



209 W. McKay Street
Carlsbad, New Mexico 88220
Tel. 432-701-2159
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January 16, 2025

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

Re: Site Characterization and Remediation Work Plan
BTA Oil Producers
Gem 8705 JV-P #004
Unit N, Section 02, Township 20S, Range 33E
Site Coordinates: 32.5963364, -103.6361542
Lea County, New Mexico
Incident ID: nTO1414738096

Introduction

On behalf of BTA Oil Producers (BTA), New Tech Global Environmental, LLC (NTGE) has prepared this Site Characterization and Remediation Work Plan for submittal to the New Mexico Oil Conservation Division (NMCOD) District 2 Office in Artesia, New Mexico to document site assessment, remedial action activities, and sample analysis results for incident ID: nTO1414738096 – Gem 8705 JV-P #004 (Site). The Site is in Unit Letter N, Section 02, of Township 20 South and Range 33 East in Lea County, New Mexico. The GPS coordinates for the release site are 32.5963364° N latitude and 103.6361542° W longitude. The site location with respect to the nearest town is shown on Figure 1 and the topography of the area is shown on Figure 2.

Background

Incident nTO1414738096: Based on the initial C-141 submitted by BTA and obtained by the New Mexico Oil Conservation District (NMOCD), the release was discovered on May 15, 2014, and was the result of a hole in a flow line, resulting in the release of eight (8) barrels (bbls) of crude oil, of which four (4) bbls were recovered for a net loss of four (4) bbls. Upon discovery, all associated wells were shut in, and the area was secured. The release area is shown on Figure 3

Creating a Better
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Groundwater and Site Characterization

Based on a review of the New Mexico Office of State Engineers and USGS databases, there is one known water source within a ½-mile radius of the Site. A groundwater determination bore (CP-1865 POD 1 and 2) was drilled to a depth of one-hundred and five (105) foot below ground surface (bgs) and no groundwater was encountered. 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 Low Karst area. The Site characterization documentation (Points of Diversion, Karst Potential, Significant Watercourse Map, Wetlands Map, and FEMA Map) is attached to the 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)
Low Karst	>105'

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)	GRO+DRO	BTEX	Benzene
19.15.29.12 Remediation and Closure Criteria for Soils Impacted by a Release	600 mg/kg	100 mg/kg	---	50 mg/kg	10 mg/kg
19.15.29.13 Remediation and Closure Criteria for Soils Impacted by a Release (>4 Feet)	20,000 mg/kg	2,500 mg/kg	1,000 mg/kg	50 mg/kg	10 mg/kg
Notes: --- = not defined					

Initial Soil Delineation Assessment Summary and Findings

On December 26, 2024, NTGE conducted site assessment activities to assess the extent of impacts at the Site. Five (5) vertical sample points (V-1 through V-5) were installed within the release area and six (6) horizontal sample points (H-1 through H-6) were installed adjacent to the release area in order to vertically and horizontally characterize the impacts. Vertical soil samples were collected at one (1) foot intervals from depths ranging from zero (0) to four and a half (4.5) feet (ft) bgs. and horizontal soil samples were collected at zero to half a foot (0-0.5') increments with a geotechnical hand auger. The auger was decontaminated with Alconox® and deionized water between sample points to prevent cross contamination. Soil samples were placed directly into laboratory provided samples containers, placed on ice, and transported under proper chain-of-custody protocol to Cardinal Laboratories in Hobbs, New Mexico for analysis of benzene, toluene, ethylbenzene, and xylene (BTEX) (Method SW846 8021B), total petroleum hydrocarbon (TPH) (Method SW846 8015B), and chloride (method EPA 4500CL-B). Analytical

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results indicated that TPH and chloride concentrations exceeded the NMOCD regulatory limits at a zero (0) to a half foot (0.5) ft in the area of V-5. Sample point V-5 exhibited TPH and chloride concentrations below Table I Closure Criteria from depths ranging from one to one and a half (1-1.5) ft to four and four and a half (4-4.5) ft bgs, thus achieving vertical delineation for the impacted area. All horizontal samples were below NMOCD regulatory limits at a depth of zero (0) to a half foot (0-0.5') below ground surface (bgs).

Analytical results are included in Table 1, while soil boring and delineated locations are shown on Figure 3. Laboratory reports containing analytical methods and chain-of-custody documents are attached to the report.

Proposed Work Plan

After receiving and evaluating the soil boring data NTGE proposes to excavate the areas of V-5 to a depth of half a foot (0.5) ft bgs to ensure that the impacted soils have been removed from the Site. Approximately 32 cubic yards of impacted material will be excavated and transported offsite for disposal at an NMOCD approved landfill. The proposed excavation map is shown on Figure 4.

Upon completion of the excavation, confirmation samples will be taken with a five (5) point composite sample and represent an area no greater than 200 square feet to comply with NMAC 19.15.23.12 and 19.15.29.13. Discrete soil samples will be collected from the sidewalls and bottom of the excavation if any staining is observed. All confirmation samples will be taken to a certified laboratory and analyzed for BTEX by EPA Method 8021B, TPH by EPA Method 8015B Modified and chloride by SM4500 Cl-B. If any of the confirmation samples collected exhibit concentrations above regulatory standards set by NMAC 19.15.23.12 and 19.15.23.13, the areas will be further excavated until concentrations are below Table I Closure Criteria.

If you have any questions regarding this letter, please contact us at (432)-701-2159.

Sincerely,
NTG Environmental



Ethan Sessums
Jr. Field Operations Manager



Kellan Smith
Project Manager

Attachments:

- Tables
- Figures
- Photographic Log
- Site Characterization Documentation
- Laboratory Reports and Chain-of-Custody Documents

Tables

Table 1
Summary of Soil Analytical Data - Delineation Samples
Gem 8705 JV-P #004
BTA Oil Producers
Lea County, New Mexico

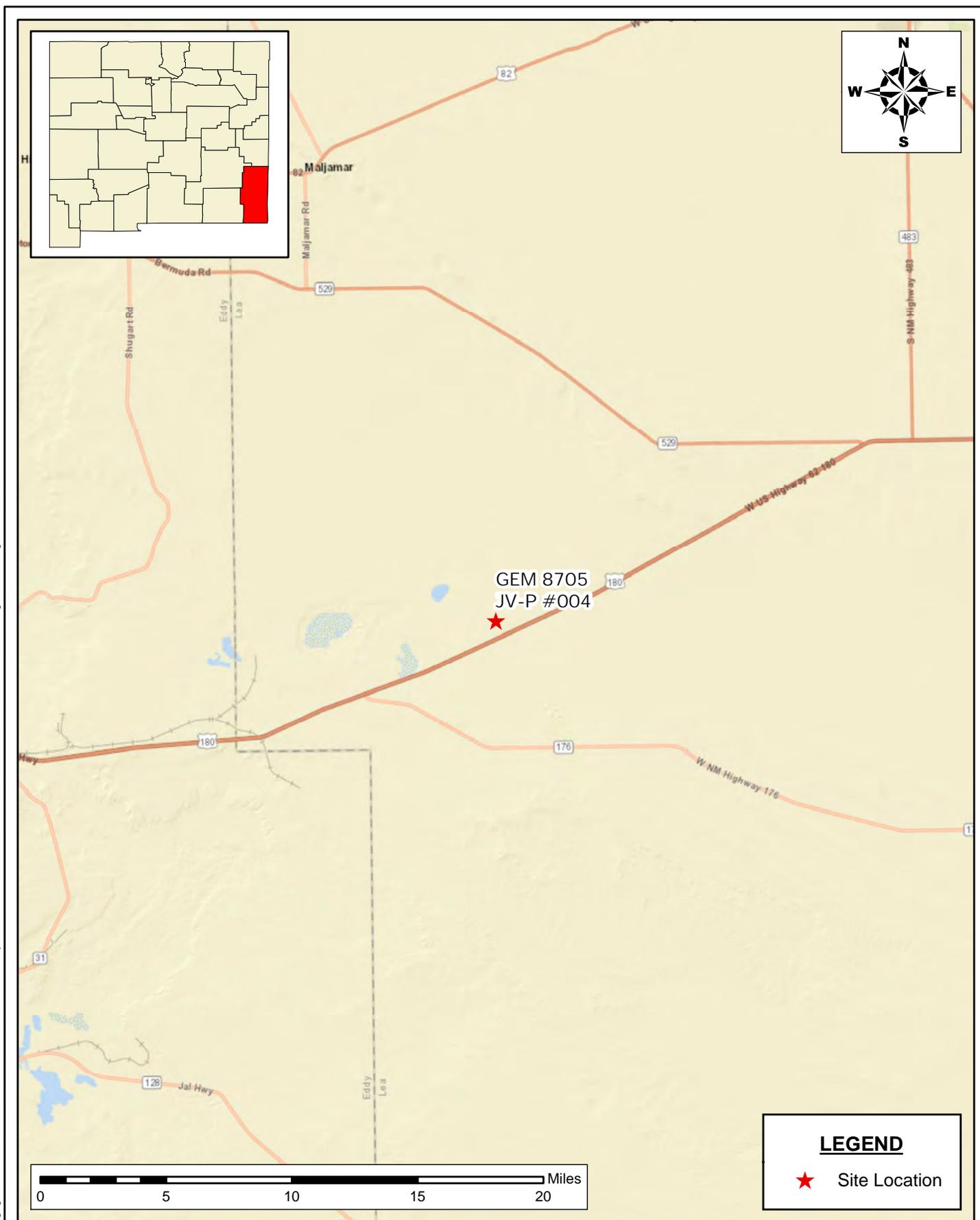
Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH					Chloride (mg/kg)		
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	GRO (C6-C10)	DRO (C10-C28)	GRO + DRO (C6-C28)	MRO (C28-C35)	Total GRO/DRO/MRO (C6-C35)			
			Table I Closure Criteria for Soil >100 feet Depth to Groundwater 19.15.29 NMAC												
			10 mg/kg	---	---	---	50 mg/kg	---	---	1,000 mg/kg	---	2,500 mg/kg		20,000 mg/kg	
Vertical Delineation Samples															
V-1	12/26/24	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	464		
	12/26/24	1-1.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0		
	12/26/24	2-2.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0		
	12/26/24	3-3.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128		
	12/26/24	4-4.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0		
V-2	12/26/24	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0		
	12/26/24	1-1.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0		
	12/26/24	2-2.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0		
	12/26/24	3-3.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0		
	12/26/24	4-4.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0		
V-3	12/26/24	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	352		
	12/26/24	1-1.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112		
	12/26/24	2-2.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112		
	12/26/24	3-3.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	60.6	60.6	38.8	99.4	320		
	12/26/24	4-4.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160		
V-4	12/26/24	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112		
	12/26/24	1-1.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0		
	12/26/24	2-2.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	16.3	16.3	<10.0	16.3	160		
	12/26/24	3-3.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0		
	12/26/24	4-4.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240		
V-5	12/26/24	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	157	157	97.9	254.9	3,080		
	12/26/24	1-1.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0		
	12/26/24	2-2.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0		
	12/26/24	3-3.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0		
	12/26/24	4-4.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0		
Horizontal Delineation Samples															
H-1	12/26/24	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0		
H-2	12/26/24	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208		
H-3	12/26/24	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	400		
H-4	12/26/24	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0		
H-5	12/26/24	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0		
H-6	12/26/24	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0		

- Notes:
1. Values reported in mg/kg
 2. < = Value Less Than Reporting Limit (RL)
 3. Bold indicates Analyte Detected
 4. BTEX analyses by EPA Method SW 8021B
 5. TPH analyses by EPA Method SW 8015 Mod.
 6. 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

Figures

Document Path: C:\Users\ntg\gis\New Tech Global\NTGE - Documents\NTGE - Projects\2024 PROJECTS\BTA\SC\249318 - GEM 8705 JV-P #004\7 - Figures\GIS\Figure_1_SL_SC_REMED_WORKPLAN.mxd



LEGEND

★ Site Location

SITE LOCATION MAP
SITE CHARACTERIZATION AND REMEDIATION WORKPLAN
 BTA OIL PRODUCERS, LLC
 GEM 8705 JV-P #004
 LEA COUNTY, NEW MEXICO

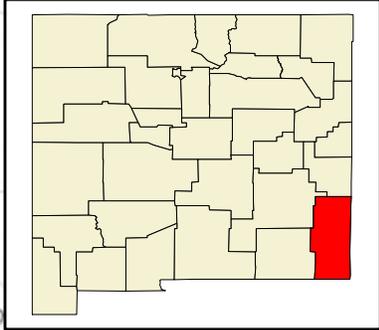
SCALE: As Shown Date: 1/16/2025 PROJECT #: 249318

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

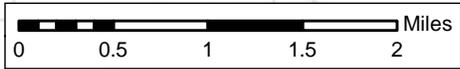
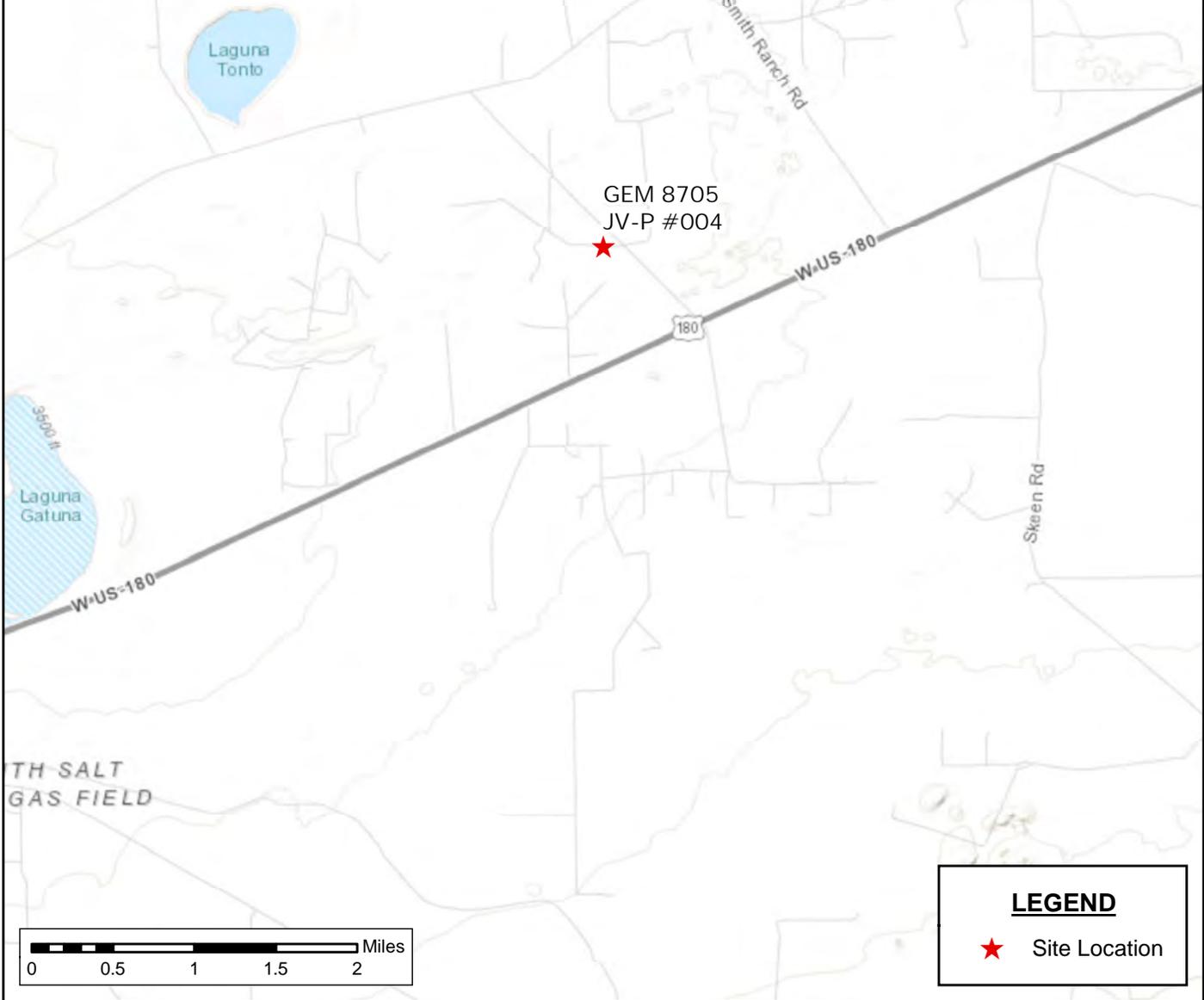
NOTES:
 1. Base Image: ESRI Maps & Data 2013
 2. Map Projection: NAD 1983

DRAWING NUMBER:
FIGURE 1
 SHEET NUMBER:
1 of 1

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QUAIL RIDGE AND GAS FIELD



LEGEND

★ Site Location

**TOPOGRAPHIC MAP
SITE CHARACTERIZATION AND REMEDIATION WORKPLAN**
 BTA OIL PRODUCERS, LLC
 GEM 8705 JV-P #004
 LEA COUNTY, NEW MEXICO


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

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

DRAWING NUMBER:
FIGURE 2
 SHEET NUMBER:
1 of 1

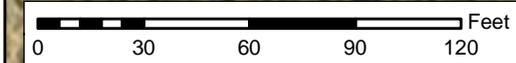
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LEGEND

- Vertical Delineation Point
- Horizontal Delineation Point
- Area of Concern



DELINEATION MAP
SITE CHARACTERIZATION AND REMEDIATION WORKPLAN
 BTA OIL PRODUCERS, LLC
 GEM 8705 JV-P #004
 LEA COUNTY, NEW MEXICO

NTG
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 T - 281.872.9300
 F - 281.872.4521
 Web: www.ntgenvironmental.com

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

DRAWING NUMBER:
FIGURE 3
 SHEET NUMBER:
1 of 1

Proposed Excavation Map

BTA Oil Producers
Gem 8705 JV-P #004
Lea County, New Mexico
32.595985, -103.635866

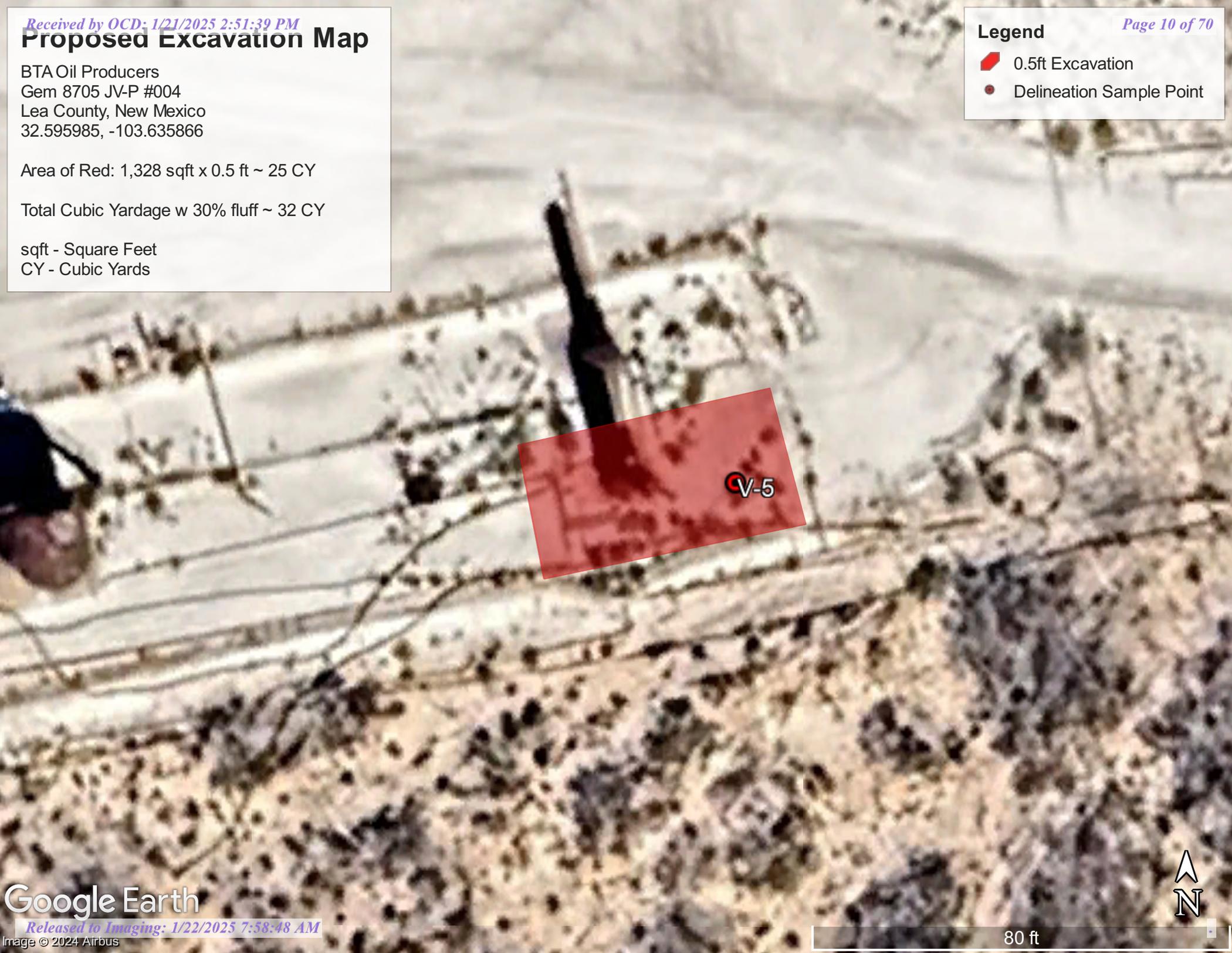
Area of Red: 1,328 sqft x 0.5 ft ~ 25 CY

Total Cubic Yardage w 30% fluff ~ 32 CY

sqft - Square Feet
CY - Cubic Yards

Legend

-  0.5ft Excavation
-  Delineation Sample Point



Site Characterization Information

NMOCD Closure Criteria

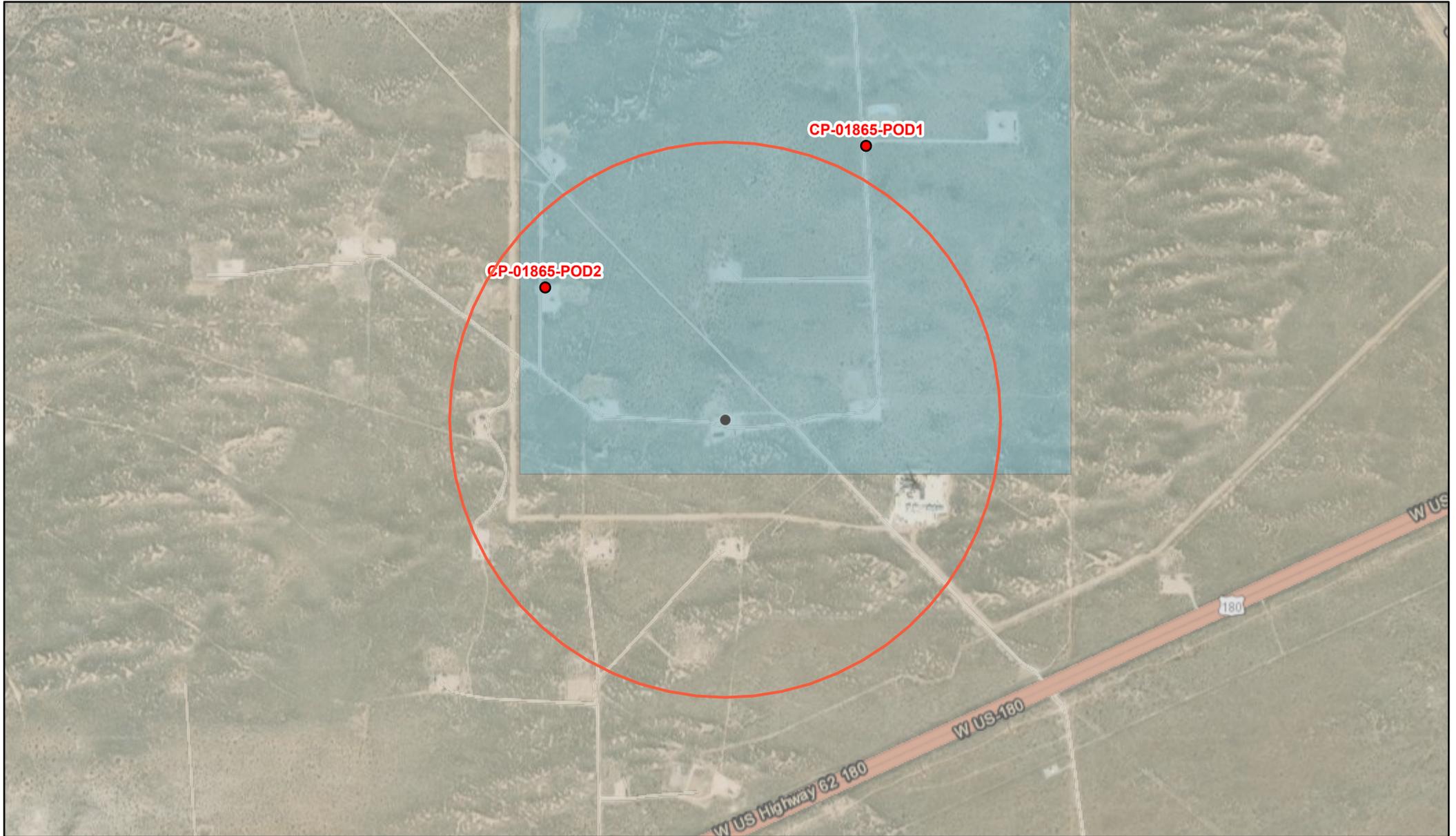
Gem 8705 JV-P #004

Site Information (19.15.29.11.A (2,3, & 4) NMAC)		Source/Notes
Depth to Groundwater (ft bgs)	>105 ft	Office of the State Engineer (OSE)
Horizontal Distance from All Water Sources Within 0.5 mile (ft)	>.5 Miles	National Wetlands Inventory (NWS)
Horizontal Distance to Nearest Significant Watercourse (ft)	2.5 Miles	National Wetlands Inventory (NWS)

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Depth to Groundwater (ft)		Closure Criteria (mg/kg)				
		Chloride*	TPH	GRO + DRO	BTEX	Benzene
< 50		600	100	--	50	10
51 - 100		10,000	2,500	1,000	50	10
>100	X	20,000	2,500	1,000	50	10
Surface Water		in yes, then				
<300 ft from a continuously flowing watercourse or other significant watercourse?	No	600	100	1,000	50	10
<200 ft from a lakebed, sinkhole, or playa lake?	No					
Water Well or Water Source						
<500 ft from a spring or a private, domestic fresh waster well used by less that 5 households for domestic or livestock purposes?	No					
<1,000 ft from a fresh water well or spring?	No					
Human and Other Area						
<300 ft from an occupied permanent residence, school, hospital, institution or church?	No					
Within incorporated municipal boundaries or within a defined municipal fresh water well field?	No					
<100 ft from a wetland?	No					
Within an area overlying a subsurface mine?	No					
Within and unstable area?	No					
Within a 100 yr floodplain?	No					

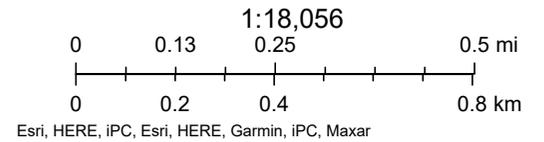
* - numerical limit or background, whichever is greater

OSE POD Location Map



11/8/2024, 12:43:09 PM

- Override 1
- OSE District Boundary
- New Mexico State Trust Lands
- Both Estates
- Plugged
- Closure Area





WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE DTI JUL 22 2021 PM 2:05

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 CP-1865		WELL TAG ID NO.		OSE FILE NO(S). CP-01865	
	WELL OWNER NAME(S) BTA OIL PRODUCERS, LLC				PHONE (OPTIONAL)	
	WELL OWNER MAILING ADDRESS 104 S PECOS ST				CITY MIDLAND	STATE TX
					ZIP 79701	
WELL LOCATION (FROM GPS)		DEGREES LATITUDE 32	MINUTES 36	SECONDS 12.5	* ACCURACY REQUIRED: ONE TENTH OF A SECOND	
		LONGITUDE -103	37	54	* DATUM REQUIRED: WGS 84	
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE LEA SECTION 2 TOWNSHIP 20S RANGE 33E						

2. DRILLING & CASING INFORMATION	LICENSE NO. WD-1753	NAME OF LICENSED DRILLER JACOB FRIESSEN			NAME OF WELL DRILLING COMPANY VANGURD			
	DRILLING STARTED 2-8-21	DRILLING ENDED 2-8-21	DEPTH OF COMPLETED WELL (FT) 105	BORE HOLE DEPTH (FT) 105	DEPTH WATER FIRST ENCOUNTERED (FT) 0			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) 0			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:							
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	-1	99	4.5	BLANK PVC	THREAD 2.375	2	.187	
	99	105	4.5	SCREEN PVC	THREAD 2.375	2	.187	.02

3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
	FROM	TO				
	0	99	4.5	GROUT	8	POURED
	99	105	4.5	SILICA SAND	.5	POURED

FOR OSE INTERNAL USE

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

FILE NO. <u>C-1865</u>	POD NO. <u>1</u>	TRN NO. <u>686912</u>
LOCATION <u>20S-33E-02</u>	<u>2-3-4</u>	WELL TAG ID NO. <u>NA</u>
		PAGE 1 OF 2

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

11/13/24 10:12 AM MST Point of Diversion Summary

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Karst Potential Map



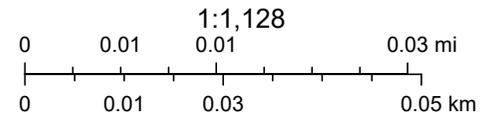
11/8/2024, 12:50:17 PM

Wells - Large Scale Karst Occurrence Potential

PLSS First Division

● Oil, Active Low

● Oil, Plugged PLSS Second Division



BLM, OCD, New Mexico Tech, Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, OCD, Esri Community Maps Contributors, New Mexico State University, Texas

Legend Basemap Query

1:36,112

Legend

All Layers On/Off
All Layer Transparency

NM Wetlands Mapping and Classification

NM Wetlands Mapping and Classification

Mapping Status
Riparian Habitat

Hydrogeomorphic Mapping (HGM) Linears
Riverine

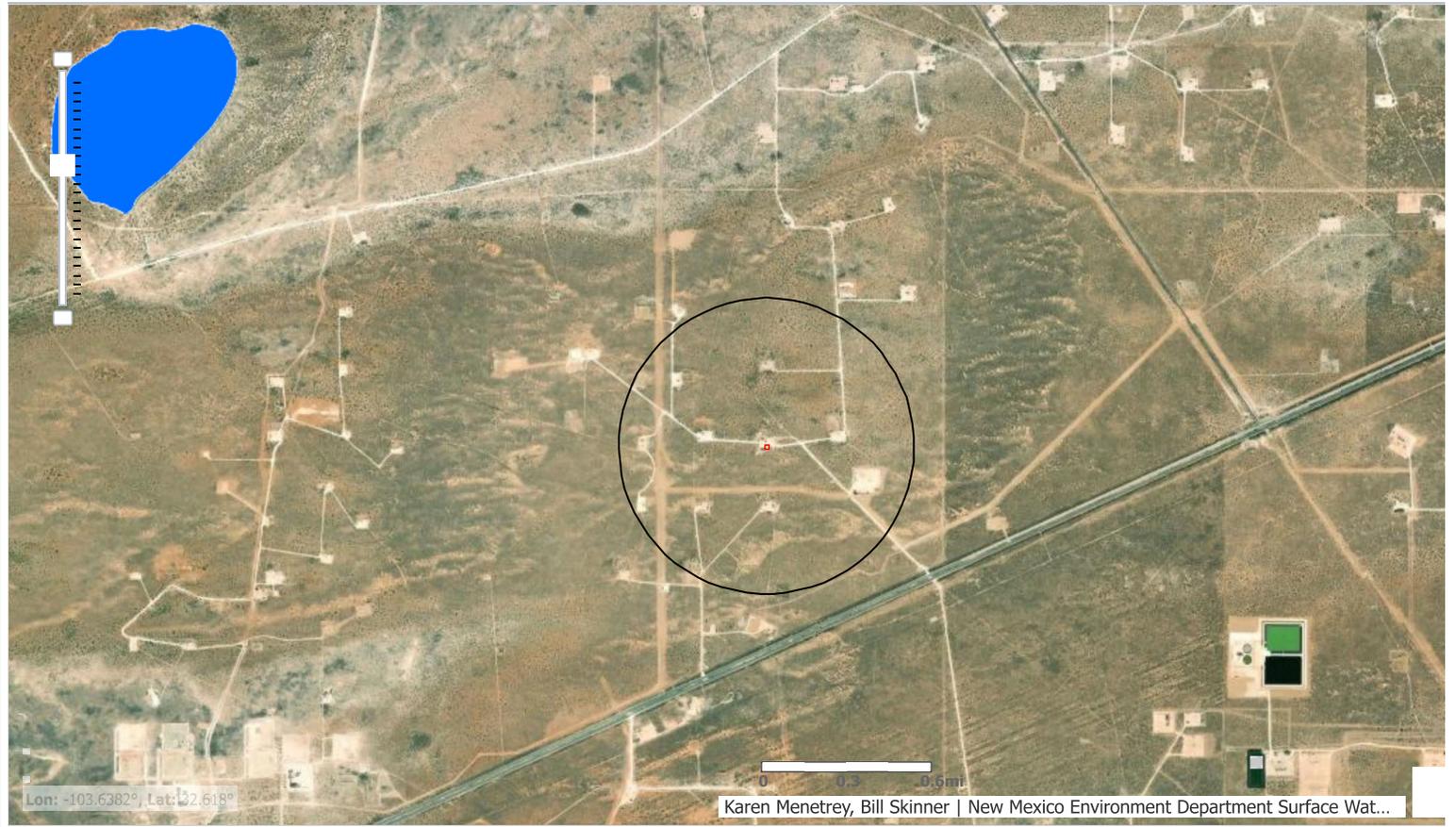
Hydrogeomorphic Mapping (HGM)
Polygons

- Depressional
- Flats
- Lacustrine Fringe
- Riverine
- Slope

Landscape Position and Water Body (LLWW) Linears
Landscape Position and Water Body (LLWW) Polygons

Landform (LLWW)
NWI Linears

- Palustrine Emergent (PEM)
- Palustrine Forested (PFO)
- Palustrine Rock Bottom (PRB)
- Palustrine Scrub Shrub (PSS)

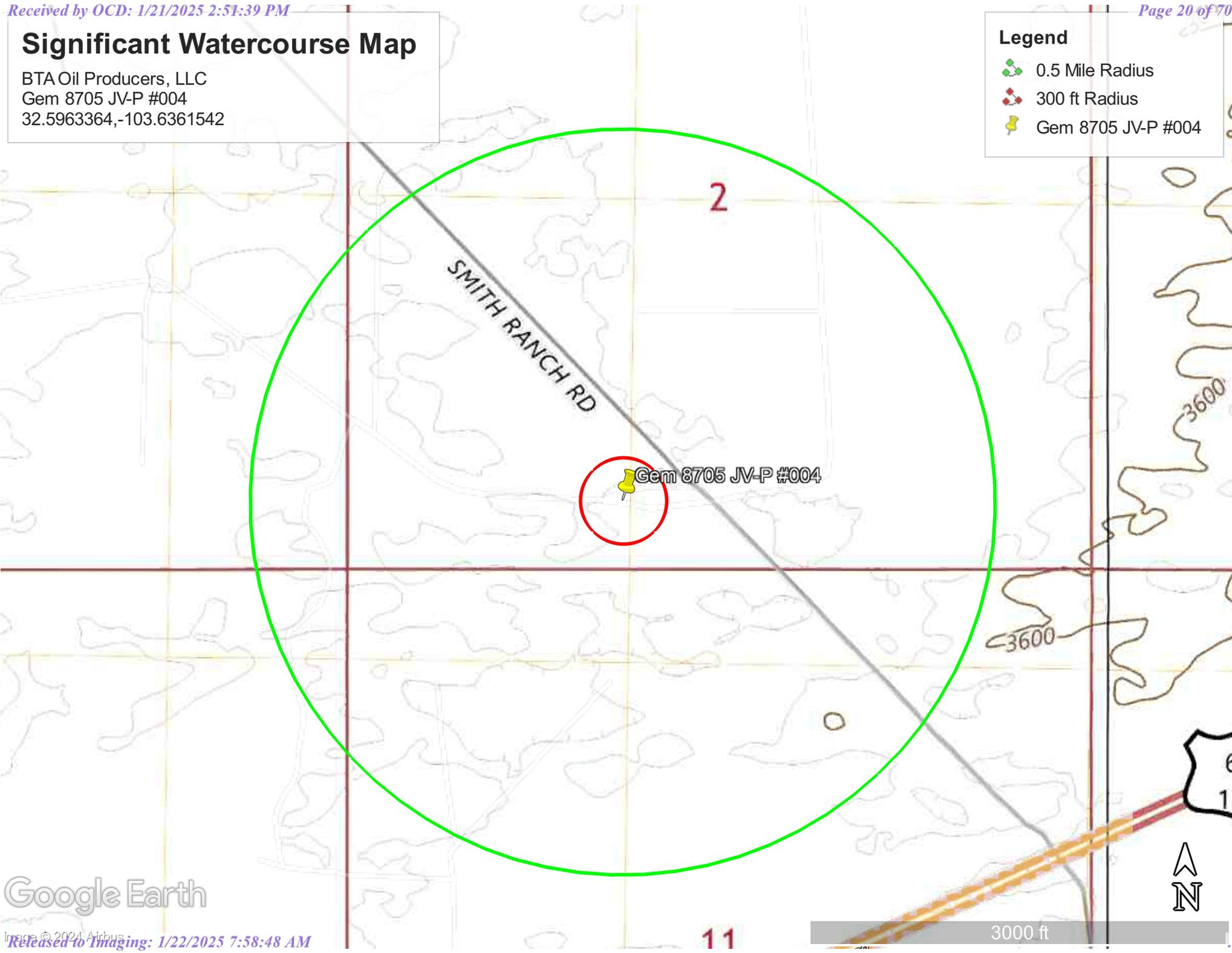


Significant Watercourse Map

BTA Oil Producers, LLC
Gem 8705 JV-P #004
32.5963364,-103.6361542

Legend

-  0.5 Mile Radius
-  300 ft Radius
-  Gem 8705 JV-P #004



Google Earth



Wetlands Map



November 8, 2024

Wetlands

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

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

National Flood Hazard Layer FIRMette



103°38'29"W 32°36'2"N



Legend

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

- | | | |
|------------------------------------|--|--|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE)
<i>Zone A, V, A99</i> |
| | | With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i> |
| | | 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 <i>Zone X</i> |
| | | Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i> |
| | | Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i> |
| | | Area with Flood Risk due to Levee <i>Zone D</i> |
| OTHER AREAS | | NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i> |
| | | Effective LOMRs |
| GENERAL STRUCTURES | | Area of Undetermined Flood Hazard <i>Zone D</i> |
| | | Channel, Culvert, or Storm Sewer |
| OTHER FEATURES | | Levee, Dike, or Floodwall |
| | | 20.2 Cross Sections with 1% Annual Chance Water Surface Elevation |
| MAP PANELS | | 17.5 Coastal Transect |
| | | Base Flood Elevation Line (BFE) |
| | | Limit of Study |
| | | Jurisdiction Boundary |
| | | Coastal Transect Baseline |
| | | Profile Baseline |
| | | Hydrographic Feature |
| MAP PANELS | | Digital Data Available |
| | | No Digital Data Available |
| | | Unmapped |
| | The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location. | |



1:6,000

103°37'51"W 32°35'32"N

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 **11/8/2024 at 6:40 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

Photographic Log

PHOTOGRAPHIC LOG

BTA Oil Producers
Gem 8705 JV-P #004

Photograph No. 1

Facility: Gem 8705 JV-P #004

County: Lea County, New Mexico

Description:
View of Initial Assessment Activities



Photograph No. 2

Facility: Gem 8705 JV-P #004

County: Lea County, New Mexico

Description:
View of Initial Assessment Activities



Photograph No. 3

Facility: Gem 8705 JV-P #004

County: Lea County, New Mexico

Description:
View of Initial Assessment Activities



PHOTOGRAPHIC LOG

BTA Oil Producers
Gem 8705 JV-P #004

Photograph No. 4

Facility: Gem 8705 JV-P #004

County: Lea County, New Mexico

Description:
View of Initial Assessment Activities



Photograph No. 5

Facility: Gem 8705 JV-P #004

County: Lea County, New Mexico

Description:
View of Initial Assessment Activities



Photograph No. 6

Facility: Gem 8705 JV-P #004

County: Lea County, New Mexico

Description:
View of Initial Assessment Activities



Laboratory Reports and Chain-of-Custody Documents



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

January 02, 2025

ETHAN SESSUMS

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: GEM 8705 JV - P #004

Enclosed are the results of analyses for samples received by the laboratory on 12/26/24 13:14.

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 style.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 1 0-6" (H247757-01)

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	12/27/2024	ND	1.84	92.0	2.00	3.48	
Toluene*	<0.050	0.050	12/27/2024	ND	1.78	88.8	2.00	1.38	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.87	93.6	2.00	0.682	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.73	95.5	6.00	0.438	
Total BTEX	<0.300	0.300	12/27/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	12/27/2024	ND	432	108	400	0.00	

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	12/27/2024	ND	234	117	200	7.59	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	216	108	200	7.01	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 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
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 1 1-1.5' (H247757-02)

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	12/27/2024	ND	1.84	92.0	2.00	3.48	
Toluene*	<0.050	0.050	12/27/2024	ND	1.78	88.8	2.00	1.38	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.87	93.6	2.00	0.682	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.73	95.5	6.00	0.438	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	96.0	16.0	12/27/2024	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	12/27/2024	ND	234	117	200	7.59	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	216	108	200	7.01	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 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
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 1 2-2.5' (H247757-03)

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	12/27/2024	ND	1.84	92.0	2.00	3.48	
Toluene*	<0.050	0.050	12/27/2024	ND	1.78	88.8	2.00	1.38	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.87	93.6	2.00	0.682	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.73	95.5	6.00	0.438	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	32.0	16.0	12/27/2024	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	12/27/2024	ND	234	117	200	7.59	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	216	108	200	7.01	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 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
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 1 3-3.5' (H247757-04)

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	12/27/2024	ND	1.84	92.0	2.00	3.48	
Toluene*	<0.050	0.050	12/27/2024	ND	1.78	88.8	2.00	1.38	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.87	93.6	2.00	0.682	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.73	95.5	6.00	0.438	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	128	16.0	12/27/2024	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	12/27/2024	ND	234	117	200	7.59	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	216	108	200	7.01	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 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
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 1 4-4.5' (H247757-05)

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	12/27/2024	ND	1.84	92.0	2.00	3.48	
Toluene*	<0.050	0.050	12/27/2024	ND	1.78	88.8	2.00	1.38	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.87	93.6	2.00	0.682	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.73	95.5	6.00	0.438	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	64.0	16.0	12/27/2024	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	12/27/2024	ND	234	117	200	7.59	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	216	108	200	7.01	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 133 % 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
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 2 0-6" (H247757-06)

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	12/27/2024	ND	1.84	92.0	2.00	3.48	
Toluene*	<0.050	0.050	12/27/2024	ND	1.78	88.8	2.00	1.38	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.87	93.6	2.00	0.682	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.73	95.5	6.00	0.438	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	32.0	16.0	12/27/2024	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	12/27/2024	ND	234	117	200	7.59	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	216	108	200	7.01	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 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
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 2 1-1.5' (H247757-07)

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	12/27/2024	ND	1.84	92.0	2.00	3.48	
Toluene*	<0.050	0.050	12/27/2024	ND	1.78	88.8	2.00	1.38	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.87	93.6	2.00	0.682	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.73	95.5	6.00	0.438	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	64.0	16.0	12/27/2024	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	12/27/2024	ND	234	117	200	7.59	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	216	108	200	7.01	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 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
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 2 2-2.5' (H247757-08)

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	12/27/2024	ND	1.84	92.0	2.00	3.48	
Toluene*	<0.050	0.050	12/27/2024	ND	1.78	88.8	2.00	1.38	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.87	93.6	2.00	0.682	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.73	95.5	6.00	0.438	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	64.0	16.0	12/27/2024	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	12/27/2024	ND	234	117	200	7.59	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	216	108	200	7.01	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 131 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 2 3-3.5' (H247757-09)

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	12/27/2024	ND	1.84	92.0	2.00	3.48	
Toluene*	<0.050	0.050	12/27/2024	ND	1.78	88.8	2.00	1.38	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.87	93.6	2.00	0.682	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.73	95.5	6.00	0.438	
Total BTEX	<0.300	0.300	12/27/2024	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	32.0	16.0	12/27/2024	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	12/27/2024	ND	234	117	200	7.59	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	216	108	200	7.01	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 2 4-4.5' (H247757-10)

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	12/27/2024	ND	1.84	92.0	2.00	3.48	
Toluene*	<0.050	0.050	12/27/2024	ND	1.78	88.8	2.00	1.38	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.87	93.6	2.00	0.682	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.73	95.5	6.00	0.438	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	48.0	16.0	12/27/2024	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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 99.8 % 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
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 3 0-6" (H247757-11)

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	12/27/2024	ND	1.84	92.0	2.00	3.48	
Toluene*	<0.050	0.050	12/27/2024	ND	1.78	88.8	2.00	1.38	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.87	93.6	2.00	0.682	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.73	95.5	6.00	0.438	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 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	352	16.0	12/27/2024	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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 85.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 3 1-1.5' (H247757-12)

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	12/27/2024	ND	1.84	92.0	2.00	3.48	
Toluene*	<0.050	0.050	12/27/2024	ND	1.78	88.8	2.00	1.38	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.87	93.6	2.00	0.682	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.73	95.5	6.00	0.438	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	112	16.0	12/27/2024	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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 3 2-2.5' (H247757-13)

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	12/27/2024	ND	1.84	92.0	2.00	3.48	
Toluene*	<0.050	0.050	12/27/2024	ND	1.78	88.8	2.00	1.38	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.87	93.6	2.00	0.682	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.73	95.5	6.00	0.438	
Total BTEX	<0.300	0.300	12/27/2024	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	112	16.0	12/27/2024	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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 3 3-3.5' (H247757-14)

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	12/27/2024	ND	1.84	92.0	2.00	3.48	
Toluene*	<0.050	0.050	12/27/2024	ND	1.78	88.8	2.00	1.38	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.87	93.6	2.00	0.682	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.73	95.5	6.00	0.438	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 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	320	16.0	12/27/2024	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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	60.6	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	38.8	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 97.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 3 4-4.5' (H247757-15)

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	12/27/2024	ND	1.94	96.9	2.00	4.47	
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 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	160	16.0	12/27/2024	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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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

Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 4 0-6" (H247757-16)

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	12/27/2024	ND	1.94	96.9	2.00	4.47		
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63		
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75		
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56		
Total BTEX	<0.300	0.300	12/27/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 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	112	16.0	12/27/2024	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	12/27/2024	ND	227	113	200	7.79		
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87		
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND						

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 4 1-1.5' (H247757-17)

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	12/27/2024	ND	1.94	96.9	2.00	4.47	
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 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	96.0	16.0	12/27/2024	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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 99.8 % 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
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 4 2-2.5' (H247757-18)

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	12/27/2024	ND	1.94	96.9	2.00	4.47	
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 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	160	16.0	12/27/2024	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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	16.3	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 93.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 4 3-3.5' (H247757-19)

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	12/27/2024	ND	1.94	96.9	2.00	4.47	
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 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	80.0	16.0	12/27/2024	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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 4 4-4.5' (H247757-20)

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	12/27/2024	ND	1.94	96.9	2.00	4.47	
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 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	240	16.0	12/27/2024	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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 97.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.8 % 49.1-148

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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 5 0-6" (H247757-21)

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	12/27/2024	ND	1.94	96.9	2.00	4.47	
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 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	3080	16.0	12/27/2024	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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	157	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	97.9	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 87.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 5 1-1.5' (H247757-22)

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	12/27/2024	ND	1.94	96.9	2.00	4.47	
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/27/2024	ND	400	100	400	7.69	

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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 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
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 5 2-2.5' (H247757-23)

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	12/27/2024	ND	1.94	96.9	2.00	4.47	
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56	
Total BTEX	<0.300	0.300	12/27/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/27/2024	ND	400	100	400	7.69	

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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 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
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 5 3-3.5' (H247757-24)

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	12/27/2024	ND	1.94	96.9	2.00	4.47	
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56	
Total BTEX	<0.300	0.300	12/27/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/27/2024	ND	400	100	400	7.69	

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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 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
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: V - 5 4-4.5' (H247757-25)

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	12/27/2024	ND	1.94	96.9	2.00	4.47	
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/27/2024	ND	400	100	400	7.69	

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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: H - 1 0-6" (H247757-26)

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	12/27/2024	ND	1.94	96.9	2.00	4.47	
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.1 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/27/2024	ND	400	100	400	7.69	

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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: H - 2 0-6" (H247757-27)

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	12/27/2024	ND	1.94	96.9	2.00	4.47		
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63		
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75		
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56		
Total BTEX	<0.300	0.300	12/27/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	12/27/2024	ND	400	100	400	7.69		

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	12/27/2024	ND	227	113	200	7.79		
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87		
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND						

Surrogate: 1-Chlorooctane 87.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: H - 3 0-6" (H247757-28)

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	12/27/2024	ND	1.94	96.9	2.00	4.47	
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.9 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	12/27/2024	ND	400	100	400	7.69	

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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: H - 4 0-6" (H247757-29)

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	12/27/2024	ND	1.94	96.9	2.00	4.47	
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/27/2024	ND	400	100	400	7.69	

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	12/27/2024	ND	227	113	200	7.79	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	217	109	200	6.87	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: H - 5 0-6" (H247757-30)

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	12/27/2024	ND	1.94	96.9	2.00	4.47	
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/27/2024	ND	400	100	400	7.69	

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	12/27/2024	ND	245	122	200	7.89	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	224	112	200	6.46	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 87.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.3 % 49.1-148

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Analytical Results For:

NTG ENVIRONMENTAL
 ETHAN SESSUMS
 701 TRADEWINDS BLVD. SUITE C
 MIDLAND TX, 79706
 Fax To:

Received:	12/26/2024	Sampling Date:	12/26/2024
Reported:	01/02/2025	Sampling Type:	Soil
Project Name:	GEM 8705 JV - P #004	Sampling Condition:	Cool & Intact
Project Number:	249318	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA CO NM		

Sample ID: H - 6 0-6" (H247757-31)

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	12/27/2024	ND	1.94	96.9	2.00	4.47	
Toluene*	<0.050	0.050	12/27/2024	ND	2.00	100	2.00	4.63	
Ethylbenzene*	<0.050	0.050	12/27/2024	ND	1.94	97.1	2.00	4.75	
Total Xylenes*	<0.150	0.150	12/27/2024	ND	5.71	95.1	6.00	4.56	
Total BTEX	<0.300	0.300	12/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/27/2024	ND	400	100	400	7.69	

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	12/27/2024	ND	245	122	200	7.89	
DRO >C10-C28*	<10.0	10.0	12/27/2024	ND	224	112	200	6.46	
EXT DRO >C28-C36	<10.0	10.0	12/27/2024	ND					

Surrogate: 1-Chlorooctane 84.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.8 % 49.1-148

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Notes and Definitions

- S-05 The surrogate recovery is outside of lab established statistical control limits but still within method limits. Data is not adversely affected.
- 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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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



Chain of Custody

Work Order No: 1847757

Page 1 of 21

Project Manager: Ethan Sessums
 Company Name: NTG Environmental
 Address: 209 W. McKay St.
 City, State ZIP: Carlsbad, New Mexico, 88220
 Phone: 432-701-2159
 Email: esessums@ntglobal.com

Bill to: (if different)
 Company Name: Ray Ramos
 Address: BTA Oil Producers
 City, State ZIP:

Program: UST/PST PRP Brownfields RRC Superfund
 State of Project: _____
 Reporting Level: Level II Level III PST/UST RRP Level IV
 Deliverables: EDD ADAPT Other: _____

Sample Identification	Depth (ft bgs)	Date	Time	Soil	Water	Grab/Comp	# of Cont	ANALYSIS REQUEST		Preservative Codes
								TPH 8015	BTEX 8021B	
V-1	0-6"	12/26/2024		X		Grab	1	X	X	
V-1	1-1.5	12/26/2024		X		Grab	1	X	X	
V-1	2-2.5	12/26/2024		X		Grab	1	X	X	
V-1	3-3.5	12/26/2024		X		Grab	1	X	X	
V-1	4-4.5	12/26/2024		X		Grab	1	X	X	
V-2	0-6"	12/26/2024		X		Grab	1	X	X	
V-2	1-1.5	12/26/2024		X		Grab	1	X	X	
V-2	2-2.5	12/26/2024		X		Grab	1	X	X	
V-2	3-3.5	12/26/2024		X		Grab	1	X	X	
V-2	4-4.5	12/26/2024		X		Grab	1	X	X	

Additional Comments:

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12-26-24 13:14			



Chain of Custody

Work Order No: 1247757

Page 2 of 4

Project Manager:	Ethan Sessums	Bill to: (if different)	Ray Ramos
Company Name:	NTG Environmental	Company Name:	BTA Oil Producers
Address:	209 W. McKay St.	Address:	
City, State ZIP:	Carlsbad, New Mexico, 88220	City, State ZIP:	
Phone:	432-701-2159	Email:	essesums@ntglobal.com

Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	Reporting Level I <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: <input type="checkbox"/>

Sample Identification	Depth (ft bgs)	Date	Time	Soil	Water	Grab/Comp	# of Cont	Parameters		Preservative Codes
								TPH 8015	BTEX 8021B	
V-3	0-6"	12/26/2024		X		Grab	1	X	X	
V-3	1-1.5	12/26/2024		X		Grab	1	X	X	
V-3	2-2.5	12/26/2024		X		Grab	1	X	X	
V-3	3-3.5	12/26/2024		X		Grab	1	X	X	
V-3	4-4.5	12/26/2024		X		Grab	1	X	X	
V-4	0-6"	12/26/2024		X		Grab	1	X	X	
V-4	1-1.5	12/26/2024		X		Grab	1	X	X	
V-4	2-2.5	12/26/2024		X		Grab	1	X	X	
V-4	3-3.5	12/26/2024		X		Grab	1	X	X	
V-4	4-4.5	12/26/2024		X		Grab	1	X	X	

Additional Comments:

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12-26-24/134			

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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 423073

QUESTIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 423073
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	nTO1414738096
Incident Name	NTO1414738096 GEM 8705 JV-P #004 @ 30-025-31209
Incident Type	Oil Release
Incident Status	Remediation Plan Received
Incident Well	[30-025-31209] GEM 8705 JV-P #004

Location of Release Source	
<i>Please answer all the questions in this group.</i>	
Site Name	GEM 8705 JV-P #004
Date Release Discovered	05/15/2014
Surface Owner	State

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: Other Flow Line - Production Crude Oil Released: 8 BBL Recovered: 4 BBL Lost: 4 BBL.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	Not answered.
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 423073

QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 423073
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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	<i>Unavailable.</i>
<i>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.</i>	

Initial Response	
<i>The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.</i>	
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	<i>Not answered.</i>
<i>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>	
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: Ray Ramos Title: Environmental Manager Email: rramos@btaoil.com Date: 01/21/2025

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QUESTIONS, Page 3

Action 423073

QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 423073
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
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 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (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	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 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	Low
A 100-year floodplain	Between 1 and 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
<i>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.</i>	
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)	3080
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	254.9
GRO+DRO (EPA SW-846 Method 8015M)	157
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	02/03/2025
On what date will (or did) the final sampling or liner inspection occur	02/05/2025
On what date will (or was) the remediation complete(d)	02/07/2025
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	1328
What is the estimated volume (in cubic yards) that will be remediated	32

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 423073

QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 423073
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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: Ray Ramos Title: Environmental Manager Email: rramos@btaoil.com Date: 01/21/2025
--	---

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5

Action 423073

QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 423073
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Deferral Requests Only	
<i>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.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 423073

QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 423073
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information

Last sampling notification (C-141N) recorded	{Unavailable.}
--	----------------

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	No
--	----

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CONDITIONS

Action 423073

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 423073
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Remediation work plan approved.	1/22/2025
amaxwell	Submit a report via the OCD permitting portal by April 21, 2025.	1/22/2025