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	08/29/2024
Time sampling will commence	02:15 PM
Warning: Notification can not be less than two business days prior to conducting final sampling.	
Please provide any information necessary for observers to contact samplers	Tyler Kimball 432-582-4051
Please provide any information necessary for navigation to sampling site	GPS: 32.034290 -104.159281

Comments

No comments found for this submission.

Conditions

Summary: *abarnhill* (8/27/2024), Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.

Reasons

No reasons found for this submission.

Go Back

OCD Permitting

Home Operator Data Action Status Action Search Results Action Status Item Details

[NOTIFY] Notification Of Sampling (C-141N) Application

Submission Information

Submission ID:	381840	Districts:	Artesia
Operator:	[4323] CHEVRON U S A INC	Counties:	Eddy
Description:	CHEVRON U S A INC [4323] , COTTON HILLS TANK BATTERY , nAPP2300450334		
Status:	APPROVED		
Status Date:	09/09/2024		
References (2):	fAPP2131333664, nAPP2300450334		

Forms

This application type does not have attachments.

Questions

Prerequisites

Incident ID (n#)	nAPP2300450334
Incident Name	NAPP2300450334 COTTON HILLS TANK BATTERY @ 0
Incident Type	Oil Release
Incident Status	Remediation Plan Approved
Incident Facility	[fAPP2131333664] Cotton Hills Tank Battery

Location of Release Source

Site Name	COTTON HILLS TANK BATTERY
Date Release Discovered	12/25/2022
Surface Owner	Federal

Sampling Event General Information

Please answer all the questions in this group.

What is the sampling surface area in square feet	400
What is the estimated number of samples that will be gathered	2
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/13/2024
Time sampling will commence	08:00 AM
Warning: Notification can not be less than two business days prior to conducting final sampling.	
Please provide any information necessary for observers to contact samplers	Tyler Kimball (432) 582-4051
Please provide any information necessary for navigation to sampling site	GPS: 32.034290 -104.159281

Comments

No comments found for this submission.

Conditions

Summary: *abarnhill* (9/9/2024), Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.

Reasons

No reasons found for this submission.

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EXTENSION REQUEST APPROVAL

Becky Haskell

From: Barnhill, Amy <ABarnhill@chevron.com>
Sent: Monday, August 19, 2024 10:50 AM
To: Steven Trammell
Cc: Becky Haskell
Subject: Cotton Hills 23 26 27 Fed Com 1H ID#nAPP2300450334

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Monday, August 19, 2024 10:32 AM
To: Barnhill, Amy <ABarnhill@chevron.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: [**EXTERNAL**] RE: [EXTERNAL] Cotton Hills 23 26 27 Fed Com 1H ID#nAPP2300450334

Be aware this external email contains an attachment and/or link.

Ensure the email and contents are expected. If there are concerns, please submit suspicious messages to the Cyber Intelligence Center using the Report Phishing button.

Good morning Amy,

The extension request for NAPP2300450334 COTTON HILLS TANK BATTERY is approved. **This will be the final extension.** The new due date to submit your remediation closure report to the OCD is September 30, 2024. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Kind regards,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520|Shelly.Wells@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>

From: Barnhill, Amy <ABarnhill@chevron.com>
Sent: Monday, August 19, 2024 9:15 AM
To: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Subject: [EXTERNAL] Cotton Hills 23 26 27 Fed Com 1H ID#nAPP2300450334

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Shelly,

Chevron is asking for an extension through September 30th as we have found some additional staining and need to sample to ensure we have cleaned up all affected areas.

Thank you,
Amy Barnhill
Environmental Specialist 2
Tel +1 432 687 7108
Mobile +1 432 940 8524
ABarnhill@chevron.com

Mid-Continent Business Unit
Chevron North America Exploration and Production Company

ATTACHEMENT E: LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTS



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

August 14, 2024

BECKY HASKELL

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: COTTON HILLS

Enclosed are the results of analyses for samples received by the laboratory on 08/09/24 12:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/09/2024
 Reported: 08/14/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/09/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: CS - 1 (H244824-01)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/12/2024	ND	2.21	111	2.00	6.16		
Toluene*	<0.050	0.050	08/12/2024	ND	2.31	116	2.00	4.86		
Ethylbenzene*	<0.050	0.050	08/12/2024	ND	2.38	119	2.00	3.98		
Total Xylenes*	<0.150	0.150	08/12/2024	ND	7.31	122	6.00	4.27		
Total BTEX	<0.300	0.300	08/12/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1300	16.0	08/12/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/12/2024	ND	206	103	200	1.34	
DRO >C10-C28*	93.6	10.0	08/12/2024	ND	199	99.7	200	0.433	
EXT DRO >C28-C36	31.3	10.0	08/12/2024	ND					

Surrogate: 1-Chlorooctane 69.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.9 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/09/2024
 Reported: 08/14/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/09/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: CS - 2 (H244824-02)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/12/2024	ND	2.21	111	2.00	6.16	
Toluene*	<0.050	0.050	08/12/2024	ND	2.31	116	2.00	4.86	
Ethylbenzene*	<0.050	0.050	08/12/2024	ND	2.38	119	2.00	3.98	
Total Xylenes*	<0.150	0.150	08/12/2024	ND	7.31	122	6.00	4.27	
Total BTEX	<0.300	0.300	08/12/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/12/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/12/2024	ND	206	103	200	1.34	
DRO >C10-C28*	<10.0	10.0	08/12/2024	ND	199	99.7	200	0.433	
EXT DRO >C28-C36	<10.0	10.0	08/12/2024	ND					

Surrogate: 1-Chlorooctane 72.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.5 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/09/2024
 Reported: 08/14/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/09/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: CS - 3 (H244824-03)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/12/2024	ND	2.21	111	2.00	6.16	
Toluene*	<0.050	0.050	08/12/2024	ND	2.31	116	2.00	4.86	
Ethylbenzene*	<0.050	0.050	08/12/2024	ND	2.38	119	2.00	3.98	
Total Xylenes*	<0.150	0.150	08/12/2024	ND	7.31	122	6.00	4.27	
Total BTEX	<0.300	0.300	08/12/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	608	16.0	08/12/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/12/2024	ND	206	103	200	1.34	
DRO >C10-C28*	<10.0	10.0	08/12/2024	ND	199	99.7	200	0.433	
EXT DRO >C28-C36	<10.0	10.0	08/12/2024	ND					

Surrogate: 1-Chlorooctane 84.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/09/2024
 Reported: 08/14/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/09/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: CS - 4 (H244824-04)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/12/2024	ND	2.21	111	2.00	6.16	
Toluene*	<0.050	0.050	08/12/2024	ND	2.31	116	2.00	4.86	
Ethylbenzene*	<0.050	0.050	08/12/2024	ND	2.38	119	2.00	3.98	
Total Xylenes*	<0.150	0.150	08/12/2024	ND	7.31	122	6.00	4.27	
Total BTEX	<0.300	0.300	08/12/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2000	16.0	08/12/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/12/2024	ND	206	103	200	1.34	
DRO >C10-C28*	<10.0	10.0	08/12/2024	ND	199	99.7	200	0.433	
EXT DRO >C28-C36	<10.0	10.0	08/12/2024	ND					

Surrogate: 1-Chlorooctane 82.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/09/2024
 Reported: 08/14/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/09/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: CS - 5 (H244824-05)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/12/2024	ND	2.21	111	2.00	6.16	
Toluene*	<0.050	0.050	08/12/2024	ND	2.31	116	2.00	4.86	
Ethylbenzene*	<0.050	0.050	08/12/2024	ND	2.38	119	2.00	3.98	
Total Xylenes*	<0.150	0.150	08/12/2024	ND	7.31	122	6.00	4.27	
Total BTEX	<0.300	0.300	08/12/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	08/12/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/12/2024	ND	206	103	200	1.34	
DRO >C10-C28*	<10.0	10.0	08/12/2024	ND	199	99.7	200	0.433	
EXT DRO >C28-C36	<10.0	10.0	08/12/2024	ND					

Surrogate: 1-Chlorooctane 90.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/09/2024
 Reported: 08/14/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/09/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: CS - 6 (H244824-06)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/12/2024	ND	2.21	111	2.00	6.16		
Toluene*	<0.050	0.050	08/12/2024	ND	2.31	116	2.00	4.86		
Ethylbenzene*	<0.050	0.050	08/12/2024	ND	2.38	119	2.00	3.98		
Total Xylenes*	<0.150	0.150	08/12/2024	ND	7.31	122	6.00	4.27		
Total BTEX	<0.300	0.300	08/12/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	560	16.0	08/12/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/12/2024	ND	206	103	200	1.34	
DRO >C10-C28*	<10.0	10.0	08/12/2024	ND	199	99.7	200	0.433	
EXT DRO >C28-C36	<10.0	10.0	08/12/2024	ND					

Surrogate: 1-Chlorooctane 89.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/09/2024
 Reported: 08/14/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/09/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 1 (H244824-07)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/12/2024	ND	2.21	111	2.00	6.16	
Toluene*	<0.050	0.050	08/12/2024	ND	2.31	116	2.00	4.86	
Ethylbenzene*	<0.050	0.050	08/12/2024	ND	2.38	119	2.00	3.98	
Total Xylenes*	<0.150	0.150	08/12/2024	ND	7.31	122	6.00	4.27	
Total BTEX	<0.300	0.300	08/12/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	08/12/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/12/2024	ND	206	103	200	1.34	
DRO >C10-C28*	<10.0	10.0	08/12/2024	ND	199	99.7	200	0.433	
EXT DRO >C28-C36	<10.0	10.0	08/12/2024	ND					

Surrogate: 1-Chlorooctane 77.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/09/2024
 Reported: 08/14/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/09/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 2 (H244824-08)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/12/2024	ND	2.21	111	2.00	6.16	
Toluene*	<0.050	0.050	08/12/2024	ND	2.31	116	2.00	4.86	
Ethylbenzene*	<0.050	0.050	08/12/2024	ND	2.38	119	2.00	3.98	
Total Xylenes*	<0.150	0.150	08/12/2024	ND	7.31	122	6.00	4.27	
Total BTEX	<0.300	0.300	08/12/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10000	16.0	08/12/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/12/2024	ND	206	103	200	1.34	
DRO >C10-C28*	<10.0	10.0	08/12/2024	ND	199	99.7	200	0.433	
EXT DRO >C28-C36	<10.0	10.0	08/12/2024	ND					

Surrogate: 1-Chlorooctane 92.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/09/2024
 Reported: 08/14/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/09/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 3 (H244824-09)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/12/2024	ND	2.21	111	2.00	6.16	
Toluene*	<0.050	0.050	08/12/2024	ND	2.31	116	2.00	4.86	
Ethylbenzene*	<0.050	0.050	08/12/2024	ND	2.38	119	2.00	3.98	
Total Xylenes*	<0.150	0.150	08/12/2024	ND	7.31	122	6.00	4.27	
Total BTEX	<0.300	0.300	08/12/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	640	16.0	08/12/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/12/2024	ND	206	103	200	1.34	
DRO >C10-C28*	<10.0	10.0	08/12/2024	ND	199	99.7	200	0.433	
EXT DRO >C28-C36	<10.0	10.0	08/12/2024	ND					

Surrogate: 1-Chlorooctane 85.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/09/2024
 Reported: 08/14/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/09/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 4 (H244824-10)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/12/2024	ND	2.21	111	2.00	6.16	
Toluene*	<0.050	0.050	08/12/2024	ND	2.31	116	2.00	4.86	
Ethylbenzene*	<0.050	0.050	08/12/2024	ND	2.38	119	2.00	3.98	
Total Xylenes*	<0.150	0.150	08/12/2024	ND	7.31	122	6.00	4.27	
Total BTEX	<0.300	0.300	08/12/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	864	16.0	08/12/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/12/2024	ND	206	103	200	1.34	
DRO >C10-C28*	<10.0	10.0	08/12/2024	ND	199	99.7	200	0.433	
EXT DRO >C28-C36	<10.0	10.0	08/12/2024	ND					

Surrogate: 1-Chlorooctane 88.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/09/2024
 Reported: 08/14/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/09/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 5 (H244824-11)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/12/2024	ND	2.21	111	2.00	6.16	
Toluene*	<0.050	0.050	08/12/2024	ND	2.31	116	2.00	4.86	
Ethylbenzene*	<0.050	0.050	08/12/2024	ND	2.38	119	2.00	3.98	
Total Xylenes*	<0.150	0.150	08/12/2024	ND	7.31	122	6.00	4.27	
Total BTEX	<0.300	0.300	08/12/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	08/12/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/12/2024	ND	206	103	200	1.34	
DRO >C10-C28*	<10.0	10.0	08/12/2024	ND	199	99.7	200	0.433	
EXT DRO >C28-C36	<10.0	10.0	08/12/2024	ND					

Surrogate: 1-Chlorooctane 86.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
BECKY HASKELL
701 TRADEWINDS BLVD. SUITE C
MIDLAND TX, 79706
Fax To:

Received: 08/09/2024
Reported: 08/14/2024
Project Name: COTTON HILLS
Project Number: 248738
Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/09/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SW - 6 (H244824-12)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/12/2024	ND	2.21	111	2.00	6.16	
Toluene*	<0.050	0.050	08/12/2024	ND	2.31	116	2.00	4.86	
Ethylbenzene*	<0.050	0.050	08/12/2024	ND	2.38	119	2.00	3.98	
Total Xylenes*	<0.150	0.150	08/12/2024	ND	7.31	122	6.00	4.27	
Total BTEX	<0.300	0.300	08/12/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2160	16.0	08/12/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/12/2024	ND	206	103	200	1.34	
DRO >C10-C28*	<10.0	10.0	08/12/2024	ND	199	99.7	200	0.433	
EXT DRO >C28-C36	<10.0	10.0	08/12/2024	ND					

Surrogate: 1-Chlorooctane 72.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/09/2024
 Reported: 08/14/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/09/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 7 (H244824-13)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/12/2024	ND	2.21	111	2.00	6.16	
Toluene*	<0.050	0.050	08/12/2024	ND	2.31	116	2.00	4.86	
Ethylbenzene*	<0.050	0.050	08/12/2024	ND	2.38	119	2.00	3.98	
Total Xylenes*	<0.150	0.150	08/12/2024	ND	7.31	122	6.00	4.27	
Total BTEX	<0.300	0.300	08/12/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	08/12/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/12/2024	ND	206	103	200	1.34	
DRO >C10-C28*	<10.0	10.0	08/12/2024	ND	199	99.7	200	0.433	
EXT DRO >C28-C36	<10.0	10.0	08/12/2024	ND					

Surrogate: 1-Chlorooctane 87.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/09/2024
 Reported: 08/14/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/09/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 8 (H244824-14)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/12/2024	ND	2.21	111	2.00	6.16	
Toluene*	<0.050	0.050	08/12/2024	ND	2.31	116	2.00	4.86	
Ethylbenzene*	<0.050	0.050	08/12/2024	ND	2.38	119	2.00	3.98	
Total Xylenes*	<0.150	0.150	08/12/2024	ND	7.31	122	6.00	4.27	
Total BTEX	<0.300	0.300	08/12/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1200	16.0	08/12/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	206	103	200	1.34	
DRO >C10-C28*	125	10.0	08/13/2024	ND	199	99.7	200	0.433	
EXT DRO >C28-C36	61.8	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 89.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/09/2024
 Reported: 08/14/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/09/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 9 (H244824-15)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/12/2024	ND	2.21	111	2.00	6.16	
Toluene*	<0.050	0.050	08/12/2024	ND	2.31	116	2.00	4.86	
Ethylbenzene*	<0.050	0.050	08/12/2024	ND	2.38	119	2.00	3.98	
Total Xylenes*	<0.150	0.150	08/12/2024	ND	7.31	122	6.00	4.27	
Total BTEX	<0.300	0.300	08/12/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1790	16.0	08/12/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/13/2024	ND	206	103	200	1.34	
DRO >C10-C28*	<10.0	10.0	08/13/2024	ND	199	99.7	200	0.433	
EXT DRO >C28-C36	<10.0	10.0	08/13/2024	ND					

Surrogate: 1-Chlorooctane 94.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>NTUE</u>		P.O. #:		BILL TO		ANALYSIS REQUEST																											
Project Manager: <u>Barney Haskel</u>		Company:																															
Address: <u>206 W McLeary</u>		Attn:																															
City: <u>Carrizosa</u>		Address:																															
Phone #: <u>432-824-8860</u>		City:																															
Fax #: <u></u>		State:																															
Project #: <u>248738</u>		Project Owner: <u>Chesron</u>																															
Project Name: <u>Cotton Hills</u>		City:																															
Project Location: <u>Edley County</u>		State:																															
Sampler Name: <u>Coley Keene</u>		Phone #:																															
Fax #:																																	
FOR LAB USE ONLY		PRESERV.		SAMPLING																													
Lab I.D. <u>H244824</u>		Sample I.D.																															
11 <u>SW-5</u>		<input checked="" type="checkbox"/> (G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME		TPH		Chlorides		BTEX	
12 <u>SW-6</u>		<input type="checkbox"/>		1						<input checked="" type="checkbox"/>														8-7		10:30							
13 <u>SW-7</u>		<input type="checkbox"/>		1																													
14 <u>SW-8</u>		<input type="checkbox"/>		1																													
15 <u>SW-9</u>		<input type="checkbox"/>		1																													
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.		Relinquished By: <u>[Signature]</u>		Date: <u>8-9-24</u>		Received By: <u>[Signature]</u>		Time: <u>12:15</u>		Date: <u></u>		Time: <u></u>		Turnaround Time: <u>3 days</u>		Standard Rustin <u>3 days</u>		Bacteria (only) Sample Condition		Cool Intact <u>Yes</u>		Corrected Temp. °C <u>82</u>		Thermometer ID #140		Correction Factor -0.8°C		Observed Temp. °C		Corrected Temp. °C			
Relinquished By: <u>[Signature]</u>		Date: <u></u>		Received By: <u>[Signature]</u>		Time: <u></u>		Date: <u></u>		Time: <u></u>		Turnaround Time: <u></u>		Standard Rustin <u></u>		Bacteria (only) Sample Condition		Cool Intact <u></u>		Corrected Temp. °C <u></u>		Thermometer ID #140		Correction Factor -0.8°C		Observed Temp. °C		Corrected Temp. °C					
Delivered By: (Circle One)		Observed Temp. °C <u>50.7</u>		Sample Condition		CHECKED BY: <u>[Signature]</u>		Turnaround Time: <u></u>		Standard Rustin <u></u>		Bacteria (only) Sample Condition		Cool Intact <u></u>		Corrected Temp. °C <u></u>		Thermometer ID #140		Correction Factor -0.8°C		Observed Temp. °C		Corrected Temp. °C									
Sampler - UPS - Bus - Other:		Corrected Temp. °C <u>1.32</u>		Cool Intact <u>Yes</u>		Checked By: <u>[Signature]</u>		Turnaround Time: <u></u>		Standard Rustin <u></u>		Bacteria (only) Sample Condition		Cool Intact <u></u>		Corrected Temp. °C <u></u>		Thermometer ID #140		Correction Factor -0.8°C		Observed Temp. °C		Corrected Temp. °C									

FORM 000-R-3-06/09/24

† Cardinal cannot accept verbal changes. Please email changes to cole.keene@cardinallabsnm.com



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

September 05, 2024

BECKY HASKELL

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: COTTON HILLS

Enclosed are the results of analyses for samples received by the laboratory on 08/30/24 13:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/30/2024
 Reported: 09/05/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/29/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: CS - 1A (H245313-01)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/31/2024	ND	2.13	107	2.00	4.71	
Toluene*	<0.050	0.050	08/31/2024	ND	2.25	112	2.00	6.85	
Ethylbenzene*	<0.050	0.050	08/31/2024	ND	2.38	119	2.00	5.86	
Total Xylenes*	<0.150	0.150	08/31/2024	ND	6.73	112	6.00	5.19	
Total BTEX	<0.300	0.300	08/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	09/03/2024	ND	448	112	400	3.51	QM-07	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/30/2024	ND	211	106	200	0.544	
DRO >C10-C28*	13.3	10.0	08/30/2024	ND	225	112	200	3.72	
EXT DRO >C28-C36	<10.0	10.0	08/30/2024	ND					

Surrogate: 1-Chlorooctane 83.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
BECKY HASKELL
701 TRADEWINDS BLVD. SUITE C
MIDLAND TX, 79706
Fax To:

Received: 08/30/2024
Reported: 09/05/2024
Project Name: COTTON HILLS
Project Number: 248738
Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/29/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: CS - 3A (H245313-02)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/31/2024	ND	2.13	107	2.00	4.71		
Toluene*	<0.050	0.050	08/31/2024	ND	2.25	112	2.00	6.85		
Ethylbenzene*	<0.050	0.050	08/31/2024	ND	2.38	119	2.00	5.86		
Total Xylenes*	<0.150	0.150	08/31/2024	ND	6.73	112	6.00	5.19		
Total BTX	<0.300	0.300	08/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	09/03/2024	ND	448	112	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/30/2024	ND	211	106	200	0.544	
DRO >C10-C28*	<10.0	10.0	08/30/2024	ND	225	112	200	3.72	
EXT DRO >C28-C36	<10.0	10.0	08/30/2024	ND					

Surrogate: 1-Chlorooctane 93.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/30/2024
 Reported: 09/05/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/29/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: CS - 4A (H245313-03)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/31/2024	ND	2.13	107	2.00	4.71		
Toluene*	<0.050	0.050	08/31/2024	ND	2.25	112	2.00	6.85		
Ethylbenzene*	<0.050	0.050	08/31/2024	ND	2.38	119	2.00	5.86		
Total Xylenes*	<0.150	0.150	08/31/2024	ND	6.73	112	6.00	5.19		
Total BTEX	<0.300	0.300	08/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	09/03/2024	ND	448	112	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/30/2024	ND	211	106	200	0.544	
DRO >C10-C28*	<10.0	10.0	08/30/2024	ND	225	112	200	3.72	
EXT DRO >C28-C36	<10.0	10.0	08/30/2024	ND					

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/30/2024
 Reported: 09/05/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/29/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 2A (H245313-04)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/31/2024	ND	2.13	107	2.00	4.71	
Toluene*	<0.050	0.050	08/31/2024	ND	2.25	112	2.00	6.85	
Ethylbenzene*	<0.050	0.050	08/31/2024	ND	2.38	119	2.00	5.86	
Total Xylenes*	<0.150	0.150	08/31/2024	ND	6.73	112	6.00	5.19	
Total BTEX	<0.300	0.300	08/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	784	16.0	09/03/2024	ND	448	112	400	3.51	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/30/2024	ND	211	106	200	0.544	
DRO >C10-C28*	<10.0	10.0	08/30/2024	ND	225	112	200	3.72	
EXT DRO >C28-C36	<10.0	10.0	08/30/2024	ND					

Surrogate: 1-Chlorooctane 84.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/30/2024
 Reported: 09/05/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/29/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 5A (H245313-05)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/31/2024	ND	2.13	107	2.00	4.71	
Toluene*	<0.050	0.050	08/31/2024	ND	2.25	112	2.00	6.85	
Ethylbenzene*	<0.050	0.050	08/31/2024	ND	2.38	119	2.00	5.86	
Total Xylenes*	<0.150	0.150	08/31/2024	ND	6.73	112	6.00	5.19	
Total BTEX	<0.300	0.300	08/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	09/03/2024	ND	448	112	400	3.51	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/30/2024	ND	211	106	200	0.544	
DRO >C10-C28*	11.7	10.0	08/30/2024	ND	225	112	200	3.72	
EXT DRO >C28-C36	<10.0	10.0	08/30/2024	ND					

Surrogate: 1-Chlorooctane 96.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/30/2024
 Reported: 09/05/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/29/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 6A (H245313-06)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/31/2024	ND	2.13	107	2.00	4.71	
Toluene*	<0.050	0.050	08/31/2024	ND	2.25	112	2.00	6.85	
Ethylbenzene*	<0.050	0.050	08/31/2024	ND	2.38	119	2.00	5.86	
Total Xylenes*	<0.150	0.150	08/31/2024	ND	6.73	112	6.00	5.19	
Total BTEX	<0.300	0.300	08/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	09/03/2024	ND	448	112	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/30/2024	ND	211	106	200	0.544	
DRO >C10-C28*	<10.0	10.0	08/30/2024	ND	225	112	200	3.72	
EXT DRO >C28-C36	<10.0	10.0	08/30/2024	ND					

Surrogate: 1-Chlorooctane 97.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 08/30/2024
 Reported: 09/05/2024
 Project Name: COTTON HILLS
 Project Number: 248738
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 08/29/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 10 (H245313-07)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/31/2024	ND	2.13	107	2.00	4.71		
Toluene*	<0.050	0.050	08/31/2024	ND	2.25	112	2.00	6.85		
Ethylbenzene*	<0.050	0.050	08/31/2024	ND	2.38	119	2.00	5.86		
Total Xylenes*	<0.150	0.150	08/31/2024	ND	6.73	112	6.00	5.19		
Total BTEX	<0.300	0.300	08/31/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	09/03/2024	ND	448	112	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/30/2024	ND	211	106	200	0.544	
DRO >C10-C28*	<10.0	10.0	08/30/2024	ND	225	112	200	3.72	
EXT DRO >C28-C36	<10.0	10.0	08/30/2024	ND					

Surrogate: 1-Chlorooctane 94.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: NTCE Project Manager: Becky Huskel Address: 269 W McKenay City: Carlton State: NM Zip: 88220 Phone #: 432-924-8056 Fax #: Project #: 248738 Project Owner: Chevron Project Name: Cotton Hills Project Location: Eddy County Sampler Name: Tyler Kimball		BILL TO P.O. #: Company: Attn: Address: City: State: Zip: Phone #: Fax #:																																																																																																																																						
FOR LAB USE ONLY <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">Lab I.D.</th> <th rowspan="2">Sample I.D.</th> <th rowspan="2">(G)RAB OR (C)OMP.</th> <th rowspan="2"># CONTAINERS</th> <th colspan="6">MATRIX</th> <th rowspan="2">PRESERV.</th> <th rowspan="2">SAMPLING</th> </tr> <tr> <th>GROUNDWATER</th> <th>WASTEWATER</th> <th>SOIL</th> <th>OIL</th> <th>SLUDGE</th> <th>OTHER</th> </tr> </table>		Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ANALYSIS REQUEST <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>DATE</th> <th>TIME</th> <th>TPH</th> <th>Chlorides</th> <th>BTEX</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </table>		DATE	TIME	TPH	Chlorides	BTEX																																																																																																														
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Observed Temp. °C: 1.5°C Corrected Temp. °C: 0.9°C		Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> CHECKED BY: [Signature]																																																																																																																																						
Date: 8-30-24 Received By: [Signature] Date: 1:00 Received By: [Signature]		REMARKS:																																																																																																																																						



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

September 17, 2024

BECKY HASKELL

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: COTTON HILLS

Enclosed are the results of analyses for samples received by the laboratory on 09/16/24 15:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/16/2024
 Reported: 09/17/2024
 Project Name: COTTON HILLS
 Project Number: 249033
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 09/13/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: C - 7 (H245623-01)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/17/2024	ND	2.17	108	2.00	5.65	
Toluene*	<0.050	0.050	09/17/2024	ND	2.07	103	2.00	6.26	
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.06	103	2.00	6.84	
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.16	103	6.00	7.27	
Total BTX	<0.300	0.300	09/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	09/17/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/17/2024	ND	194	96.9	200	2.79	
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	199	99.7	200	8.63	
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND					

Surrogate: 1-Chlorooctane 77.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 BECKY HASKELL
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received: 09/16/2024
 Reported: 09/17/2024
 Project Name: COTTON HILLS
 Project Number: 249033
 Project Location: CHEVRON - EDDY COUNTY

Sampling Date: 09/13/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 2B (H245623-02)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/17/2024	ND	2.17	108	2.00	5.65		
Toluene*	<0.050	0.050	09/17/2024	ND	2.07	103	2.00	6.26		
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.06	103	2.00	6.84		
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.16	103	6.00	7.27		
Total BTEX	<0.300	0.300	09/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	09/17/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/17/2024	ND	194	96.9	200	2.79	
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	199	99.7	200	8.63	
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND					

Surrogate: 1-Chlorooctane 92.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: NTC Project Manager: Betsy Howell Address: 289 W. Millway St City: Carlsbad State: NM Zip: 88502 Phone #: 505-292-8056 Fax #: Project #: 249033 Project Owner: Eddy Leary Project Name: Faderic Cotton Hills Project Location: Eddy County Sampler Name: Caley Keene		BILL TO P.O. #: Company: Attn: Address: City: State: Zip: Phone #: Fax #:		ANALYSIS REQUEST	
FOR LAB USE ONLY Lab I.D. H245623 Sample I.D. C-1 SW-2B Matrix: (G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER:		PRESERVATION DATE: 9-13-11 TIME: 3:00		SAMPLING BTX TPH Chlorides	
Relinquished By: [Signature] Date: 9-14 Time: 3:30 pm Received By: [Signature]		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: REMARKS: All Results are emailed. Please provide Email address:		Turnaround Time: Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/> Thermometer ID #140 <input checked="" type="checkbox"/> Bacteria (only) Sample Condition Correction Factor +0.5°C <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Observed Temp. °C Corrected Temp. °C	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Observed Temp. °C 2.9 Corrected Temp. °C 2.3 Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No CHECKED BY: (Initials)		Turnaround Time: Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/> Thermometer ID #140 <input checked="" type="checkbox"/> Bacteria (only) Sample Condition Correction Factor +0.5°C <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Observed Temp. °C Corrected Temp. °C	

† Cardinal cannot accept verbal changes. Please email changes to caley.keene@cardinallabsnm.com

Attachement F: Larson and Associates Work Plan

Tracking Number: nAPP2300450334
Amended Delineation Report and Remediation Plan
Cotton Hills 23 26 27 Federal COM #001H
Crude Oil and Produced Water Release
Eddy County, New Mexico

Latitude: N 32.034322°
Longitude: W -104.159295°

LAI Project No. 23-0102-01

December 11, 2023

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

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



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



Robert Nelson
Project Manager

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Appendix B	Karst Risk Potential
Appendix C	Laboratory Reports
Appendix D	Photographs
Appendix E	NMOCD Communications

Tracking Number: nAPP2300450334
Delineation Report and Remediation Plan
Chevron USA. Inc, Cotton Hills 23 26 27 Federal COM #001H
Crude Oil and Produced Water Release
December 11, 2023

1.0 INTRODUCTION

Larson & Associates, Inc. (LAI), has prepared this amended delineation report and remediation plan on behalf of Chevron USA. Inc. (Chevron) for submittal to the New Mexico Oil Conservation Division (NMOCD) District 2 for a crude oil and produced water release at the Cotton Hills 23 26 27 Federal COM #001H (Site) located in Unit B (NW/NE), Section 23, Township 26 South, Range 27 East in Eddy County New Mexico. The geodetic position is North 32.034322° and West -104.159295°. Figure 1 presents a topographic map. Figure 2 presents an aerial map.

1.1 Background

The release was discovered on December 25, 2022, due to a pinhole leak in a 3-inch ball valve resulting in the release of 11.43 barrels (bbls) of crude oil and 11.428 bbls of produced water, with no fluid recovered. On January 6, 2023, Chevron submitted the initial C-141 to the NMOCD District 2 and was assigned incident number nAPP2300450334. Appendix A presents Chevron initial C-141 and spill calculations.

1.1.1 NMOCD Communications

On November 21, 2023, Chevron received notification from the NMOCD regarding the report titled *“Tracking Number: nAPP2300450334, Delineation Report and Remediation Plan, Cotton Hills 23 26 27 Federal COM #001H, Crude Oil and Produced Water Release, Eddy County, New Mexico, June 5, 2023”* stating that the deferral request for contaminated soil adjacent to an aboveground pipeline riser was denied. The denial stated the following *“Due to the shallow depth of groundwater and the presence of hydrocarbons, a deferral cannot be granted. A hydrovac/shovel would need to be used to safely remove the contaminated soil around equipment and pipelines. The release will need to be remediated to the strictest closure criteria limits (600 mg/Kg, Chlorides, 100 mg/Kg TPH, etc.). If you feel the depth to groundwater is >50’, a shallow borehole can be drilled to 51’ allowing for verification of the depth. If water is not visible after reaching bottom-hole and waiting 72 hours, the OCD will accept this as evidence. OCD would need the driller’s log. Chevron has until 12/21/2023 to submit a revised remediation workplan”*. Appendix E presents the NMOCD communications.

1.2 Physical Setting

The physical setting is as follows:

- The surface elevation is approximately 3,119 feet above mean sea level (msl).
- The surface topography gradually decreases to the southeast.
- There are no surface water features within 1,000 feet of the Site.
- Karst data provided by the USGS describes the Site as “Medium Risk” potential.
- The soils are designated as Reeves-Reagan loams, 0 to 3 percent slopes, consisting of 8 inches of loam, 24 inches of clay loam and 28 inches of gypsiferous material, in descending order.
- The surface geology is late Permian-aged Salado Formation consisting of evaporitic sequences predominantly controlled by halite deposition, and locally includes cover sand. Caliche material makes up the pad surface.

Tracking Number: nAPP2300450334
Delineation Report and Remediation Plan
Chevron USA. Inc, Cotton Hills 23 26 27 Federal COM #001H
Crude Oil and Produced Water Release
December 11, 2023

- Groundwater occurs at approximately 27.55 feet below ground surface (bgs) based on depth a groundwater measurement in 2004 according to the USGS National Water Information System website from a well located approximately 0.64 miles southwest of the Site.

Appendix B presents USGS data depicting karst risk potential map.

1.3 Remediation Standards

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

- Benzene 10 mg/Kg
- BTEX 50 mg/Kg
- TPH 100 mg/Kg
- Chloride 600 mg/Kg

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

2.0 DELINEATION

On February 9, 2023, LAI personnel used a stainless-steel hand auger to collect soil samples from five (5) locations inside of the spill area (S-1 through S-5) and in each cardinal direction (north, south, east, and west) outside of the spill (S-6 through S-9). The samples were collected from depths of approximately 0 - 0.5 and 0.5 - 1-foot bgs. The soil samples were delivered under chain of custody and preservation to Permian Basin Environmental Laboratories (PBEL), a National Environmental Laboratory Accreditation Conference (NELAC) accredited laboratory, located in Midland, Texas, which analyzed the samples for benzene, toluene, ethylbenzene, and xylenes (BTEX) and total petroleum hydrocarbons (TPH), including gasoline range organics (C6-C12), diesel range organics (>C12-C28) and oil range organics (>C28-C35) by EPA SW-846 Methods 8021B and 8015M, respectively and chloride, by EPA Method 300.

Benzene and BTEX were below the NMOCD remediation standards in Table 1 (19.15.29 NMAC) of 10 milligrams per kilogram (mg/Kg), and 50 mg/Kg, respectively. Chloride and TPH exceeded the NMOCD delineation limit of 600 mg/Kg and 100 mg/Kg, respectively, in the following samples:

Sample ID	Depth (Feet)	TPH (mg/Kg)	Chloride (mg/Kg)
S-2	0.5 - 1	112	609
S-3	0.5 - 1	55.9	3,740

Tracking Number: nAPP2300450334
Delineation Report and Remediation Plan
Chevron USA, Inc, Cotton Hills 23 26 27 Federal COM #001H
Crude Oil and Produced Water Release
December 11, 2023

On April 3, 2023, LAI personnel used a Geoprobe® Model 7822DT direct push rig to further delineate sample locations S-2 and S-3. The samples were collected at one (1), three (3), five (5), and ten (10) feet bgs. PBEL analyzed the samples for BTEX, TPH and chloride. The laboratory results demonstrate the release was delineated according to the NMOCD remediation and closure requirements (19.15.29.12 NMAC Table 1) for groundwater less than 50 feet bgs. Figure 2 presents an aerial map showing the sample locations. Appendix C presents the laboratory reports. Appendix D presents the photographic documentation.

3.0 REVISED REMEDIATION PLAN

Chevron proposes the following remedial actions:

- Excavate soil from an area measuring approximately 957 square feet encompassing S-1, S-3, S-4, and S-5 to a depth of one (1) foot bgs.
- Excavate soil from an area measuring approximately 101 square feet encompassing S-2 to a depth of two (2) feet bgs.
- Hydrovac excavate soil from an area measuring approximately 275 encompassing above ground production equipment.
- Collect five (5) point composite bottom and sidewall confirmation soil samples every 200 square feet and analyze for BTEX, TPH and chloride to confirm concentrations below the NMOCD closure criteria in Table 1 (19.15.29 NMAC) for groundwater less than 50 feet bgs.
- Chevron will notify NMOCD through its online portal at least 48-hours prior to collecting final confirmation samples per NMOCD requirements. Backfill excavation with clean caliche assuming achievement of NMOCD remediation levels.
- Prepare report with photographs for submittal to NMOCD District 2.

Figure 3 presents the proposed excavation areas.

Tables

Table 1
Soil Sample Analytical Data Summary
Chevron - Cotton Hills 23 26 27 Federal COM #001H
Eddy County, New Mexico
32° 03' 03.60" N, 104° 09' 33.43" W

Page 1 of 2

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Delineation Limit:				10	50	100			600	
S-1	0 - 0.5	2/9/2023	In-Situ	<0.00202	0.00638	<49.8	1,070	<49.8	1,070	125
	0.5 - 1	2/9/2023	In-Situ	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	245
S-2	0 - 0.5	2/9/2023	In-Situ	<0.00200	0.00368	157.0	615.0	<49.9	772	267
	0.5 - 1	2/9/2023	In-Situ	<0.00201	<0.00402	<49.8	112	<49.8	112	609
	1	4/3/2023	In-Situ	0.00115	0.00230	<28.7	432	96	528	246
	3	4/3/2023	In-Situ	0.00128	0.00256	<32.1	<32.1	<32.1	<32.1	146
	5	4/3/2023	In-Situ	0.00123	0.00247	<30.9	<30.9	<30.9	<30.9	214
	10	4/3/2023	In-Situ	0.0012	0.00241	<30.1	<30.1	<30.1	<30.1	15
S-3	0 - 0.5	2/9/2023	In-Situ	<0.00202	0.812	650	1,850	<49.8	2,500	101
	0.5 - 1	2/9/2023	In-Situ	<0.00199	<0.00398	<49.9	55.9	<49.9	55.9	3,740
	1	4/3/2023	In-Situ	0.00112	0.00225	<28.1	<28.1	<28.1	<28.1	25.9
	3	4/3/2023	In-Situ	0.00125	0.0025	<31.2	<31.2	<31.2	<31.2	107
	5	4/3/2023	In-Situ	0.0012	0.00241	<30.1	<30.1	<30.1	<30.1	109
	10	4/3/2023	In-Situ	0.00118	0.00235	<29.4	<29.4	<29.4	<29.4	35.9
S-4	0 - 0.5	2/9/2023	In-Situ	<0.00199	0.464	242	895	<50.0	1,140	20.9
	0.5 - 1	2/9/2023	In-Situ	<0.00200	0.0106	<50.0	<50.0	<50.0	<50.0	248
S-5	0 - 0.5	2/9/2023	In-Situ	<0.00201	0.636	248	721	<49.9	969	91.1
	0.5 - 1	2/9/2023	In-Situ	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	204
S-6	0 - 0.5	2/9/2023	In-Situ	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	9.78
	0.5 - 1	2/9/2023	In-Situ	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	29.5
S-7	0 - 0.5	2/9/2023	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	37.2

Table 1
Soil Sample Analytical Data Summary
Chevron - Cotton Hills 23 26 27 Federal COM #001H
Eddy County, New Mexico
32° 03' 03.60" N, 104° 09' 33.43" W

Page 2 of 2

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Delineation Limit:				10	50	100			600	
	0.5 - 1	2/9/2023	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	226
S-8	0 - 0.5	2/9/2023	In-Situ	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	131
	0.5 - 1	2/9/2023	In-Situ	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	56.0
S-9	0 - 0.5	2/9/2023	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	118
	0.5 - 1	2/9/2023	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	191

Notes: Analysis performed by and Xenco Laboratories in Midland, Texas by EPA SW-846 8021B (BTEX), 8015M (TPH), and 300E (Chloride)

Depth in feet below ground surface (bgs)

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

<: denotes concentration less than analytical method reporting limit

Bold and Highlighted exceeds OCD remediation action limits

Figures

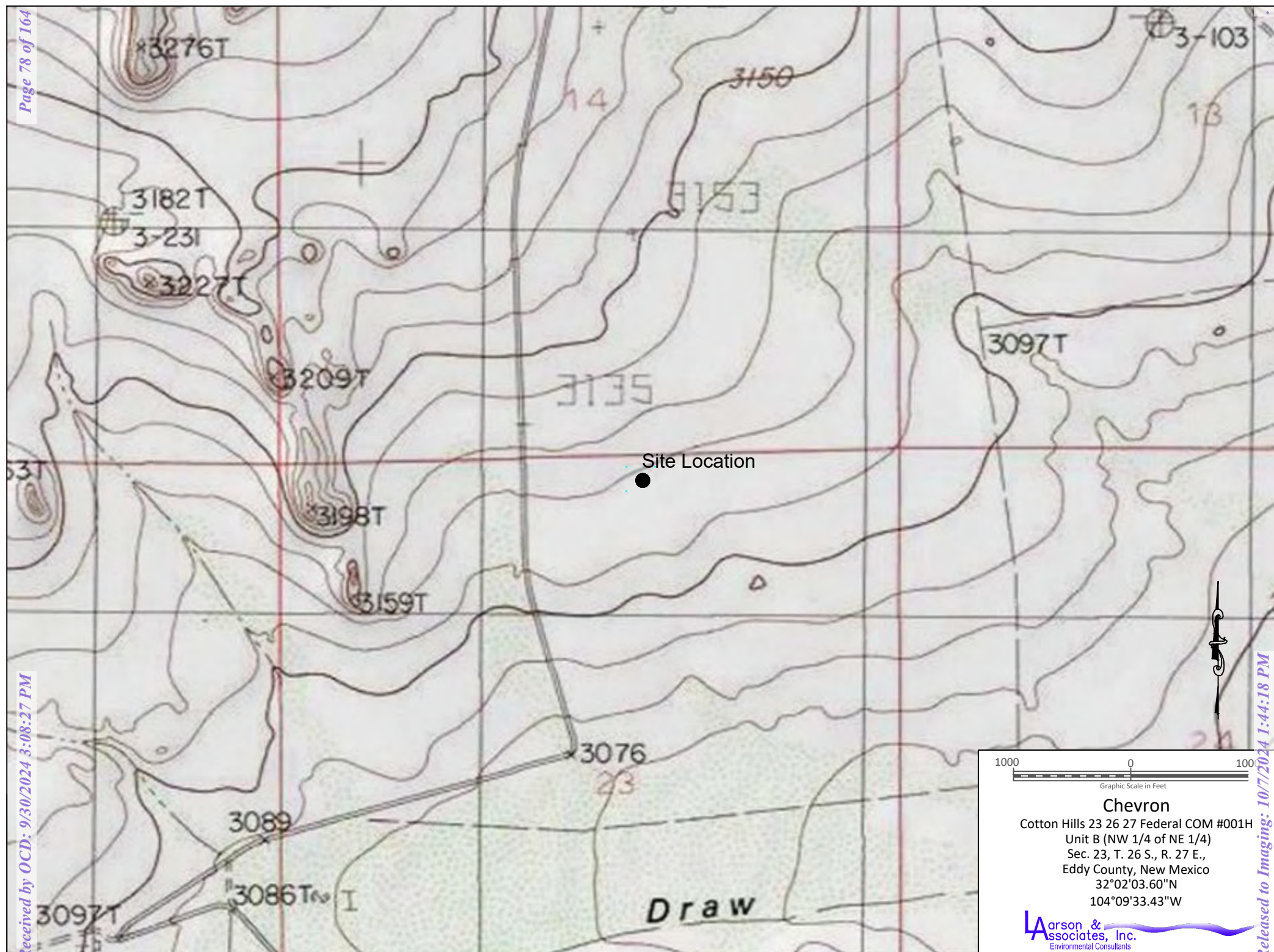
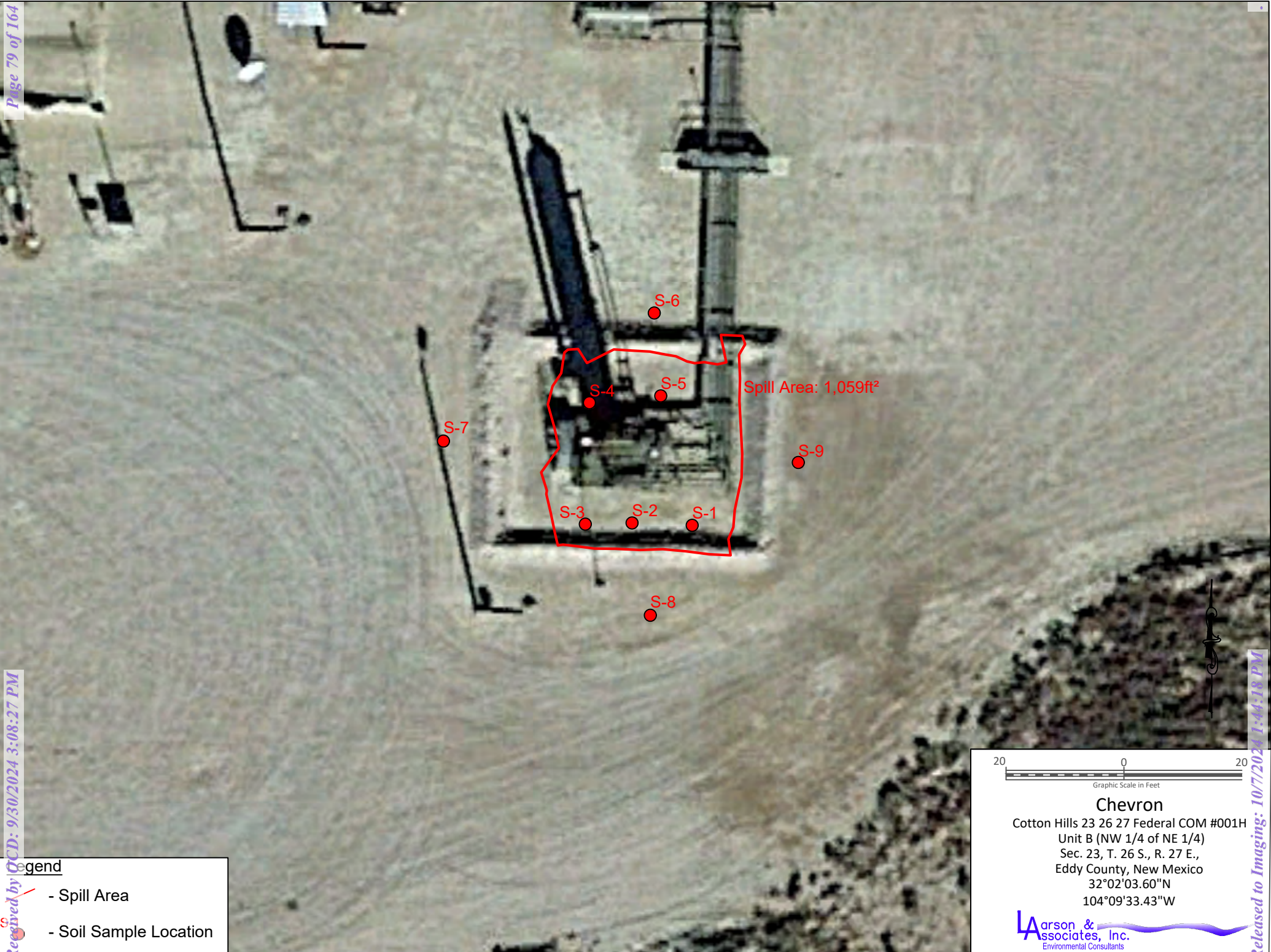


Figure 1 - Topographic Map



Legend

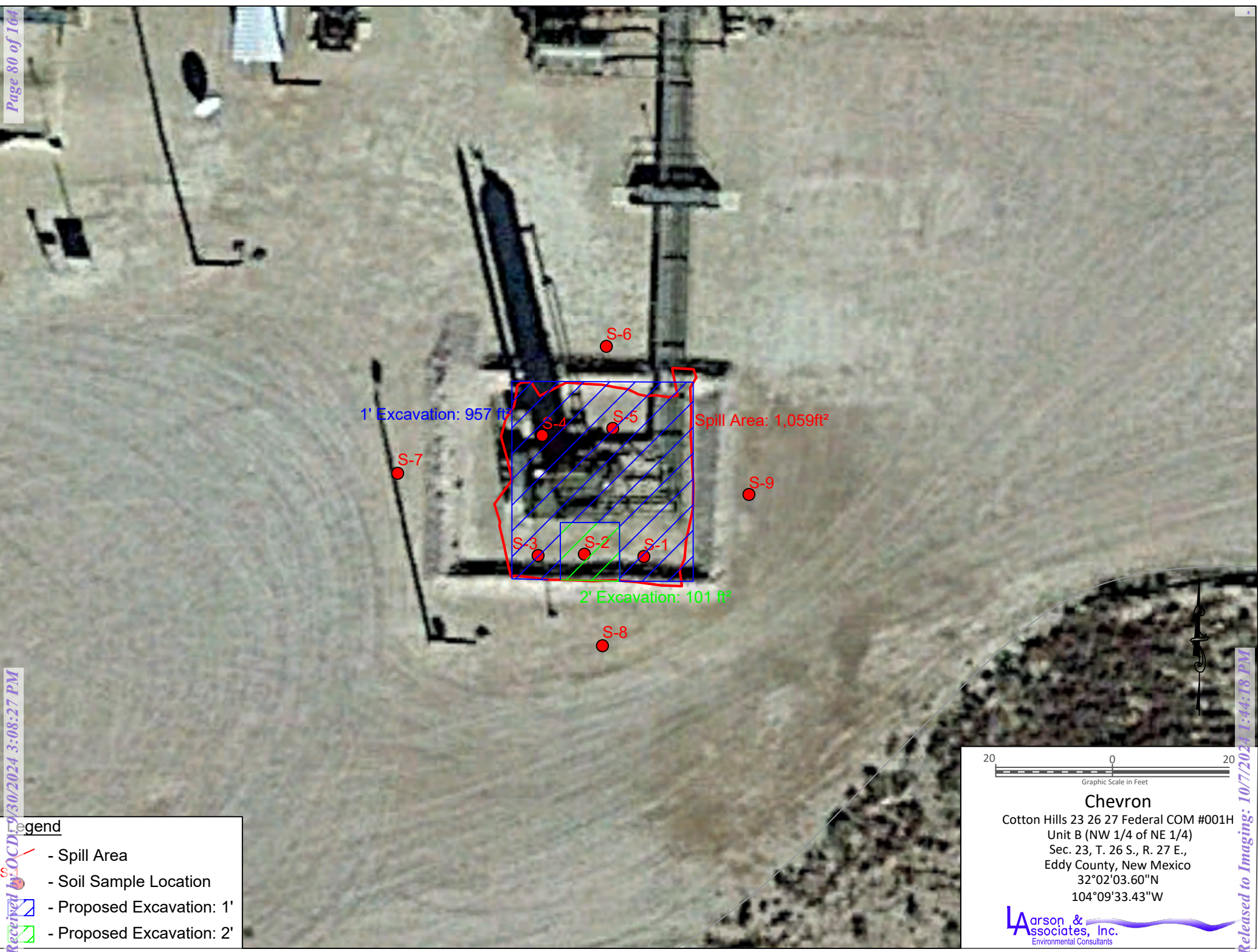
- Spill Area
- Soil Sample Location

20 0 20
Graphic Scale in Feet

Chevron
Cotton Hills 23 26 27 Federal COM #001H
Unit B (NW 1/4 of NE 1/4)
Sec. 23, T. 26 S., R. 27 E.,
Eddy County, New Mexico
32°02'03.60"N
104°09'33.43"W

Larson & Associates, Inc.
Environmental Consultants

Figure 2 - Aerial Map



- Legend**
- Spill Area
 - Soil Sample Location
 - Proposed Excavation: 1'
 - Proposed Excavation: 2'

20 0 20
Graphic Scale in Feet

Chevron
Cotton Hills 23 26 27 Federal COM #001H
Unit B (NW 1/4 of NE 1/4)
Sec. 23, T. 26 S., R. 27 E.,
Eddy County, New Mexico
32°02'03.60"N
104°09'33.43"W

Larson & Associates, Inc.
Environmental Consultants

Figure 3 - Aerial Map Showing Proposed Excavation Locations

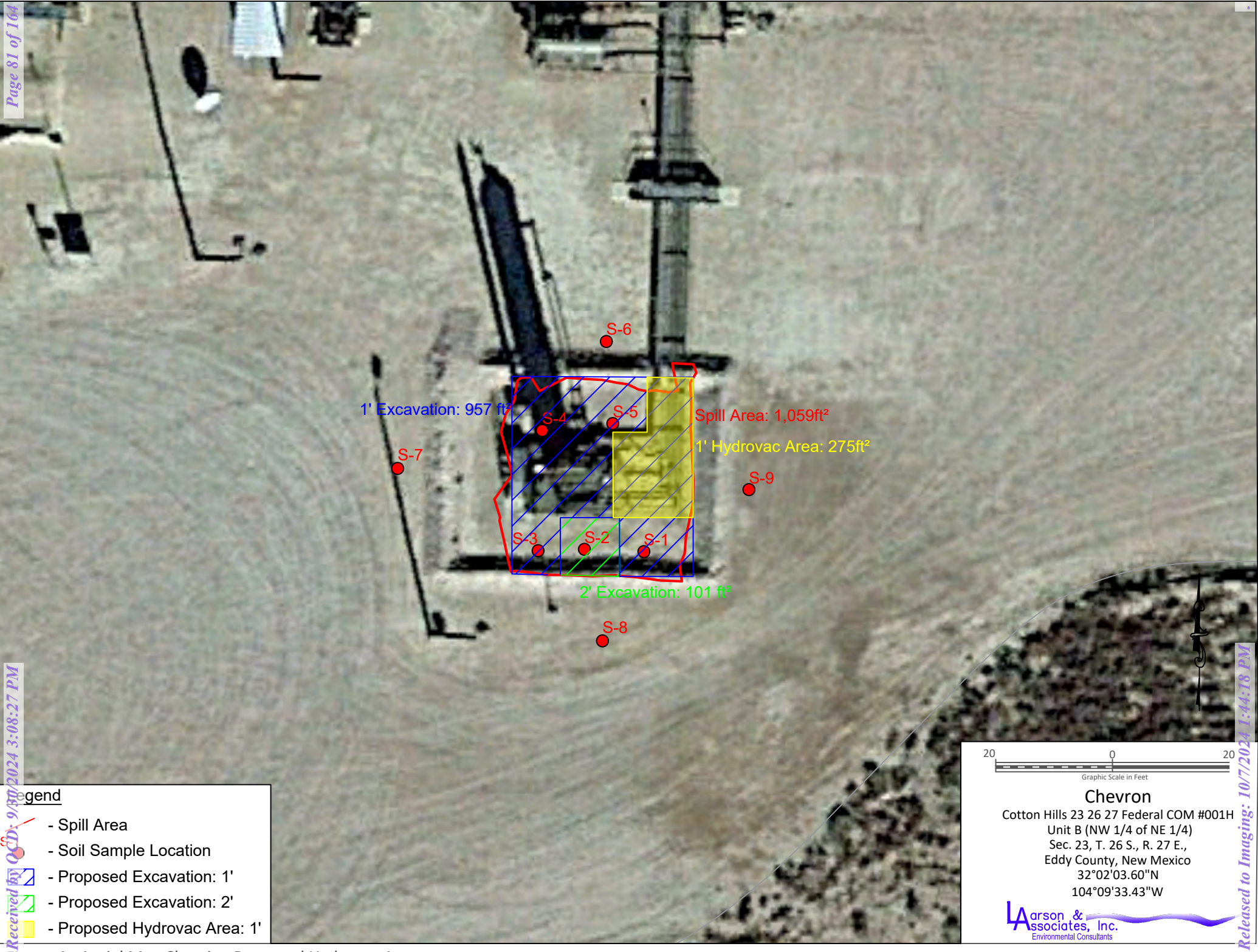


Figure 4 - Aerial Map Showing Proposed Hydrovac Area

Appendix A

Initial C-141 and Spill Calculation

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	nAPP2300450334
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Chevron U.S.A., Inc.	OGRID: 4323
Contact Name: Catherine Smith	Contact Telephone: 432-967-9487
Contact email: catherinesmith@chevron.com	Incident # nAPP2300450334
Contact mailing address: 6301 Deauville Blvd Midland, TX 79706	

Location of Release Source

Latitude: 32.0345573 _____ Longitude: -104.1587753 _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: COTTON HILLS 23 26 27 FEDERAL COM #001H	Site Type: Oil
Date Release Discovered: 12/25/2022	API# (if applicable): 30-015-41535

Unit Letter	Section	Township	Range	County
B	23	26S	27E	Eddy

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)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls): 11.43 bbls	Volume Recovered (bbls): 0 bbls
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls): 11.428 bbls	Volume Recovered (bbls): 0 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:


Pinhole leak in 3 inch ball valve caused a release of oil and produced water.

Incident ID	nAPP2300450334
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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

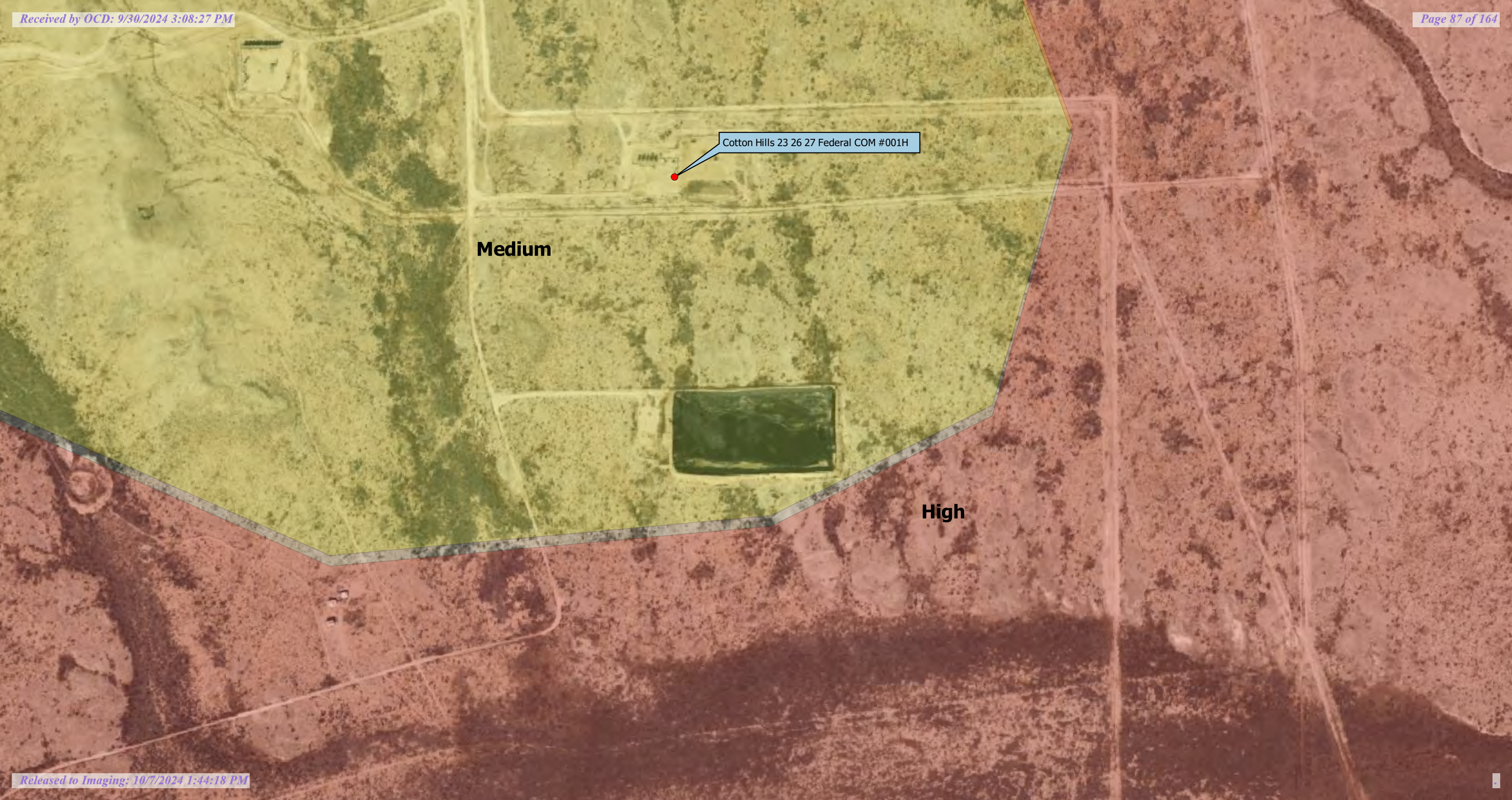
<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> 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: <u>Catherine Smith</u>	Title: <u>Lead Environmental Specialist, Field Support</u>
Signature: 	Date: <u>1/4/2023</u>
email: <u>catherinesmith@chevron.com</u>	Telephone: <u>432-967-9487</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

Incident ID	nAPP2300450334
District RP	
Facility ID	
Application ID	

Spill Calculations:

	Horizontal Dimensions			Vertical Dimensions		Calculated Volume		
	Diameter	Length (feet)	Width (feet)	Abovegrade Depth (feet)	Belowgrade Depth (feet)	Water Cut (%)	Barrels Water	Barrels Oil
Area 1		7.5	6	0.02083	0.2083	50	0.208	0.209
Area 2		28	18	0.2083	0.2083	50	10.753	10.753
Area 3		9	8	0.0416	0.2083	50	0.467	0.468
						Total	11.428	11.43

Appendix B
Karst Risk Potential



Appendix C
Laboratory Reports

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



Analytical Report

Prepared for:

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

Project: Cottom Hills 23 26 27

Project Number: 23-0102-01

Location:

Lab Order Number: 3D06002



Current Certification

Report Date: 04/17/23

Larson & Associates, Inc.	Project: Cottom Hills 23 26 27
P.O. Box 50685	Project Number: 23-0102-01
Midland TX, 79710	Project Manager: Mark Larson

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S2 @ 1'	3D06002-01	Soil	04/03/23 13:00	04-06-2023 09:04
S2 @ 3'	3D06002-02	Soil	04/03/23 13:15	04-06-2023 09:04
S2 @ 5'	3D06002-03	Soil	04/03/23 13:30	04-06-2023 09:04
S2 @ 10'	3D06002-04	Soil	04/03/23 13:45	04-06-2023 09:04
S3 @ 1'	3D06002-05	Soil	04/03/23 14:00	04-06-2023 09:04
S3 @ 3'	3D06002-06	Soil	04/03/23 14:15	04-06-2023 09:04
S3 @ 5'	3D06002-07	Soil	04/03/23 14:30	04-06-2023 09:04
S3 @ 10'	3D06002-08	Soil	04/03/23 14:45	04-06-2023 09:04

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

Project: Cottom Hills 23 26 27
Project Number: 23-0102-01
Project Manager: Mark Larson

S2 @ 1'
3D06002-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00115	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 19:00	EPA 8021B	
Toluene	ND	0.00115	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 19:00	EPA 8021B	
Ethylbenzene	ND	0.00115	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 19:00	EPA 8021B	
Xylene (p/m)	ND	0.00230	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 19:00	EPA 8021B	
Xylene (o)	ND	0.00115	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 19:00	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	70.7 %		80-120		P3D1206	04/12/23 14:36	04/12/23 19:00	EPA 8021B	S-GC
Surrogate: 1,4-Difluorobenzene	114 %		80-120		P3D1206	04/12/23 14:36	04/12/23 19:00	EPA 8021B	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	28.7	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 14:33	TPH 8015M	
>C12-C28	432	28.7	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 14:33	TPH 8015M	
>C28-C35	96.0	28.7	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 14:33	TPH 8015M	
Surrogate: 1-Chlorooctane	88.9 %		70-130		P3D1105	04/11/23 11:45	04/15/23 14:33	TPH 8015M	
Surrogate: o-Terphenyl	100 %		70-130		P3D1105	04/11/23 11:45	04/15/23 14:33	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	528	28.7	mg/kg dry	1	[CALC]	04/11/23 11:45	04/15/23 14:33	calc	

General Chemistry Parameters by EPA / Standard Methods

Chloride	246	5.75	mg/kg dry	5	P3D0807	04/08/23 20:16	04/14/23 09:26	EPA 300.0	
% Moisture	13.0	0.1	%	1	P3D1002	04/10/23 10:53	04/10/23 11:09	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Larson & Associates, Inc.	Project: Cottom Hills 23 26 27
P.O. Box 50685	Project Number: 23-0102-01
Midland TX, 79710	Project Manager: Mark Larson

S2 @ 3'
3D06002-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B									
Benzene	ND	0.00128	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 19:21	EPA 8021B	
Toluene	ND	0.00128	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 19:21	EPA 8021B	
Ethylbenzene	ND	0.00128	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 19:21	EPA 8021B	
Xylene (p/m)	ND	0.00256	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 19:21	EPA 8021B	
Xylene (o)	ND	0.00128	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 19:21	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	73.4 %		80-120		P3D1206	04/12/23 14:36	04/12/23 19:21	EPA 8021B	S-GC
Surrogate: 1,4-Difluorobenzene	118 %		80-120		P3D1206	04/12/23 14:36	04/12/23 19:21	EPA 8021B	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	32.1	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 14:58	TPH 8015M	
>C12-C28	ND	32.1	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 14:58	TPH 8015M	
>C28-C35	ND	32.1	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 14:58	TPH 8015M	
Surrogate: 1-Chlorooctane	88.0 %		70-130		P3D1105	04/11/23 11:45	04/15/23 14:58	TPH 8015M	
Surrogate: o-Terphenyl	98.8 %		70-130		P3D1105	04/11/23 11:45	04/15/23 14:58	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	32.1	mg/kg dry	1	[CALC]	04/11/23 11:45	04/15/23 14:58	calc	

General Chemistry Parameters by EPA / Standard Methods									
Chloride	146	6.41	mg/kg dry	5	P3D0807	04/08/23 20:16	04/14/23 10:28	EPA 300.0	
% Moisture	22.0	0.1	%	1	P3D1002	04/10/23 10:53	04/10/23 11:09	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Larson & Associates, Inc.	Project: Cottom Hills 23 26 27
P.O. Box 50685	Project Number: 23-0102-01
Midland TX, 79710	Project Manager: Mark Larson

S2 @ 5'
3D06002-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B									
Benzene	ND	0.00123	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 19:41	EPA 8021B	
Toluene	ND	0.00123	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 19:41	EPA 8021B	
Ethylbenzene	ND	0.00123	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 19:41	EPA 8021B	
Xylene (p/m)	ND	0.00247	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 19:41	EPA 8021B	
Xylene (o)	ND	0.00123	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 19:41	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	69.9 %		80-120		P3D1206	04/12/23 14:36	04/12/23 19:41	EPA 8021B	S-GC
Surrogate: 1,4-Difluorobenzene	119 %		80-120		P3D1206	04/12/23 14:36	04/12/23 19:41	EPA 8021B	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	30.9	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 15:24	TPH 8015M	
>C12-C28	ND	30.9	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 15:24	TPH 8015M	
>C28-C35	ND	30.9	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 15:24	TPH 8015M	
Surrogate: 1-Chlorooctane	90.8 %		70-130		P3D1105	04/11/23 11:45	04/15/23 15:24	TPH 8015M	
Surrogate: o-Terphenyl	102 %		70-130		P3D1105	04/11/23 11:45	04/15/23 15:24	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	30.9	mg/kg dry	1	[CALC]	04/11/23 11:45	04/15/23 15:24	calc	

General Chemistry Parameters by EPA / Standard Methods									
Chloride	214	6.17	mg/kg dry	5	P3D0807	04/08/23 20:16	04/14/23 10:48	EPA 300.0	
% Moisture	19.0	0.1	%	1	P3D1002	04/10/23 10:53	04/10/23 11:09	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Larson & Associates, Inc.	Project: Cottom Hills 23 26 27
P.O. Box 50685	Project Number: 23-0102-01
Midland TX, 79710	Project Manager: Mark Larson

S2 @ 10'
3D06002-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B									
Benzene	ND	0.00120	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 20:01	EPA 8021B	
Toluene	ND	0.00120	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 20:01	EPA 8021B	
Ethylbenzene	ND	0.00120	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 20:01	EPA 8021B	
Xylene (p/m)	ND	0.00241	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 20:01	EPA 8021B	
Xylene (o)	ND	0.00120	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 20:01	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	69.2 %		80-120		P3D1206	04/12/23 14:36	04/12/23 20:01	EPA 8021B	S-GC
Surrogate: 1,4-Difluorobenzene	119 %		80-120		P3D1206	04/12/23 14:36	04/12/23 20:01	EPA 8021B	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	30.1	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 15:49	TPH 8015M	
>C12-C28	ND	30.1	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 15:49	TPH 8015M	
>C28-C35	ND	30.1	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 15:49	TPH 8015M	
Surrogate: 1-Chlorooctane	89.5 %		70-130		P3D1105	04/11/23 11:45	04/15/23 15:49	TPH 8015M	
Surrogate: o-Terphenyl	101 %		70-130		P3D1105	04/11/23 11:45	04/15/23 15:49	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	30.1	mg/kg dry	1	[CALC]	04/11/23 11:45	04/15/23 15:49	calc	

General Chemistry Parameters by EPA / Standard Methods									
Chloride	14.9	1.20	mg/kg dry	1	P3D0807	04/08/23 20:16	04/14/23 18:41	EPA 300.0	
% Moisture	17.0	0.1	%	1	P3D1002	04/10/23 10:53	04/10/23 11:09	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Larson & Associates, Inc.	Project: Cottom Hills 23 26 27
P.O. Box 50685	Project Number: 23-0102-01
Midland TX, 79710	Project Manager: Mark Larson

S3 @ 1'
3D06002-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B									
Benzene	ND	0.00112	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 20:22	EPA 8021B	
Toluene	ND	0.00112	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 20:22	EPA 8021B	
Ethylbenzene	ND	0.00112	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 20:22	EPA 8021B	
Xylene (p/m)	ND	0.00225	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 20:22	EPA 8021B	
Xylene (o)	ND	0.00112	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 20:22	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	119 %		80-120		P3D1206	04/12/23 14:36	04/12/23 20:22	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	69.0 %		80-120		P3D1206	04/12/23 14:36	04/12/23 20:22	EPA 8021B	S-GC

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 16:14	TPH 8015M	
>C12-C28	ND	28.1	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 16:14	TPH 8015M	
>C28-C35	ND	28.1	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 16:14	TPH 8015M	
Surrogate: 1-Chlorooctane	91.1 %		70-130		P3D1105	04/11/23 11:45	04/15/23 16:14	TPH 8015M	
Surrogate: o-Terphenyl	106 %		70-130		P3D1105	04/11/23 11:45	04/15/23 16:14	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	04/11/23 11:45	04/15/23 16:14	calc	

General Chemistry Parameters by EPA / Standard Methods									
Chloride	25.9	1.12	mg/kg dry	1	P3D0807	04/08/23 20:16	04/14/23 19:01	EPA 300.0	
% Moisture	11.0	0.1	%	1	P3D1002	04/10/23 10:53	04/10/23 11:09	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Larson & Associates, Inc.	Project: Cottom Hills 23 26 27
P.O. Box 50685	Project Number: 23-0102-01
Midland TX, 79710	Project Manager: Mark Larson

S3 @ 3'
3D06002-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B									
Benzene	ND	0.00125	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 20:42	EPA 8021B	
Toluene	ND	0.00125	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 20:42	EPA 8021B	
Ethylbenzene	ND	0.00125	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 20:42	EPA 8021B	
Xylene (p/m)	ND	0.00250	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 20:42	EPA 8021B	
Xylene (o)	ND	0.00125	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 20:42	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	67.0 %		80-120		P3D1206	04/12/23 14:36	04/12/23 20:42	EPA 8021B	S-GC
Surrogate: 1,4-Difluorobenzene	118 %		80-120		P3D1206	04/12/23 14:36	04/12/23 20:42	EPA 8021B	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	31.2	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 16:39	TPH 8015M	
>C12-C28	ND	31.2	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 16:39	TPH 8015M	
>C28-C35	ND	31.2	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 16:39	TPH 8015M	
Surrogate: 1-Chlorooctane	92.2 %		70-130		P3D1105	04/11/23 11:45	04/15/23 16:39	TPH 8015M	
Surrogate: o-Terphenyl	103 %		70-130		P3D1105	04/11/23 11:45	04/15/23 16:39	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	31.2	mg/kg dry	1	[CALC]	04/11/23 11:45	04/15/23 16:39	calc	

General Chemistry Parameters by EPA / Standard Methods									
Chloride	107	6.25	mg/kg dry	5	P3D0807	04/08/23 20:16	04/14/23 11:50	EPA 300.0	
% Moisture	20.0	0.1	%	1	P3D1002	04/10/23 10:53	04/10/23 11:09	ASTM D2216	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

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

Project: Cottom Hills 23 26 27
Project Number: 23-0102-01
Project Manager: Mark Larson

S3 @ 5'
3D06002-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B

Benzene	ND	0.00120	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 21:43	EPA 8021B	
Toluene	ND	0.00120	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 21:43	EPA 8021B	
Ethylbenzene	ND	0.00120	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 21:43	EPA 8021B	
Xylene (p/m)	ND	0.00241	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 21:43	EPA 8021B	
Xylene (o)	ND	0.00120	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 21:43	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	120 %		80-120		P3D1206	04/12/23 14:36	04/12/23 21:43	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	66.6 %		80-120		P3D1206	04/12/23 14:36	04/12/23 21:43	EPA 8021B	S-GC

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	30.1	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 17:05	TPH 8015M	
>C12-C28	ND	30.1	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 17:05	TPH 8015M	
>C28-C35	ND	30.1	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 17:05	TPH 8015M	
Surrogate: 1-Chlorooctane	87.1 %		70-130		P3D1105	04/11/23 11:45	04/15/23 17:05	TPH 8015M	
Surrogate: o-Terphenyl	100 %		70-130		P3D1105	04/11/23 11:45	04/15/23 17:05	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	30.1	mg/kg dry	1	[CALC]	04/11/23 11:45	04/15/23 17:05	calc	

General Chemistry Parameters by EPA / Standard Methods

Chloride	109	6.02	mg/kg dry	5	P3D0807	04/08/23 20:16	04/14/23 12:10	EPA 300.0	
% Moisture	17.0	0.1	%	1	P3D1002	04/10/23 10:53	04/10/23 11:09	ASTM D2216	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Larson & Associates, Inc.	Project: Cottom Hills 23 26 27
P.O. Box 50685	Project Number: 23-0102-01
Midland TX, 79710	Project Manager: Mark Larson

S3 @ 10'
3D06002-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

BTEX by 8021B									
Benzene	ND	0.00118	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 22:03	EPA 8021B	
Toluene	ND	0.00118	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 22:03	EPA 8021B	
Ethylbenzene	ND	0.00118	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 22:03	EPA 8021B	
Xylene (p/m)	ND	0.00235	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 22:03	EPA 8021B	
Xylene (o)	ND	0.00118	mg/kg dry	1	P3D1206	04/12/23 14:36	04/12/23 22:03	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	119 %		80-120		P3D1206	04/12/23 14:36	04/12/23 22:03	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	61.9 %		80-120		P3D1206	04/12/23 14:36	04/12/23 22:03	EPA 8021B	S-GC

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	29.4	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 17:30	TPH 8015M	
>C12-C28	ND	29.4	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 17:30	TPH 8015M	
>C28-C35	ND	29.4	mg/kg dry	1	P3D1105	04/11/23 11:45	04/15/23 17:30	TPH 8015M	
Surrogate: 1-Chlorooctane	82.3 %		70-130		P3D1105	04/11/23 11:45	04/15/23 17:30	TPH 8015M	
Surrogate: o-Terphenyl	98.8 %		70-130		P3D1105	04/11/23 11:45	04/15/23 17:30	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.4	mg/kg dry	1	[CALC]	04/11/23 11:45	04/15/23 17:30	calc	

General Chemistry Parameters by EPA / Standard Methods									
Chloride	35.9	1.18	mg/kg dry	1	P3D0807	04/08/23 20:16	04/14/23 19:22	EPA 300.0	
% Moisture	15.0	0.1	%	1	P3D1002	04/10/23 10:53	04/10/23 11:09	ASTM D2216	

Permian Basin Environmental Lab, L.P.

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Larson & Associates, Inc.	Project: Cottom Hills 23 26 27
P.O. Box 50685	Project Number: 23-0102-01
Midland TX, 79710	Project Manager: Mark Larson

BTEX by 8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P3D1206 - *** DEFAULT PREP ***

LCS (P3D1206-BS1)		Prepared & Analyzed: 04/12/23								
Benzene	0.113	0.00100	mg/kg	0.100		113	80-120			
Toluene	0.111	0.00100	"	0.100		111	80-120			
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120			
Xylene (p/m)	0.211	0.00200	"	0.200		105	80-120			
Xylene (o)	0.107	0.00100	"	0.100		107	80-120			
Surrogate: 1,4-Difluorobenzene	0.133		"	0.120		111	80-120			
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.2	80-120			

LCS Dup (P3D1206-BSD1)		Prepared & Analyzed: 04/12/23								
Benzene	0.109	0.00100	mg/kg	0.100		109	80-120	3.52	20	
Toluene	0.105	0.00100	"	0.100		105	80-120	5.33	20	
Ethylbenzene	0.107	0.00100	"	0.100		107	80-120	6.16	20	
Xylene (p/m)	0.199	0.00200	"	0.200		99.4	80-120	5.85	20	
Xylene (o)	0.101	0.00100	"	0.100		101	80-120	5.66	20	
Surrogate: 4-Bromofluorobenzene	0.101		"	0.120		84.0	80-120			
Surrogate: 1,4-Difluorobenzene	0.134		"	0.120		111	80-120			

Calibration Blank (P3D1206-CCB1)		Prepared & Analyzed: 04/12/23								
Benzene	0.00		ug/kg							
Toluene	0.00		"							
Ethylbenzene	0.120		"							
Xylene (p/m)	0.120		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.101		"	0.120		84.3	80-120			
Surrogate: 1,4-Difluorobenzene	0.126		"	0.120		105	80-120			

Calibration Blank (P3D1206-CCB2)		Prepared & Analyzed: 04/12/23								
Benzene	0.00		ug/kg							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.0730		"	0.120		60.8	80-120			S-GC
Surrogate: 1,4-Difluorobenzene	0.141		"	0.120		117	80-120			

Permian Basin Environmental Lab, L.P.

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Larson & Associates, Inc.	Project: Cottom Hills 23 26 27
P.O. Box 50685	Project Number: 23-0102-01
Midland TX, 79710	Project Manager: Mark Larson

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P3D1206 - *** DEFAULT PREP ***

Calibration Blank (P3D1206-CCB3)				Prepared: 04/12/23 Analyzed: 04/13/23						
Benzene	0.00		ug/kg							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.110		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.0696		"	0.120		58.0	80-120			S-GC
Surrogate: 1,4-Difluorobenzene	0.142		"	0.120		119	80-120			

Calibration Check (P3D1206-CCV1)				Prepared & Analyzed: 04/12/23						
Benzene	0.102	0.00100	mg/kg	0.100		102	80-120			
Toluene	0.0919	0.00100	"	0.100		91.9	80-120			
Ethylbenzene	0.0871	0.00100	"	0.100		87.1	80-120			
Xylene (p/m)	0.172	0.00200	"	0.200		86.1	80-120			
Xylene (o)	0.0901	0.00100	"	0.100		90.1	80-120			
Surrogate: 4-Bromofluorobenzene	0.0989		"	0.120		82.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.127		"	0.120		106	75-125			

Calibration Check (P3D1206-CCV2)				Prepared & Analyzed: 04/12/23						
Benzene	0.107	0.00100	mg/kg	0.100		107	80-120			
Toluene	0.0996	0.00100	"	0.100		99.6	80-120			
Ethylbenzene	0.0951	0.00100	"	0.100		95.1	80-120			
Xylene (p/m)	0.185	0.00200	"	0.200		92.5	80-120			
Xylene (o)	0.0971	0.00100	"	0.100		97.1	80-120			
Surrogate: 4-Bromofluorobenzene	0.0756		"	0.120		63.0	75-125			S-GC
Surrogate: 1,4-Difluorobenzene	0.143		"	0.120		119	75-125			

Calibration Check (P3D1206-CCV3)				Prepared: 04/12/23 Analyzed: 04/13/23						
Benzene	0.0887	0.00100	mg/kg	0.100		88.7	80-120			
Toluene	0.0909	0.00100	"	0.100		90.9	80-120			
Ethylbenzene	0.0890	0.00100	"	0.100		89.0	80-120			
Xylene (p/m)	0.167	0.00200	"	0.200		83.6	80-120			
Xylene (o)	0.0864	0.00100	"	0.100		86.4	80-120			
Surrogate: 1,4-Difluorobenzene	0.142		"	0.120		118	75-125			
Surrogate: 4-Bromofluorobenzene	0.0737		"	0.120		61.4	75-125			S-GC

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Larson & Associates, Inc.	Project: Cottom Hills 23 26 27
P.O. Box 50685	Project Number: 23-0102-01
Midland TX, 79710	Project Manager: Mark Larson

BTEX by 8021B - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P3D1206 - *** DEFAULT PREP ***

Matrix Spike (P3D1206-MS1)		Source: 3D06002-01		Prepared: 04/12/23		Analyzed: 04/13/23				
Benzene	0.0645	0.00115	mg/kg dry	0.115	ND	56.1	80-120			QM-05
Toluene	0.0518	0.00115	"	0.115	ND	45.1	80-120			QM-05
Ethylbenzene	0.0360	0.00115	"	0.115	ND	31.3	80-120			QM-05
Xylene (p/m)	0.0640	0.00230	"	0.230	ND	27.9	80-120			QM-05
Xylene (o)	0.0318	0.00115	"	0.115	ND	27.7	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	0.162		"	0.138		118	80-120			
Surrogate: 4-Bromofluorobenzene	0.0813		"	0.138		58.9	80-120			S-GC

Matrix Spike Dup (P3D1206-MSD1)		Source: 3D06002-01		Prepared: 04/12/23		Analyzed: 04/13/23				
Benzene	0.0802	0.00115	mg/kg dry	0.115	ND	69.8	80-120	21.8	20	QM-05
Toluene	0.0666	0.00115	"	0.115	ND	57.9	80-120	25.0	20	QM-05
Ethylbenzene	0.0474	0.00115	"	0.115	ND	41.3	80-120	27.4	20	QM-05
Xylene (p/m)	0.0839	0.00230	"	0.230	ND	36.5	80-120	26.8	20	QM-05
Xylene (o)	0.0419	0.00115	"	0.115	ND	36.5	80-120	27.3	20	QM-05
Surrogate: 4-Bromofluorobenzene	0.0856		"	0.138		62.0	80-120			S-GC
Surrogate: 1,4-Difluorobenzene	0.165		"	0.138		120	80-120			

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

Project: Cottom Hills 23 26 27
Project Number: 23-0102-01
Project Manager: Mark Larson

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P3D1105 - TX 1005

Blank (P3D1105-BLK1)

Prepared: 04/11/23 Analyzed: 04/15/23

C6-C12	ND	25.0	mg/kg							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	84.3		"	100		84.3	70-130			
Surrogate: o-Terphenyl	45.9		"	50.0		91.8	70-130			

LCS (P3D1105-BS1)

Prepared: 04/11/23 Analyzed: 04/15/23

C6-C12	946	25.0	mg/kg	1000		94.6	75-125			
>C12-C28	931	25.0	"	1000		93.1	75-125			
Surrogate: 1-Chlorooctane	113		"	100		113	70-130			
Surrogate: o-Terphenyl	57.1		"	50.0		114	70-130			

LCS Dup (P3D1105-BSD1)

Prepared: 04/11/23 Analyzed: 04/15/23

C6-C12	960	25.0	mg/kg	1000		96.0	75-125	1.39	20	
>C12-C28	913	25.0	"	1000		91.3	75-125	1.96	20	
Surrogate: 1-Chlorooctane	110		"	100		110	70-130			
Surrogate: o-Terphenyl	53.2		"	50.0		106	70-130			

Calibration Check (P3D1105-CCV1)

Prepared: 04/11/23 Analyzed: 04/15/23

C6-C12	502	25.0	mg/kg	500		100	85-115			
>C12-C28	538	25.0	"	500		108	85-115			
Surrogate: 1-Chlorooctane	102		"	100		102	70-130			
Surrogate: o-Terphenyl	48.0		"	50.0		96.0	70-130			

Matrix Spike (P3D1105-MS1)

Source: 3D06018-12

Prepared: 04/11/23 Analyzed: 04/15/23

C6-C12	797	27.8	mg/kg dry	1110	ND	71.7	75-125			QM-05
>C12-C28	767	27.8	"	1110	ND	69.0	75-125			QM-05
Surrogate: 1-Chlorooctane	99.2		"	111		89.2	70-130			
Surrogate: o-Terphenyl	41.9		"	55.6		75.4	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Larson & Associates, Inc.	Project: Cottom Hills 23 26 27
P.O. Box 50685	Project Number: 23-0102-01
Midland TX, 79710	Project Manager: Mark Larson

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P3D1105 - TX 1005

Matrix Spike Dup (P3D1105-MSD1)	Source: 3D06018-12			Prepared: 04/11/23 Analyzed: 04/16/23						
C6-C12	859	27.8	mg/kg dry	1110	ND	77.3	75-125	7.48	20	
>C12-C28	829	27.8	"	1110	ND	74.6	75-125	7.72	20	QM-05
Surrogate: 1-Chlorooctane	107		"	111		96.6	70-130			
Surrogate: o-Terphenyl	45.3		"	55.6		81.5	70-130			

Permian Basin Environmental Lab, L.P.

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Larson & Associates, Inc.	Project: Cottom Hills 23 26 27
P.O. Box 50685	Project Number: 23-0102-01
Midland TX, 79710	Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P3D0807 - *** DEFAULT PREP ***										
Blank (P3D0807-BLK1)				Prepared: 04/08/23 Analyzed: 04/13/23						
Chloride	ND	1.00	mg/kg							
LCS (P3D0807-BS1)				Prepared: 04/08/23 Analyzed: 04/13/23						
Chloride	18.4		mg/kg	20.0		92.1	90-110			
LCS Dup (P3D0807-BSD1)				Prepared: 04/08/23 Analyzed: 04/13/23						
Chloride	18.6		mg/kg	20.0		93.2	90-110	1.13	10	
Calibration Check (P3D0807-CCV1)				Prepared: 04/08/23 Analyzed: 04/13/23						
Chloride	18.5		mg/kg	20.0		92.5	90-110			
Calibration Check (P3D0807-CCV2)				Prepared: 04/08/23 Analyzed: 04/14/23						
Chloride	18.2		mg/kg	20.0		90.9	90-110			
Calibration Check (P3D0807-CCV3)				Prepared: 04/08/23 Analyzed: 04/14/23						
Chloride	18.1		mg/kg	20.0		90.4	90-110			
Matrix Spike (P3D0807-MS1)		Source: 3D06002-01		Prepared: 04/08/23 Analyzed: 04/14/23						
Chloride	112		mg/kg	100	4.28	108	80-120			
Matrix Spike (P3D0807-MS2)		Source: 3D06018-11		Prepared: 04/08/23 Analyzed: 04/14/23						
Chloride	154		mg/kg	100	0.00	154	80-120			
Matrix Spike Dup (P3D0807-MSD1)		Source: 3D06002-01		Prepared: 04/08/23 Analyzed: 04/14/23						
Chloride	114		mg/kg	100	4.28	110	80-120	1.69	20	
Matrix Spike Dup (P3D0807-MSD2)		Source: 3D06018-11		Prepared: 04/08/23 Analyzed: 04/14/23						
Chloride	155		mg/kg	100	0.00	155	80-120	0.665	20	

Permian Basin Environmental Lab, L.P.

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Larson & Associates, Inc.	Project: Cottom Hills 23 26 27
P.O. Box 50685	Project Number: 23-0102-01
Midland TX, 79710	Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P3D1002 - *** DEFAULT PREP ***										
Blank (P3D1002-BLK1)					Prepared & Analyzed: 04/10/23					
% Moisture	ND	0.1	%							
Blank (P3D1002-BLK2)					Prepared & Analyzed: 04/10/23					
% Moisture	ND	0.1	%							
Blank (P3D1002-BLK3)					Prepared & Analyzed: 04/10/23					
% Moisture	ND	0.1	%							
Blank (P3D1002-BLK4)					Prepared & Analyzed: 04/10/23					
% Moisture	ND	0.1	%							
Blank (P3D1002-BLK5)					Prepared & Analyzed: 04/10/23					
% Moisture	ND	0.1	%							
Duplicate (P3D1002-DUP1)					Source: 3D05009-09		Prepared & Analyzed: 04/10/23			
% Moisture	5.0	0.1	%		5.0			0.00	20	
Duplicate (P3D1002-DUP2)					Source: 3D05009-19		Prepared & Analyzed: 04/10/23			
% Moisture	7.0	0.1	%		8.0			13.3	20	
Duplicate (P3D1002-DUP3)					Source: 3D05009-34		Prepared & Analyzed: 04/10/23			
% Moisture	6.0	0.1	%		6.0			0.00	20	
Duplicate (P3D1002-DUP4)					Source: 3D05010-01		Prepared & Analyzed: 04/10/23			
% Moisture	2.0	0.1	%		2.0			0.00	20	
Duplicate (P3D1002-DUP5)					Source: 3D05016-03		Prepared & Analyzed: 04/10/23			
% Moisture	2.0	0.1	%		2.0			0.00	20	

Permian Basin Environmental Lab, L.P.

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Larson & Associates, Inc.	Project: Cottom Hills 23 26 27
P.O. Box 50685	Project Number: 23-0102-01
Midland TX, 79710	Project Manager: Mark Larson

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P3D1002 - *** DEFAULT PREP ***

Duplicate (P3D1002-DUP6)	Source: 3D06001-03		Prepared & Analyzed: 04/10/23							
% Moisture	3.0	0.1	%		2.0			40.0	20	R
Duplicate (P3D1002-DUP7)	Source: 3D06004-01		Prepared & Analyzed: 04/10/23							
% Moisture	5.0	0.1	%		6.0			18.2	20	
Duplicate (P3D1002-DUP8)	Source: 3D06004-11		Prepared & Analyzed: 04/10/23							
% Moisture	9.0	0.1	%		8.0			11.8	20	

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

Project: Cottom Hills 23 26 27
Project Number: 23-0102-01
Project Manager: Mark Larson

Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ROI Received on Ice

R The RPD exceeded the method control limit. The individual analyte QA/QC recoveries, however, were within acceptance limits.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

NPBEL C Chain of Custody was not generated at PBELAB

BULK Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

4/17/2023

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Larson & Associates, Inc.

Project: Cottom Hills 23 26 27

P.O. Box 50685

Project Number: 23-0102-01

Midland TX, 79710

Project Manager: Mark Larson

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Permian Basin Environmental Lab, L.P.

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2030
Nº



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

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JOB DESCRIPTION

Cotton Hills 23 26 27 Federal
SDG NUMBER 23-0102-01

JOB NUMBER

880-24558-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Holly Taylor

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2/19/2023 12:17:57 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Laboratory Job ID: 880-24558-1
SDG: 23-0102-01

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Definitions/Glossary

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⌘	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Job ID: 880-24558-1

Laboratory: Eurofins Midland

Narrative**Job Narrative
880-24558-1****Receipt**

The samples were received on 2/10/2023 8:37 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.9°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: S1 0-0.5' (880-24558-1), S1 0.5'-1' (880-24558-2), S2 0-0.5' (880-24558-3), S2 0.5'-1' (880-24558-4), S3 0-0.5' (880-24558-5), S3 0.5'-1' (880-24558-6), S4 0-0.5' (880-24558-7), S4 0.5'-1' (880-24558-8), S5 0-0.5' (880-24558-9), S5 0.5'-1' (880-24558-10), S6 0-0.5' (880-24558-11), S6 0.5'-1' (880-24558-12), S7 0-0.5' (880-24558-13), S7 0.5'-1' (880-24558-14), S8 0-0.5' (880-24558-15), S8 0.5'-1' (880-24558-16), S9 0-0.5' (880-24558-17) and S9 0.5'-1' (880-24558-18).

GC VOA

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-46191 and analytical batch 880-46261 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: S3 0-0.5' (880-24558-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: S1 0.5'-1' (880-24558-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: S4 0-0.5' (880-24558-7), S4 0.5'-1' (880-24558-8) and S5 0-0.5' (880-24558-9). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: S9 0.5'-1' (880-24558-18). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: S4 0.5'-1' (880-24558-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: S8 0-0.5' (880-24558-15). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-46322 and analytical batch 880-46477 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S1 0-0.5'

Lab Sample ID: 880-24558-1

Date Collected: 02/09/23 11:00

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/13/23 15:34	02/14/23 12:05	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/13/23 15:34	02/14/23 12:05	1
Ethylbenzene	0.00430	F1	0.00202	mg/Kg		02/13/23 15:34	02/14/23 12:05	1
m,p-Xylenes	<0.00403	U F1	0.00403	mg/Kg		02/13/23 15:34	02/14/23 12:05	1
o-Xylene	0.00208	F1	0.00202	mg/Kg		02/13/23 15:34	02/14/23 12:05	1
Xylenes, Total	<0.00403	U F1	0.00403	mg/Kg		02/13/23 15:34	02/14/23 12:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			02/13/23 15:34	02/14/23 12:05	1
1,4-Difluorobenzene (Surr)	104		70 - 130			02/13/23 15:34	02/14/23 12:05	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00638		0.00403	mg/Kg			02/14/23 16:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1070		49.8	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/14/23 14:05	02/16/23 20:55	1
Diesel Range Organics (Over C10-C28)	1070	F1	49.8	mg/Kg		02/14/23 14:05	02/16/23 20:55	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/14/23 14:05	02/16/23 20:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	84		70 - 130			02/14/23 14:05	02/16/23 20:55	1
o-Terphenyl (Surr)	87		70 - 130			02/14/23 14:05	02/16/23 20:55	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	125		5.02	mg/Kg			02/15/23 01:34	1

Client Sample ID: S1 0.5'-1'

Lab Sample ID: 880-24558-2

Date Collected: 02/09/23 11:15

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/13/23 15:34	02/14/23 12:25	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/13/23 15:34	02/14/23 12:25	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/13/23 15:34	02/14/23 12:25	1
m,p-Xylenes	<0.00396	U	0.00396	mg/Kg		02/13/23 15:34	02/14/23 12:25	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/13/23 15:34	02/14/23 12:25	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/13/23 15:34	02/14/23 12:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130			02/13/23 15:34	02/14/23 12:25	1
1,4-Difluorobenzene (Surr)	114		70 - 130			02/13/23 15:34	02/14/23 12:25	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S1 0.5'-1'

Lab Sample ID: 880-24558-2

Date Collected: 02/09/23 11:15

Matrix: Solid

Date Received: 02/10/23 08:37

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/14/23 16:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/16/23 22:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/16/23 22:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/16/23 22:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	73		70 - 130			02/14/23 14:05	02/16/23 22:01	1
o-Terphenyl (Surr)	77		70 - 130			02/14/23 14:05	02/16/23 22:01	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	245		5.02	mg/Kg			02/15/23 01:48	1

Client Sample ID: S2 0-0.5'

Lab Sample ID: 880-24558-3

Date Collected: 02/09/23 11:30

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 12:46	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 12:46	1
Ethylbenzene	0.00440		0.00200	mg/Kg		02/13/23 15:34	02/14/23 12:46	1
m,p-Xylenes	0.0184		0.00399	mg/Kg		02/13/23 15:34	02/14/23 12:46	1
o-Xylene	0.0140		0.00200	mg/Kg		02/13/23 15:34	02/14/23 12:46	1
Xylenes, Total	0.0324		0.00399	mg/Kg		02/13/23 15:34	02/14/23 12:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130			02/13/23 15:34	02/14/23 12:46	1
1,4-Difluorobenzene (Surr)	101		70 - 130			02/13/23 15:34	02/14/23 12:46	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0368		0.00399	mg/Kg			02/14/23 16:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	772		49.9	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	157		49.9	mg/Kg		02/14/23 14:05	02/16/23 22:23	1
Diesel Range Organics (Over C10-C28)	615		49.9	mg/Kg		02/14/23 14:05	02/16/23 22:23	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S2 0-0.5'

Lab Sample ID: 880-24558-3

Date Collected: 02/09/23 11:30

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/16/23 22:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	87		70 - 130			02/14/23 14:05	02/16/23 22:23	1
o-Terphenyl (Surr)	88		70 - 130			02/14/23 14:05	02/16/23 22:23	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	267		4.99	mg/Kg			02/15/23 01:53	1

Client Sample ID: S2 0.5'-1'

Lab Sample ID: 880-24558-4

Date Collected: 02/09/23 11:45

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/13/23 15:34	02/14/23 13:06	1
Toluene	0.00258		0.00201	mg/Kg		02/13/23 15:34	02/14/23 13:06	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/13/23 15:34	02/14/23 13:06	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		02/13/23 15:34	02/14/23 13:06	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/13/23 15:34	02/14/23 13:06	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/13/23 15:34	02/14/23 13:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130			02/13/23 15:34	02/14/23 13:06	1
1,4-Difluorobenzene (Surr)	109		70 - 130			02/13/23 15:34	02/14/23 13:06	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/14/23 16:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	112		49.8	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/14/23 14:05	02/16/23 22:45	1
Diesel Range Organics (Over C10-C28)	112		49.8	mg/Kg		02/14/23 14:05	02/16/23 22:45	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/14/23 14:05	02/16/23 22:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	86		70 - 130			02/14/23 14:05	02/16/23 22:45	1
o-Terphenyl (Surr)	89		70 - 130			02/14/23 14:05	02/16/23 22:45	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	609		5.05	mg/Kg			02/15/23 01:57	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S3 0-0.5'

Lab Sample ID: 880-24558-5

Date Collected: 02/09/23 12:00

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/13/23 15:34	02/14/23 13:27	1
Toluene	0.00787		0.00202	mg/Kg		02/13/23 15:34	02/14/23 13:27	1
Ethylbenzene	0.0577		0.00202	mg/Kg		02/13/23 15:34	02/14/23 13:27	1
m,p-Xylenes	0.532		0.00404	mg/Kg		02/13/23 15:34	02/14/23 13:27	1
o-Xylene	0.214		0.00202	mg/Kg		02/13/23 15:34	02/14/23 13:27	1
Xylenes, Total	0.746		0.00404	mg/Kg		02/13/23 15:34	02/14/23 13:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	172	S1+	70 - 130	02/13/23 15:34	02/14/23 13:27	1
1,4-Difluorobenzene (Surr)	91		70 - 130	02/13/23 15:34	02/14/23 13:27	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.812		0.00404	mg/Kg			02/14/23 16:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2500		49.8	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	650		49.8	mg/Kg		02/14/23 14:05	02/16/23 23:07	1
Diesel Range Organics (Over C10-C28)	1850		49.8	mg/Kg		02/14/23 14:05	02/16/23 23:07	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/14/23 14:05	02/16/23 23:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	84		70 - 130	02/14/23 14:05	02/16/23 23:07	1
o-Terphenyl (Surr)	76		70 - 130	02/14/23 14:05	02/16/23 23:07	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	101		5.04	mg/Kg			02/15/23 02:02	1

Client Sample ID: S3 0.5'-1'

Lab Sample ID: 880-24558-6

Date Collected: 02/09/23 12:15

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 13:47	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 13:47	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 13:47	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/13/23 15:34	02/14/23 13:47	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 13:47	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/13/23 15:34	02/14/23 13:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	02/13/23 15:34	02/14/23 13:47	1
1,4-Difluorobenzene (Surr)	109		70 - 130	02/13/23 15:34	02/14/23 13:47	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S3 0.5'-1'

Lab Sample ID: 880-24558-6

Date Collected: 02/09/23 12:15

Matrix: Solid

Date Received: 02/10/23 08:37

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/23 16:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	55.9		49.9	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/16/23 23:30	1
Diesel Range Organics (Over C10-C28)	55.9		49.9	mg/Kg		02/14/23 14:05	02/16/23 23:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/16/23 23:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	85		70 - 130			02/14/23 14:05	02/16/23 23:30	1
o-Terphenyl (Surr)	84		70 - 130			02/14/23 14:05	02/16/23 23:30	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3740		50.0	mg/Kg			02/15/23 02:16	10

Client Sample ID: S4 0-0.5'

Lab Sample ID: 880-24558-7

Date Collected: 02/09/23 12:30

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 14:07	1
Toluene	0.0169		0.00199	mg/Kg		02/13/23 15:34	02/14/23 14:07	1
Ethylbenzene	0.0338		0.00199	mg/Kg		02/13/23 15:34	02/14/23 14:07	1
m,p-Xylenes	0.312		0.00398	mg/Kg		02/13/23 15:34	02/14/23 14:07	1
o-Xylene	0.101		0.00199	mg/Kg		02/13/23 15:34	02/14/23 14:07	1
Xylenes, Total	0.413		0.00398	mg/Kg		02/13/23 15:34	02/14/23 14:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			02/13/23 15:34	02/14/23 14:07	1
1,4-Difluorobenzene (Surr)	68	S1-	70 - 130			02/13/23 15:34	02/14/23 14:07	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.464		0.00398	mg/Kg			02/14/23 16:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1140		50.0	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	242		50.0	mg/Kg		02/14/23 14:05	02/16/23 23:52	1
Diesel Range Organics (Over C10-C28)	895		50.0	mg/Kg		02/14/23 14:05	02/16/23 23:52	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S4 0-0.5'

Lab Sample ID: 880-24558-7

Date Collected: 02/09/23 12:30

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/16/23 23:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	85		70 - 130			02/14/23 14:05	02/16/23 23:52	1
o-Terphenyl (Surr)	87		70 - 130			02/14/23 14:05	02/16/23 23:52	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.9		5.00	mg/Kg			02/15/23 02:20	1

Client Sample ID: S4 0.5'-1'

Lab Sample ID: 880-24558-8

Date Collected: 02/09/23 12:45

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 14:28	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 14:28	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 14:28	1
m,p-Xylenes	0.00587		0.00399	mg/Kg		02/13/23 15:34	02/14/23 14:28	1
o-Xylene	0.00475		0.00200	mg/Kg		02/13/23 15:34	02/14/23 14:28	1
Xylenes, Total	0.0106		0.00399	mg/Kg		02/13/23 15:34	02/14/23 14:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130			02/13/23 15:34	02/14/23 14:28	1
1,4-Difluorobenzene (Surr)	110		70 - 130			02/13/23 15:34	02/14/23 14:28	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0106		0.00399	mg/Kg			02/14/23 16:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/17/23 00:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/17/23 00:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/17/23 00:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	69	S1-	70 - 130			02/14/23 14:05	02/17/23 00:15	1
o-Terphenyl (Surr)	74		70 - 130			02/14/23 14:05	02/17/23 00:15	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	228		5.03	mg/Kg			02/15/23 02:25	1

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S5 0-0.5'

Lab Sample ID: 880-24558-9

Date Collected: 02/09/23 13:00

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/13/23 15:34	02/14/23 14:48	1
Toluene	0.0159		0.00201	mg/Kg		02/13/23 15:34	02/14/23 14:48	1
Ethylbenzene	0.0387		0.00201	mg/Kg		02/13/23 15:34	02/14/23 14:48	1
m,p-Xylenes	0.417		0.00402	mg/Kg		02/13/23 15:34	02/14/23 14:48	1
o-Xylene	0.164		0.00201	mg/Kg		02/13/23 15:34	02/14/23 14:48	1
Xylenes, Total	0.581		0.00402	mg/Kg		02/13/23 15:34	02/14/23 14:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130	02/13/23 15:34	02/14/23 14:48	1
1,4-Difluorobenzene (Surr)	63	S1-	70 - 130	02/13/23 15:34	02/14/23 14:48	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.636		0.00402	mg/Kg			02/14/23 16:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	969		49.9	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	248		49.9	mg/Kg		02/14/23 14:05	02/17/23 00:37	1
Diesel Range Organics (Over C10-C28)	721		49.9	mg/Kg		02/14/23 14:05	02/17/23 00:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/17/23 00:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	86		70 - 130	02/14/23 14:05	02/17/23 00:37	1
o-Terphenyl (Surr)	84		70 - 130	02/14/23 14:05	02/17/23 00:37	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	91.1		5.02	mg/Kg			02/15/23 02:30	1

Client Sample ID: S5 0.5'-1'

Lab Sample ID: 880-24558-10

Date Collected: 02/09/23 13:15

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 15:09	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 15:09	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 15:09	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/13/23 15:34	02/14/23 15:09	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 15:09	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/13/23 15:34	02/14/23 15:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130	02/13/23 15:34	02/14/23 15:09	1
1,4-Difluorobenzene (Surr)	104		70 - 130	02/13/23 15:34	02/14/23 15:09	1

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S5 0.5'-1'

Lab Sample ID: 880-24558-10

Date Collected: 02/09/23 13:15

Matrix: Solid

Date Received: 02/10/23 08:37

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/23 16:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/14/23 14:05	02/17/23 01:00	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		02/14/23 14:05	02/17/23 01:00	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/14/23 14:05	02/17/23 01:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	89		70 - 130			02/14/23 14:05	02/17/23 01:00	1
o-Terphenyl (Surr)	89		70 - 130			02/14/23 14:05	02/17/23 01:00	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	204		4.98	mg/Kg			02/15/23 02:34	1

Client Sample ID: S6 0-0.5'

Lab Sample ID: 880-24558-11

Date Collected: 02/09/23 13:30

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/13/23 15:34	02/14/23 16:59	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/13/23 15:34	02/14/23 16:59	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/13/23 15:34	02/14/23 16:59	1
m,p-Xylenes	<0.00396	U	0.00396	mg/Kg		02/13/23 15:34	02/14/23 16:59	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/13/23 15:34	02/14/23 16:59	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/13/23 15:34	02/14/23 16:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130			02/13/23 15:34	02/14/23 16:59	1
1,4-Difluorobenzene (Surr)	106		70 - 130			02/13/23 15:34	02/14/23 16:59	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/15/23 10:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/17/23 01:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/17/23 01:45	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S6 0-0.5'

Lab Sample ID: 880-24558-11

Date Collected: 02/09/23 13:30

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/17/23 01:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	86		70 - 130			02/14/23 14:05	02/17/23 01:45	1
o-Terphenyl (Surr)	85		70 - 130			02/14/23 14:05	02/17/23 01:45	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.78		4.96	mg/Kg			02/15/23 02:39	1

Client Sample ID: S6 0.5'-1'

Lab Sample ID: 880-24558-12

Date Collected: 02/09/23 13:45

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 17:19	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 17:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 17:19	1
m,p-Xylenes	<0.00401	U	0.00401	mg/Kg		02/13/23 15:34	02/14/23 17:19	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 17:19	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/13/23 15:34	02/14/23 17:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130			02/13/23 15:34	02/14/23 17:19	1
1,4-Difluorobenzene (Surr)	113		70 - 130			02/13/23 15:34	02/14/23 17:19	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/15/23 10:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/17/23 02:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/17/23 02:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/17/23 02:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	90		70 - 130			02/14/23 14:05	02/17/23 02:07	1
o-Terphenyl (Surr)	91		70 - 130			02/14/23 14:05	02/17/23 02:07	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.5		4.96	mg/Kg			02/15/23 02:53	1

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S7 0-0.5'

Lab Sample ID: 880-24558-13

Date Collected: 02/09/23 14:00

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 17:39	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 17:39	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 17:39	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/13/23 15:34	02/14/23 17:39	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 17:39	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/13/23 15:34	02/14/23 17:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	02/13/23 15:34	02/14/23 17:39	1
1,4-Difluorobenzene (Surr)	110		70 - 130	02/13/23 15:34	02/14/23 17:39	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/15/23 10:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/17/23 02:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/17/23 02:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/17/23 02:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	77		70 - 130	02/14/23 14:05	02/17/23 02:30	1
o-Terphenyl (Surr)	76		70 - 130	02/14/23 14:05	02/17/23 02:30	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.2		4.97	mg/Kg			02/15/23 02:58	1

Client Sample ID: S7 0.5'-1'

Lab Sample ID: 880-24558-14

Date Collected: 02/09/23 14:15

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 18:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 18:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 18:00	1
m,p-Xylenes	<0.00399	U	0.00399	mg/Kg		02/13/23 15:34	02/14/23 18:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 18:00	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/13/23 15:34	02/14/23 18:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	02/13/23 15:34	02/14/23 18:00	1
1,4-Difluorobenzene (Surr)	109		70 - 130	02/13/23 15:34	02/14/23 18:00	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S7 0.5'-1'

Lab Sample ID: 880-24558-14

Date Collected: 02/09/23 14:15

Matrix: Solid

Date Received: 02/10/23 08:37

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/15/23 10:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/17/23 02:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/17/23 02:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/14/23 14:05	02/17/23 02:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	80		70 - 130			02/14/23 14:05	02/17/23 02:52	1
o-Terphenyl (Surr)	82		70 - 130			02/14/23 14:05	02/17/23 02:52	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	226		5.03	mg/Kg			02/15/23 03:12	1

Client Sample ID: S8 0-0.5'

Lab Sample ID: 880-24558-15

Date Collected: 02/09/23 00:00

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/13/23 15:34	02/14/23 18:20	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/13/23 15:34	02/14/23 18:20	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/13/23 15:34	02/14/23 18:20	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		02/13/23 15:34	02/14/23 18:20	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/13/23 15:34	02/14/23 18:20	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/13/23 15:34	02/14/23 18:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130			02/13/23 15:34	02/14/23 18:20	1
1,4-Difluorobenzene (Surr)	112		70 - 130			02/13/23 15:34	02/14/23 18:20	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/15/23 10:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/17/23 03:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/17/23 03:15	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S8 0-0.5'

Lab Sample ID: 880-24558-15

Date Collected: 02/09/23 00:00

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/17/23 03:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	67	S1-	70 - 130			02/14/23 14:05	02/17/23 03:15	1
o-Terphenyl (Surr)	72		70 - 130			02/14/23 14:05	02/17/23 03:15	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	131		5.00	mg/Kg			02/15/23 03:16	1

Client Sample ID: S8 0.5'-1'

Lab Sample ID: 880-24558-16

Date Collected: 02/09/23 00:00

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 18:41	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 18:41	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 18:41	1
m,p-Xylenes	<0.00401	U	0.00401	mg/Kg		02/13/23 15:34	02/14/23 18:41	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 18:41	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/13/23 15:34	02/14/23 18:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130			02/13/23 15:34	02/14/23 18:41	1
1,4-Difluorobenzene (Surr)	110		70 - 130			02/13/23 15:34	02/14/23 18:41	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/15/23 10:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/14/23 14:05	02/17/23 03:37	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		02/14/23 14:05	02/17/23 03:37	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/14/23 14:05	02/17/23 03:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	71		70 - 130			02/14/23 14:05	02/17/23 03:37	1
o-Terphenyl (Surr)	76		70 - 130			02/14/23 14:05	02/17/23 03:37	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.0		4.98	mg/Kg			02/15/23 03:21	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S9 0-0.5'

Lab Sample ID: 880-24558-17

Date Collected: 02/09/23 00:00

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 19:01	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 19:01	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 19:01	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/13/23 15:34	02/14/23 19:01	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 19:01	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/13/23 15:34	02/14/23 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130	02/13/23 15:34	02/14/23 19:01	1
1,4-Difluorobenzene (Surr)	110		70 - 130	02/13/23 15:34	02/14/23 19:01	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/15/23 10:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/19/23 11:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/17/23 04:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/17/23 04:00	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/17/23 04:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	80		70 - 130	02/14/23 14:05	02/17/23 04:00	1
o-Terphenyl (Surr)	80		70 - 130	02/14/23 14:05	02/17/23 04:00	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	118		4.97	mg/Kg			02/15/23 03:26	1

Client Sample ID: S9 0.5'-1'

Lab Sample ID: 880-24558-18

Date Collected: 02/09/23 00:00

Matrix: Solid

Date Received: 02/10/23 08:37

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 19:22	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 19:22	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 19:22	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/13/23 15:34	02/14/23 19:22	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/13/23 15:34	02/14/23 19:22	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/13/23 15:34	02/14/23 19:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130	02/13/23 15:34	02/14/23 19:22	1
1,4-Difluorobenzene (Surr)	113		70 - 130	02/13/23 15:34	02/14/23 19:22	1

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S9 0.5'-1'

Lab Sample ID: 880-24558-18

Date Collected: 02/09/23 00:00

Matrix: Solid

Date Received: 02/10/23 08:37

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/15/23 10:05	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.9	U	49.9	mg/Kg			02/19/23 11:53	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/17/23 04:21	1	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/17/23 04:21	1	
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/14/23 14:05	02/17/23 04:21	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane (Surr)	82		70 - 130			02/14/23 14:05	02/17/23 04:21	1	
o-Terphenyl (Surr)	83		70 - 130			02/14/23 14:05	02/17/23 04:21	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	191		5.02	mg/Kg			02/15/23 03:30	1	

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Method: 8021B - Volatile Organic Compounds (GC)
Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-24558-1	S1 0-0.5'	112	104
880-24558-1 MS	S1 0-0.5'	102	101
880-24558-1 MSD	S1 0-0.5'	108	106
880-24558-2	S1 0.5'-1'	132 S1+	114
880-24558-3	S2 0-0.5'	126	101
880-24558-4	S2 0.5'-1'	117	109
880-24558-5	S3 0-0.5'	172 S1+	91
880-24558-6	S3 0.5'-1'	120	109
880-24558-7	S4 0-0.5'	93	68 S1-
880-24558-8	S4 0.5'-1'	132 S1+	110
880-24558-9	S5 0-0.5'	86	63 S1-
880-24558-10	S5 0.5'-1'	129	104
880-24558-11	S6 0-0.5'	121	106
880-24558-12	S6 0.5'-1'	127	113
880-24558-13	S7 0-0.5'	124	110
880-24558-14	S7 0.5'-1'	123	109
880-24558-15	S8 0-0.5'	127	112
880-24558-16	S8 0.5'-1'	128	110
880-24558-17	S9 0-0.5'	126	110
880-24558-18	S9 0.5'-1'	132 S1+	113
LCS 880-46191/1-A	Lab Control Sample	113	108
LCSD 880-46191/2-A	Lab Control Sample Dup	111	111
MB 880-46191/5-A	Method Blank	113	103
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)
Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-24558-1	S1 0-0.5'	84	87
880-24558-1 MS	S1 0-0.5'	74	77
880-24558-1 MSD	S1 0-0.5'	76	75
880-24558-2	S1 0.5'-1'	73	77
880-24558-3	S2 0-0.5'	87	88
880-24558-4	S2 0.5'-1'	86	89
880-24558-5	S3 0-0.5'	84	76
880-24558-6	S3 0.5'-1'	85	84
880-24558-7	S4 0-0.5'	85	87
880-24558-8	S4 0.5'-1'	69 S1-	74
880-24558-9	S5 0-0.5'	86	84
880-24558-10	S5 0.5'-1'	89	89
880-24558-11	S6 0-0.5'	86	85
880-24558-12	S6 0.5'-1'	90	91
880-24558-13	S7 0-0.5'	77	76
880-24558-14	S7 0.5'-1'	80	82

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-24558-15	S8 0-0.5'	67 S1-	72
880-24558-16	S8 0.5'-1'	71	76
880-24558-17	S9 0-0.5'	80	80
880-24558-18	S9 0.5'-1'	82	83
LCS 880-46322/2-A	Lab Control Sample	110	113
LCSD 880-46322/3-A	Lab Control Sample Dup	95	101
MB 880-46322/1-A	Method Blank	95	101
Surrogate Legend			
1CO = 1-Chlorooctane (Surr)			
OTPH = o-Terphenyl (Surr)			

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46191/5-A

Matrix: Solid

Analysis Batch: 46261

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46191

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 11:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 11:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 11:36	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/13/23 15:34	02/14/23 11:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/13/23 15:34	02/14/23 11:36	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/13/23 15:34	02/14/23 11:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	02/13/23 15:34	02/14/23 11:36	1
1,4-Difluorobenzene (Surr)	103		70 - 130	02/13/23 15:34	02/14/23 11:36	1

Lab Sample ID: LCS 880-46191/1-A

Matrix: Solid

Analysis Batch: 46261

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1138		mg/Kg		114	70 - 130
Toluene	0.100	0.1068		mg/Kg		107	70 - 130
Ethylbenzene	0.100	0.1052		mg/Kg		105	70 - 130
m,p-Xylenes	0.200	0.2212		mg/Kg		111	70 - 130
o-Xylene	0.100	0.1068		mg/Kg		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-46191/2-A

Matrix: Solid

Analysis Batch: 46261

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1088		mg/Kg		109	70 - 130	4	35
Toluene	0.100	0.1019		mg/Kg		102	70 - 130	5	35
Ethylbenzene	0.100	0.1005		mg/Kg		100	70 - 130	5	35
m,p-Xylenes	0.200	0.2134		mg/Kg		107	70 - 130	4	35
o-Xylene	0.100	0.1035		mg/Kg		103	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: 880-24558-1 MS

Matrix: Solid

Analysis Batch: 46261

Client Sample ID: S1 0-0.5'

Prep Type: Total/NA

Prep Batch: 46191

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.0996	0.09360		mg/Kg		94	70 - 130
Toluene	<0.00202	U	0.0996	0.07794		mg/Kg		78	70 - 130

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QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-24558-1 MS
Matrix: Solid
Analysis Batch: 46261

Client Sample ID: S1 0-0.5'
Prep Type: Total/NA
Prep Batch: 46191

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	0.00430	F1	0.0996	0.06526	F1	mg/Kg		61	70 - 130
m,p-Xylenes	<0.00403	U F1	0.199	0.1334	F1	mg/Kg		65	70 - 130
o-Xylene	0.00208	F1	0.0996	0.05882	F1	mg/Kg		57	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	102		70 - 130						
1,4-Difluorobenzene (Surr)	101		70 - 130						

Lab Sample ID: 880-24558-1 MSD
Matrix: Solid
Analysis Batch: 46261

Client Sample ID: S1 0-0.5'
Prep Type: Total/NA
Prep Batch: 46191

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0990	0.1036		mg/Kg		105	70 - 130	10	35
Toluene	<0.00202	U	0.0990	0.08890		mg/Kg		90	70 - 130	13	35
Ethylbenzene	0.00430	F1	0.0990	0.07772		mg/Kg		74	70 - 130	17	35
m,p-Xylenes	<0.00403	U F1	0.198	0.1586		mg/Kg		78	70 - 130	17	35
o-Xylene	0.00208	F1	0.0990	0.07163		mg/Kg		70	70 - 130	20	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	108		70 - 130								
1,4-Difluorobenzene (Surr)	106		70 - 130								

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-46322/1-A
Matrix: Solid
Analysis Batch: 46477

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46322

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/14/23 14:00	02/16/23 19:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/14/23 14:00	02/16/23 19:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/14/23 14:00	02/16/23 19:48	1
Surrogate	MB %Recovery	MB Qualifier	Limits					
1-Chlorooctane (Surr)	95		70 - 130					
o-Terphenyl (Surr)	101		70 - 130					

Lab Sample ID: LCS 880-46322/2-A
Matrix: Solid
Analysis Batch: 46477

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46322

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1122		mg/Kg		112	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1106		mg/Kg		111	70 - 130

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-46322/2-A

Matrix: Solid

Analysis Batch: 46477

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46322

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane (Surr)	110		70 - 130
o-Terphenyl (Surr)	113		70 - 130

Lab Sample ID: LCSD 880-46322/3-A

Matrix: Solid

Analysis Batch: 46477

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46322

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	978.9		mg/Kg		98	70 - 130	14	20
Diesel Range Organics (Over C10-C28)	1000	985.2		mg/Kg		99	70 - 130	12	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane (Surr)	95		70 - 130
o-Terphenyl (Surr)	101		70 - 130

Lab Sample ID: 880-24558-1 MS

Matrix: Solid

Analysis Batch: 46477

Client Sample ID: S1 0-0.5'

Prep Type: Total/NA

Prep Batch: 46322

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1000	859.2		mg/Kg		83	70 - 130		
Diesel Range Organics (Over C10-C28)	1070	F1	1000	1169	F1	mg/Kg		10	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane (Surr)	74		70 - 130
o-Terphenyl (Surr)	77		70 - 130

Lab Sample ID: 880-24558-1 MSD

Matrix: Solid

Analysis Batch: 46477

Client Sample ID: S1 0-0.5'

Prep Type: Total/NA

Prep Batch: 46322

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1000	922.2		mg/Kg		89	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	1070	F1	1000	1202	F1	mg/Kg		13	70 - 130	3	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane (Surr)	76		70 - 130
o-Terphenyl (Surr)	75		70 - 130

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46279/1-A

Matrix: Solid

Analysis Batch: 46341

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/15/23 01:20	1

Lab Sample ID: LCS 880-46279/2-A

Matrix: Solid

Analysis Batch: 46341

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	251.6		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-46279/3-A

Matrix: Solid

Analysis Batch: 46341

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	239.1		mg/Kg		96	90 - 110	5	20

Lab Sample ID: 880-24558-1 MS

Matrix: Solid

Analysis Batch: 46341

Client Sample ID: S1 0-0.5'

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	125		251	383.6		mg/Kg		103	90 - 110

Lab Sample ID: 880-24558-1 MSD

Matrix: Solid

Analysis Batch: 46341

Client Sample ID: S1 0-0.5'

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	125		251	382.5		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 880-24558-11 MS

Matrix: Solid

Analysis Batch: 46341

Client Sample ID: S6 0-0.5'

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	9.78		248	255.1		mg/Kg		99	90 - 110

Lab Sample ID: 880-24558-11 MSD

Matrix: Solid

Analysis Batch: 46341

Client Sample ID: S6 0-0.5'

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	9.78		248	241.3		mg/Kg		93	90 - 110	6	20

Eurofins Midland

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

GC VOA

Prep Batch: 46191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24558-1	S1 0-0.5'	Total/NA	Solid	5035	
880-24558-2	S1 0.5'-1'	Total/NA	Solid	5035	
880-24558-3	S2 0-0.5'	Total/NA	Solid	5035	
880-24558-4	S2 0.5'-1'	Total/NA	Solid	5035	
880-24558-5	S3 0-0.5'	Total/NA	Solid	5035	
880-24558-6	S3 0.5'-1'	Total/NA	Solid	5035	
880-24558-7	S4 0-0.5'	Total/NA	Solid	5035	
880-24558-8	S4 0.5'-1'	Total/NA	Solid	5035	
880-24558-9	S5 0-0.5'	Total/NA	Solid	5035	
880-24558-10	S5 0.5'-1'	Total/NA	Solid	5035	
880-24558-11	S6 0-0.5'	Total/NA	Solid	5035	
880-24558-12	S6 0.5'-1'	Total/NA	Solid	5035	
880-24558-13	S7 0-0.5'	Total/NA	Solid	5035	
880-24558-14	S7 0.5'-1'	Total/NA	Solid	5035	
880-24558-15	S8 0-0.5'	Total/NA	Solid	5035	
880-24558-16	S8 0.5'-1'	Total/NA	Solid	5035	
880-24558-17	S9 0-0.5'	Total/NA	Solid	5035	
880-24558-18	S9 0.5'-1'	Total/NA	Solid	5035	
MB 880-46191/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46191/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46191/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24558-1 MS	S1 0-0.5'	Total/NA	Solid	5035	
880-24558-1 MSD	S1 0-0.5'	Total/NA	Solid	5035	

Analysis Batch: 46261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24558-1	S1 0-0.5'	Total/NA	Solid	8021B	46191
880-24558-2	S1 0.5'-1'	Total/NA	Solid	8021B	46191
880-24558-3	S2 0-0.5'	Total/NA	Solid	8021B	46191
880-24558-4	S2 0.5'-1'	Total/NA	Solid	8021B	46191
880-24558-5	S3 0-0.5'	Total/NA	Solid	8021B	46191
880-24558-6	S3 0.5'-1'	Total/NA	Solid	8021B	46191
880-24558-7	S4 0-0.5'	Total/NA	Solid	8021B	46191
880-24558-8	S4 0.5'-1'	Total/NA	Solid	8021B	46191
880-24558-9	S5 0-0.5'	Total/NA	Solid	8021B	46191
880-24558-10	S5 0.5'-1'	Total/NA	Solid	8021B	46191
880-24558-11	S6 0-0.5'	Total/NA	Solid	8021B	46191
880-24558-12	S6 0.5'-1'	Total/NA	Solid	8021B	46191
880-24558-13	S7 0-0.5'	Total/NA	Solid	8021B	46191
880-24558-14	S7 0.5'-1'	Total/NA	Solid	8021B	46191
880-24558-15	S8 0-0.5'	Total/NA	Solid	8021B	46191
880-24558-16	S8 0.5'-1'	Total/NA	Solid	8021B	46191
880-24558-17	S9 0-0.5'	Total/NA	Solid	8021B	46191
880-24558-18	S9 0.5'-1'	Total/NA	Solid	8021B	46191
MB 880-46191/5-A	Method Blank	Total/NA	Solid	8021B	46191
LCS 880-46191/1-A	Lab Control Sample	Total/NA	Solid	8021B	46191
LCSD 880-46191/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46191
880-24558-1 MS	S1 0-0.5'	Total/NA	Solid	8021B	46191
880-24558-1 MSD	S1 0-0.5'	Total/NA	Solid	8021B	46191

Eurofins Midland

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

GC VOA

Analysis Batch: 46335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24558-1	S1 0-0.5'	Total/NA	Solid	Total BTEX	
880-24558-2	S1 0.5'-1'	Total/NA	Solid	Total BTEX	
880-24558-3	S2 0-0.5'	Total/NA	Solid	Total BTEX	
880-24558-4	S2 0.5'-1'	Total/NA	Solid	Total BTEX	
880-24558-5	S3 0-0.5'	Total/NA	Solid	Total BTEX	
880-24558-6	S3 0.5'-1'	Total/NA	Solid	Total BTEX	
880-24558-7	S4 0-0.5'	Total/NA	Solid	Total BTEX	
880-24558-8	S4 0.5'-1'	Total/NA	Solid	Total BTEX	
880-24558-9	S5 0-0.5'	Total/NA	Solid	Total BTEX	
880-24558-10	S5 0.5'-1'	Total/NA	Solid	Total BTEX	
880-24558-11	S6 0-0.5'	Total/NA	Solid	Total BTEX	
880-24558-12	S6 0.5'-1'	Total/NA	Solid	Total BTEX	
880-24558-13	S7 0-0.5'	Total/NA	Solid	Total BTEX	
880-24558-14	S7 0.5'-1'	Total/NA	Solid	Total BTEX	
880-24558-15	S8 0-0.5'	Total/NA	Solid	Total BTEX	
880-24558-16	S8 0.5'-1'	Total/NA	Solid	Total BTEX	
880-24558-17	S9 0-0.5'	Total/NA	Solid	Total BTEX	
880-24558-18	S9 0.5'-1'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 46322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24558-1	S1 0-0.5'	Total/NA	Solid	8015NM Prep	
880-24558-2	S1 0.5'-1'	Total/NA	Solid	8015NM Prep	
880-24558-3	S2 0-0.5'	Total/NA	Solid	8015NM Prep	
880-24558-4	S2 0.5'-1'	Total/NA	Solid	8015NM Prep	
880-24558-5	S3 0-0.5'	Total/NA	Solid	8015NM Prep	
880-24558-6	S3 0.5'-1'	Total/NA	Solid	8015NM Prep	
880-24558-7	S4 0-0.5'	Total/NA	Solid	8015NM Prep	
880-24558-8	S4 0.5'-1'	Total/NA	Solid	8015NM Prep	
880-24558-9	S5 0-0.5'	Total/NA	Solid	8015NM Prep	
880-24558-10	S5 0.5'-1'	Total/NA	Solid	8015NM Prep	
880-24558-11	S6 0-0.5'	Total/NA	Solid	8015NM Prep	
880-24558-12	S6 0.5'-1'	Total/NA	Solid	8015NM Prep	
880-24558-13	S7 0-0.5'	Total/NA	Solid	8015NM Prep	
880-24558-14	S7 0.5'-1'	Total/NA	Solid	8015NM Prep	
880-24558-15	S8 0-0.5'	Total/NA	Solid	8015NM Prep	
880-24558-16	S8 0.5'-1'	Total/NA	Solid	8015NM Prep	
880-24558-17	S9 0-0.5'	Total/NA	Solid	8015NM Prep	
880-24558-18	S9 0.5'-1'	Total/NA	Solid	8015NM Prep	
MB 880-46322/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46322/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46322/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24558-1 MS	S1 0-0.5'	Total/NA	Solid	8015NM Prep	
880-24558-1 MSD	S1 0-0.5'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24558-1	S1 0-0.5'	Total/NA	Solid	8015B NM	46322
880-24558-2	S1 0.5'-1'	Total/NA	Solid	8015B NM	46322

Eurofins Midland

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

GC Semi VOA (Continued)

Analysis Batch: 46477 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24558-3	S2 0-0.5'	Total/NA	Solid	8015B NM	46322
880-24558-4	S2 0.5'-1'	Total/NA	Solid	8015B NM	46322
880-24558-5	S3 0-0.5'	Total/NA	Solid	8015B NM	46322
880-24558-6	S3 0.5'-1'	Total/NA	Solid	8015B NM	46322
880-24558-7	S4 0-0.5'	Total/NA	Solid	8015B NM	46322
880-24558-8	S4 0.5'-1'	Total/NA	Solid	8015B NM	46322
880-24558-9	S5 0-0.5'	Total/NA	Solid	8015B NM	46322
880-24558-10	S5 0.5'-1'	Total/NA	Solid	8015B NM	46322
880-24558-11	S6 0-0.5'	Total/NA	Solid	8015B NM	46322
880-24558-12	S6 0.5'-1'	Total/NA	Solid	8015B NM	46322
880-24558-13	S7 0-0.5'	Total/NA	Solid	8015B NM	46322
880-24558-14	S7 0.5'-1'	Total/NA	Solid	8015B NM	46322
880-24558-15	S8 0-0.5'	Total/NA	Solid	8015B NM	46322
880-24558-16	S8 0.5'-1'	Total/NA	Solid	8015B NM	46322
880-24558-17	S9 0-0.5'	Total/NA	Solid	8015B NM	46322
880-24558-18	S9 0.5'-1'	Total/NA	Solid	8015B NM	46322
MB 880-46322/1-A	Method Blank	Total/NA	Solid	8015B NM	46322
LCS 880-46322/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46322
LCSD 880-46322/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46322
880-24558-1 MS	S1 0-0.5'	Total/NA	Solid	8015B NM	46322
880-24558-1 MSD	S1 0-0.5'	Total/NA	Solid	8015B NM	46322

Analysis Batch: 46661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24558-1	S1 0-0.5'	Total/NA	Solid	8015 NM	
880-24558-2	S1 0.5'-1'	Total/NA	Solid	8015 NM	
880-24558-3	S2 0-0.5'	Total/NA	Solid	8015 NM	
880-24558-4	S2 0.5'-1'	Total/NA	Solid	8015 NM	
880-24558-5	S3 0-0.5'	Total/NA	Solid	8015 NM	
880-24558-6	S3 0.5'-1'	Total/NA	Solid	8015 NM	
880-24558-7	S4 0-0.5'	Total/NA	Solid	8015 NM	
880-24558-8	S4 0.5'-1'	Total/NA	Solid	8015 NM	
880-24558-9	S5 0-0.5'	Total/NA	Solid	8015 NM	
880-24558-10	S5 0.5'-1'	Total/NA	Solid	8015 NM	
880-24558-11	S6 0-0.5'	Total/NA	Solid	8015 NM	
880-24558-12	S6 0.5'-1'	Total/NA	Solid	8015 NM	
880-24558-13	S7 0-0.5'	Total/NA	Solid	8015 NM	
880-24558-14	S7 0.5'-1'	Total/NA	Solid	8015 NM	
880-24558-15	S8 0-0.5'	Total/NA	Solid	8015 NM	
880-24558-16	S8 0.5'-1'	Total/NA	Solid	8015 NM	
880-24558-17	S9 0-0.5'	Total/NA	Solid	8015 NM	
880-24558-18	S9 0.5'-1'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 46279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24558-1	S1 0-0.5'	Soluble	Solid	DI Leach	
880-24558-2	S1 0.5'-1'	Soluble	Solid	DI Leach	
880-24558-3	S2 0-0.5'	Soluble	Solid	DI Leach	
880-24558-4	S2 0.5'-1'	Soluble	Solid	DI Leach	

Eurofins Midland

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

HPLC/IC (Continued)

Leach Batch: 46279 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24558-5	S3 0-0.5'	Soluble	Solid	DI Leach	
880-24558-6	S3 0.5'-1'	Soluble	Solid	DI Leach	
880-24558-7	S4 0-0.5'	Soluble	Solid	DI Leach	
880-24558-8	S4 0.5'-1'	Soluble	Solid	DI Leach	
880-24558-9	S5 0-0.5'	Soluble	Solid	DI Leach	
880-24558-10	S5 0.5'-1'	Soluble	Solid	DI Leach	
880-24558-11	S6 0-0.5'	Soluble	Solid	DI Leach	
880-24558-12	S6 0.5'-1'	Soluble	Solid	DI Leach	
880-24558-13	S7 0-0.5'	Soluble	Solid	DI Leach	
880-24558-14	S7 0.5'-1'	Soluble	Solid	DI Leach	
880-24558-15	S8 0-0.5'	Soluble	Solid	DI Leach	
880-24558-16	S8 0.5'-1'	Soluble	Solid	DI Leach	
880-24558-17	S9 0-0.5'	Soluble	Solid	DI Leach	
880-24558-18	S9 0.5'-1'	Soluble	Solid	DI Leach	
MB 880-46279/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46279/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46279/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-24558-1 MS	S1 0-0.5'	Soluble	Solid	DI Leach	
880-24558-1 MSD	S1 0-0.5'	Soluble	Solid	DI Leach	
880-24558-11 MS	S6 0-0.5'	Soluble	Solid	DI Leach	
880-24558-11 MSD	S6 0-0.5'	Soluble	Solid	DI Leach	

Analysis Batch: 46341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24558-1	S1 0-0.5'	Soluble	Solid	300.0	46279
880-24558-2	S1 0.5'-1'	Soluble	Solid	300.0	46279
880-24558-3	S2 0-0.5'	Soluble	Solid	300.0	46279
880-24558-4	S2 0.5'-1'	Soluble	Solid	300.0	46279
880-24558-5	S3 0-0.5'	Soluble	Solid	300.0	46279
880-24558-6	S3 0.5'-1'	Soluble	Solid	300.0	46279
880-24558-7	S4 0-0.5'	Soluble	Solid	300.0	46279
880-24558-8	S4 0.5'-1'	Soluble	Solid	300.0	46279
880-24558-9	S5 0-0.5'	Soluble	Solid	300.0	46279
880-24558-10	S5 0.5'-1'	Soluble	Solid	300.0	46279
880-24558-11	S6 0-0.5'	Soluble	Solid	300.0	46279
880-24558-12	S6 0.5'-1'	Soluble	Solid	300.0	46279
880-24558-13	S7 0-0.5'	Soluble	Solid	300.0	46279
880-24558-14	S7 0.5'-1'	Soluble	Solid	300.0	46279
880-24558-15	S8 0-0.5'	Soluble	Solid	300.0	46279
880-24558-16	S8 0.5'-1'	Soluble	Solid	300.0	46279
880-24558-17	S9 0-0.5'	Soluble	Solid	300.0	46279
880-24558-18	S9 0.5'-1'	Soluble	Solid	300.0	46279
MB 880-46279/1-A	Method Blank	Soluble	Solid	300.0	46279
LCS 880-46279/2-A	Lab Control Sample	Soluble	Solid	300.0	46279
LCSD 880-46279/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46279
880-24558-1 MS	S1 0-0.5'	Soluble	Solid	300.0	46279
880-24558-1 MSD	S1 0-0.5'	Soluble	Solid	300.0	46279
880-24558-11 MS	S6 0-0.5'	Soluble	Solid	300.0	46279
880-24558-11 MSD	S6 0-0.5'	Soluble	Solid	300.0	46279

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S1 0-0.5'

Lab Sample ID: 880-24558-1

Date Collected: 02/09/23 11:00

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 12:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/14/23 16:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/16/23 20:55	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 01:34	CH	EET MID

Client Sample ID: S1 0.5'-1'

Lab Sample ID: 880-24558-2

Date Collected: 02/09/23 11:15

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 12:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/14/23 16:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/16/23 22:01	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 01:48	CH	EET MID

Client Sample ID: S2 0-0.5'

Lab Sample ID: 880-24558-3

Date Collected: 02/09/23 11:30

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 12:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/14/23 16:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/16/23 22:23	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 01:53	CH	EET MID

Client Sample ID: S2 0.5'-1'

Lab Sample ID: 880-24558-4

Date Collected: 02/09/23 11:45

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 13:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/14/23 16:05	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S2 0.5'-1'

Lab Sample ID: 880-24558-4

Date Collected: 02/09/23 11:45

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/16/23 22:45	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 01:57	CH	EET MID

Client Sample ID: S3 0-0.5'

Lab Sample ID: 880-24558-5

Date Collected: 02/09/23 12:00

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 13:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/14/23 16:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/16/23 23:07	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 02:02	CH	EET MID

Client Sample ID: S3 0.5'-1'

Lab Sample ID: 880-24558-6

Date Collected: 02/09/23 12:15

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 13:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/14/23 16:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/16/23 23:30	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		10			46341	02/15/23 02:16	CH	EET MID

Client Sample ID: S4 0-0.5'

Lab Sample ID: 880-24558-7

Date Collected: 02/09/23 12:30

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 14:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/14/23 16:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/16/23 23:52	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S4 0-0.5'

Lab Sample ID: 880-24558-7

Date Collected: 02/09/23 12:30

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 02:20	CH	EET MID

Client Sample ID: S4 0.5'-1'

Lab Sample ID: 880-24558-8

Date Collected: 02/09/23 12:45

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 14:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/14/23 16:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/17/23 00:15	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 02:25	CH	EET MID

Client Sample ID: S5 0-0.5'

Lab Sample ID: 880-24558-9

Date Collected: 02/09/23 13:00

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 14:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/14/23 16:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/17/23 00:37	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 02:30	CH	EET MID

Client Sample ID: S5 0.5'-1'

Lab Sample ID: 880-24558-10

Date Collected: 02/09/23 13:15

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 15:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/14/23 16:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/17/23 01:00	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 02:34	CH	EET MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S6 0-0.5'

Date Collected: 02/09/23 13:30

Date Received: 02/10/23 08:37

Lab Sample ID: 880-24558-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 16:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/15/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/17/23 01:45	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 02:39	CH	EET MID

Client Sample ID: S6 0.5'-1'

Date Collected: 02/09/23 13:45

Date Received: 02/10/23 08:37

Lab Sample ID: 880-24558-12

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 17:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/15/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/17/23 02:07	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 02:53	CH	EET MID

Client Sample ID: S7 0-0.5'

Date Collected: 02/09/23 14:00

Date Received: 02/10/23 08:37

Lab Sample ID: 880-24558-13

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 17:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/15/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/17/23 02:30	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 02:58	CH	EET MID

Client Sample ID: S7 0.5'-1'

Date Collected: 02/09/23 14:15

Date Received: 02/10/23 08:37

Lab Sample ID: 880-24558-14

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 18:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/15/23 10:05	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S7 0.5'-1'

Lab Sample ID: 880-24558-14

Date Collected: 02/09/23 14:15

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/17/23 02:52	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 03:12	CH	EET MID

Client Sample ID: S8 0-0.5'

Lab Sample ID: 880-24558-15

Date Collected: 02/09/23 00:00

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 18:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/15/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/17/23 03:15	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 03:16	CH	EET MID

Client Sample ID: S8 0.5'-1'

Lab Sample ID: 880-24558-16

Date Collected: 02/09/23 00:00

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 18:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/15/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/17/23 03:37	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 03:21	CH	EET MID

Client Sample ID: S9 0-0.5'

Lab Sample ID: 880-24558-17

Date Collected: 02/09/23 00:00

Matrix: Solid

Date Received: 02/10/23 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 19:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/15/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/17/23 04:00	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Client Sample ID: S9 0-0.5'

Date Collected: 02/09/23 00:00

Date Received: 02/10/23 08:37

Lab Sample ID: 880-24558-17

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 03:26	CH	EET MID

Client Sample ID: S9 0.5'-1'

Date Collected: 02/09/23 00:00

Date Received: 02/10/23 08:37

Lab Sample ID: 880-24558-18

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	46191	02/13/23 15:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46261	02/14/23 19:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46335	02/15/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			46661	02/19/23 11:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	46322	02/14/23 14:05	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46477	02/17/23 04:21	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	46279	02/14/23 09:55	KS	EET MID
Soluble	Analysis	300.0		1			46341	02/15/23 03:30	CH	EET MID

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Cotton Hills 23 26 27 Federal

Job ID: 880-24558-1
SDG: 23-0102-01

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-24558-1	S1 0-0.5'	Solid	02/09/23 11:00	02/10/23 08:37
880-24558-2	S1 0.5'-1'	Solid	02/09/23 11:15	02/10/23 08:37
880-24558-3	S2 0-0.5'	Solid	02/09/23 11:30	02/10/23 08:37
880-24558-4	S2 0.5'-1'	Solid	02/09/23 11:45	02/10/23 08:37
880-24558-5	S3 0-0.5'	Solid	02/09/23 12:00	02/10/23 08:37
880-24558-6	S3 0.5'-1'	Solid	02/09/23 12:15	02/10/23 08:37
880-24558-7	S4 0-0.5'	Solid	02/09/23 12:30	02/10/23 08:37
880-24558-8	S4 0.5'-1'	Solid	02/09/23 12:45	02/10/23 08:37
880-24558-9	S5 0-0.5'	Solid	02/09/23 13:00	02/10/23 08:37
880-24558-10	S5 0.5'-1'	Solid	02/09/23 13:15	02/10/23 08:37
880-24558-11	S6 0-0.5'	Solid	02/09/23 13:30	02/10/23 08:37
880-24558-12	S6 0.5'-1'	Solid	02/09/23 13:45	02/10/23 08:37
880-24558-13	S7 0-0.5'	Solid	02/09/23 14:00	02/10/23 08:37
880-24558-14	S7 0.5'-1'	Solid	02/09/23 14:15	02/10/23 08:37
880-24558-15	S8 0-0.5'	Solid	02/09/23 00:00	02/10/23 08:37
880-24558-16	S8 0.5'-1'	Solid	02/09/23 00:00	02/10/23 08:37
880-24558-17	S9 0-0.5'	Solid	02/09/23 00:00	02/10/23 08:37
880-24558-18	S9 0.5'-1'	Solid	02/09/23 00:00	02/10/23 08:37

24558

No. 2934

CHAIN-OF-CUSTODY

Arson & Associates, Inc. Environmental Consultants		507 N. Marienfeld, Ste. 202 Midland, TX 79701 432-687-0901		DATE <u>2-10-23</u> PAGE <u>2</u> OF <u>2</u> PO# _____ LAB WORK ORDER# _____ PROJECT LOCATION OR NAME <u>Cotton Hills 232627 Federal</u> LAI PROJECT # <u>23-0102-01</u> COLLECTOR <u>JH</u>	
Data Reported to TRRP report? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No TIME ZONE <u>MNT/NM</u>		S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER		# of Containers Matrix	
Field Sample ID	Lab #	Date	Time	ANALYSES BTEX MTBE <input type="checkbox"/> TPH 418 <input type="checkbox"/> TPH 1005 <input type="checkbox"/> TPH 1006 <input type="checkbox"/> GASOLINE MOD 8015 <input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOPPAH <input type="checkbox"/> DIESEL MOD 8015 <input type="checkbox"/> SVOC 8260 <input type="checkbox"/> OIL MOD 8015 <input type="checkbox"/> SVOC 8260 <input type="checkbox"/> 8081 PESTICIDES <input type="checkbox"/> 8082 PESTICIDES <input type="checkbox"/> 8083 PESTICIDES <input type="checkbox"/> TCAP - METALS (RCRA) <input type="checkbox"/> TCAP - METALS (RCRA) <input type="checkbox"/> TCAP - METALS (RCRA) <input type="checkbox"/> TCAP - PEST <input type="checkbox"/> TCAP - PEST <input type="checkbox"/> TCAP - PEST <input type="checkbox"/> LEAD - TOTAL <input type="checkbox"/> LEAD - TOTAL <input type="checkbox"/> LEAD - TOTAL <input type="checkbox"/> RCI - TOTAL <input type="checkbox"/> RCI - TOTAL <input type="checkbox"/> RCI - TOTAL <input type="checkbox"/> TDS <input type="checkbox"/> TOX <input type="checkbox"/> TOX <input type="checkbox"/> TOX <input type="checkbox"/> PH <input type="checkbox"/> HEXAVALENT CHROMIUM <input type="checkbox"/> HEXAVALENT CHROMIUM <input type="checkbox"/> CHLORIDES ANIONS <input type="checkbox"/> ALKALINITY <input type="checkbox"/>	
58 0-0.5'		2-9-23		S	1
59 0.5-1'					
59 0-0.5'		2-9-23		S	1
0.5-1'					
TOTAL <u>4</u>					
RELINQUISHED BY (Signature) <u>Don</u>		DATE/TIME <u>2-10-23 8:37</u>		RECEIVED BY (Signature) <u>Don</u>	
RELINQUISHED BY (Signature)		DATE/TIME		RECEIVED BY (Signature)	
RELINQUISHED BY (Signature)		DATE/TIME		RECEIVED BY (Signature)	
LABORATORY <u>Eurofins</u>					

Loc: 880
24558

LABORATORY USE ONLY:

RECEIVING TEMP _____ THERM# _____

CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED☐ CARRIER BILL # _____☐ HAND DELIVERED1
2
3
4
5
6
7
8
9
10
11
12
13
14

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-24558-1

SDG Number: 23-0102-01

Login Number: 24558

List Number: 1

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Appendix D
Photographic Documentation

Tracking Number: nAPP2300450334
Delineation Report and Remediation Plan
Chevron USA Inc., Cot on Hills 23 26 27 Federal COM #001H
Crude Oil and Produced Water Release
June 5, 2023



Impacted area viewing west February 9th, 2023.



Impacted area showing deferral request section west February 9th, 2023.

Tracking Number: nAPP2300450334
Delineation Report and Remediation Plan
Chevron USA Inc., Cot on Hills 23 26 27 Federal COM #001H
Crude Oil and Produced Water Release
June 5, 2023



Impacted area viewing north February 9th, 2023.



Impacted area viewing north February 9th, 2023.

Tracking Number: nAPP2300450334
Delineation Report and Remediation Plan
Chevron USA Inc., Cot on Hills 23 26 27 Federal COM #001H
Crude Oil and Produced Water Release
June 5, 2023

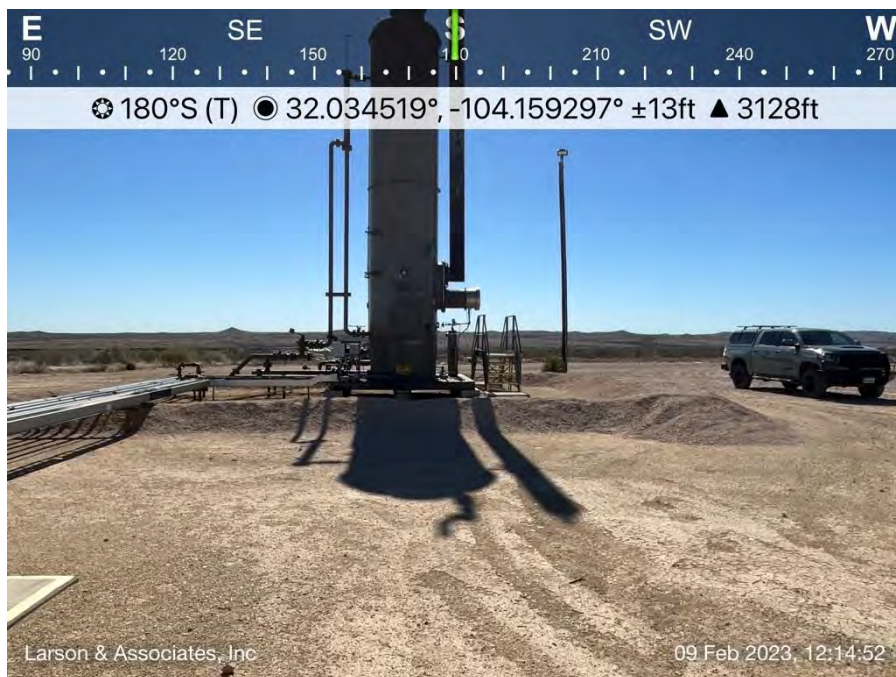


Impacted area viewing east February 9th, 2023.

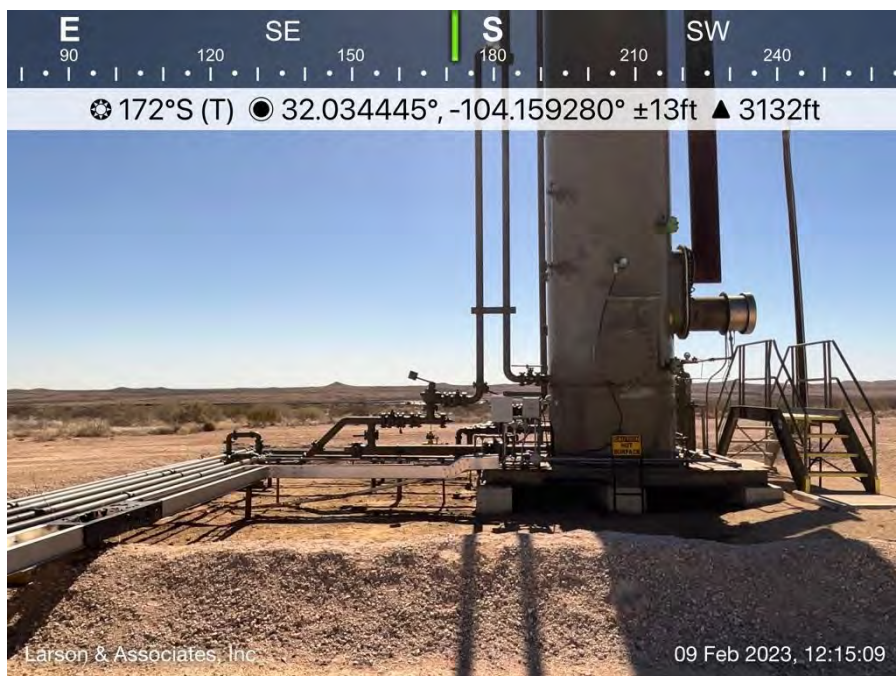


Impacted area viewing east February 9th, 2023.

Tracking Number: nAPP2300450334
Delineation Report and Remediation Plan
Chevron USA Inc., Cot on Hills 23 26 27 Federal COM #001H
Crude Oil and Produced Water Release
June 5, 2023



Impacted area viewing south February 9th, 2023.



Impacted area viewing south February 9th, 2023.

Appendix E
NMOCD Communications

From: [Barnhill, Amy](#)
To: [Robert Nelson](#)
Subject: The Oil Conservation Division (OCD) has rejected the application, Application ID: 231055
Date: Monday, November 27, 2023 2:49:00 PM

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Tuesday, November 21, 2023 12:36 PM
To: Barnhill, Amy <ABarnhill@chevron.com>
Subject: [****EXTERNAL****] The Oil Conservation Division (OCD) has rejected the application, Application ID: 231055

To whom it may concern (c/o Amy Barnhill for CHEVRON U S A INC),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2300450334, for the following reasons:

- **Due to the shallow depth of groundwater and the presence of hydrocarbons, a deferral cannot be granted. A hydrovac/shovel would need to be used to safely remove the contaminated soil around equipment and pipelines. The release will need to be remediated to the strictest closure criteria limits (600 mg/kg, Chlorides, 100 mg/kg TPH, etc.). If you feel the depth to groundwater is >50', a shallow borehole can be drilled to 51' allowing for verification of the depth. If water is not visible after reaching bottom-hole and waiting 72 hours, the OCD will accept this as evidence. OCD would need the driller's log. Chevron has until 12/21/23 to submit a revised remediation workplan.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 231055.

Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,
Shelly Wells
Environmental Specialist-A
505-469-7520
Shelly.Wells@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

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

QUESTIONS

Action 388521

QUESTIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 388521
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2300450334
Incident Name	NAPP2300450334 COTTON HILLS TANK BATTERY @ 0
Incident Type	Oil Release
Incident Status	Deferral Request Received
Incident Facility	[fAPP2131333664] Cotton Hills Tank Battery

Location of Release Source <i>Please answer all the questions in this group.</i>	
Site Name	COTTON HILLS TANK BATTERY
Date Release Discovered	12/25/2022
Surface Owner	Federal

Incident Details <i>Please answer all the questions in this group.</i>	
Incident Type	Oil 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 <i>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.</i>	
Crude Oil Released (bbls) Details	Cause: Equipment Failure Valve Crude Oil Released: 11 BBL Recovered: 0 BBL Lost: 11 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure Valve Produced Water Released: 11 BBL Recovered: 0 BBL Lost: 11 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)	Not answered.

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QUESTIONS, Page 2

Action 388521

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID:
	4323
	Action Number: 388521
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

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	Not answered.

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: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 09/30/2024
--	---

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QUESTIONS, Page 3

Action 388521

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID:
	4323
	Action Number:
	388521
	Action Type:
	[C-141] Deferral Request C-141 (C-141-v-Deferral)

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	U.S. Geological Survey
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	Between 1000 (ft.) and ½ (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 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	Greater than 5 (mi.)
A wetland	Greater than 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

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)	600
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	100
GRO+DRO	(EPA SW-846 Method 8015M)	0
BTEX	(EPA SW-846 Method 8021B or 8260B)	50
Benzene	(EPA SW-846 Method 8021B or 8260B)	10

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	03/01/2024
On what date will (or did) the final sampling or liner inspection occur	04/01/2024
On what date will (or was) the remediation complete(d)	04/15/2024
What is the estimated surface area (in square feet) that will be reclaimed	1058
What is the estimated volume (in cubic yards) that will be reclaimed	42
What is the estimated surface area (in square feet) that will be remediated	1058
What is the estimated volume (in cubic yards) that will be remediated	42

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, Page 4

Action 388521

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID:	4323
	Action Number:	388521
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

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	No
OR is the off-site disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No

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: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 09/30/2024
--	---

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, Page 5

Action 388521

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID:	4323
	Action Number:	388521
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

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	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction	Yes
Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction	Heater Treater unit is directly above impacted area with multiple production flowlines within the area. Excavation is unfeasible to remediate the impacted area without major facility deconstruction.
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	400
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	45
Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.	
Enter the facility ID (F#) on which this deferral should be granted	Cotton Hills Tank Battery [fAPP2131333664]
Enter the well API (30-) on which this deferral should be granted	Not answered.
Contamination does not cause an imminent risk to human health, the environment, or groundwater	True
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: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 09/30/2024

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

QUESTIONS, Page 6

Action 388521

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 388521
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	381840
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/13/2024
What was the (estimated) number of samples that were to be gathered	2
What was the sampling surface area in square feet	400

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

Action 388521

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 388521
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

CONDITIONS

Created By	Condition	Condition Date
scwells	Deferral approved. Deferral of SW-8 and SW-9 is approved until plugging and abandonment or a major facility deconstruction, whichever comes first. A complete and accurate remediation report and/or reclamation report will need to be submitted at that time.	10/7/2024