



13212 N MacArthur Blvd
Oklahoma City, Oklahoma 73142
Tel. 832.374.0004
www.ntgenvironmental.com

January 15, 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
Starcaster 18 Federal Com #004H
Unit A, Section 18, Township 23S, Range 34E
Site Coordinates: 32.3110123, -103.5027847
Lea County, New Mexico
Incident ID: nJXK1614627849

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: nJXK1614627849 – Starcaster 18 Federal Com #004H (Site). The Site is in Unit Letter A, Section 18, of Township 23 South and Range 34 East in Lea County, New Mexico. The GPS coordinates for the release site are 32.3110123° N latitude and 103.5027847° 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 nJXK1614627849: 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 24, 2016, and was the result of break in a water transfer polyline, resulting in the release of 5 barrels (bbls) of produced water onto the battery location and into the adjacent pasture, of which zero (0) bbls were recovered. Upon discovery, all associated wells were shut in, and the area was secured. The release area is shown on Figure 3.

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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 two known water sources within a ½-mile radius of the Site. A groundwater determination bore (CP-1886 Pod 1) was drilled in 2021 to a depth of one-hundred and ten (110) feet (ft) below ground surface (bgs) and no groundwater was encountered. One receptor, a riverine wetland was located 244 ft south of the site based on National Wetlands Inventory (NWS) and the New Mexico Environmental Surface Water Department. 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	>110'

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

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
Notes: --- = not defined					

Initial Soil Delineation Assessment Summary and Findings

On December 2, 2024, NTGE conducted site assessment activities to assess the extent of impacts at the Site. Three (3) vertical sample points (V-1 through V-3) 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) 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 results indicated that BTEX, TPH, and chloride concentrations were below the NMOCD

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regulatory limits at depths of zero (0) to four and a half (4.5) ft in all vertical samples bgs and at a depth of zero (0) to a half foot (0-0.5) ft bgs in all horizontal samples.

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.

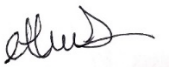
Proposed Work Plan

After receiving and evaluating the soil boring data NTGE proposes to final confirmation sample the site to ensure that there are no impacted soils. Approximately sixty (60) confirmation samples will be collected at the surface and transported to an accredited lab for analysis. The proposed confirmation sample map is shown on Figure 4.

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 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
Starcaster 18 Federal Com #004H
BTA Oil Producers
Lea County, New Mexico

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH					Chloride
								GRO (C6-C10)	DRO (C10-C28)	GRO + DRO (C6-C28)	MRO (C28-C35)	Total GRO/DRO/MRO (C6-C35)	
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
			Table I Closure Criteria for Soil >100 feet Depth to Groundwater 19.15.29 NMAC										
			10 mg/kg	---	---	---	50 mg/kg	---	---	---	---	100 mg/kg	600 mg/kg
Vertical Delineation Samples													
V-1	12/2/2024	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
	12/2/2024	1-1.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
	12/2/2024	2-2.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
	12/2/2024	3-3.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
	12/2/2024	4-4.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
V-2	12/2/2024	0-0.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
	12/2/2024	1-1.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
	12/2/2024	2-2.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
	12/2/2024	3-3.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
	12/2/2024	4-4.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
V-3	12/2/2024	0'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
	12/2/2024	1'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
	12/2/2024	2'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
	12/2/2024	3'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
	12/2/2024	4'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	368
Horizontal Delineation Samples													
H-1	12/2/2024	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-2	12/2/2024	0-.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
H-3	12/2/2024	0-.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
H-4	12/2/2024	0-.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
H-5	12/2/2024	0-.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
H-6	12/2/2024	0-.5'	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0

Notes:

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

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

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

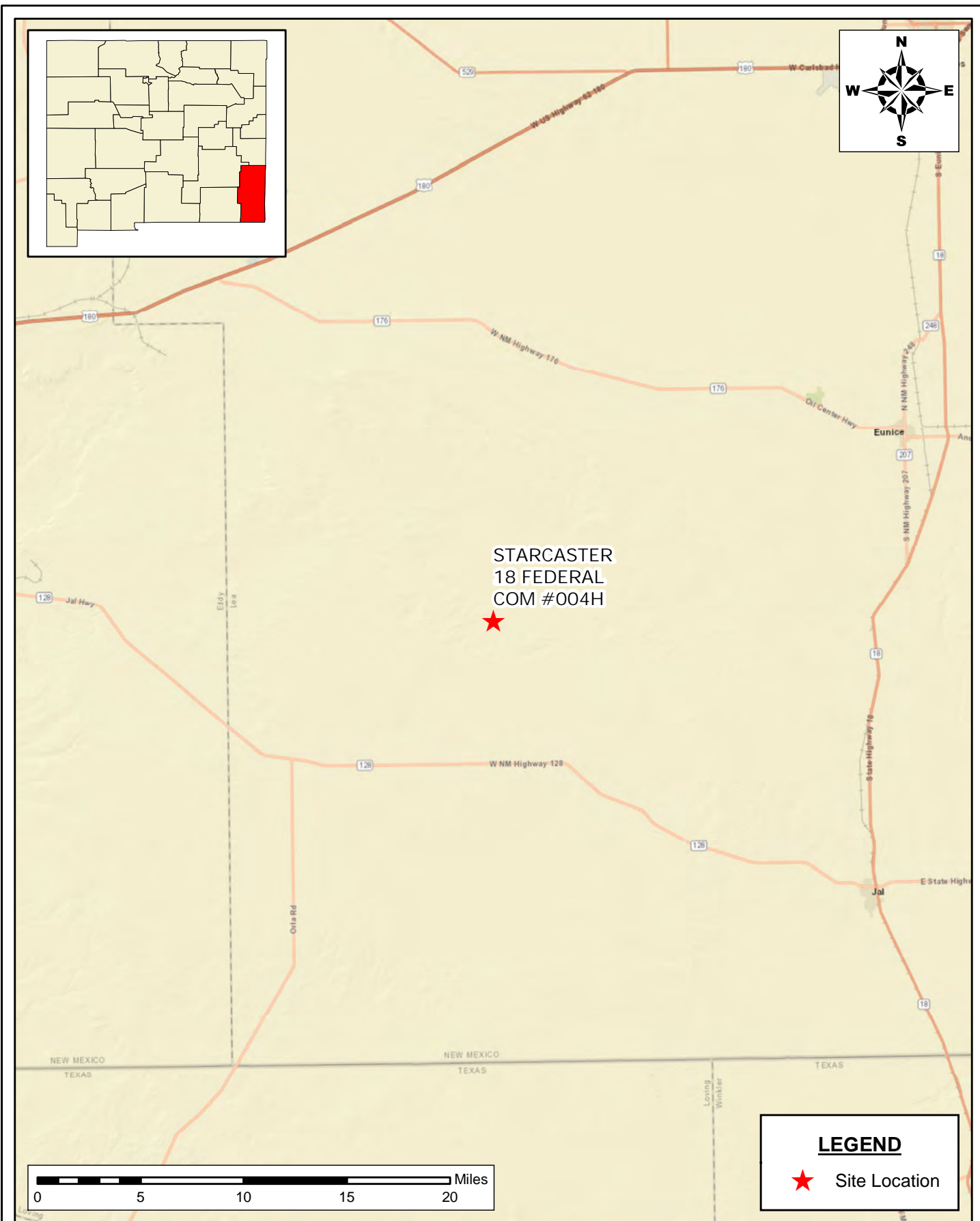
8. Peach shaded cells indicate analytical samples that exceed the NMAC 19.15.29.13 Table I Closure Criteria for the site (Surface to 4 Feet Below Grade).

- 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\249316 - STARCASTER 18 FEDERAL COM #004H\7- Figures\GIS\Figure_1_SL_SC_REMED_WORKPLAN.mxd



SITE LOCATION MAP
SITE CHARACTERIZATION AND REMEDIATION WORKPLAN
BTA OIL PRODUCERS, LLC
STARCASTER 18 FEDERAL COM #004H
LEA COUNTY, NEW MEXICO

SCALE: As Shown

Date: 1/15/2025

PROJECT #: 249316



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

NOTES:

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

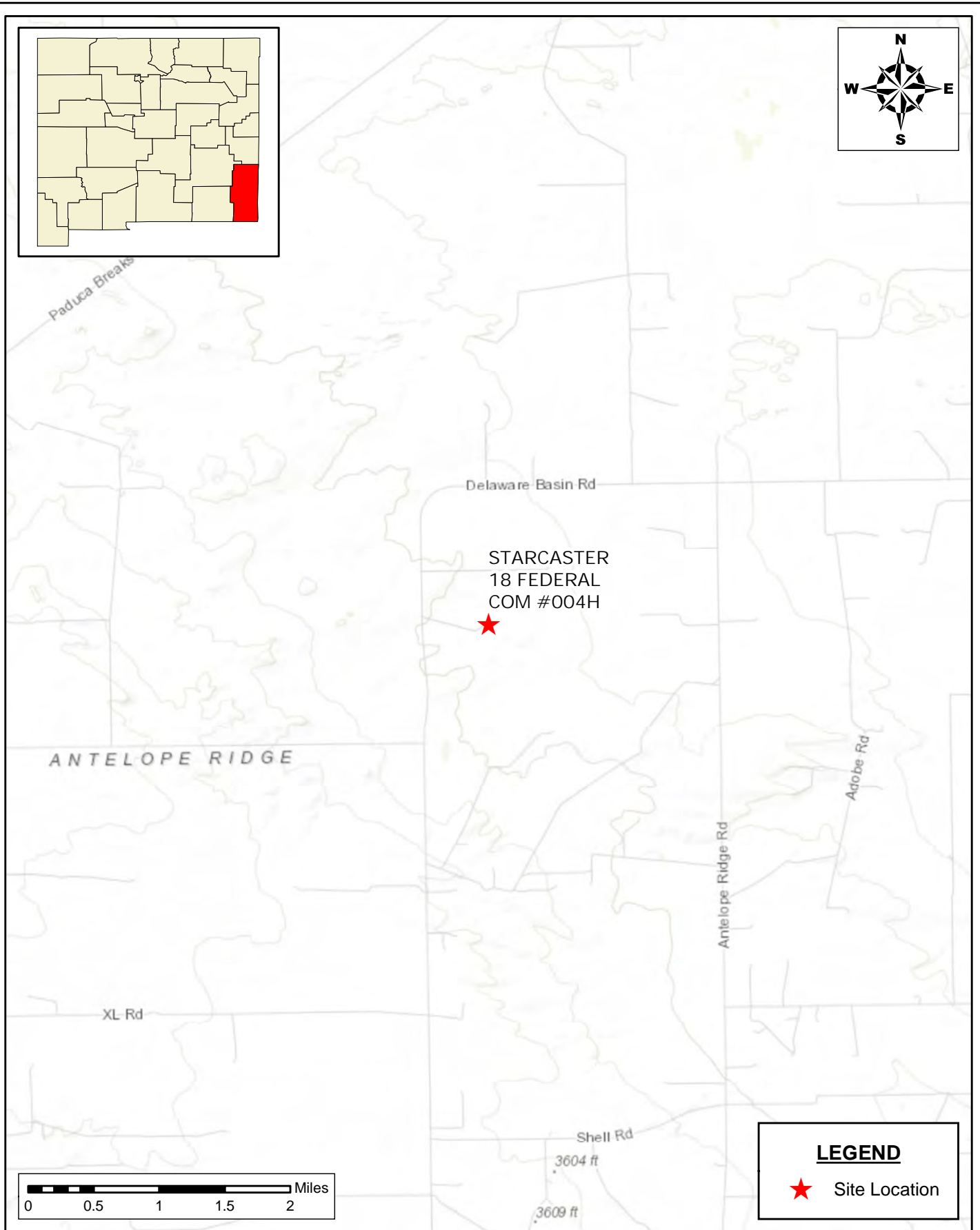
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FIGURE 1

SHEET NUMBER:

1 of 1

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TOPOGRAPHIC MAP
SITE CHARACTERIZATION AND REMEDIATION WORKPLAN
BTA OIL PRODUCERS, LLC
STARCASTER 18 FEDERAL COM #004H
LEA COUNTY, NEW MEXICO

SCALE: As Shown

Date: 1/15/2025

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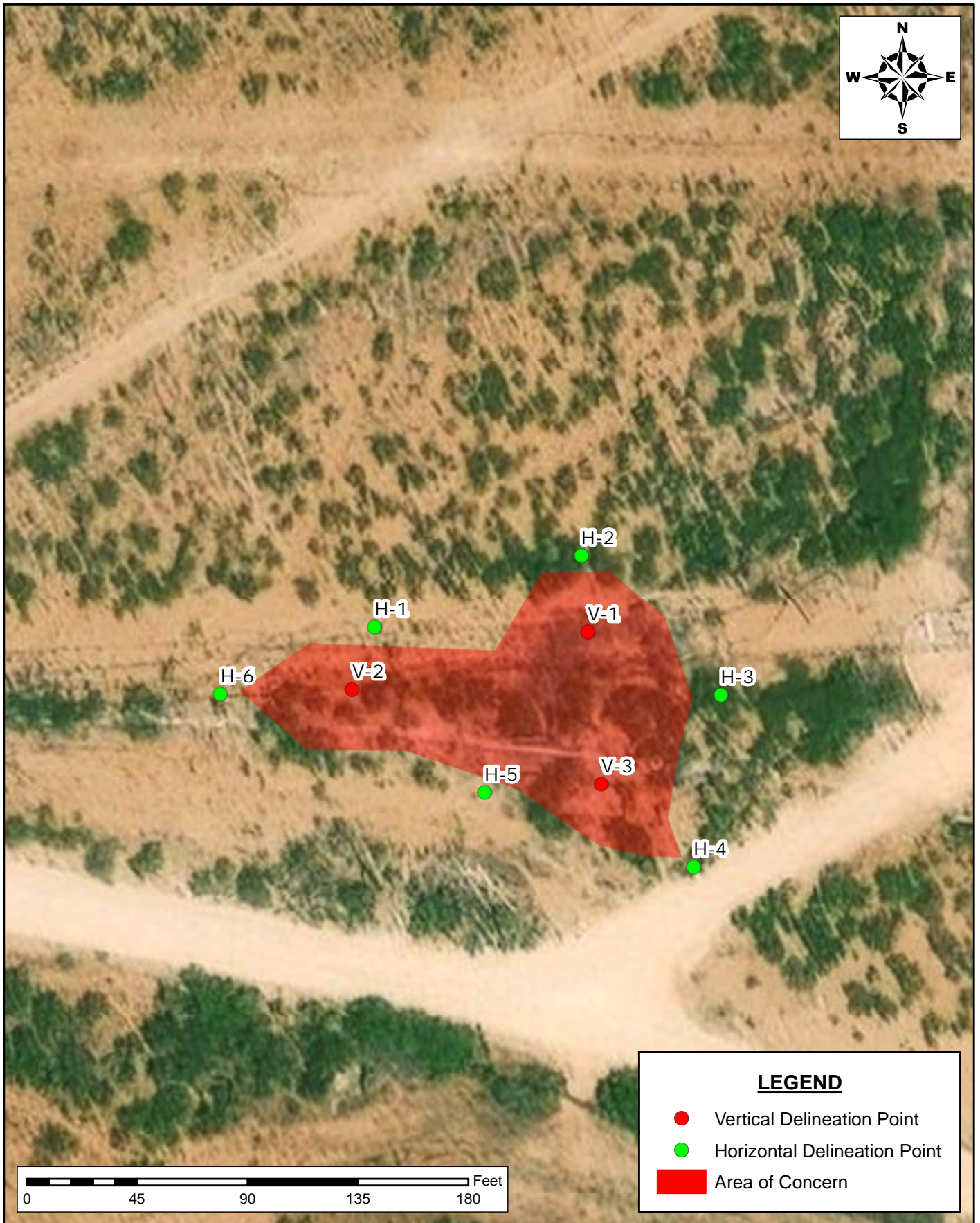
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FIGURE 2

SHEET NUMBER:

1 of 1

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DELINEATION MAP
SITE CHARACTERIZATION AND REMEDIATION WORKPLAN
 BTA OIL PRODUCERS, LLC
 STARCASER 18 FEDERAL COM #004H
 LEA COUNTY, NEW MEXICO

SCALE: As Shown Date: 1/15/2025 PROJECT #: 249316

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



NOTES:

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

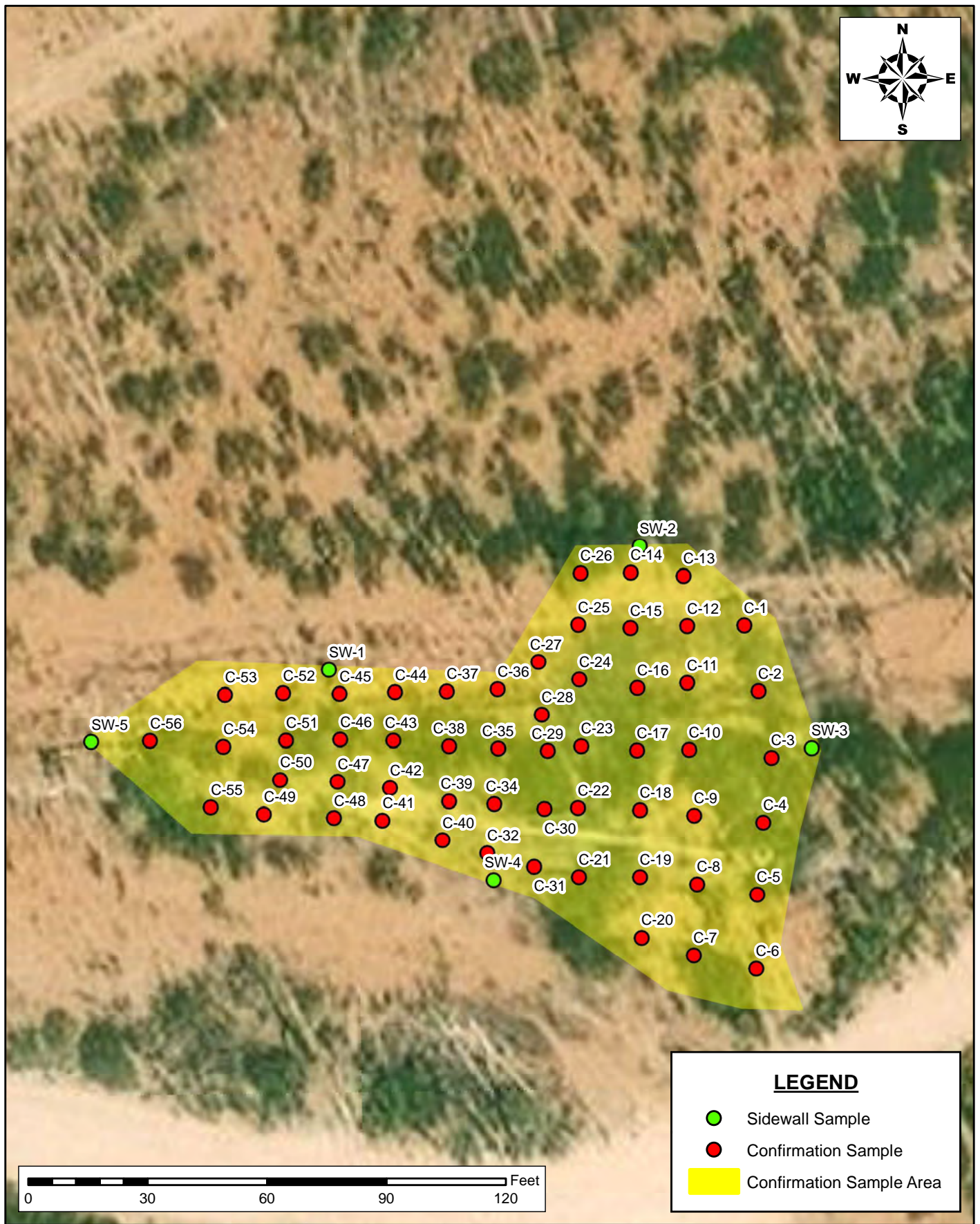
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FIGURE 3

SHEET NUMBER:

1 of 1

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LEGEND

- Sidewall Sample
- Confirmation Sample
- Confirmation Sample Area

CONFIRMATION SAMPLE MAP
SITE CHARACTERIZATION AND REMEDIATION WORKPLAN
BTA OIL PRODUCERS, LLC
STARCASER 18 FEDERAL COM #004H
LEA COUNTY, NEW MEXICO

SCALE: As Shown Date: 1/16/2025 PROJECT #: 249316

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

NOTES:

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

DRAWING NUMBER:

FIGURE 4

SHEET NUMBER:

1 of 1

Site Characterization Information

NMOCD Closure Criteria

Starcaster 18 Federal Com #004H

Site Information (19.15.29.11.A (2,3, & 4) NMAC)		Source/Notes
Depth to Groundwater (ft bgs)	>110 ft	Office of the State Engineer (OSE)
Horizontal Distance from All Water Sources Within 0.5 mile (ft)	244 ft	National Wetlands Inventory (NWS)
Horizontal Distance to Nearest Significant Watercourse (ft)	244 ft	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	Yes/No	in yes, then				
<300 ft from a continuously flowing watercourse or other significant watercourse?	Yes	600	100		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, 11:55:06 AM

Override 1

Active

Pending

Plugged

OSE District Boundary

Water Right Regulations

Closure Area

Artesian Planning Area

New Mexico State Trust Lands

Subsurface Estate

Surface Estate

Both Estates

NHD Flowlines

Artificial Path

Stream River

Released to Imaging: 1/22/2025 9:24:37 AM

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




WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (EW-01)		WELL TAG ID NO. n/a		OSE FILE NO(S). CP-1886			
	WELL OWNER NAME(S) Kaiser-Francis Oil Company				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 6733 S. Yale Ave				CITY Tulsa	STATE OK	ZIP 74136	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 19	SECONDS 0.91 N	• ACCURACY REQUIRED: ONE TENTH OF A SECOND • DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE SE NW SE Sec. 7 T23S R34E								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 09/09/2021		DRILLING ENDED 09/09/2021		DEPTH OF COMPLETED WELL (FT) temporary well material	BORE HOLE DEPTH (FT) 110	DEPTH WATER FIRST ENCOUNTERED (FT) n/a	
	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) n/a		
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger							
	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	0 105		±6.5	Boring- HSA	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 06/30/17)	
FILE NO.	CP-1886	POD NO.	1
LOCATION	23S:34E:7.414	TRN NO.	702706
		WELL TAG ID NO.	
		PAGE 1 OF 2	

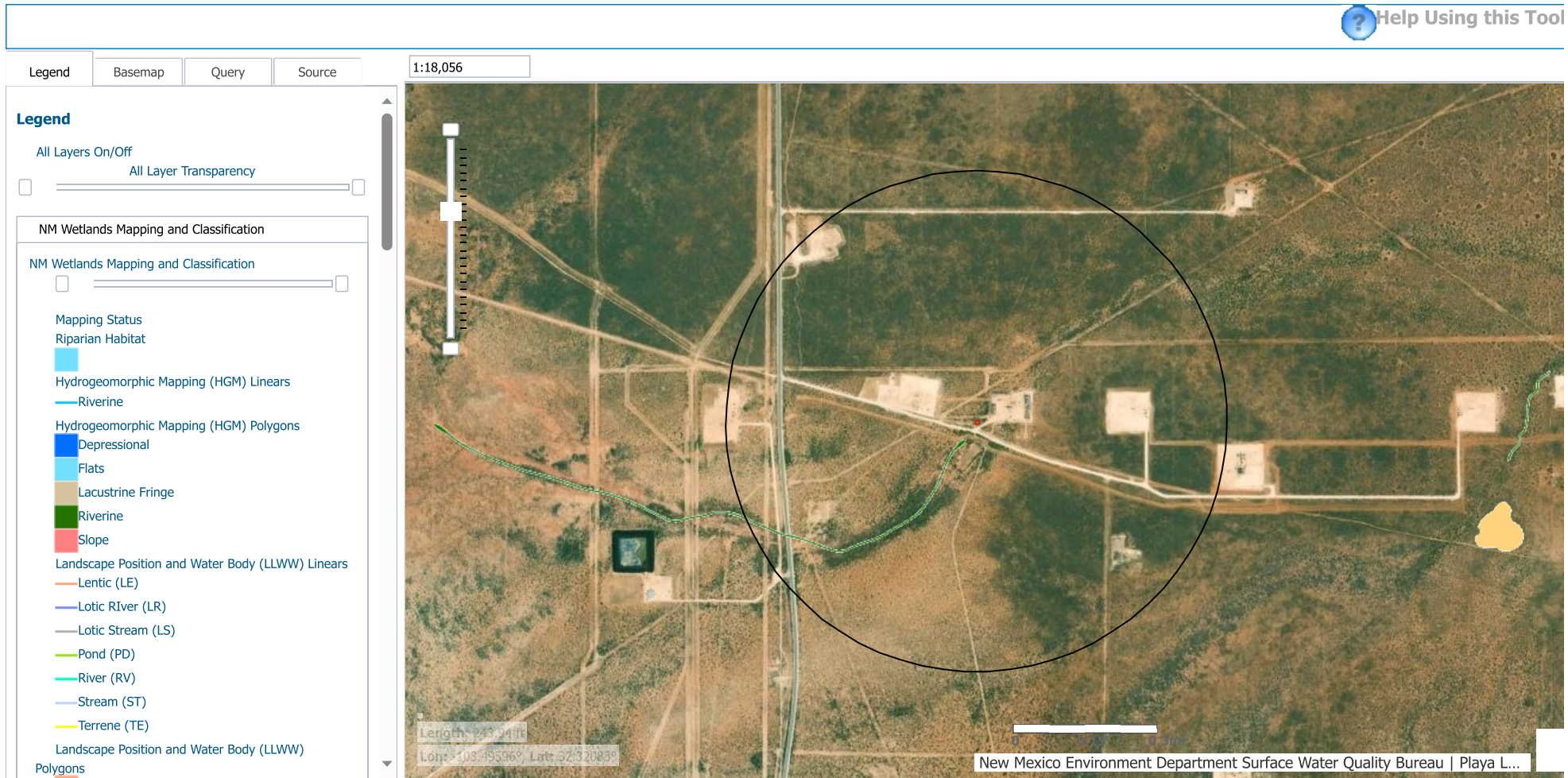
4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0	4	4	Sand, Medium/Fine grained, poorly graded, caliche gravel Brown	Y ✓ N	
	4	9	5	Caliche, with fine-grained sand, Off White/ Tan	Y ✓ N	
	9	105	96	Sand, Fine grained, poorly graded, with caliche gravel, Brown	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
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					Y N	
					Y N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	
<input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:						
5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.				
	MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface.					
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge, Carmelo Trevino, Cameron Pruitt					
6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:					
	 SIGNATURE OF DRILLER / PRINT SIGNED NAME			Jackie D. Atkins DATE		

09/23/2021 10:58

FOR USE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/2017)

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

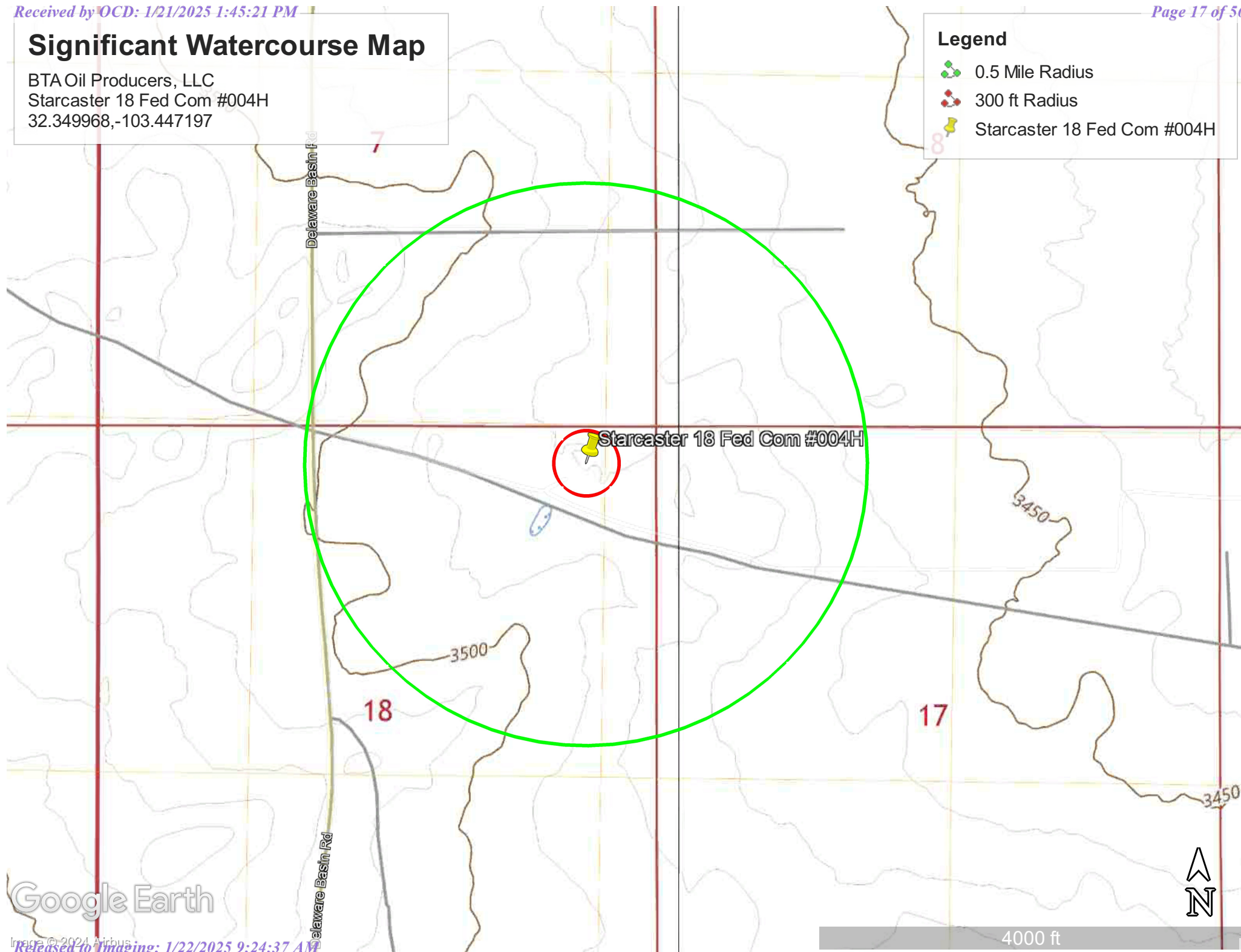


Significant Watercourse Map

BTA Oil Producers, LLC
Starcaster 18 Fed Com #004H
32.349968,-103.447197

Legend

- 0.5 Mile Radius
- 300 ft Radius
- Starcaster 18 Fed Com #004H





Wetlands Map



November 8, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

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

National Flood Hazard Layer FIRMMette



103°30'29"W 32°18'55"N



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

1:6,000

103°29'51"W 32°18'24"N

Released to Imaging: 1/22/2025 9:24:37 AM

Basemap Imagery Source: USGS National Map 2023

Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **11/8/2024 at 5:53 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
Starcaster 18 Federal Com #004H

Photograph No. 1**Facility:** Starcaster 18 Federal Com #004H**County:** Lea County, New Mexico**Description:**

View of Initial Assessment Activities

**Photograph No. 2****Facility:** Starcaster 18 Federal Com #004H**County:** Lea County, New Mexico**Description:**

View of Initial Assessment Activities

**Photograph No. 3****Facility:** Starcaster 18 Federal Com #004H**County:** Lea County, New Mexico**Description:**

View of Initial Assessment Activities



PHOTOGRAPHIC LOG
BTA Oil Producers
Starcaster 18 Federal Com #004H

Photograph No. 4**Facility:** Starcaster 18 Federal Com #004H**County:** Lea County, New Mexico**Description:**
View of Initial Assessment Activities**Photograph No. 5****Facility:** Starcaster 18 Federal Com #004H**County:** Lea County, New Mexico**Description:**
View of Initial Assessment Activities**Photograph No. 6****Facility:** Starcaster 18 Federal Com #004H**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

December 06, 2024

ETHAN SESSUMS

NTG ENVIRONMENTAL

701 TRADEWINDS BLVD. SUITE C

MIDLAND, TX 79706

RE: STAR CASTER 18

Enclosed are the results of analyses for samples received by the laboratory on 12/02/24 11:25.

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 with a large, stylized 'C' and 'K'.

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:	12/02/2024	Sampling Date:	12/02/2024
Reported:	12/06/2024	Sampling Type:	Soil
Project Name:	STAR CASTER 18	Sampling Condition:	Cool & Intact
Project Number:	249316	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA COUNTY, NM		

Sample ID: V - 1 0-6" (H247300-01)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/04/2024	ND	2.01	100	2.00	1.83	
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24	
Total BTX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 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	<16.0	16.0	12/04/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2024	ND	185	92.4	200	3.96	
DRO >C10-C28*	<10.0	10.0	12/03/2024	ND	170	84.8	200	9.36	
EXT DRO >C28-C36	<10.0	10.0	12/03/2024	ND					

Surrogate: 1-Chlorooctane 78.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.8 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V - 1 1-1.5' (H247300-02)

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	12/04/2024	ND	2.01	100	2.00	1.83	
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24	
Total BTEX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 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	32.0	16.0	12/04/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2024	ND	185	92.4	200	3.96	
DRO >C10-C28*	<10.0	10.0	12/03/2024	ND	170	84.8	200	9.36	
EXT DRO >C28-C36	<10.0	10.0	12/03/2024	ND					

Surrogate: 1-Chlorooctane 82.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.8 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V - 1 2-2.5' (H247300-03)

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	12/04/2024	ND	2.01	100	2.00	1.83	
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24	
Total BTEX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 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	16.0	16.0	12/04/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2024	ND	185	92.4	200	3.96	
DRO >C10-C28*	<10.0	10.0	12/03/2024	ND	170	84.8	200	9.36	
EXT DRO >C28-C36	<10.0	10.0	12/03/2024	ND					

Surrogate: 1-Chlorooctane 77.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.2 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V - 1 3-3.5' (H247300-04)

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	12/04/2024	ND	2.01	100	2.00	1.83	
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24	
Total BTEX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 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	<16.0	16.0	12/04/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2024	ND	185	92.4	200	3.96	
DRO >C10-C28*	<10.0	10.0	12/03/2024	ND	170	84.8	200	9.36	
EXT DRO >C28-C36	<10.0	10.0	12/03/2024	ND					

Surrogate: 1-Chlorooctane 83.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.7 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V - 1 4-4.5' (H247300-05)

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	12/04/2024	ND	2.01	100	2.00	1.83	
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24	
Total BTEX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 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	32.0	16.0	12/04/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2024	ND	185	92.4	200	3.96	
DRO >C10-C28*	<10.0	10.0	12/03/2024	ND	170	84.8	200	9.36	
EXT DRO >C28-C36	<10.0	10.0	12/03/2024	ND					

Surrogate: 1-Chlorooctane 78.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.3 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V - 2 0-6" (H247300-06)

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	12/04/2024	ND	2.01	100	2.00	1.83	
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24	
Total BTEX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 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	<16.0	16.0	12/04/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2024	ND	185	92.4	200	3.96	
DRO >C10-C28*	<10.0	10.0	12/03/2024	ND	170	84.8	200	9.36	
EXT DRO >C28-C36	<10.0	10.0	12/03/2024	ND					

Surrogate: 1-Chlorooctane 79.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.3 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V - 2 1-1.5' (H247300-07)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/04/2024	ND	2.01	100	2.00	1.83	
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24	
Total BTX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	<16.0	16.0	12/04/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2024	ND	185	92.4	200	3.96	
DRO >C10-C28*	<10.0	10.0	12/03/2024	ND	170	84.8	200	9.36	
EXT DRO >C28-C36	<10.0	10.0	12/03/2024	ND					

Surrogate: 1-Chlorooctane 78.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.4 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V - 2 2-2.5' (H247300-08)

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	12/04/2024	ND	2.01	100	2.00	1.83	
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24	
Total BTEX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 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	16.0	16.0	12/04/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2024	ND	185	92.4	200	3.96	
DRO >C10-C28*	<10.0	10.0	12/03/2024	ND	170	84.8	200	9.36	
EXT DRO >C28-C36	<10.0	10.0	12/03/2024	ND					

Surrogate: 1-Chlorooctane 77.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.8 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V - 2 3-3.5' (H247300-09)

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	12/04/2024	ND	2.01	100	2.00	1.83	
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24	
Total BTEX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 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	48.0	16.0	12/04/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2024	ND	185	92.4	200	3.96	
DRO >C10-C28*	<10.0	10.0	12/03/2024	ND	170	84.8	200	9.36	
EXT DRO >C28-C36	<10.0	10.0	12/03/2024	ND					

Surrogate: 1-Chlorooctane 79.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.1 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V - 2 4-4.5' (H247300-10)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/04/2024	ND	2.01	100	2.00	1.83	
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24	
Total BTX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 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	32.0	16.0	12/04/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/03/2024	ND	185	92.4	200	3.96	
DRO >C10-C28*	<10.0	10.0	12/03/2024	ND	170	84.8	200	9.36	
EXT DRO >C28-C36	<10.0	10.0	12/03/2024	ND					

Surrogate: 1-Chlorooctane 79.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.0 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V - 3 0 (H247300-11)

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	12/04/2024	ND	2.01	100	2.00	1.83	
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24	
Total BTEX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 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	16.0	16.0	12/04/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	102	200	6.60	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	182	91.0	200	7.05	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane 91.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.4 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V - 3 1' (H247300-12)

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	12/04/2024	ND	2.01	100	2.00	1.83		
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59		
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47		
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24		
Total BTEx	<0.300	0.300	12/04/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 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	16.0	16.0	12/04/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	102	200	6.60	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	182	91.0	200	7.05	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane 90.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.7 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V - 3 2' (H247300-13)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/04/2024	ND	2.01	100	2.00	1.83	
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24	
Total BTX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 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	<16.0	16.0	12/04/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	102	200	6.60	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	182	91.0	200	7.05	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane 94.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.3 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V - 3 3' (H247300-14)

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	12/04/2024	ND	2.01	100	2.00	1.83		
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59		
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47		
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24		
Total BTEx	<0.300	0.300	12/04/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.1 % 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	112	16.0	12/04/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	102	200	6.60	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	182	91.0	200	7.05	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane 95.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.9 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: V - 3 4' (H247300-15)

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	12/04/2024	ND	2.01	100	2.00	1.83	
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24	
Total BTEX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	12/04/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	102	200	6.60	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	182	91.0	200	7.05	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane 89.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.7 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: H - 1 0-6" (H247300-16)

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	12/04/2024	ND	2.01	100	2.00	1.83	
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24	
Total BTEX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/04/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	102	200	6.60	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	182	91.0	200	7.05	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane 81.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.6 % 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:	12/02/2024	Sampling Date:	12/02/2024
Reported:	12/06/2024	Sampling Type:	Soil
Project Name:	STAR CASTER 18	Sampling Condition:	Cool & Intact
Project Number:	249316	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA COUNTY, NM		

Sample ID: H - 2 0-6" (H247300-17)

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	12/04/2024	ND	2.01	100	2.00	1.83		
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59		
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47		
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24		
Total BTEx	<0.300	0.300	12/04/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.6 % 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	16.0	16.0	12/04/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	102	200	6.60	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	182	91.0	200	7.05	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane 93.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.9 % 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:	12/02/2024	Sampling Date:	12/02/2024
Reported:	12/06/2024	Sampling Type:	Soil
Project Name:	STAR CASTER 18	Sampling Condition:	Cool & Intact
Project Number:	249316	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA COUNTY, NM		

Sample ID: H - 3 0-6" (H247300-18)

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	12/04/2024	ND	2.01	100	2.00	1.83		
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59		
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47		
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24		
Total BTEX	<0.300	0.300	12/04/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.8 % 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	16.0	16.0	12/04/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	102	200	6.60	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	182	91.0	200	7.05	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane 82.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.4 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: H - 4 0-6" (H247300-19)

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	12/04/2024	ND	2.01	100	2.00	1.83	
Toluene*	<0.050	0.050	12/04/2024	ND	2.04	102	2.00	2.59	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	2.09	105	2.00	4.47	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	6.29	105	6.00	5.24	
Total BTEX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 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	16.0	16.0	12/04/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	102	200	6.60	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	182	91.0	200	7.05	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane 92.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.5 % 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: 12/02/2024
 Reported: 12/06/2024
 Project Name: STAR CASTER 18
 Project Number: 249316
 Project Location: BTA - LEA COUNTY, NM

Sampling Date: 12/02/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: H - 5 0-6" (H247300-20)

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	12/04/2024	ND	1.85	92.5	2.00	2.68	
Toluene*	<0.050	0.050	12/04/2024	ND	1.91	95.4	2.00	1.27	
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	1.94	97.2	2.00	0.264	
Total Xylenes*	<0.150	0.150	12/04/2024	ND	5.84	97.3	6.00	0.375	
Total BTEX	<0.300	0.300	12/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 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	16.0	16.0	12/04/2024	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	102	200	6.60	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	182	91.0	200	7.05	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane 82.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.9 % 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:	12/02/2024	Sampling Date:	12/02/2024
Reported:	12/06/2024	Sampling Type:	Soil
Project Name:	STAR CASTER 18	Sampling Condition:	Cool & Intact
Project Number:	249316	Sample Received By:	Tamara Oldaker
Project Location:	BTA - LEA COUNTY, NM		

Sample ID: H - 6 0-6" (H247300-21)

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	12/04/2024	ND	1.85	92.5	2.00	2.68		
Toluene*	<0.050	0.050	12/04/2024	ND	1.91	95.4	2.00	1.27		
Ethylbenzene*	<0.050	0.050	12/04/2024	ND	1.94	97.2	2.00	0.264		
Total Xylenes*	<0.150	0.150	12/04/2024	ND	5.84	97.3	6.00	0.375		
Total BTEX	<0.300	0.300	12/04/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	12/04/2024	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	102	200	6.60	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	182	91.0	200	7.05	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane 88.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.8 % 49.1-148

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Notes and Definitions

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

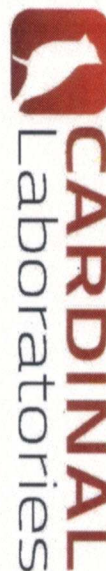
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A handwritten signature in cursive script, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

12/2
K.H.
101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	BTX LTGTFE	BILL TO	ANALYSIS REQUEST		
Project Manager:	Ethan Sessions			P.O. #:	
Address:	204 W. McKay St			Company:	BTX
City:	Carlsbad			Attn:	Ray Ramos
Phone #:	432-701-2159			Address:	
Project #:	249316			City:	
Project Name:	Starcluster 16			State:	Zip:
Project Location:	Sea Co, NM			Phone #:	
Sampler Name:	Lenny Han			Fax #:	
FOR LAB USE ONLY				MATRIX	PRESERV

[illegible]

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Relinquished By:	Date:	Received By:	Verbal Result:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Add'l Phone #:
	Time:			All Results are emailed. Please provide Email address:		
Relinquished By:	Date:	Received By:	REMARKS:			
	Time:					
Delivered By: (Circle One)	Observed Temp. °C	Sample Condition	CHECKED BY:	Turnaround Time:	Standard	
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool <input checked="" type="checkbox"/> Yes Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	(Initials)	Thermometer ID #140	Rush	<input checked="" type="checkbox"/>
				Correction Factor -0.6°C		
					Bacteria (only)	Sample Condition
					Cool <input type="checkbox"/> Yes Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	Observed Temp. °C
						Corrected Temp. °C

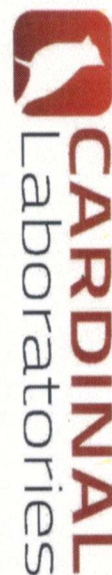
† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



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(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS

Action 422844

QUESTIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 422844
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	nJXK1614627849
Incident Name	NJXK1614627849 STARCASTER 18 FEDERAL COM #004H @ 30-025-42025
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received
Incident Well	[30-025-42025] STARCASTER 18 FEDERAL COM #004H

Location of Release Source

Please answer all the questions in this group.

Site Name	STARCASTER 18 FEDERAL COM #004H
Date Release Discovered	05/24/2016
Surface Owner	Private

Incident Details

Please answer all the questions in this group.

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

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Flow Line - Production Produced Water Released: 5 BBL Recovered: 0 BBL Lost: 5 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
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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Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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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, Page 2

Action 422844

QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 422844
	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)	More info needed to determine if this will be treated as 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

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	<i>Not answered.</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 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
--	---

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 3

Action 422844

QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 422844
	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 200 and 300 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 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	Greater than 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	Greater than 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
<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)	368
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
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	01/28/2025
On what date will (or did) the final sampling or liner inspection occur	01/28/2025
On what date will (or was) the remediation complete(d)	01/28/2025
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	0
What is the estimated volume (in cubic yards) that will be remediated	0

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

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

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 4

Action 422844

QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 422844
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
<i>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.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	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)	Yes
Other Non-listed Remedial Process. Please specify	Delineation data shows to area to be below NMAC regulatory standards. NTG proposes to confirmation sample the area to show it is below NMAC standards.
<i>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>	
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
<i>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.</i>	

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QUESTIONS, Page 5

Action 422844

QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 422844
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

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

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QUESTIONS, Page 6

Action 422844

QUESTIONS (continued)

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 422844
	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 422844

CONDITIONS

Operator: BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701	OGRID: 260297
	Action Number: 422844
	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	The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. The OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater; and a revegetation plan.	1/22/2025
amaxwell	All revegetation activities will need to be documented and included in the revegetation report. The revegetation report will need to include: An executive summary of the revegetation activities including: Seed mix, Method of seeding, dates of when the release area was reseeded, information pertinent to inspections, information about any amendments added to the soil, information on how the vegetative cover established meets the life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds per 19.15.29.13 D.(3) NMAC, and any additional information; a scaled Site Map including area that was revegetated in square feet; and pictures of the revegetated areas during reseeded activities, inspections, and final pictures when revegetation is achieved.	1/22/2025
amaxwell	If the intent of future reporting is to close out the release from remediation through revegetation, all information required can be combined into a single report. Likewise, each report, remediation, reclamation, and revegetation reports can be submitted separately.	1/22/2025
amaxwell	Submit a report via the OCD permitting portal by April 21, 2025.	1/22/2025