MCollier@H-R_Enterprises.com 575-909-0326

Remediation and Closure Report

Crawford 27-26 Fee CTB
Incident# nAPP2331253089
Eddy County, New Mexico

Prepared For:

Cimarex Energy Co.
6001 Deauville Blvd. Suite 300N
Midland, TX 79706

Prepared By:

H&R Enterprises, LLC
5120 W. Kansas St.
Hobbs, New Mexico 88242

February 5, 2024

Mr. Mike Bratcher
NMOCD
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Subject: **Remediation and Closure Report**
Crawford 27-26 Fee CTB
Eddy County, NM

Dear Mr. Bratcher,

Cimarex Energy Co. has contracted H&R Enterprises (H&R) to perform remediation and confirmation sampling services at the above-referenced location. The results of our remediation and confirmation sampling activities are contained herein.

Site Information

The Crawford 27-26 Fee CTB is located approximately 13 miles South of Carlsbad, New Mexico. The legal location for this release is Unit Letter D, Section 27, Township 24 South and Range 26 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.192752 North and -104.286155 West. Site plans are presented in Appendix I.

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Reagan-Upton association, 0 to 9 percent slopes. The referenced soil data is attached in Appendix II. Drainage courses in this area are typically dry. The project site is located in a high Karst potential area (Karst Potential Map, Appendix I).

Groundwater and Site Characterization

The New Mexico Office of the State Engineer web site indicates that the nearest reported depth to groundwater is 30-feet below ground surface (BGS). See Appendix II for the referenced groundwater data.

If a release occurs within the following areas, the responsible party must treat the release as if it occurred less than 50 feet to the groundwater in Table I, New Mexico Oil Conservation Division (NMOCD) Rule 19.15.29, NMAC.

Approximate Depth to Groundwater	**30 Feet/BGS**

☐ Yes ☒ No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse
☐ Yes ☒ No	Within 200 feet of any lakebed, sinkhole, or a playa lake
☐ Yes ☒ No	Within 300 feet from an occupied permanent residence, school, hospital, institution, or church
☐ Yes ☒ No	Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes
☐ Yes ☒ No	Within 1000 feet of any freshwater well or spring
☐ Yes ☒ No	Within incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978
☐ Yes ☒ No	Within 300 feet of a wetland
☐ Yes ☒ No	Within the area overlying a subsurface mine
☐ Yes ☒ No	Within an unstable area
☐ Yes ☒ No	Within a 100-year floodplain

As this is a remediation in an area with a depth to groundwater of less than 50-feet BGS, the closure criteria for this site are as follows:

Table I			
Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤ 50 feet	Chloride **	EPA 300.0 or SM4500 CIB	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Incident Description

On November 07, 2023, it was discovered that a heater treater firetube gasket had failed. A total of 11 barrels (bbls) of oil was released into the lined containment and onto the well pad. All fluids were recovered from the lined containment.

Remedial Activities

H&R mobilized personnel to begin remediation and confirmation sampling activities of the release area. Composite samples were obtained from the bottom and sidewalls of the excavation. Micro-Blaze, a bio-remedial fluid was utilized on the overspray area, allowed to sit for 2-weeks and also sampled. All samples collected were transported to Eurofins Laboratory for analysis. The results of that analysis are presented in Table 1 below. Excavation dimensions and confirmation sampling locations are illustrated on Confirmation Sample Map in Appendix I. Before, during, and after photographs of the location are attached in Appendix IV. Complete laboratory reports can be found in Appendix V.

Table 1: Initial Test Trench Soil Samples Field Data

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	100 mg/kg			100 mg/kg	600 mg/kg
S-1	1/18/2024	1'	ND	ND	ND	ND	ND	0	15.6
S-2	1/18/2024	1'	ND	ND	ND	ND	ND	0	14
S-3	1/18/2024	2'	ND	ND	ND	ND	ND	0	15.3
S-4	1/18/2024	2'	ND	ND	ND	ND	ND	0	13
S-5	1/18/2024	0-1'	ND	ND	ND	ND	ND	0	17.6
S-6	1/18/2024	0-1'	ND	ND	ND	ND	ND	0	16.5
S-7	1/18/2024	0-1'	ND	ND	ND	ND	ND	0	15.3
S-8	1/18/2024	0-1'	ND	ND	ND	ND	ND	0	16.8
SW-1	1/18/2024	1'	ND	ND	ND	ND	ND	0	15.2
SW-2	1/18/2024	1-2'	ND	ND	ND	ND	ND	0	16.2
SW-3	1/18/2024	2'	ND	ND	ND	ND	ND	0	16.6
SW-4	1/18/2024	1-2'	ND	ND	ND	ND	ND	0	29.9
SW-5	1/18/2024	2'	ND	ND	ND	ND	ND	0	20.7

ND = Analyte Not Detected S = Bottom Composite Sample SW = Sidewall Composite Sample

Based on the results of our confirmation sampling, no further remedial actions were necessary.

Remedial Actions

- The impacted areas near sample points S-1 and S-2 were excavated to a total depth of 1-foot BGS.
- The impacted areas near sample points S-3 and S-4 were excavated to a total depth of 2-foot BGS.
- The impacted overspray area near sample point S-5 through S-8 was sprayed with Micro-Blaze, a bio-remedial fluid and composite sampled at a depth of 0-1 foot.
- Composite confirmation samples were obtained from the bottom and sidewalls of the excavated area, every 200-square foot and transported to Cardinal Laboratory for analysis to verify that all contaminants above closure criteria had been removed.
- All the excavated material (52yds) was hauled to Lea Land, a NMOCD approved solid waste disposal facility.
- The excavated area on the well pad was backfilled with clean caliche at depth, brought to grade and machine compacted.

Closure

Based on the remedial actions and confirmation sampling results, on behalf of Cimarex Energy Co. we request no further actions be required for this incident.

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575-909-0326.

Respectfully submitted,

H&R Enterprises, LLC

Michael Collier

Michael Collier
Environmental Project Manager

Attachments:

Appendix I Site Maps
Appendix II Soil Survey, Groundwater Data, FEMA Flood Zone
Appendix III NMOCD Correspondence
Appendix IV Photographic Documentation
Appendix V Laboratory Reports

APPENDIX I

SITE MAPS

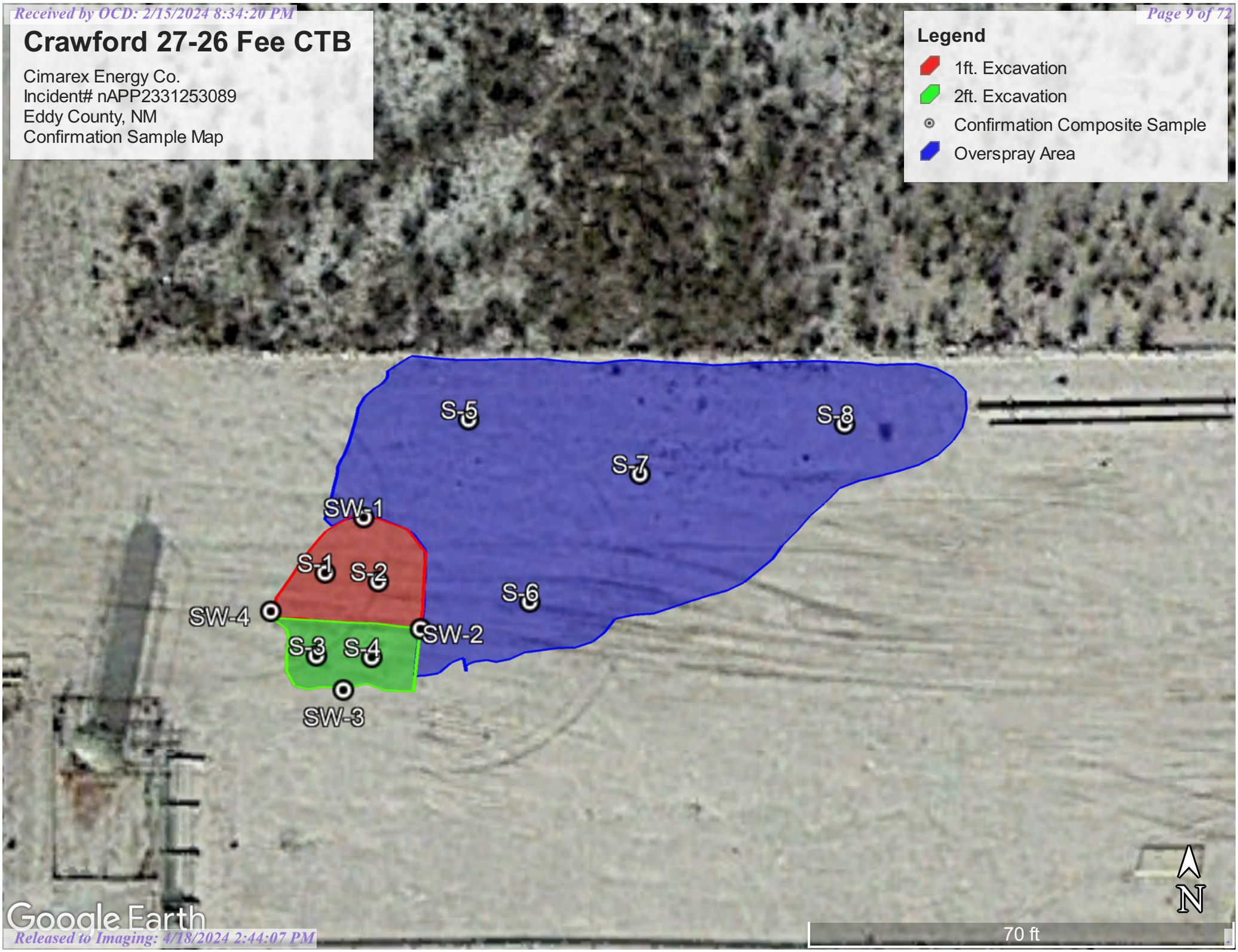
KARST POTENTIAL MAP

TOPOGRAPHIC MAP

LOCATOR MAP

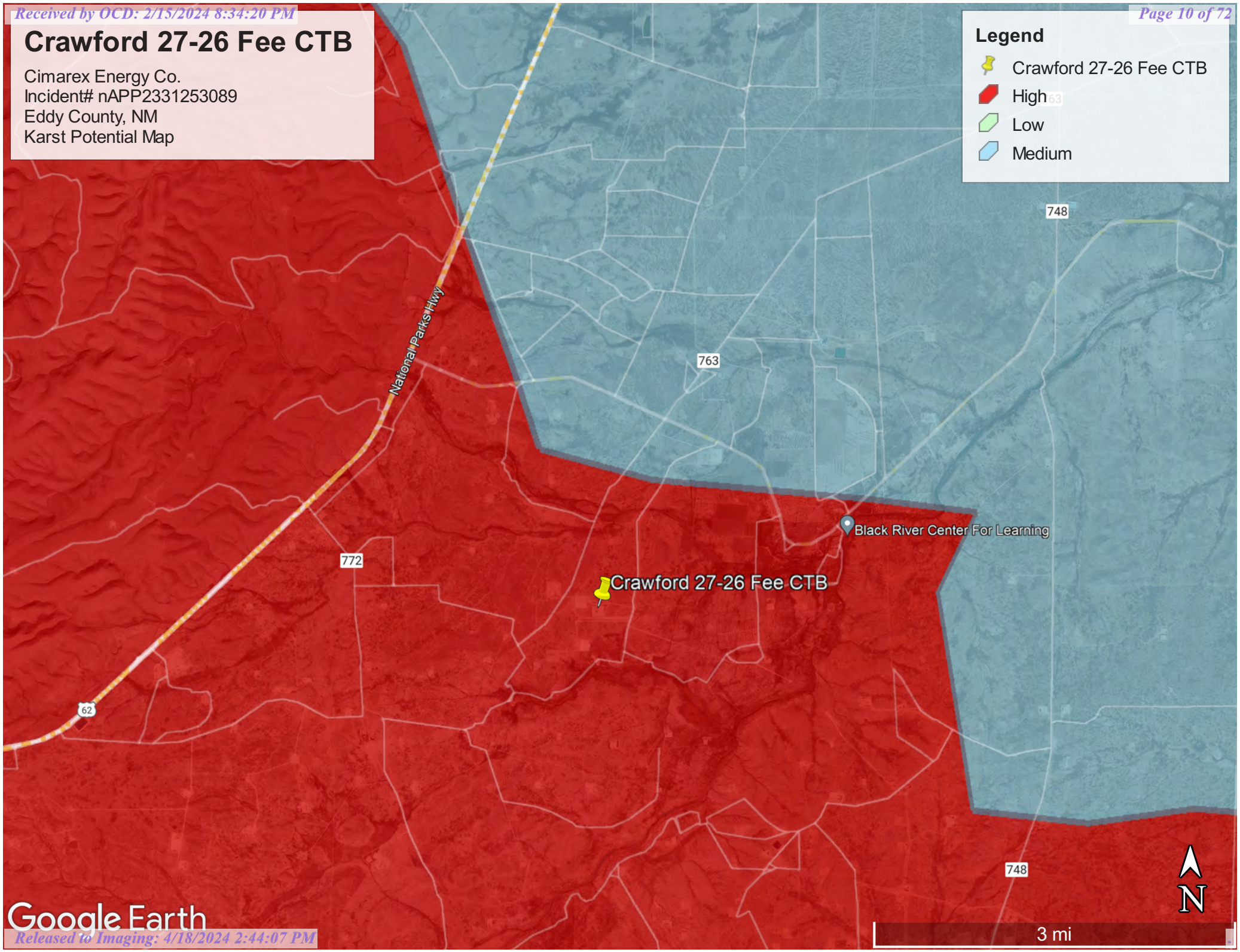
Crawford 27-26 Fee CTB

Cimarex Energy Co.
Incident# nAPP2331253089
Eddy County, NM
Confirmation Sample Map



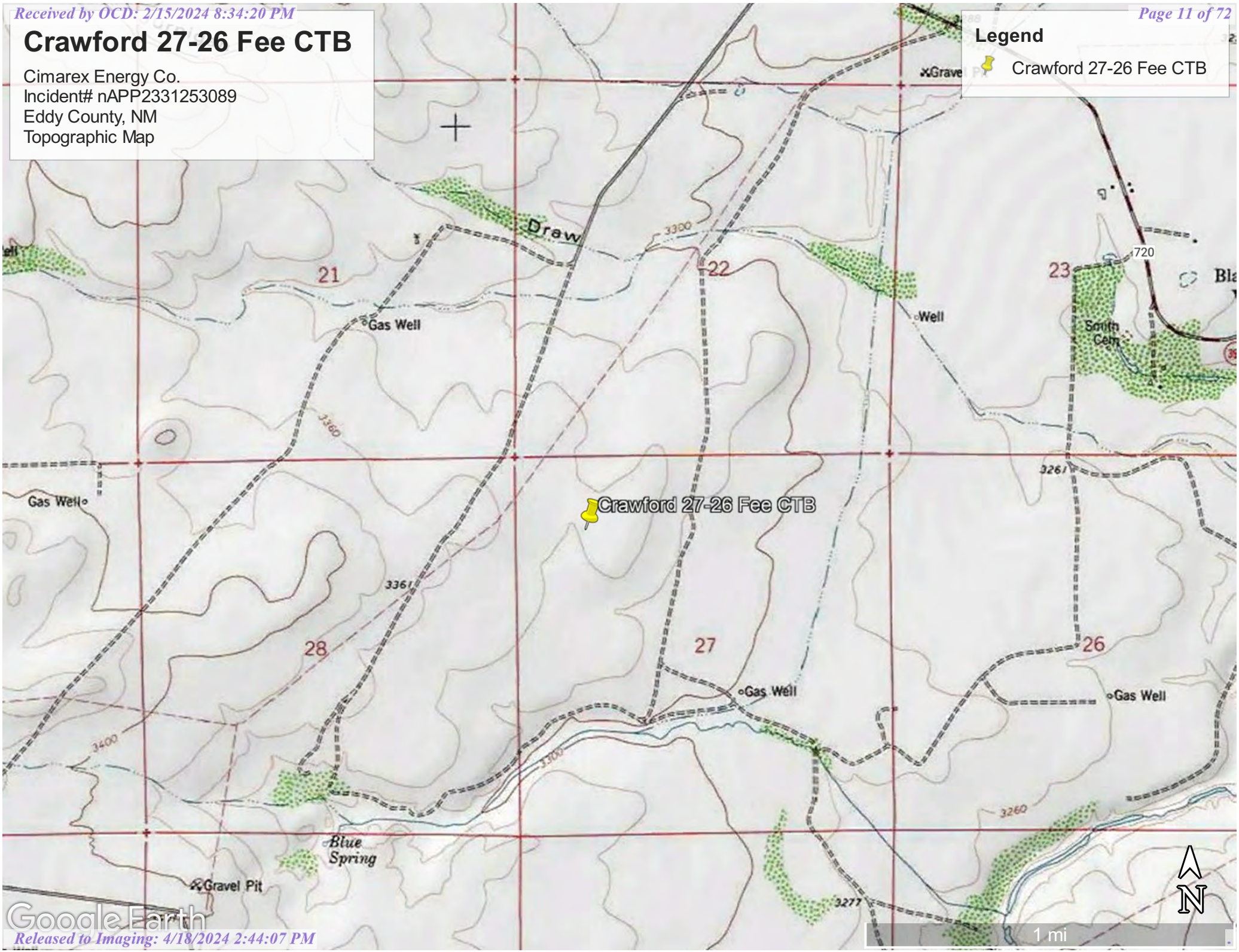
Crawford 27-26 Fee CTB

Cimarex Energy Co.
Incident# nAPP2331253089
Eddy County, NM
Karst Potential Map



Crawford 27-26 Fee CTB

Cimarex Energy Co.
Incident# nAPP2331253089
Eddy County, NM
Topographic Map



Crawford 27-26 Fee CTB

Cimarex Energy Co.
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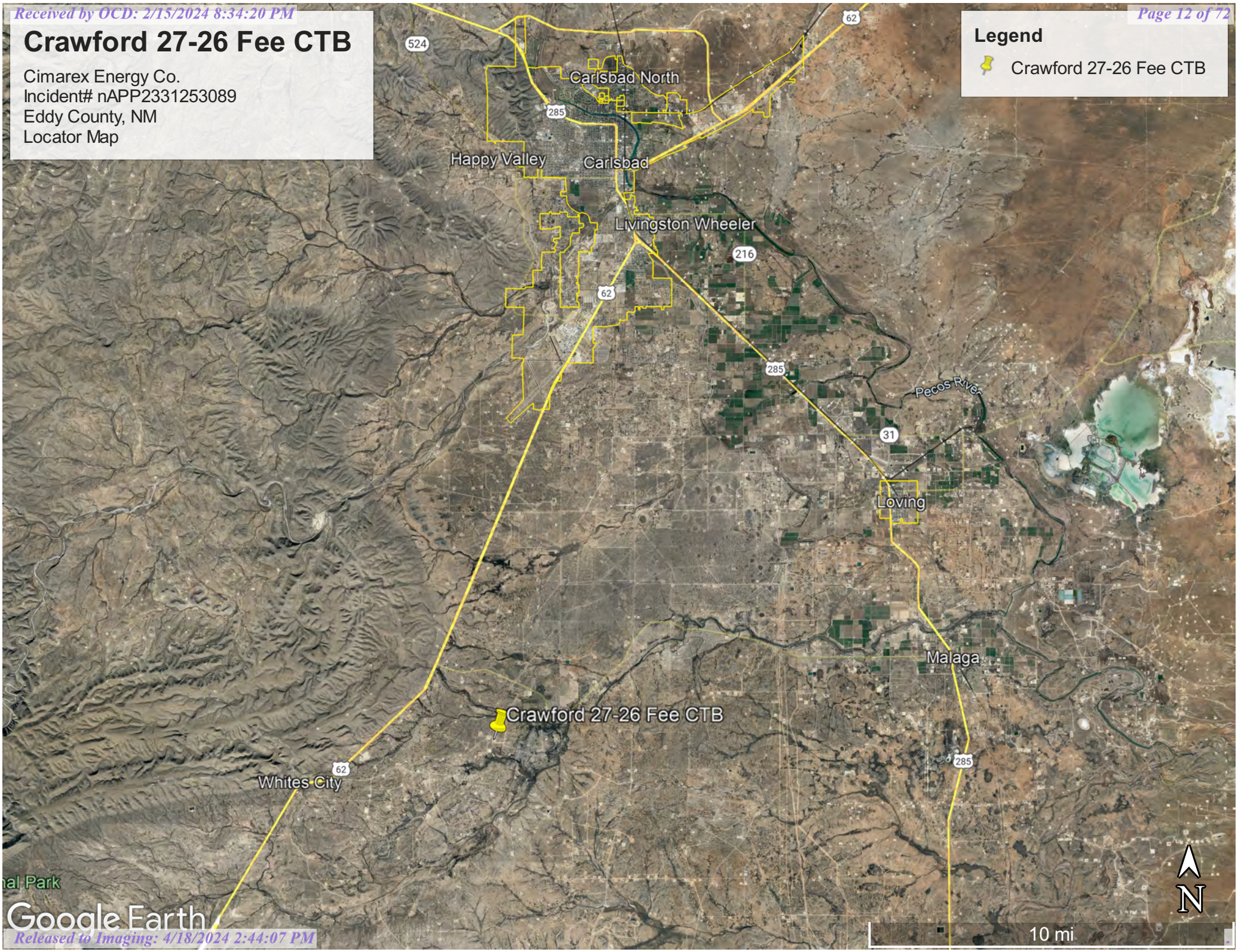
Eddy County, NM
Locator Map



APPENDIX II

GROUNDWATER DATA

SOIL SURVEY

FEMA FLOOD ZONE

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 00792		C	ED		4	2	27	24S	26E	568397	3561747*	1291	70	30	40
C 00928		C	ED		1	1	23	24S	26E	568806	3563757*	2374	91	7	84
C 04586 POD1		C	ED	4	1	1	35	24S	26E	568993	3560476	2436	150		
C 00829		C	ED		1	4	23	24S	26E	569591	3562957*	2605	50	19	31
C 03110		C	ED	4	1	4	23	24S	26E	569690	3562856*	2667	35	12	23
C 00369	C	CUB	ED		2	1	23	24S	26E	569207	3563757*	2670			
C 01869	R	C	ED	2	3	4	23	24S	26E	569753	3562679	2681	110	30	80
C 01869 POD2		C	ED	2	3	4	23	24S	26E	569753	3562679	2681	111	50	61
C 03526 POD1		C	ED	1	4	4	23	24S	26E	569788	3562666	2711	200		
C 00517		C	ED	1	3	2	23	24S	26E	569498	3563456*	2736	80	31	49
C 00883		C	ED	3	2	4	23	24S	26E	569887	3562855*	2855	60	14	46
C 03200 POD1		C	ED	2	3	4	34	24S	26E	568206	3559349	2912	80	52	28
C 00755		C	ED		4	1	15	24S	26E	567564	3564984*	2952	270		
C 01616		C	ED		2	4	23	24S	26E	569988	3562956*	2981	84	84	0

Average Depth to Water: **32 feet**

Minimum Depth: **7 feet**

Maximum Depth: **84 feet**

Record Count: 14

Basin/County Search:

County: Eddy

UTMNAD83 Radius Search (in meters):

Easting (X): 567143.94 **Northing (Y):** 3562061.68 **Radius:** 3000

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

11/13/23 8:28 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Eddy Area, New Mexico

RE—Reagan-Upton association, 0 to 9 percent slopes

Map Unit Setting

National map unit symbol: 1w5d
Elevation: 1,100 to 5,400 feet
Mean annual precipitation: 6 to 14 inches
Mean annual air temperature: 60 to 64 degrees F
Frost-free period: 180 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Reagan and similar soils: 70 percent
Upton and similar soils: 25 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reagan

Setting

Landform: Fan remnants, alluvial fans
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Alluvium and/or eolian deposits

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 60 inches: loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: B
Ecological site: R042CY153NM - Loamy
Hydric soil rating: No

Description of Upton

Setting

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

Typical profile

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

Properties and qualities

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

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R042CY159NM - Shallow Loamy
Hydric soil rating: No

Minor Components

Atoka

Percent of map unit: 3 percent
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Pima

Percent of map unit: 2 percent
Ecological site: R070BC017NM - Bottomland

Hydric soil rating: No

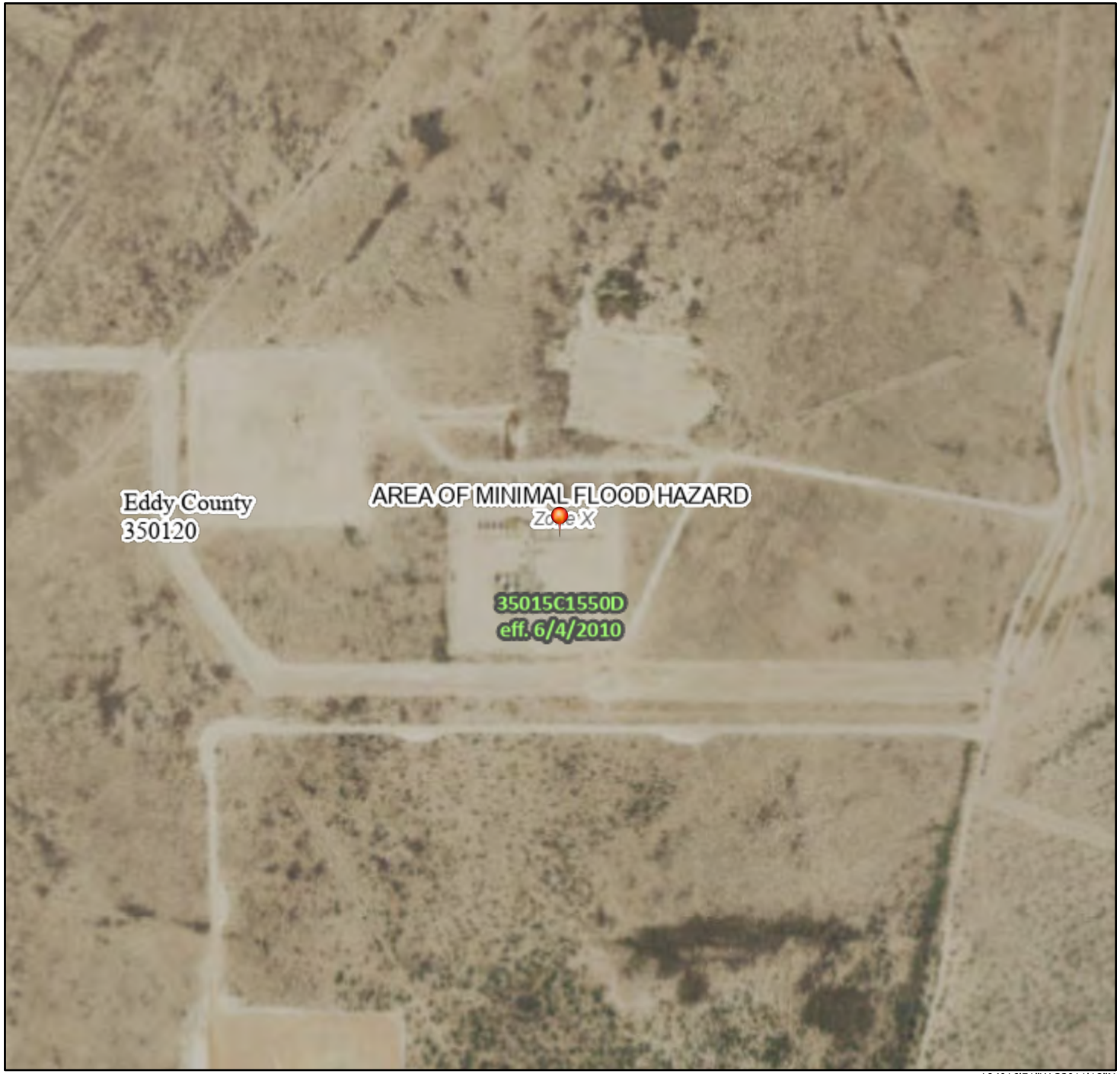
Data Source Information

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

National Flood Hazard Layer FIRMette

FEMA

104°17'28"W 32°11'48"N



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

1:6,000

104°16'51"W 32°11'18"N

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
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

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

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/26/2024 at 1:25 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.

APPENDIX III

NMOCD CORRESPONDENCE

OCD Permitting

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

Submission Information

Submission ID:	303350	**Districts:**	Artesia
Operator:	[215099] CIMAREX ENERGY CO.	**Counties:**	Eddy
Description:	CIMAREX ENERGY CO. [215099] , CRAWFORD 27-26 FEE CTB , nAPP2331253089		
Status:	APPROVED		
Status Date:	01/14/2024		
References (2):	fAPP2202670350, nAPP2331253089		

Forms

This application type does not have attachments.

Questions

Prerequisites

Incident ID (n#)	**nAPP2331253089**
Incident Name	**NAPP2331253089 CRAWFORD 27-26 FEE CTB @ 0**
Incident Type	**Oil Release**
Incident Status	**Initial C-141 Approved**
Incident Facility	**[fAPP2202670350] CRAWFORD 27-26 FEE 1H,2H,15H,16H,29H,30H**

Location of Release Source

Site Name	**CRAWFORD 27-26 FEE CTB**
Date Release Discovered	**11/07/2023**
Surface Owner	**Private**

Sampling Event General Information

Please answer all the questions in this group.

What is the sampling surface area in square feet	600
What is the estimated number of samples that will be gathered	16
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	01/18/2024
Time sampling will commence	08:00 AM
Warning: Notification can not be less than two business days prior to conducting final sampling.	
Please provide any information necessary for observers to contact samplers	Michael Collier 575-909-0326
Please provide any information necessary for navigation to sampling site	From intersection of Black River Village Road and 62-180, go South on Black River 2.7 miles to gate (call Mich code). Turn right for 1.7 miles, turn right for 0.2 miles, turn left for 0.1 miles into location.

Comments

No comments found for this submission.

Conditions

Summary: *lluig (1/14/2024),* Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.

Reasons

No reasons found for this submission.

Go Back

APPENDIX IV

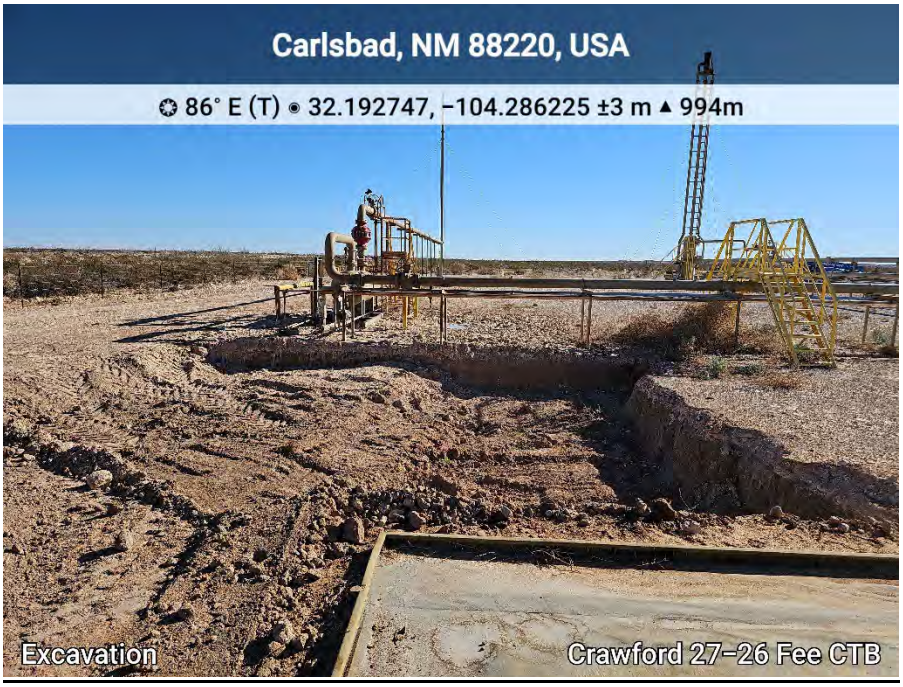
PHOTOGRAPHIC DOCUMENTATION

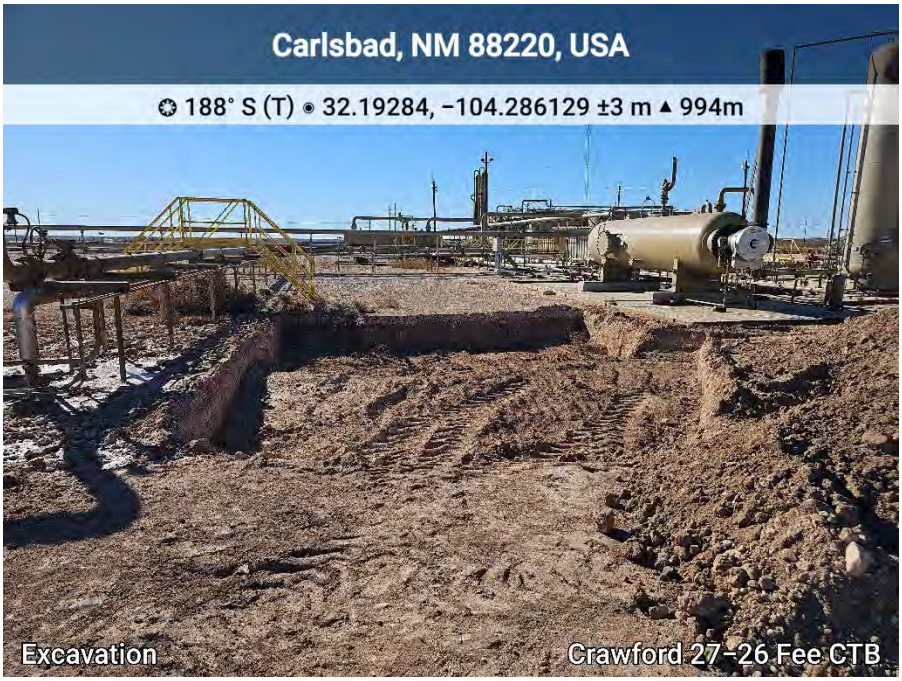
PHOTOGRAPHIC DOCUMENTATION

INITIAL PHOTOGRAPHS

PHOTOGRAPHIC DOCUMENTATION

EXCAVATION PHOTOGRAPHS





PHOTOGRAPHIC DOCUMENTATION

MICRO-BLAZE PHOTOGRAPHS

PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPHIC DOCUMENTATION

FINAL PHOTOGRAPHS

APPENDIX V

LABORATORY REPORTS

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Michael Collier
H & R Enterprises
5120 W Kansas St
Hobbs, New Mexico 88242

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JOB DESCRIPTION

CRAWFORD 27 - 26 FEE CTB (CRAW)
Eddy County NM

JOB NUMBER

890-5989-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

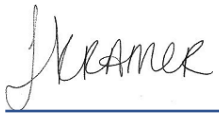
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



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Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Laboratory Job ID: 890-5989-1
SDG: Eddy County NM

Table of Contents

Definitions/Glossary

Client: H & R Enterprises Job ID: 890-5989-1
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW) SDG: Eddy County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: H & R Enterprises Job ID: 890-5989-1
Project: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1 Eurofins Carlsbad

Job Narrative
890-5989-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 1/18/2024 12:45 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.4°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: S - 1 1' (890-5989-1), S - 2 1' (890-5989-2), S - 3 2' (890-5989-3), S - 4 2' (890-5989-4), S - 5 0 - 1' (890-5989-5), S - 6 0 - 1' (890-5989-6), S - 7 0 - 1' (890-5989-7), S - 8 0 - 1' (890-5989-8), SW -1 1' (890-5989-9), SW - 2 1 - 2' (890-5989-10), SW - 3 2' (890-5989-11), SW - 4 1 - 2' (890-5989-12) and SW - 5 2' (890-5989-13).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: S - 1 1' (890-5989-1), S - 2 1' (890-5989-2), S - 3 2' (890-5989-3), S - 4 2' (890-5989-4), S - 5 0 - 1' (890-5989-5), S - 6 0 - 1' (890-5989-6), S - 7 0 - 1' (890-5989-7), S - 8 0 - 1' (890-5989-8), SW -1 1' (890-5989-9), SW - 2 1 - 2' (890-5989-10), SW - 3 2' (890-5989-11), SW - 4 1 - 2' (890-5989-12), (CCV 880-71433/2), (CCV 880-71433/20), (CCV 880-71433/33), (LCS 880-71337/1-A), (LCSD 880-71337/2-A), (880-38239-A-1-C), (880-38239-A-1-A MS) and (880-38239-A-1-B MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-71433 recovered above the upper control limit for Toluene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-71433/20).

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

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-71230 and analytical batch 880-71386 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Client Sample Results

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Client Sample ID: S - 1 1'

Lab Sample ID: 890-5989-1
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/23/24 20:01	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/23/24 20:01	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/23/24 20:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/22/24 14:05	01/23/24 20:01	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/23/24 20:01	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/22/24 14:05	01/23/24 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*241*	*S1+*	*70 - 130*	*01/22/24 14:05*	*01/23/24 20:01*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*01/22/24 14:05*	*01/23/24 20:01*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/23/24 20:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			01/22/24 19:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		01/19/24 17:25	01/22/24 19:49	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		01/19/24 17:25	01/22/24 19:49	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		01/19/24 17:25	01/22/24 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*01/19/24 17:25*	*01/22/24 19:49*	*1*
o-Terphenyl	*83*		*70 - 130*	*01/19/24 17:25*	*01/22/24 19:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.6**		4.99		mg/Kg			01/24/24 08:08	1

Client Sample ID: S - 2 1'

Lab Sample ID: 890-5989-2
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/23/24 20:28	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/23/24 20:28	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/23/24 20:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/22/24 14:05	01/23/24 20:28	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/23/24 20:28	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/22/24 14:05	01/23/24 20:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*205*	*S1+*	*70 - 130*	*01/22/24 14:05*	*01/23/24 20:28*	*1*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*	*01/22/24 14:05*	*01/23/24 20:28*	*1*

Client Sample Results

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Client Sample ID: S - 2 1'

Lab Sample ID: 890-5989-2
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/23/24 20:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			01/22/24 20:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		01/19/24 17:25	01/22/24 20:58	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		01/19/24 17:25	01/22/24 20:58	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/19/24 17:25	01/22/24 20:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*01/19/24 17:25*	*01/22/24 20:58*	*1*
o-Terphenyl	*90*		*70 - 130*	*01/19/24 17:25*	*01/22/24 20:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.0**		4.97		mg/Kg			01/24/24 08:15	1

Client Sample ID: S - 3 2'

Lab Sample ID: 890-5989-3
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/23/24 22:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/23/24 22:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/23/24 22:14	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/22/24 14:05	01/23/24 22:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/23/24 22:14	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/22/24 14:05	01/23/24 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*183*	*S1+*	*70 - 130*	*01/22/24 14:05*	*01/23/24 22:14*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*01/22/24 14:05*	*01/23/24 22:14*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/23/24 22:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			01/22/24 21:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		01/19/24 17:25	01/22/24 21:22	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/19/24 17:25	01/22/24 21:22	1

Client Sample Results

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Client Sample ID: S - 3 2'

Lab Sample ID: 890-5989-3
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/19/24 17:25	01/22/24 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*01/19/24 17:25*	*01/22/24 21:22*	*1*
o-Terphenyl	*92*		*70 - 130*	*01/19/24 17:25*	*01/22/24 21:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.3**		4.96		mg/Kg			01/24/24 08:22	1

Client Sample ID: S - 4 2'

Lab Sample ID: 890-5989-4
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/22/24 14:05	01/23/24 22:40	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/22/24 14:05	01/23/24 22:40	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/22/24 14:05	01/23/24 22:40	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/22/24 14:05	01/23/24 22:40	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/22/24 14:05	01/23/24 22:40	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/22/24 14:05	01/23/24 22:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*231*	*S1+*	*70 - 130*	*01/22/24 14:05*	*01/23/24 22:40*	*1*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*	*01/22/24 14:05*	*01/23/24 22:40*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/23/24 22:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/22/24 21:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/19/24 17:25	01/22/24 21:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/19/24 17:25	01/22/24 21:45	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/19/24 17:25	01/22/24 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*01/19/24 17:25*	*01/22/24 21:45*	*1*
o-Terphenyl	*100*		*70 - 130*	*01/19/24 17:25*	*01/22/24 21:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.0**		5.03		mg/Kg			01/24/24 08:29	1

Client Sample Results

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Client Sample ID: S - 5 0 - 1'

Lab Sample ID: 890-5989-5
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/23/24 23:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/23/24 23:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/23/24 23:06	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/22/24 14:05	01/23/24 23:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/23/24 23:06	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/22/24 14:05	01/23/24 23:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*161*	*S1+*	*70 - 130*	*01/22/24 14:05*	*01/23/24 23:06*	*1*
1,4-Difluorobenzene (Surr)	*122*		*70 - 130*	*01/22/24 14:05*	*01/23/24 23:06*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/23/24 23:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			01/22/24 22:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		01/19/24 17:25	01/22/24 22:07	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/19/24 17:25	01/22/24 22:07	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/19/24 17:25	01/22/24 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*01/19/24 17:25*	*01/22/24 22:07*	*1*
o-Terphenyl	*86*		*70 - 130*	*01/19/24 17:25*	*01/22/24 22:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.6**		4.95		mg/Kg			01/24/24 08:49	1

Client Sample ID: S - 6 0 - 1'

Lab Sample ID: 890-5989-6
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/23/24 23:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/23/24 23:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/23/24 23:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/22/24 14:05	01/23/24 23:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/23/24 23:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/22/24 14:05	01/23/24 23:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*215*	*S1+*	*70 - 130*	*01/22/24 14:05*	*01/23/24 23:33*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*01/22/24 14:05*	*01/23/24 23:33*	*1*

Client Sample Results

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Client Sample ID: S - 6 0 - 1'

Lab Sample ID: 890-5989-6
Date Collected: 01/18/24 00:00
Matrix: Solid
Date Received: 01/18/24 12:45

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/23/24 23:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			01/22/24 22:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		01/19/24 17:25	01/22/24 22:30	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		01/19/24 17:25	01/22/24 22:30	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/19/24 17:25	01/22/24 22:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*01/19/24 17:25*	*01/22/24 22:30*	*1*
o-Terphenyl	*84*		*70 - 130*	*01/19/24 17:25*	*01/22/24 22:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.5**		4.96		mg/Kg			01/24/24 08:56	1

Client Sample ID: S - 7 0 - 1'

Lab Sample ID: 890-5989-7
Date Collected: 01/18/24 00:00
Matrix: Solid
Date Received: 01/18/24 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/22/24 14:05	01/23/24 23:59	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/22/24 14:05	01/23/24 23:59	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/22/24 14:05	01/23/24 23:59	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		01/22/24 14:05	01/23/24 23:59	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/22/24 14:05	01/23/24 23:59	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/22/24 14:05	01/23/24 23:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*210*	*S1+*	*70 - 130*	*01/22/24 14:05*	*01/23/24 23:59*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*01/22/24 14:05*	*01/23/24 23:59*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			01/23/24 23:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			01/22/24 22:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		01/19/24 17:25	01/22/24 22:53	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		01/19/24 17:25	01/22/24 22:53	1

Client Sample Results

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Client Sample ID: S - 7 0 - 1'

Lab Sample ID: 890-5989-7
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/19/24 17:25	01/22/24 22:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*01/19/24 17:25*	*01/22/24 22:53*	*1*
o-Terphenyl	*93*		*70 - 130*	*01/19/24 17:25*	*01/22/24 22:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.3**		5.00		mg/Kg			01/24/24 09:17	1

Client Sample ID: S - 8 0 - 1'

Lab Sample ID: 890-5989-8
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/24/24 00:26	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/24/24 00:26	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/24/24 00:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/22/24 14:05	01/24/24 00:26	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/24/24 00:26	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/22/24 14:05	01/24/24 00:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*176*	*S1+*	*70 - 130*	*01/22/24 14:05*	*01/24/24 00:26*	*1*
1,4-Difluorobenzene (Surr)	*128*		*70 - 130*	*01/22/24 14:05*	*01/24/24 00:26*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/24/24 00:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			01/22/24 23:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		01/19/24 17:25	01/22/24 23:16	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		01/19/24 17:25	01/22/24 23:16	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/19/24 17:25	01/22/24 23:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*01/19/24 17:25*	*01/22/24 23:16*	*1*
o-Terphenyl	*89*		*70 - 130*	*01/19/24 17:25*	*01/22/24 23:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.8**		4.99		mg/Kg			01/24/24 09:24	1

Client Sample Results

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Client Sample ID: SW -1 1'

Lab Sample ID: 890-5989-9
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/24/24 00:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/24/24 00:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/24/24 00:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/22/24 14:05	01/24/24 00:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/24/24 00:53	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/22/24 14:05	01/24/24 00:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*159*	*S1+*	*70 - 130*	*01/22/24 14:05*	*01/24/24 00:53*	*1*
1,4-Difluorobenzene (Surr)	*121*		*70 - 130*	*01/22/24 14:05*	*01/24/24 00:53*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/24/24 00:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			01/22/24 23:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		01/19/24 17:25	01/22/24 23:39	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/19/24 17:25	01/22/24 23:39	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/19/24 17:25	01/22/24 23:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*01/19/24 17:25*	*01/22/24 23:39*	*1*
o-Terphenyl	*84*		*70 - 130*	*01/19/24 17:25*	*01/22/24 23:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.2**		5.04		mg/Kg			01/24/24 09:30	1

Client Sample ID: SW - 2 1 - 2'

Lab Sample ID: 890-5989-10
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/22/24 14:05	01/24/24 01:19	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/22/24 14:05	01/24/24 01:19	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/22/24 14:05	01/24/24 01:19	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/22/24 14:05	01/24/24 01:19	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/22/24 14:05	01/24/24 01:19	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/22/24 14:05	01/24/24 01:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*195*	*S1+*	*70 - 130*	*01/22/24 14:05*	*01/24/24 01:19*	*1*
1,4-Difluorobenzene (Surr)	*125*		*70 - 130*	*01/22/24 14:05*	*01/24/24 01:19*	*1*

Client Sample Results

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Client Sample ID: SW - 2 1 - 2'

Lab Sample ID: 890-5989-10
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/24/24 01:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/23/24 00:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/19/24 17:25	01/23/24 00:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/19/24 17:25	01/23/24 00:01	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/19/24 17:25	01/23/24 00:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*01/19/24 17:25*	*01/23/24 00:01*	*1*
o-Terphenyl	*86*		*70 - 130*	*01/19/24 17:25*	*01/23/24 00:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.2**		5.02		mg/Kg			01/24/24 09:37	1

Client Sample ID: SW - 3 2'

Lab Sample ID: 890-5989-11
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/24/24 01:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/24/24 01:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/24/24 01:46	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/22/24 14:05	01/24/24 01:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/24/24 01:46	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/22/24 14:05	01/24/24 01:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*192*	*S1+*	*70 - 130*	*01/22/24 14:05*	*01/24/24 01:46*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*01/22/24 14:05*	*01/24/24 01:46*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/24/24 01:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/23/24 00:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/19/24 17:25	01/23/24 00:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/19/24 17:25	01/23/24 00:43	1

Client Sample Results

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Client Sample ID: SW - 3 2'

Lab Sample ID: 890-5989-11
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/19/24 17:25	01/23/24 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*01/19/24 17:25*	*01/23/24 00:43*	*1*
o-Terphenyl	*86*		*70 - 130*	*01/19/24 17:25*	*01/23/24 00:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.6**		5.02		mg/Kg			01/24/24 09:44	1

Client Sample ID: SW - 4 1 - 2'

Lab Sample ID: 890-5989-12
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/24/24 02:12	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/24/24 02:12	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/24/24 02:12	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/22/24 14:05	01/24/24 02:12	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/22/24 14:05	01/24/24 02:12	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/22/24 14:05	01/24/24 02:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*174*	*S1+*	*70 - 130*	*01/22/24 14:05*	*01/24/24 02:12*	*1*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*	*01/22/24 14:05*	*01/24/24 02:12*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/24/24 02:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			01/23/24 01:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		01/19/24 17:25	01/23/24 01:04	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		01/19/24 17:25	01/23/24 01:04	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/19/24 17:25	01/23/24 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*01/19/24 17:25*	*01/23/24 01:04*	*1*
o-Terphenyl	*96*		*70 - 130*	*01/19/24 17:25*	*01/23/24 01:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**29.9**		5.01		mg/Kg			01/24/24 09:51	1

Client Sample Results

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Client Sample ID: SW - 5 2'

Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

Lab Sample ID: 890-5989-13

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:19	01/23/24 22:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:19	01/23/24 22:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:19	01/23/24 22:03	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/22/24 14:19	01/23/24 22:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:19	01/23/24 22:03	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/22/24 14:19	01/23/24 22:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*01/22/24 14:19*	*01/23/24 22:03*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*01/22/24 14:19*	*01/23/24 22:03*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/23/24 22:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			01/23/24 01:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		01/19/24 17:25	01/23/24 01:25	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		01/19/24 17:25	01/23/24 01:25	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		01/19/24 17:25	01/23/24 01:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*01/19/24 17:25*	*01/23/24 01:25*	*1*
o-Terphenyl	*82*		*70 - 130*	*01/19/24 17:25*	*01/23/24 01:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20.7**		4.98		mg/Kg			01/24/24 09:58	1

Surrogate Summary

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-5989-1	S - 1 1'	241 S1+	101
890-5989-2	S - 2 1'	205 S1+	124
890-5989-3	S - 3 2'	183 S1+	95
890-5989-4	S - 4 2'	231 S1+	120
890-5989-5	S - 5 0 - 1'	161 S1+	122
890-5989-6	S - 6 0 - 1'	215 S1+	83
890-5989-7	S - 7 0 - 1'	210 S1+	101
890-5989-8	S - 8 0 - 1'	176 S1+	128
890-5989-9	SW -1 1'	159 S1+	121
890-5989-10	SW - 2 1 - 2'	195 S1+	125
890-5989-11	SW - 3 2'	192 S1+	83
890-5989-12	SW - 4 1 - 2'	174 S1+	120
890-5989-13	SW - 5 2'	84	95
890-5989-13 MS	SW - 5 2'	121	116
890-5989-13 MSD	SW - 5 2'	121	111
LCS 880-71337/1-A	Lab Control Sample	161 S1+	92
LCS 880-71338/1-A	Lab Control Sample	128	115
LCSD 880-71337/2-A	Lab Control Sample Dup	173 S1+	88
LCSD 880-71338/2-A	Lab Control Sample Dup	119	116
MB 880-71335/5-A	Method Blank	72	92
MB 880-71337/5-A	Method Blank	113	117
MB 880-71338/5-A	Method Blank	73	93

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-5989-1	S - 1 1'	82	83
890-5989-1 MS	S - 1 1'	87	77
890-5989-1 MSD	S - 1 1'	86	77
890-5989-2	S - 2 1'	90	90
890-5989-3	S - 3 2'	89	92
890-5989-4	S - 4 2'	98	100
890-5989-5	S - 5 0 - 1'	84	86
890-5989-6	S - 6 0 - 1'	84	84
890-5989-7	S - 7 0 - 1'	92	93
890-5989-8	S - 8 0 - 1'	88	89
890-5989-9	SW -1 1'	84	84
890-5989-10	SW - 2 1 - 2'	83	86
890-5989-11	SW - 3 2'	84	86
890-5989-12	SW - 4 1 - 2'	92	96
890-5989-13	SW - 5 2'	78	82
LCS 880-71255/2-A	Lab Control Sample	101	125
LCSD 880-71255/3-A	Lab Control Sample Dup	101	115

Surrogate Summary

Client: H & R Enterprises Job ID: 890-5989-1
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW) SDG: Eddy County NM

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)								
MB 880-71255/1-A	Method Blank	86	88								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-71335/5-A
Matrix: Solid
Analysis Batch: 71404

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71335

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/22/24 13:35	01/23/24 11:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/22/24 13:35	01/23/24 11:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/22/24 13:35	01/23/24 11:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/22/24 13:35	01/23/24 11:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/22/24 13:35	01/23/24 11:03	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/22/24 13:35	01/23/24 11:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*	*01/22/24 13:35*	*01/23/24 11:03*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*01/22/24 13:35*	*01/23/24 11:03*	*1*

Lab Sample ID: MB 880-71337/5-A
Matrix: Solid
Analysis Batch: 71433

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71337

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/23/24 16:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/23/24 16:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/23/24 16:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/22/24 14:05	01/23/24 16:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:05	01/23/24 16:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/22/24 14:05	01/23/24 16:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*01/22/24 14:05*	*01/23/24 16:04*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*01/22/24 14:05*	*01/23/24 16:04*	*1*

Lab Sample ID: LCS 880-71337/1-A
Matrix: Solid
Analysis Batch: 71433

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1066		mg/Kg		107	70 - 130
Toluene	0.100	0.1088		mg/Kg		109	70 - 130
Ethylbenzene	0.100	0.1080		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	0.200	0.2188		mg/Kg		109	70 - 130
o-Xylene	0.100	0.1154		mg/Kg		115	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*161*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: LCSD 880-71337/2-A
Matrix: Solid
Analysis Batch: 71433

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71337

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1144		mg/Kg		114	70 - 130	7	35

QC Sample Results

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

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

Lab Sample ID: LCSD 880-71337/2-A
Matrix: Solid
Analysis Batch: 71433

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71337

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1255		mg/Kg		126	70 - 130	14	35
Ethylbenzene			0.100	0.09415		mg/Kg		94	70 - 130	14	35
m-Xylene & p-Xylene			0.200	0.2316		mg/Kg		116	70 - 130	6	35
o-Xylene			0.100	0.1013		mg/Kg		101	70 - 130	13	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*173*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

Lab Sample ID: MB 880-71338/5-A
Matrix: Solid
Analysis Batch: 71404

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71338

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:19	01/23/24 21:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:19	01/23/24 21:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:19	01/23/24 21:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/22/24 14:19	01/23/24 21:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:19	01/23/24 21:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/22/24 14:19	01/23/24 21:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*73*		*70 - 130*	*01/22/24 14:19*	*01/23/24 21:41*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*01/22/24 14:19*	*01/23/24 21:41*	*1*

Lab Sample ID: LCS 880-71338/1-A
Matrix: Solid
Analysis Batch: 71404

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71338

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene			0.100	0.1188		mg/Kg		119	70 - 130
Toluene			0.100	0.1054		mg/Kg		105	70 - 130
Ethylbenzene			0.100	0.1132		mg/Kg		113	70 - 130
m-Xylene & p-Xylene			0.200	0.2352		mg/Kg		118	70 - 130
o-Xylene			0.100	0.1170		mg/Kg		117	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*

Lab Sample ID: LCSD 880-71338/2-A
Matrix: Solid
Analysis Batch: 71404

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71338

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1134		mg/Kg		113	70 - 130	5	35
Toluene			0.100	0.1019		mg/Kg		102	70 - 130	3	35
Ethylbenzene			0.100	0.1080		mg/Kg		108	70 - 130	5	35

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QC Sample Results

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

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

Lab Sample ID: LCSD 880-71338/2-A
Matrix: Solid
Analysis Batch: 71404

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71338

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Xylene & p-Xylene			0.200	0.2221		mg/Kg		111	70 - 130	6	35
o-Xylene			0.100	0.1102		mg/Kg		110	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

Lab Sample ID: 890-5989-13 MS
Matrix: Solid
Analysis Batch: 71404

Client Sample ID: SW - 5 2'
Prep Type: Total/NA
Prep Batch: 71338

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0990	0.1015		mg/Kg		103	70 - 130
Toluene	<0.00200	U	0.0990	0.08841		mg/Kg		89	70 - 130
Ethylbenzene	<0.00200	U	0.0990	0.09352		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.198	0.1947		mg/Kg		98	70 - 130
o-Xylene	<0.00200	U	0.0990	0.09589		mg/Kg		97	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

Lab Sample ID: 890-5989-13 MSD
Matrix: Solid
Analysis Batch: 71404

Client Sample ID: SW - 5 2'
Prep Type: Total/NA
Prep Batch: 71338

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.1104		mg/Kg		111	70 - 130	8	35
Toluene	<0.00200	U	0.0996	0.09672		mg/Kg		97	70 - 130	9	35
Ethylbenzene	<0.00200	U	0.0996	0.1065		mg/Kg		107	70 - 130	13	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.2177		mg/Kg		109	70 - 130	11	35
o-Xylene	<0.00200	U	0.0996	0.1064		mg/Kg		107	70 - 130	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

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

Lab Sample ID: MB 880-71255/1-A
Matrix: Solid
Analysis Batch: 71295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71255

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/19/24 17:25	01/22/24 18:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/19/24 17:25	01/22/24 18:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/19/24 17:25	01/22/24 18:38	1

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QC Sample Results

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	01/19/24 17:25	01/22/24 18:38	1
o-Terphenyl	88		70 - 130	01/19/24 17:25	01/22/24 18:38	1

Lab Sample ID: LCS 880-71255/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 71295 — **Prep Batch: 71255**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	960.0		mg/Kg		96	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	961.6		mg/Kg		96	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	125		70 - 130

Lab Sample ID: LCSD 880-71255/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 71295 — **Prep Batch: 71255**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1022		mg/Kg		102	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	989.3		mg/Kg		99	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	115		70 - 130

Lab Sample ID: 890-5989-1 MS — **Client Sample ID: S - 1 1'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 71295 — **Prep Batch: 71255**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	1010	883.2		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.1	U	1010	919.6		mg/Kg		91	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	77		70 - 130

Lab Sample ID: 890-5989-1 MSD — **Client Sample ID: S - 1 1'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 71295 — **Prep Batch: 71255**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	1010	864.2		mg/Kg		84	70 - 130	2	20

QC Sample Results

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

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

Lab Sample ID: 890-5989-1 MSD
Matrix: Solid
Analysis Batch: 71295

Client Sample ID: S - 1 1'
Prep Type: Total/NA
Prep Batch: 71255

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)	<50.1	U	1010	938.0		mg/Kg		93	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*86*		*70 - 130*
o-Terphenyl	*77*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-71230/1-A
Matrix: Solid
Analysis Batch: 71386

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/24/24 06:32	1

Lab Sample ID: LCS 880-71230/2-A
Matrix: Solid
Analysis Batch: 71386

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	252.1		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-71230/3-A
Matrix: Solid
Analysis Batch: 71386

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	250.5		mg/Kg		100	90 - 110	1	20

Lab Sample ID: 890-5989-4 MS
Matrix: Solid
Analysis Batch: 71386

Client Sample ID: S - 4 2'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	13.0		252	273.3		mg/Kg		103	90 - 110

Lab Sample ID: 890-5989-4 MSD
Matrix: Solid
Analysis Batch: 71386

Client Sample ID: S - 4 2'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	13.0		252	271.6		mg/Kg		103	90 - 110	1	20

QC Association Summary

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

GC VOA

Prep Batch: 71335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-71335/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 71337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5989-1	S - 1 1'	Total/NA	Solid	5035	
890-5989-2	S - 2 1'	Total/NA	Solid	5035	
890-5989-3	S - 3 2'	Total/NA	Solid	5035	
890-5989-4	S - 4 2'	Total/NA	Solid	5035	
890-5989-5	S - 5 0 - 1'	Total/NA	Solid	5035	
890-5989-6	S - 6 0 - 1'	Total/NA	Solid	5035	
890-5989-7	S - 7 0 - 1'	Total/NA	Solid	5035	
890-5989-8	S - 8 0 - 1'	Total/NA	Solid	5035	
890-5989-9	SW -1 1'	Total/NA	Solid	5035	
890-5989-10	SW - 2 1 - 2'	Total/NA	Solid	5035	
890-5989-11	SW - 3 2'	Total/NA	Solid	5035	
890-5989-12	SW - 4 1 - 2'	Total/NA	Solid	5035	
MB 880-71337/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-71337/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-71337/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 71338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5989-13	SW - 5 2'	Total/NA	Solid	5035	
MB 880-71338/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-71338/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-71338/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5989-13 MS	SW - 5 2'	Total/NA	Solid	5035	
890-5989-13 MSD	SW - 5 2'	Total/NA	Solid	5035	

Analysis Batch: 71404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5989-13	SW - 5 2'	Total/NA	Solid	8021B	71338
MB 880-71335/5-A	Method Blank	Total/NA	Solid	8021B	71335
MB 880-71338/5-A	Method Blank	Total/NA	Solid	8021B	71338
LCS 880-71338/1-A	Lab Control Sample	Total/NA	Solid	8021B	71338
LCSD 880-71338/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	71338
890-5989-13 MS	SW - 5 2'	Total/NA	Solid	8021B	71338
890-5989-13 MSD	SW - 5 2'	Total/NA	Solid	8021B	71338

Analysis Batch: 71433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5989-1	S - 1 1'	Total/NA	Solid	8021B	71337
890-5989-2	S - 2 1'	Total/NA	Solid	8021B	71337
890-5989-3	S - 3 2'	Total/NA	Solid	8021B	71337
890-5989-4	S - 4 2'	Total/NA	Solid	8021B	71337
890-5989-5	S - 5 0 - 1'	Total/NA	Solid	8021B	71337
890-5989-6	S - 6 0 - 1'	Total/NA	Solid	8021B	71337
890-5989-7	S - 7 0 - 1'	Total/NA	Solid	8021B	71337
890-5989-8	S - 8 0 - 1'	Total/NA	Solid	8021B	71337
890-5989-9	SW -1 1'	Total/NA	Solid	8021B	71337
890-5989-10	SW - 2 1 - 2'	Total/NA	Solid	8021B	71337

QC Association Summary

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

GC VOA (Continued)

Analysis Batch: 71433 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5989-11	SW - 3 2'	Total/NA	Solid	8021B	71337
890-5989-12	SW - 4 1 - 2'	Total/NA	Solid	8021B	71337
MB 880-71337/5-A	Method Blank	Total/NA	Solid	8021B	71337
LCS 880-71337/1-A	Lab Control Sample	Total/NA	Solid	8021B	71337
LCSD 880-71337/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	71337

Analysis Batch: 71500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5989-1	S - 1 1'	Total/NA	Solid	Total BTEX	
890-5989-2	S - 2 1'	Total/NA	Solid	Total BTEX	
890-5989-3	S - 3 2'	Total/NA	Solid	Total BTEX	
890-5989-4	S - 4 2'	Total/NA	Solid	Total BTEX	
890-5989-5	S - 5 0 - 1'	Total/NA	Solid	Total BTEX	
890-5989-6	S - 6 0 - 1'	Total/NA	Solid	Total BTEX	
890-5989-7	S - 7 0 - 1'	Total/NA	Solid	Total BTEX	
890-5989-8	S - 8 0 - 1'	Total/NA	Solid	Total BTEX	
890-5989-9	SW -1 1'	Total/NA	Solid	Total BTEX	
890-5989-10	SW - 2 1 - 2'	Total/NA	Solid	Total BTEX	
890-5989-11	SW - 3 2'	Total/NA	Solid	Total BTEX	
890-5989-12	SW - 4 1 - 2'	Total/NA	Solid	Total BTEX	
890-5989-13	SW - 5 2'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 71255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5989-1	S - 1 1'	Total/NA	Solid	8015NM Prep	
890-5989-2	S - 2 1'	Total/NA	Solid	8015NM Prep	
890-5989-3	S - 3 2'	Total/NA	Solid	8015NM Prep	
890-5989-4	S - 4 2'	Total/NA	Solid	8015NM Prep	
890-5989-5	S - 5 0 - 1'	Total/NA	Solid	8015NM Prep	
890-5989-6	S - 6 0 - 1'	Total/NA	Solid	8015NM Prep	
890-5989-7	S - 7 0 - 1'	Total/NA	Solid	8015NM Prep	
890-5989-8	S - 8 0 - 1'	Total/NA	Solid	8015NM Prep	
890-5989-9	SW -1 1'	Total/NA	Solid	8015NM Prep	
890-5989-10	SW - 2 1 - 2'	Total/NA	Solid	8015NM Prep	
890-5989-11	SW - 3 2'	Total/NA	Solid	8015NM Prep	
890-5989-12	SW - 4 1 - 2'	Total/NA	Solid	8015NM Prep	
890-5989-13	SW - 5 2'	Total/NA	Solid	8015NM Prep	
MB 880-71255/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-71255/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-71255/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5989-1 MS	S - 1 1'	Total/NA	Solid	8015NM Prep	
890-5989-1 MSD	S - 1 1'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 71295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5989-1	S - 1 1'	Total/NA	Solid	8015B NM	71255
890-5989-2	S - 2 1'	Total/NA	Solid	8015B NM	71255
890-5989-3	S - 3 2'	Total/NA	Solid	8015B NM	71255
890-5989-4	S - 4 2'	Total/NA	Solid	8015B NM	71255

QC Association Summary

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

GC Semi VOA (Continued)

Analysis Batch: 71295 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5989-5	S - 5 0 - 1'	Total/NA	Solid	8015B NM	71255
890-5989-6	S - 6 0 - 1'	Total/NA	Solid	8015B NM	71255
890-5989-7	S - 7 0 - 1'	Total/NA	Solid	8015B NM	71255
890-5989-8	S - 8 0 - 1'	Total/NA	Solid	8015B NM	71255
890-5989-9	SW -1 1'	Total/NA	Solid	8015B NM	71255
890-5989-10	SW - 2 1 - 2'	Total/NA	Solid	8015B NM	71255
890-5989-11	SW - 3 2'	Total/NA	Solid	8015B NM	71255
890-5989-12	SW - 4 1 - 2'	Total/NA	Solid	8015B NM	71255
890-5989-13	SW - 5 2'	Total/NA	Solid	8015B NM	71255
MB 880-71255/1-A	Method Blank	Total/NA	Solid	8015B NM	71255
LCS 880-71255/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	71255
LCSD 880-71255/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	71255
890-5989-1 MS	S - 1 1'	Total/NA	Solid	8015B NM	71255
890-5989-1 MSD	S - 1 1'	Total/NA	Solid	8015B NM	71255

Analysis Batch: 71439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5989-1	S - 1 1'	Total/NA	Solid	8015 NM	
890-5989-2	S - 2 1'	Total/NA	Solid	8015 NM	
890-5989-3	S - 3 2'	Total/NA	Solid	8015 NM	
890-5989-4	S - 4 2'	Total/NA	Solid	8015 NM	
890-5989-5	S - 5 0 - 1'	Total/NA	Solid	8015 NM	
890-5989-6	S - 6 0 - 1'	Total/NA	Solid	8015 NM	
890-5989-7	S - 7 0 - 1'	Total/NA	Solid	8015 NM	
890-5989-8	S - 8 0 - 1'	Total/NA	Solid	8015 NM	
890-5989-9	SW -1 1'	Total/NA	Solid	8015 NM	
890-5989-10	SW - 2 1 - 2'	Total/NA	Solid	8015 NM	
890-5989-11	SW - 3 2'	Total/NA	Solid	8015 NM	
890-5989-12	SW - 4 1 - 2'	Total/NA	Solid	8015 NM	
890-5989-13	SW - 5 2'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 71230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5989-1	S - 1 1'	Soluble	Solid	DI Leach	
890-5989-2	S - 2 1'	Soluble	Solid	DI Leach	
890-5989-3	S - 3 2'	Soluble	Solid	DI Leach	
890-5989-4	S - 4 2'	Soluble	Solid	DI Leach	
890-5989-5	S - 5 0 - 1'	Soluble	Solid	DI Leach	
890-5989-6	S - 6 0 - 1'	Soluble	Solid	DI Leach	
890-5989-7	S - 7 0 - 1'	Soluble	Solid	DI Leach	
890-5989-8	S - 8 0 - 1'	Soluble	Solid	DI Leach	
890-5989-9	SW -1 1'	Soluble	Solid	DI Leach	
890-5989-10	SW - 2 1 - 2'	Soluble	Solid	DI Leach	
890-5989-11	SW - 3 2'	Soluble	Solid	DI Leach	
890-5989-12	SW - 4 1 - 2'	Soluble	Solid	DI Leach	
890-5989-13	SW - 5 2'	Soluble	Solid	DI Leach	
MB 880-71230/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-71230/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-71230/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

HPLC/IC (Continued)

Leach Batch: 71230 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5989-4 MS	S - 4 2'	Soluble	Solid	DI Leach	
890-5989-4 MSD	S - 4 2'	Soluble	Solid	DI Leach	

Analysis Batch: 71386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5989-1	S - 1 1'	Soluble	Solid	300.0	71230
890-5989-2	S - 2 1'	Soluble	Solid	300.0	71230
890-5989-3	S - 3 2'	Soluble	Solid	300.0	71230
890-5989-4	S - 4 2'	Soluble	Solid	300.0	71230
890-5989-5	S - 5 0 - 1'	Soluble	Solid	300.0	71230
890-5989-6	S - 6 0 - 1'	Soluble	Solid	300.0	71230
890-5989-7	S - 7 0 - 1'	Soluble	Solid	300.0	71230
890-5989-8	S - 8 0 - 1'	Soluble	Solid	300.0	71230
890-5989-9	SW -1 1'	Soluble	Solid	300.0	71230
890-5989-10	SW - 2 1 - 2'	Soluble	Solid	300.0	71230
890-5989-11	SW - 3 2'	Soluble	Solid	300.0	71230
890-5989-12	SW - 4 1 - 2'	Soluble	Solid	300.0	71230
890-5989-13	SW - 5 2'	Soluble	Solid	300.0	71230
MB 880-71230/1-A	Method Blank	Soluble	Solid	300.0	71230
LCS 880-71230/2-A	Lab Control Sample	Soluble	Solid	300.0	71230
LCSD 880-71230/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	71230
890-5989-4 MS	S - 4 2'	Soluble	Solid	300.0	71230
890-5989-4 MSD	S - 4 2'	Soluble	Solid	300.0	71230

Lab Chronicle

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Client Sample ID: S - 1 1'

Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

Lab Sample ID: 890-5989-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	71337	01/22/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71433	01/23/24 20:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71500	01/23/24 20:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			71439	01/22/24 19:49	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	71255	01/19/24 17:25	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/22/24 19:49	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	71230	01/19/24 14:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71386	01/24/24 08:08	SMC	EET MID

Client Sample ID: S - 2 1'

Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

Lab Sample ID: 890-5989-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	71337	01/22/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71433	01/23/24 20:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71500	01/23/24 20:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			71439	01/22/24 20:58	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	71255	01/19/24 17:25	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/22/24 20:58	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71230	01/19/24 14:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71386	01/24/24 08:15	SMC	EET MID

Client Sample ID: S - 3 2'

Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

Lab Sample ID: 890-5989-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	71337	01/22/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71433	01/23/24 22:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71500	01/23/24 22:14	SM	EET MID
Total/NA	Analysis	8015 NM		1			71439	01/22/24 21:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	71255	01/19/24 17:25	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/22/24 21:22	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	71230	01/19/24 14:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71386	01/24/24 08:22	SMC	EET MID

Client Sample ID: S - 4 2'

Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

Lab Sample ID: 890-5989-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	71337	01/22/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71433	01/23/24 22:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71500	01/23/24 22:40	SM	EET MID

Lab Chronicle

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Client Sample ID: S - 4 2'

Lab Sample ID: 890-5989-4

Date Collected: 01/18/24 00:00
Matrix: Solid
Date Received: 01/18/24 12:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			71439	01/22/24 21:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	71255	01/19/24 17:25	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/22/24 21:45	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	71230	01/19/24 14:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71386	01/24/24 08:29	SMC	EET MID

Client Sample ID: S - 5 0 - 1'

Lab Sample ID: 890-5989-5

Date Collected: 01/18/24 00:00
Matrix: Solid
Date Received: 01/18/24 12:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	71337	01/22/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71433	01/23/24 23:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71500	01/23/24 23:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			71439	01/22/24 22:07	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	71255	01/19/24 17:25	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/22/24 22:07	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	71230	01/19/24 14:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71386	01/24/24 08:49	SMC	EET MID

Client Sample ID: S - 6 0 - 1'

Lab Sample ID: 890-5989-6

Date Collected: 01/18/24 00:00
Matrix: Solid
Date Received: 01/18/24 12:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	71337	01/22/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71433	01/23/24 23:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71500	01/23/24 23:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			71439	01/22/24 22:30	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	71255	01/19/24 17:25	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/22/24 22:30	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	71230	01/19/24 14:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71386	01/24/24 08:56	SMC	EET MID

Client Sample ID: S - 7 0 - 1'

Lab Sample ID: 890-5989-7

Date Collected: 01/18/24 00:00
Matrix: Solid
Date Received: 01/18/24 12:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	71337	01/22/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71433	01/23/24 23:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71500	01/23/24 23:59	SM	EET MID
Total/NA	Analysis	8015 NM		1			71439	01/22/24 22:53	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	71255	01/19/24 17:25	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/22/24 22:53	SM	EET MID

Lab Chronicle

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Client Sample ID: S - 7 0 - 1'

Lab Sample ID: 890-5989-7
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.00 g	50 mL	71230	01/19/24 14:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71386	01/24/24 09:17	SMC	EET MID

Client Sample ID: S - 8 0 - 1'

Lab Sample ID: 890-5989-8
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	71337	01/22/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71433	01/24/24 00:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71500	01/24/24 00:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			71439	01/22/24 23:16	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	71255	01/19/24 17:25	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/22/24 23:16	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	71230	01/19/24 14:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71386	01/24/24 09:24	SMC	EET MID

Client Sample ID: SW -1 1'

Lab Sample ID: 890-5989-9
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	71337	01/22/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71433	01/24/24 00:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71500	01/24/24 00:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			71439	01/22/24 23:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	71255	01/19/24 17:25	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/22/24 23:39	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	71230	01/19/24 14:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71386	01/24/24 09:30	SMC	EET MID

Client Sample ID: SW - 2 1 - 2'

Lab Sample ID: 890-5989-10
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	71337	01/22/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71433	01/24/24 01:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71500	01/24/24 01:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			71439	01/23/24 00:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	71255	01/19/24 17:25	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/23/24 00:01	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	71230	01/19/24 14:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71386	01/24/24 09:37	SMC	EET MID

Lab Chronicle

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Client Sample ID: SW - 3 2'

Lab Sample ID: 890-5989-11
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	71337	01/22/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71433	01/24/24 01:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71500	01/24/24 01:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			71439	01/23/24 00:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	71255	01/19/24 17:25	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/23/24 00:43	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	71230	01/19/24 14:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71386	01/24/24 09:44	SMC	EET MID

Client Sample ID: SW - 4 1 - 2'

Lab Sample ID: 890-5989-12
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	71337	01/22/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71433	01/24/24 02:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71500	01/24/24 02:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			71439	01/23/24 01:04	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	71255	01/19/24 17:25	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/23/24 01:04	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	71230	01/19/24 14:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71386	01/24/24 09:51	SMC	EET MID

Client Sample ID: SW - 5 2'

Lab Sample ID: 890-5989-13
Matrix: Solid
Date Collected: 01/18/24 00:00
Date Received: 01/18/24 12:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	71338	01/22/24 14:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71404	01/23/24 22:03	SM	EET MID
Total/NA	Analysis	Total BTEX		1			71500	01/23/24 22:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			71439	01/23/24 01:25	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	71255	01/19/24 17:25	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/23/24 01:25	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	71230	01/19/24 14:56	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71386	01/24/24 09:58	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: H & R Enterprises
Job ID: 890-5989-1
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)
SDG: Eddy County NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: H & R Enterprises
Project/Site: CRAWFORD 27 - 26 FEE CTB (CRAW)

Job ID: 890-5989-1
SDG: Eddy County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-5989-1	S - 1 1'	Solid	01/18/24 00:00	01/18/24 12:45
890-5989-2	S - 2 1'	Solid	01/18/24 00:00	01/18/24 12:45
890-5989-3	S - 3 2'	Solid	01/18/24 00:00	01/18/24 12:45
890-5989-4	S - 4 2'	Solid	01/18/24 00:00	01/18/24 12:45
890-5989-5	S - 5 0 - 1'	Solid	01/18/24 00:00	01/18/24 12:45
890-5989-6	S - 6 0 - 1'	Solid	01/18/24 00:00	01/18/24 12:45
890-5989-7	S - 7 0 - 1'	Solid	01/18/24 00:00	01/18/24 12:45
890-5989-8	S - 8 0 - 1'	Solid	01/18/24 00:00	01/18/24 12:45
890-5989-9	SW -1 1'	Solid	01/18/24 00:00	01/18/24 12:45
890-5989-10	SW - 2 1 - 2'	Solid	01/18/24 00:00	01/18/24 12:45
890-5989-11	SW - 3 2'	Solid	01/18/24 00:00	01/18/24 12:45
890-5989-12	SW - 4 1 - 2'	Solid	01/18/24 00:00	01/18/24 12:45
890-5989-13	SW - 5 2'	Solid	01/18/24 00:00	01/18/24 12:45

Loc: 890
5989

Chain of Custody

Eurofins | Environment Testing Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

890-5989 Chain of Custody

www.xenco.com Page ____ of ____

Project Manager:	M. COLLIER	Bill to: (if different)	COTERRA ENERGY
Company Name:	H+R ENTERPRISES	Company Name:	LACI LUIG
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	575-909-0326 Email:		

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	CRAWFORD 27-26 FEE CTB	Turn Around	
Project Number:	(CRAW)	☐ Routine ☒ Rush	
Project Location:	EDDY COUNTY, NM	Due Date:	3-DAY
Sampler's Name:	R. BELL	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TW-607
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	6.6
Total Containers:		Corrected Temperature:	0.4

ANALYSIS REQUEST — 5989

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	BTEX	TPH	CHLORIDES
S-1 1'	SOIL	1-18-24			COMP	1	X	X	X
S-2 1'									
S-3 2'									
S-4 2'									
S-5 0-1'									
S-6 0-1'									
S-7 0-1'									
S-8 0-1'									
SW-1 1'									
SW-2 1-2'									

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins 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 Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins 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
1		12.45	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: H & R Enterprises

Job Number: 890-5989-1
SDG Number: Eddy County NM

Login Number: 5989
List Number: 1
Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: H & R Enterprises

Job Number: 890-5989-1
SDG Number: Eddy County NM

Login Number: 5989
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/19/24 03:48 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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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 315031

QUESTIONS

Operator: CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 315031
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2331253089**
Incident Name	**NAPP2331253089 CRAWFORD 27-26 FEE CTB @ 0**
Incident Type	**Oil Release**
Incident Status	**Remediation Closure Report Received**
Incident Facility	**[fAPP2202670350] CRAWFORD 27-26 FEE 1H,2H,15H,16H,29H,30H**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	CRAWFORD 27-26 FEE CTB
Date Release Discovered	11/07/2023
Surface Owner	Private

Incident Details	
Please answer all the questions in this group.	
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	
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	Cause: Equipment Failure | Separator | Crude Oil | Released: 11 BBL | Recovered: 3 BBL | Lost: 8 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)	We had a minor reportable release at the Crawford 27-26 Fee Facility. The Control Room received an alarm low heater pressure and immediately shut in the wells until personnel could investigate. Once on location, we found a heater treater firetube gasket failed, releasing a total of 11 barrels oil into the lined containment and onto the well pad. All fluids were recovered from the containment. Impacted soils will be remediated in the coming weeks. Released: 11 barrels water (3 barrels inside containment + 8 barrels onto well pad) Recovered: 3 barrels from containment

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QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 315031
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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

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

I hereby agree and sign off to the above statement	Name: Laci Luig Title: ES&H Specialist Email: DL_PermianEnvironmental@coterra.com Date: 02/15/2024

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QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 315031
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 26 and 50 (ft.)
What method was used to determine the depth to ground water	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	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Zero feet, overlying, or within area
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between ½ and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	29.9
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	01/18/2024
On what date will (or did) the final sampling or liner inspection occur	01/18/2024
On what date will (or was) the remediation complete(d)	01/18/2024
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	1500
What is the estimated volume (in cubic yards) that will be remediated	52
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 315031
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	LEA LAND LANDFILL [fEEM0112342028]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Yes
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	Yes
Other Non-listed Remedial Process. Please specify	Use of micro-blaze and then an excavation of the area that still showed impact. All confirmation samples resulted in less than regulatory remediation clean up standards. 52 Yard Excavation on pad.
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: Laci Luig Title: ES&H Specialist Email: DL_PermianEnvironmental@coterra.com Date: 02/15/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 315031
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

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 (continued)

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	Action Number: 315031
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**303350**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**01/18/2024**
What was the (estimated) number of samples that were to be gathered	**16**
What was the sampling surface area in square feet	**600**

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	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	1500
What was the total volume (cubic yards) remediated	52
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	Use of micro-blaze and then an excavation of the area that still showed impact. All confirmation samples resulted in less than regulatory remediation clean up standards. 52 Yard Excavation on pad. Backfilled with clean Caliche on pad.

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Laci Luig Title: ES&H Specialist Email: DL_PermianEnvironmental@coterra.com Date: 02/15/2024

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QUESTIONS (continued)

Operator: CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 315031
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 315031

CONDITIONS

Operator: CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 315031
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your Remediation Closure Report for Incident #NAPP2331253089, thank you. This Remediation Closure Report is approved.	4/18/2024