

Released Volume Calculation			
Length	50 feet		
Width	29 feet		
Thickness	2 in		
	Gals	Bbls	
	2900	69.04762	Est. Total Bbls Released

Volume = L\*W\*T

Total Released Volume = 2900 gallons (US, dry)  
69.05 bbls

**District I**  
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**District II**  
811 S. First St., Artesia, NM 88210  
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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  
  
Action 335348

QUESTIONS

Operator: FAE II Operating LLC 11757 Katy Freeway, Suite 725 Houston, TX 77079	OGRID: 329326
	Action Number: 335348
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2410851745
Incident Name	NAPP2410851745 C E LAMUNYON #023 @ 30-025-22402
Incident Type	Produced Water Release
Incident Status	Initial C-141 Received
Incident Well	[30-025-22402] C E LAMUNYON #023

Location of Release Source	
Please answer all the questions in this group.	
Site Name	C E Lamunyon #023
Date Release Discovered	04/16/2024
Surface Owner	Private

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Well   Produced Water   Released: 70 BBL   Recovered: 60 BBL   Lost: 10 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 335348

**QUESTIONS (continued)**

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**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
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	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
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: Alexis Bolanos Title: Production & Regulatory Analyst Email: alex@faenergyus.com Date: 04/19/2024
--	--

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QUESTIONS, Page 3

Action 335348

**QUESTIONS (continued)**

Operator: FAE II Operating LLC 11757 Katy Freeway, Suite 725 Houston, TX 77079	OGRID: 329326
	Action Number: 335348
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

**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)	Not answered.
What method was used to determine the depth to ground water	Not answered.
Did this release impact groundwater or surface water	Not answered.
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Not answered.
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Not answered.
An occupied permanent residence, school, hospital, institution, or church	Not answered.
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Not answered.
Any other fresh water well or spring	Not answered.
Incorporated municipal boundaries or a defined municipal fresh water well field	Not answered.
A wetland	Not answered.
A subsurface mine	Not answered.
An (non-karst) unstable area	Not answered.
Categorize the risk of this well / site being in a karst geology	Not answered.
A 100-year floodplain	Not answered.
Did the release impact areas not on an exploration, development, production, or storage site	Not answered.

**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	No
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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CONDITIONS

Action 335348

CONDITIONS

Operator: FAE II Operating LLC 11757 Katy Freeway, Suite 725 Houston, TX 77079	OGRID: 329326
	Action Number: 335348
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	4/19/2024



# Site Characterization Report and Remediation Workplan

March 15, 2025

**Lamunyon #023  
Produced Water Release  
Incident No. nAPP2410851745  
Lea County, New Mexico**

**Prepared For:**

F AE II Operating, LLC  
11757 Katy Freeway, Suite 725  
Houston, Texas 77079

**Prepared By:**

Crain Environmental  
2925 East 17<sup>th</sup> Street  
Odessa, Texas 79761

A handwritten signature in blue ink that reads 'Cynthia K. Crain'. The signature is written in a cursive style with a horizontal line underneath the name.

Cynthia K. Crain, P.G.



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## 1.0 Introduction

Crain Environmental (CE), on behalf of FAE II Operating, LLC (FAE), has prepared this *Site Characterization Report and Remediation Workplan* for the produced water release at Lamunyon #023 (Site), located approximately 10 miles southeast of Eunice, in Lea County, New Mexico. The global positioning system (GPS) coordinates for the release are 32.2807884, -103.1657257. The property surface rights are privately owned. Land use in the Site vicinity is primarily oil and gas production activity and cattle grazing. The location of the Site is depicted on Figure 1.

## 2.0 Background

On April 16, 2024, a release from the well at the Lamunyon #023 was discovered. As a result, approximately 70 barrels (bbls) of produced water were released. Immediately following the release, the area was secured, a vacuum truck was mobilized to the Site, and the well was repaired. The released fluid covered a surface area of approximately 81,480 square feet. Approximately 60 bbls of fluid were recovered. The release point and the surface extent of the release are depicted on Figure 2.

A Notification of Release (NOR) was submitted to the New Mexico Oil Conservation Division (NMOCD) on April 17, 2024, and Incident #nAPP2410851745 was assigned.

On October 3, 2024, the NMOCD approved an extension request until December 16, 2024, to submit a Site Characterization Report and Remediation Workplan (Workplan). On December 19, 2024, the NMOCD approved a 90-day extension for submitting the Workplan by March 17, 2025. Appendix B provides a copy of NMOCD correspondence.

This *Site Characterization Report and Remediation Workplan* is being submitted prior to the due date of March 17, 2025, in accordance with 19.15.29.11 New Mexico Administrative Code (NMAC).

## 3.0 NMOCD Closure Criteria

Cleanup standards for produced water spills are provided in 19.15.29 NMAC. The cleanup standards (described in the rule as "Closure Criteria") are based primarily on depth to groundwater but are also based on other criteria. Three different Closure Criteria are provided in the rule. The most stringent apply to sites where groundwater is found within 50 feet of the ground surface or if the release occurred within one of the following areas:

- Within 300 feet of any continuously flowing watercourse or any other significant watercourse.
- Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary highwater mark).
- Within 300 feet from an occupied permanent residence, school, hospital, institution or church.
- 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.
- Within 1,000 feet of any fresh water well or spring.





- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended.
- Within 300 feet of a wetland.
- Within the area overlying a subsurface mine.
- Within an unstable area such as a karst formation.
- Within a 100-year floodplain.

CE reviewed available information to determine the Closure Criteria for the Site. The findings of this evaluation are summarized below.

### 3.1 Groundwater Evaluation

A review of the New Mexico Office of the State Engineer (NMOSE) records indicated there is one water well located within 0.5 mile of the Site (CP 00375 POD 1) drilled to a depth of 160 feet below ground surface (bgs); however, a date of installation and a depth to groundwater was not provided. NMOSE records indicated that three additional wells are located within 1 mile of the Site (CP 00480 POD 1, CP 01555 POD 2, and CP 00407); however, only well CP 00480 POD 1 provided an installation date (April 14, 1968) and a depth to groundwater (600 feet bgs). A review of the United State Geological Survey (USGS) database indicated no water wells were located within 1 mile of the Site. All wells within a 1-mile radius are listed in the table below. Figure 3 provides 0.5-mile radius and a 1-mile radius circles around the Site and shows the locations of each well. A NMOSE Point of Diversion Summary for each well is provided in Appendix B.

Based on the available water well data, it is estimated that depth to groundwater at the Site is greater than 100 feet bgs.

#### Nearby Water Wells

Well ID	Location from Release Site	Year Installed	Use	Total Depth / Depth to Water (feet bgs)
CP 00375 POD 1	Approx. 2,086 feet to NE	Unknown	N/A	160 / Unknown
CP 00480 POD 1	Approx. 5,218 feet to NE	1968	N/A	6,281 / 600
CP 01555 POD 1	Approx. 4,873 feet to SE	Unknown	N/A	Unknown / Unknown
CP 00407	Approx. 3,257 feet to SW	Unknown	N/A	Unknown / Unknown

### 3.2 Surface Features and Other Development

CE reviewed recent aerial photographs, topographic maps, the NMOSE Point of Discharge (POD) GIS website, and information available from the Lea County, New Mexico Central Appraisal District website. As shown on Figure 1, the Site is not located:

- Within 300 feet of any continuously flowing watercourse or any other significant watercourse.
  - No continuously flowing watercourses (rivers, streams, arroyos, etc.) are apparent within 300 feet of the Site in the topographic map (Figure 1).



- Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary highwater mark).
  - The topographic map (Figure 1) indicates there is not a lakebed, sinkhole or playa lake located within 200 feet of the Site.
- Within 300 feet from an occupied permanent residence, school, hospital, institution or church.
  - The Site Location Map (Figure 1) and information available from the Lea County, New Mexico Central Appraisal District do not show or list any permanent residence, school, hospital, institution or church located within 300 feet of the Site.
- 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.
  - No wells or springs located within 500 feet of the Site appear in any of the NMOSE records reviewed by CE.
- Within 1,000 feet of any fresh water well or spring.
  - No freshwater wells or springs located within 1,000 feet of the Site appear in any of the records reviewed by CE.
- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended.
  - Based on the property and other records review by CE, the Site is not located in incorporated municipal boundaries or within a defined municipal fresh water well field.
- Within the area overlying a subsurface mine.
  - Based on the property and other records reviewed by CE, the Site is not located within an area overlying a subsurface mine.

### 3.3 Wetlands, Floodplain, and Karst Geology

A review of the United States Fish and Wildlife Service (USFWS) wetlands map indicated the Site is not located within 300 feet of a wetland. The New Mexico Bureau of Land Management (BLM) karst potential map indicates the Site is located within a "low karst potential" area. Finally, review of the Federal Emergency Management Act (FEMA) floodplain map indicates the release at the Site is located outside of a 100-year floodplain. Figures 4, 5, and 6 depict the USFWS map, the FEMA floodplain map, and the karst potential map, respectively.

### 3.4 Closure Criteria Currently Assumed Applicable to the Site

From the surface to a depth of 4' bgs, the most stringent NMOCD Closure Criteria will apply. As depth to groundwater is assumed to be greater than 100' bgs, well CP-00375 POD 1 will be investigated to determine whether it is possible to obtain a current depth to groundwater. If well CP-00375 POD 1 is not accessible, a soil boring will be installed to a depth of 105' bgs to prove whether the depth to groundwater is greater than 100' bgs. The boring will remain open for a period of at least 72 hours prior to checking for the presence of groundwater. If groundwater is not encountered, the boring will be plugged according to NMOSE specifications.

If groundwater is encountered, the current depth will be recorded, a groundwater sample will be collected for analysis of total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, and xylenes (BTEX),



and chlorides, and the boring will remain open until laboratory results are received. If the laboratory reports groundwater concentrations below the water quality standards, the boring will be plugged according to NMOSE specifications. If the laboratory reports groundwater concentrations above the water quality standards, the boring will be competed as a monitor well. Approved drilling and plugging permits will be received from NMOSE prior to installation of a soil boring.

If the depth to groundwater is proven to be greater than 51' or 100' bgs, the appropriate Closure Criteria will apply to soil at depths greater than 4' bgs. A summary of the Closure Criteria is provided in the table below and in Table 1.

**NMOCD Closure Criteria**

Constituent of Concern		Closure Criteria Based on Depth to Groundwater (mg/kg)		
		≤ 50 feet bgs	51 feet to 100 feet bgs	> 100 feet bgs
Chloride (EPA 300)		600	10,000	20,000
TPH (EPA 8015M)	GRO + DRO + MRO	100	2,500	2,500
	GRO + DRO	NA	1,000	1,000
Total BTEX (EPA 8021 or 8260)		50	50	50
Benzene (EPA 8021 or 8260)		10	10	10

Notes: NA = not applicable  
 bgs = below ground surface  
 mg/kg = milligrams per kilogram  
 GRO = gasoline range organics  
 DRO = diesel range organics  
 MRO = motor oil range organics  
 TPH = total petroleum hydrocarbons  
 BTEX = benzene, toluene, ethylbenzene, and total xylenes  
 Green highlighted cells denote applicable Closure Criteria.

#### 4.0 Site Assessment/Characterization Results

As per 19.15.29.11 NMAC, a Site Characterization Report will have the components described in Sections 4.1 through 4.5 of this document.

##### 4.1 Site Map

As required by 19.15.29.11 NMAC, a scaled diagram showing significant Site infrastructure, sample point locations, and known subsurface features such as utilities is provided as Figure 2.

##### 4.2 Depth to Groundwater

As discussed in Sections 3.1 and 3.4, the exact depth to groundwater beneath the Site is unknown; however, based on NMOSE records, depth to groundwater is estimated be greater than 100' bgs at the Site. The current depth to groundwater will be confirmed by either a measurement from well CP-00375-POD 1, or by the installation of a soil boring.



#### 4.3 Wellhead Protection Area

The 0.5-mile and 1-mile wellhead protection areas are shown on Figure 3. There were no other water sources, springs, or other sources of freshwater extraction identified within 0.5-mile of the Site.

#### 4.4 Distance to Nearest Significant Watercourse

The horizontal distance to the nearest significant watercourse as defined in Subsection P of 19.15.17.7 NMAC is greater than 0.5-mile from the Site.

#### 4.5 Initial Delineation Activities

Prior to the soil investigation, an Electromagnetic (EM) Survey was conducted by Atkins Engineering (Atkins) of Carlsbad, New Mexico. On January 17, 2025, soil samples (S-1 through S-15) were collected at 15 locations throughout the release area (as indicated by the EM Survey) to determine the vertical and horizontal limits of the impact.

Samples were collected from each location at depths of 1', 2', 3', and a total depth of 4.1' bgs. Soil samples were placed in clean glass sample jars, properly labeled, and immediately placed on ice. Samples from a depth of 1' and 4.1' bgs were hand delivered to Eurofins Environment Testing (Eurofins) in Midland, Texas under proper chain-of-custody control. All samples were analyzed for TPH by Environmental Protection Agency (EPA) SW-846 Method 8015 Modified, for BTEX by EPA SW-846 Method 8021B, and for chlorides by Method EPA Method 300.0. The remaining samples were kept refrigerated in case further analysis was warranted.

Table 1 provides a summary of the laboratory results. Figure 2 shows the sample locations within the EM Survey area. The laboratory report with chain-of-custody documentation is provided in Appendix C. Photographic documentation is provided in Appendix D.

Referring to Table 1, concentrations of TPH and BTEX were reported below the test method detection limits in all samples. Concentrations of chlorides were reported below the Closure Criteria (assuming depth to groundwater is greater than 100' bgs) in samples from S-1, S-2, S-5, S-7, S-11, S-13, S-14, and S-15.

Upon receipt of the laboratory results, samples from S-3, S-6, and S-8 at depths of 2' and 3' bgs were submitted to Eurofins for chloride analysis.

Table 1 provides a summary of the laboratory results. Figure 2 shows the sample locations. The laboratory report with chain-of-custody documentation is provided in Appendix C.

Chloride concentrations were reported above the Closure Criteria in samples from S-3 (1' and 3' bgs), S-4 (1' bgs), S-6 (1' bgs), S-8 (1' bgs), S-9 (1' bgs), S-10 (1' bgs), and S-12 (1' bgs).



#### 4.6 Laboratory Analytical Data Quality Assurance/Quality Control Results

Data reported in Job Numbers 880-53406-1 and 880-53650-1 generated by Eurofins, were reviewed to ensure that reported analytical results met data quality objectives. It was determined by quality control data associated with analytical results that reported concentrations of target analytes are defensible and that measurement data reliability is within the expected limits of sampling and analytical error. All analytical results are usable for characterization of soil at the Site. The laboratory analytical results are provided in Appendix C.

#### 5.0 Proposed Remediation Workplan

Benzene, BTEX, and TPH concentrations were reported below the test method detection limits in all samples. Concentrations of chlorides were reported above the Closure Criteria in 7 samples, as listed on Table 1 and shown on Figure 2.

After determining an accurate depth to groundwater at the Site, FAE proposes to excavate all impacted soil until confirmation samples collected from the bottom and sidewalls of the excavation report chloride concentrations below the NMOCD Closure Criteria.

As initial BTEX and TPH concentrations were below the test method detection limits, FAE requests a variance that each confirmation sample will be analyzed only for chlorides (dependent on a depth to groundwater greater than 100' bgs). Pursuant to 19.15.29.12(D) NMAC, confirmation samples will consist of five-point composite samples, and discrete grab samples will be collected from any wet or discolored areas.

Due to the large footprint of the Site (and dependent on a depth to groundwater greater than 100' bgs), FAE requests a variance from the NMOCD requirement of one soil sample per 200 square feet for confirmation sampling. FAE requests composite confirmation sample collection be performed for each 400 square feet of excavation floor and each 30 linear feet of excavation sidewall.

All excavated material will be transported under manifest to an NMOCD approved disposal facility.

Upon receipt of laboratory results that all chloride concentrations are below the Closure Criteria, the excavation will be backfilled to grade with non-impacted similar material obtained from a landowner pit. Pursuant to 19.15.29.13 NMAC, the impacted surface areas will be restored to pre-release conditions. Surface grading will be performed to near original conditions and contoured to prevent erosion and ponding, promote stability, and preserve storm water flow patterns.

FAE respectfully requests a remediation schedule of 90 days from the date of NMOCD approval of this Remediation Workplan to complete the proposed remediation activities and submit a *Remediation Summary and Closure Report* for NMOCD approval. The Closure Report will summarize remediation activities and confirmation sampling results and will include photographs of the final excavation.



---

## 6.0 Distribution

Copy 1: Mike Bratcher  
New Mexico Energy, Minerals, and Natural Resources Department  
Oil Conservation Division, District 2  
811 S. First Street  
Artesia, New Mexico 88210

Copy 2: Billy Moore  
Forty Acres Energy, LLC  
11757 Katy Freeway, Suite 725  
Houston, Texas 77079



## TABLE

TABLE 1  
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS  
FAE II OPERATING, LLC  
LAMUNYON #023  
NMOCD INCIDENT # nAPP2410851745

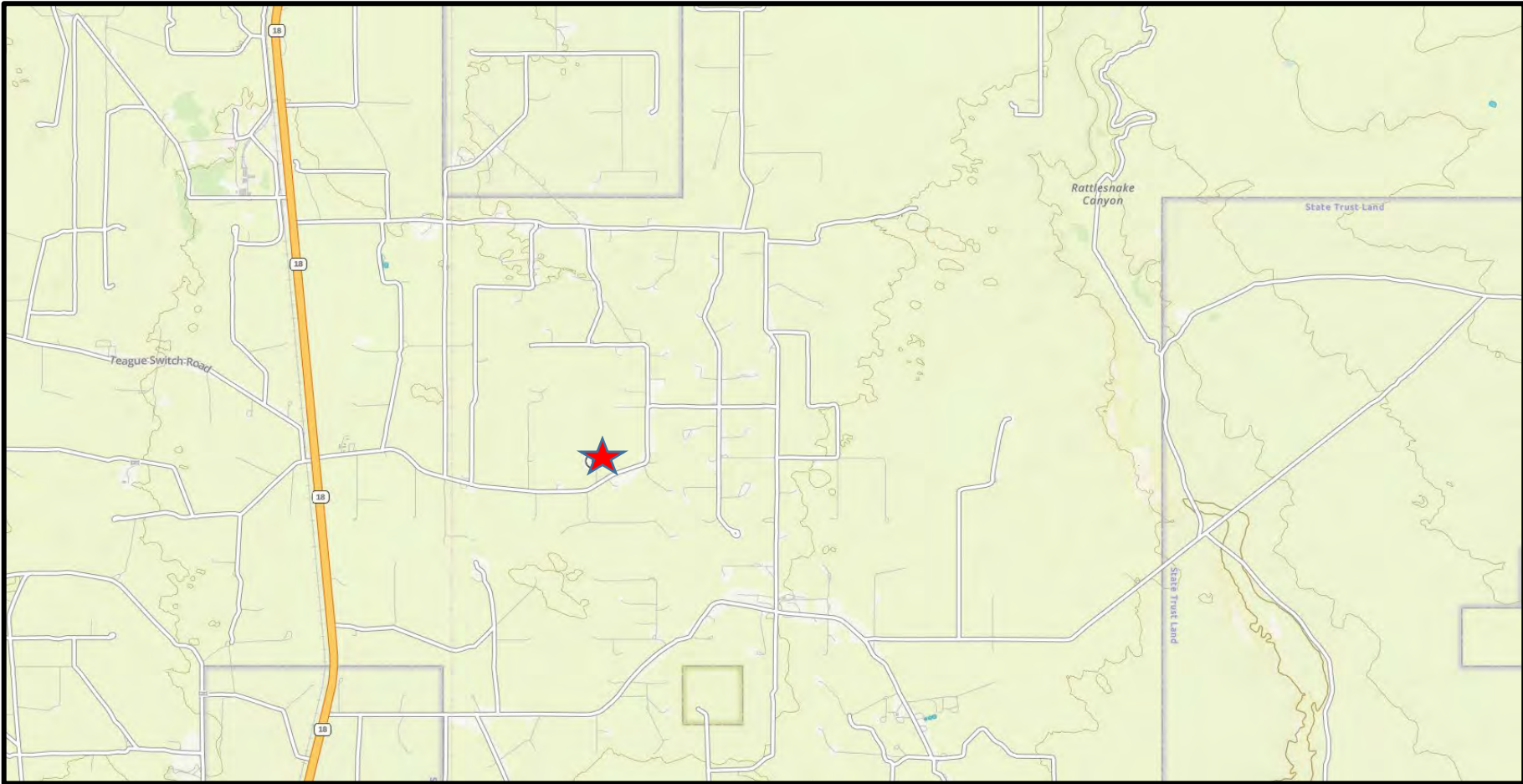
Sample ID	Sample Date	Sample DepS	Soil Status	TPH (GRO)	TPH (DRO)	TPH (MRO)	Total TPH	Benzene	Toluene	Etylbenzene	Total Xylenes	Total BTEX	Chloride
				milligrams per kilogram (mg/kg)									
NMOCD Closure Criteria							100	10	-	-	-	50	600
NMOCD Closure Criteria (>4' bgs)				GRO + DRO = 1,000		-	2,500	10	-	-	-	50	20,000
S-1 (1')	01/17/25	1'	In Situ	<49.8	<49.8	<49.8	<49.8	<0.00198	<0.00198	0.0103	<0.00397	<0.00397	526
S-1 (4.1')	01/17/25	4.1'	In Situ	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	2,230
S-2 (1')	01/17/25	1'	In Situ	<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	311
S-2 (4.1')	01/17/25	4.1'	In Situ	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	310
S-3 (1')	01/17/25	1'	In Situ	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	1,600
S-3 (2')	01/17/25	2'	In Situ	--	--	--	--	--	--	--	--	--	356
S-3 (3')	01/17/25	3'	In Situ	--	--	--	--	--	--	--	--	--	807
S-3 (4.1')	01/17/25	4.1'	In Situ	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	58.0
S-4 (1')	01/17/25	1'	In Situ	<49.7	<49.7	<49.7	<49.7	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	1,290 F1
S-4 (4.1')	01/17/25	4.1'	In Situ	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	1,140
S-5 (1')	01/17/25	1'	In Situ	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	51.1
S-5 (4.1')	01/17/25	4.1'	In Situ	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	2,550
S-6 (1')	01/17/25	1'	In Situ	<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	7,500
S-6 (2')	01/17/25	2'	In Situ	--	--	--	--	--	--	--	--	--	96.8
S-6 (3')	01/17/25	3'	In Situ	--	--	--	--	--	--	--	--	--	104
S-6 (4.1')	01/17/25	4.1'	In Situ	<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	28.7
S-7 (1')	01/17/25	1'	In Situ	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	186
S-7 (4.1')	01/17/25	4.1'	In Situ	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	179
S-8 (1')	01/17/25	1'	In Situ	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	1,020
S-8 (2')	01/17/25	2'	In Situ	--	--	--	--	--	--	--	--	--	68.7
S-8 (3')	01/17/25	3'	In Situ	--	--	--	--	--	--	--	--	--	15.0
S-8 (4.1')	01/17/25	4.1'	In Situ	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	25.0
S-9 (1')	01/17/25	1'	In Situ	<49.7	<49.7	<49.7	<49.7	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	3,020 F1
S-9 (4.1')	01/17/25	4.1'	In Situ	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	5,410
S-10 (1')	01/17/25	1'	In Situ	<49.8	<49.8	<49.8	<49.8	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	3,120
S-10 (4.1')	01/17/25	4.1'	In Situ	<49.8	<49.8	<49.8	<49.8	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	1,240
S-11 (1')	01/17/25	1'	In Situ	<49.7	<49.7	<49.7	<49.7	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	304
S-11 (4.1')	01/17/25	4.1'	In Situ	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	2,770
S-12 (1')	01/17/25	1'	In Situ	<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	4,040
S-12 (4.1')	01/17/25	4.1'	In Situ	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	5,780
S-13 (1')	01/17/25	1'	In Situ	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	287
S-13 (4.1')	01/17/25	4.1'	In Situ	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	1,560
S-14 (1')	01/17/25	1'	In Situ	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	71.6
S-14 (4.1')	01/17/25	4.1'	In Situ	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	56.1
S-15 (1')	01/17/25	1'	In Situ	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	513
S-15 (4.1')	01/17/25	4.1'	In Situ	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	2,200



- Notes:
- GRO: Gasoline Range Organics
  - DRO: Diesel Range Organics
  - MRO: Motor Oil Range Organics
  - : No NMOCD Closure Criteria established.
  - bgs: Below Ground Surface
  - Bold indicates result was reported above the sample detection limit.
  - < Indicates concentration was reported below the sample detection limit.
  - Bold and yellow highlighting** indicates concentration above the NMOCD Closure Criteria.
  - F1: MS and/or MSD recovery exceeds control limits.
  - : No analysis was conducted for the specified constituent.

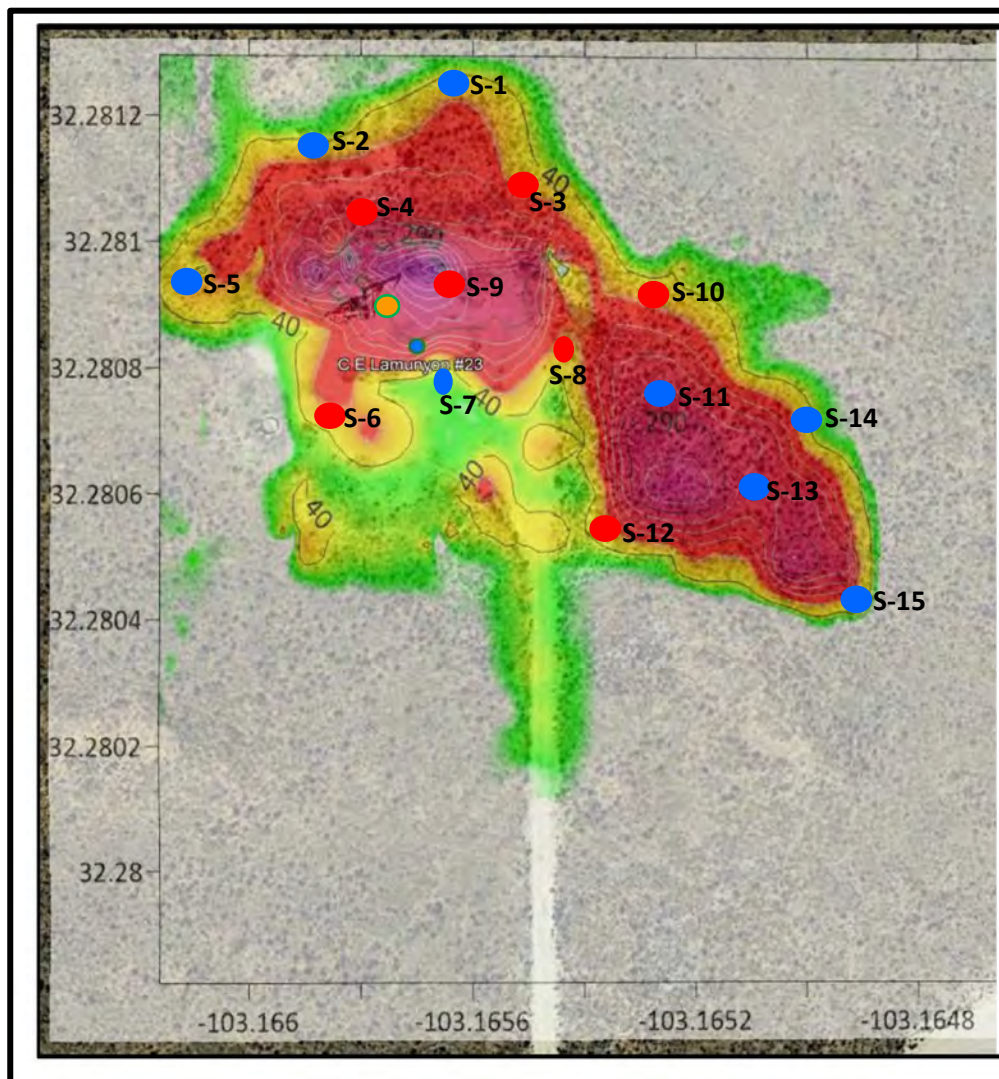




## FIGURES



<b>LEGEND:</b>  Site Location  Base Map From GAIA GPS	<b>Figure 1</b> <b>Site Location Map</b>  Forty Acres Energy, LLC Lamunyon #023 Lea County, New Mexico		
		Drafted by: CC   Checked by: CC	
		Draft: March 14, 2025	
		GPS: 32.2807884° -103.1657257°	

**LEGEND:**

- **S-3** Soil Sample Location with Sample Number (Concentrations Above Closure Limit)
- **S-1** Soil Sample Location with Sample Number (Concentrations Below Closure Limit)
- Release Point

Base Map From Google Earth Pro

**Figure 2****Sample Location Map**

FAE II  
Lamunyon #023  
Lea County, New Mexico

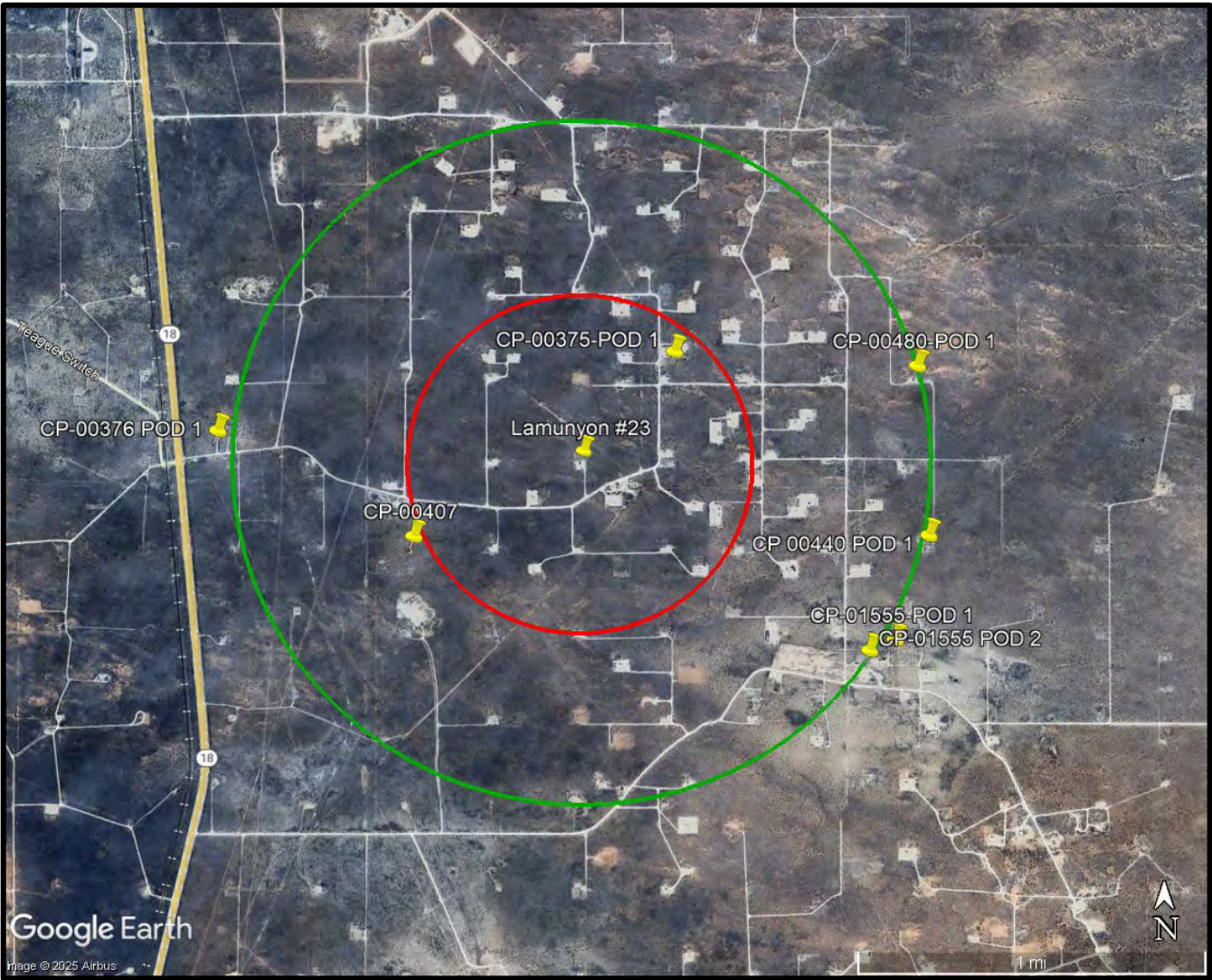
Drafted by: CC | Checked by: CC





Draft: March 14, 2025

GPS: 32.2807884° -103.1657257°

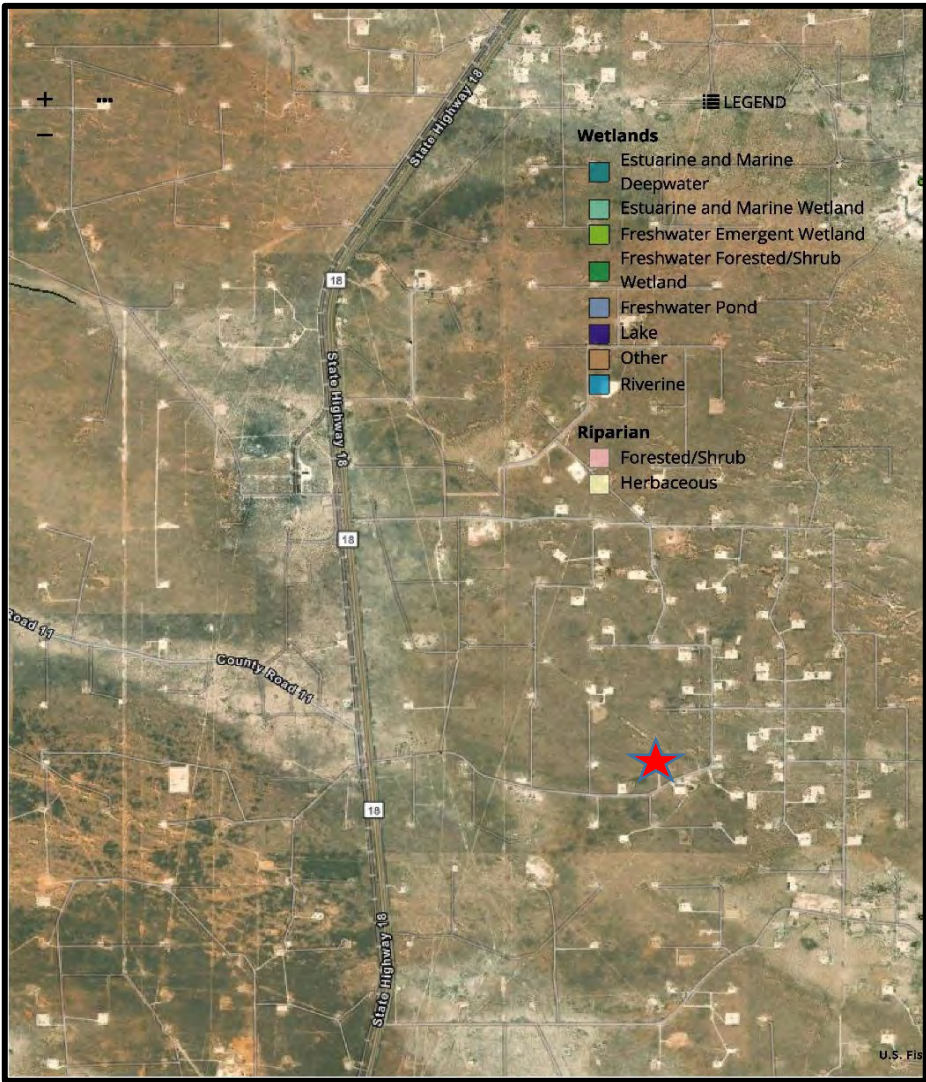






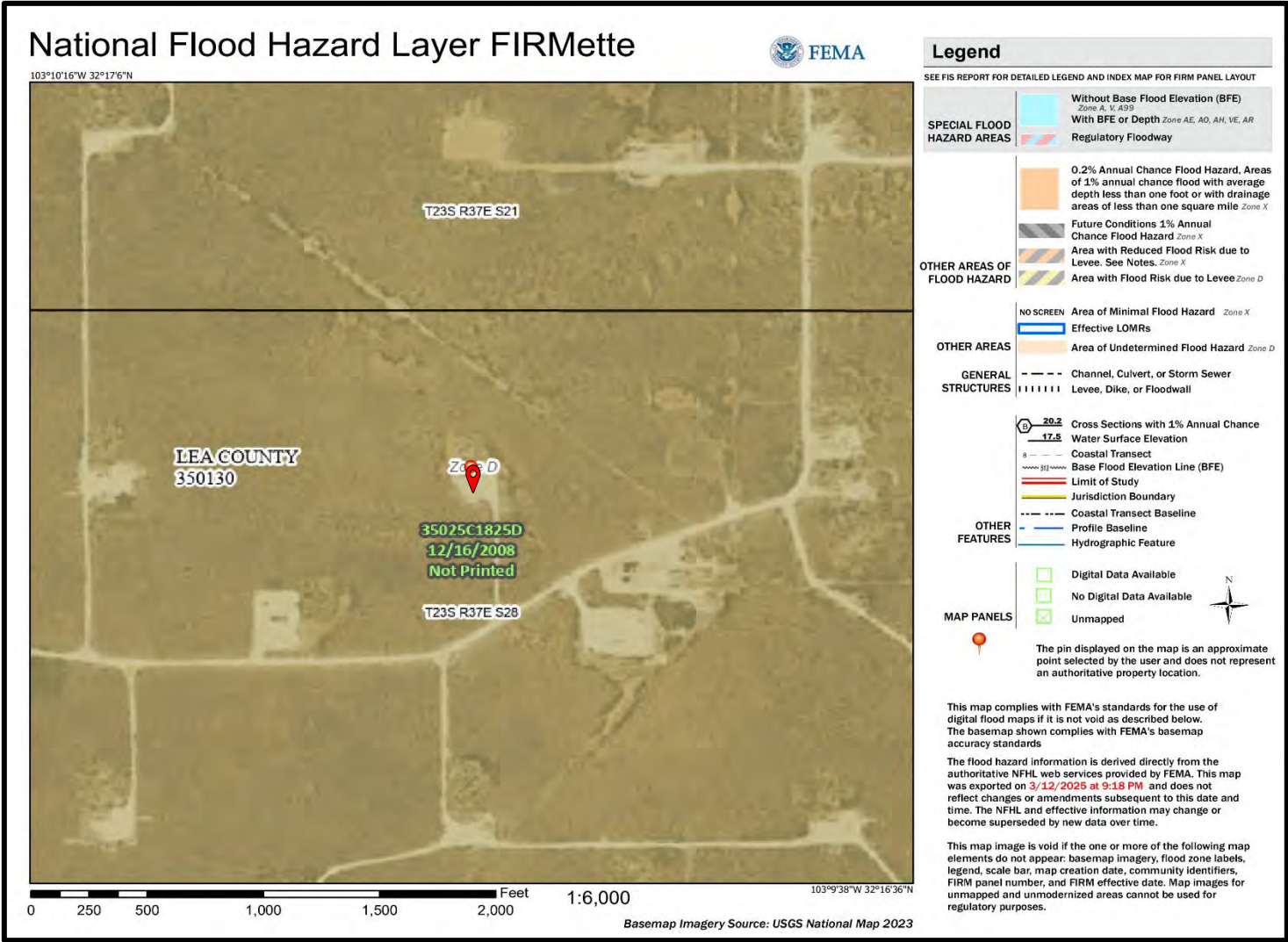


<b>LEGEND:</b>  Site and Well Location  0.5-Mile Radius  1-Mile Radius  Base Map From Google Earth Pro	<b>Figure 3</b> <b>Wellhead Protection Area Map</b>  Forty Acres Energy, LLC Lamunyon #023 Lea County, New Mexico		
		Drafted by: CC   Checked by: CC	
		Draft: March 14, 2025	
		GPS: 32.2807884° -103.1657257°	

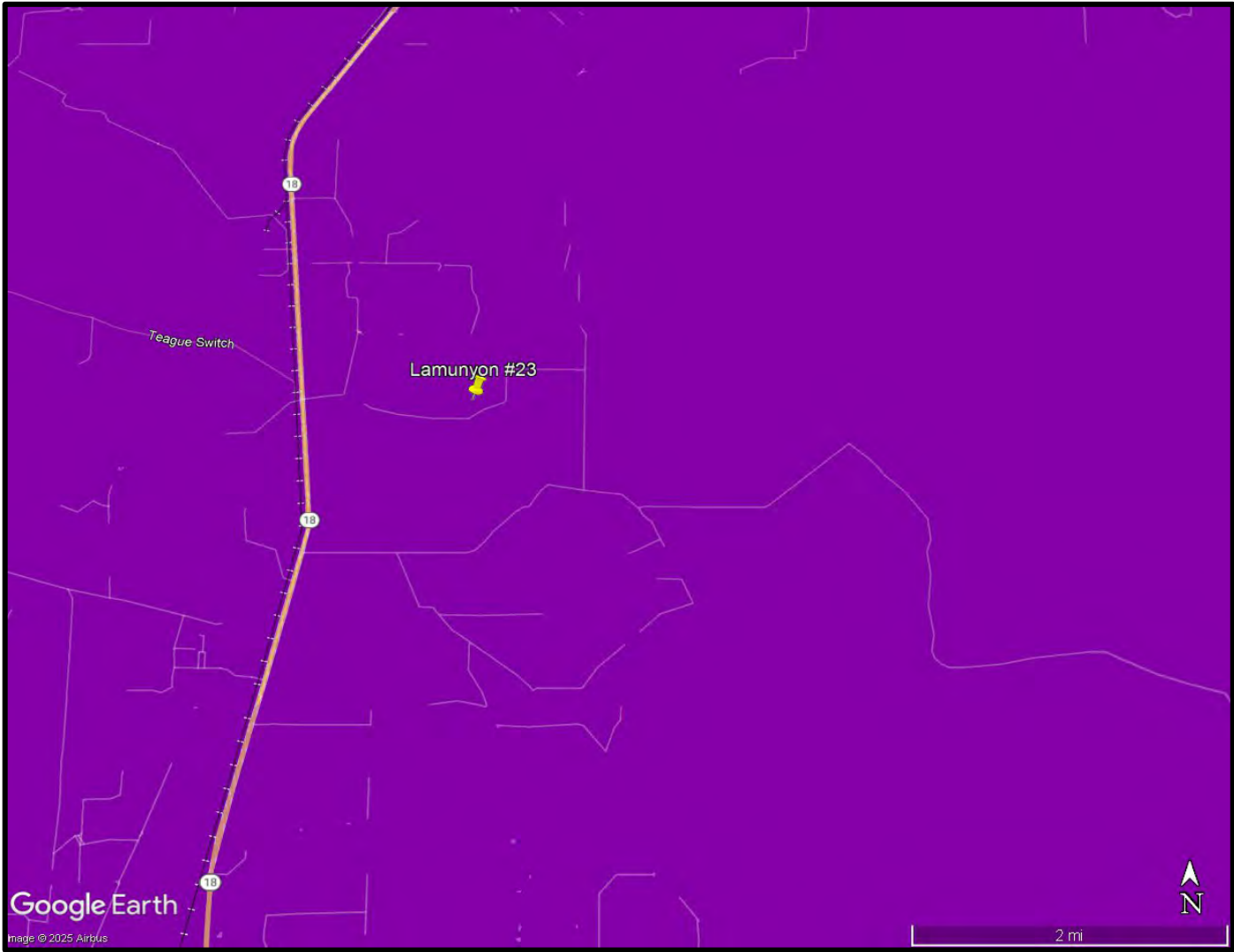




<div>LEGEND:</div> <div> Site Location</div> <div>Base Map From US Fish &amp; Wildlife Service</div>	<div>Figure 4</div> <div>National Wetlands</div> <div>Inventory Map</div> <div>Forty Acres Energy, LLC</div> <div>Lamunyon #023</div> <div>Lea County, New Mexico</div>		
		Drafted by: CC   Checked by: CC	
		Draft: March 14, 2025	
		GPS: 32.2807884° -103.1657257°	



<div>LEGEND:</div> <div> Site Location</div> <div>Base Map From FEMA</div>	<div>Figure 5</div> <div>FEMA Floodplain Map</div> <div>Forty Acres Energy, LLC</div> <div>Lamunyon #023</div> <div>Lea County, New Mexico</div>	<div>Drafted by: CC   Checked by: CC</div> <div>Draft: March 14, 2025</div> <div>GPS: 32.2807884° -103.1657257°</div>	



<b>LEGEND:</b> <div><div></div>Low Karst Potential</div> <div><div></div>Medium Karst Potential</div> <div><div></div>High Karst Potential</div> Base Map From Google Earth Pro and BLM	<b>Figure 6</b> <b>Karst Potential Map</b>  Forty Acres Energy, LLC Lamunyon #023 Lea County, New Mexico		
		Drafted by: CC   Checked by: CC	
		Draft: March 14, 2025	
		GPS: 32.2807884° -103.1657257°	



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## Appendix A: NMOCD Correspondence





Cindy Crain <cindy.crain@gmail.com>

---

**FW: FAE II Operating C141 Extension Request for Incident # nAPP2410851745 (C E Lamunyon #023)**

1 message

---

**Adam Holcomb** <adam@faenergyus.com>  
To: Cindy Crain <cindy.crain@gmail.com>

Wed, Dec 4, 2024 at 1:19 PM

---

**From:** Velez, Nelson, EMNRD <[Nelson.Velez@emnrd.nm.gov](mailto:Nelson.Velez@emnrd.nm.gov)>  
**Sent:** Thursday, October 3, 2024 8:16 AM  
**To:** Alex Bolanos <[alex@faenergyus.com](mailto:alex@faenergyus.com)>  
**Cc:** Adam Holcomb <[adam@faenergyus.com](mailto:adam@faenergyus.com)>  
**Subject:** FAE II Operating C141 Extension Request for Incident # nAPP2410851745 (C E Lamunyon #023)

Good morning Alex,

Thank you for the correspondence.

The incident remediation closure report due date (RCRDD) had lapsed after July 15, 2024. In the future, please submit your requests prior to its RCRDD. Failure to do so may result in any request being denied.

Given the circumstance, your request for a time extension request is approved. The Remediation Due date has been updated to 12/16/2024.

Please keep a copy of this communication for inclusion within the appropriate reporting documentation.

The OCD requires a copy of all correspondence related to remedial activities be included in all proposals, weekly/monthly/quarterly/semi-annual/annual, or final closure reports. Correspondence reporting requirements may include, but not limited to, time extension requests, sample event notifications, and variance requests.

If you have any questions, please contact me via email at your convenience. Thank you.

Regards,

**Nelson Velez** • Environmental Specialist - Adv

Environmental Bureau | EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87410

(505) 469-6146 | [nelson.velez@emnrd.nm.gov](mailto:nelson.velez@emnrd.nm.gov)

<http://www.emnrd.nm.gov/ocd>



**Previous email submittal:**

**Alex Bolanos**<[alex@faenergyus.com](mailto:alex@faenergyus.com)>

**To:**Velez, Nelson, EMNRD

**Cc:**Adam Holcomb <[adam@faenergyus.com](mailto:adam@faenergyus.com)>

**Wed 10/2/2024 9:31 AM**

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

**Nelson,**

**I hope all is well with you. There are a few releases that we are still working through that we would like to try a get an extension on. Please see below:**

<b>Incident Number</b>	<b>Location</b>
------------------------	-----------------

<b>nAPP2411049662</b>	<b>LAMUNYON 022</b>
<b>nAPP2410851745</b>	<b>LAMUNYON 023</b>
<b>nAPP2412157442</b>	<b>LAMUNYON 056</b>

These are behind because we have devoted our resources to closing out (5) other FAE II releases. Please see below:

<b>Incident Number</b>	<b>Location</b>
<b>nAPP2225654053</b>	<b>Farnsworth 4 #007 / SWD</b>
<b>NAPP2336333754</b>	<b>EC HILL B 001</b>
<b>nAPP2321657306</b>	<b>Eva Blinberry #20</b>
<b>nAPP2304957943</b>	<b>Arnott Ramsay NCT-B Battery</b>
<b>nAPP2228055393</b>	<b>TOM CLOSSON #1 BATT (HISTORICAL)</b>

Now that we have gotten the above submitted for closure, we are able to free up our consultant(s) and field operators. We intend on having them complete the next (3) through the end of the year.

Please let me know if you need additional information or would like to discuss.

Thanks Nelson.

**Alex Bolanos**

**Regulatory/Production**

**Forty Acres Energy**

**(c) 836-689-3788**

**[alex@faenergyus.com](mailto:alex@faenergyus.com)**

RE: FAE II Operating C141 Extension Request

Inbox



Alex Bolanos

to Nelson,, Adam, Billy, me, Rogelio

Dec 16, 2024, 4:49 PM



Nelson,

We are still working through these (3) incidents. Please see working updates below for each of them.

- Tom Closson (Incident #nAPP2228055393) - current due date is 12/16/24 – Depth to water 100' bgs has been confirmed at Tom Closson. Confirmed we will use Hydroger instead of micro-blaze for treatment. Now gathering treatment info for Hydrogen Peroxide.
- Lamunyon 56 (Incident #nAPP2412157442) - current due date is 12/17/24 – EM Survey Complete, now confirmation sampling to be completed shortly.
- Lamunyon 23 (Incident #nAPP2410851745) - current due date is 12/16/24 – EM Survey Complete, now confirmation sampling to be completed shortly.

Accordingly, we are requesting a 90-day extension in order to complete confirmation sampling for the Lamunyon wells and complete the treatment plan and treat the Tom Closson. I have the reports before the end of the requested extension.

Thanks,  
Alex Bolanos

**From:** Alex Bolanos

**Sent:** Wednesday, October 2, 2024 10:31 AM

**To:** Velez, Nelson, EMNRD <[Nelson.Velez@emnrd.nm.gov](mailto:Nelson.Velez@emnrd.nm.gov)>

**Cc:** Adam Holcomb <[adam@faenergyus.com](mailto:adam@faenergyus.com)>

**Subject:** FAE II Operating C141 Extension Request

Nelson,

I hope all is well with you. There are a few releases that we are still working through that we would like to try a get an extension on. Please see below:

Incident Number	Location
nAPP2411049662	LAMUNYON 022
nAPP2410851745	LAMUNYON 023
nAPP2412157442	LAMUNYON 056

These are behind because we have devoted our resources to closing out (5) other FAE II releases. Please see below:

Incident Number	Location
nAPP2225654053	Farnsworth 4 #007 / SWD
NAPP2336333754	EC HILL B 001
nAPP2321657306	Eva Blinberry #20
nAPP2304957943	Arnott Ramsay NCT-B Battery
nAPP2228055393	TOM CLOSSON #1 BATT (HISTORICAL)

Now that we have gotten the above submitted for closure, we are able to free up our consultant(s) and field operators. We intend on having them complete the next (3) through the year.

Please let me know if you need additional information or would like to discuss.

Thanks Nelson.

Alex Bolanos  
Regulatory/Production  
Forty Acres Energy  
(c) 836-689-3788  
[alex@faenergyus.com](mailto:alex@faenergyus.com)



Velez, Nelson, EMNRD

to Alex, Adam, Billy, me, Rogelio

Dec 19, 2024, 4:18 PM



Good afternoon Alex,

Thanks for the correspondence. In reviewing the 3 incidents, the following are my determination for each;

1. Tom Closson #001 - time extension is denied. Please re-submit your remediation plan addressing the reasons of rejection or the final remediation closure as soon as possible.
2. Lamunyon 23 - 90-day time extension is approved. Remediation Due date has been updated to March 17, 2025.
3. Lamunyon 56 - 90-day time extension is approved. Remediation Due date has been updated to March 17, 2025.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variations.

Regards,

**Nelson Velez** • Environmental Specialist - Adv  
Environmental Bureau | EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87410  
(505) 469-6146 | [nelson.velez@emnrd.nm.gov](mailto:nelson.velez@emnrd.nm.gov)  
<http://www.emnrd.nm.gov/ocd>




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## Appendix B: NMOSE Point of Diversion Summaries

# Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE  
quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	TwS	Rng	X	Y	Map
	CP 00407		SW	NW	28	23S	37E	671939.0	3572624.0 *	

\* UTM location was derived from PLSS - see [Help](#)

Driller License:

Driller Company:

Driller Name:

Drill Start Date:

Drill Finish Date:

Plug Date:

Log File Date:

PCW Rcv Date:

Source:

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size:

Depth Well:

Depth Water:


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



# Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE  
quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	TwS	Rng	X	Y	Map
	CP 00480 POD1		SW	SE	22	23S	37E	674340.0	3573467.0 *	

\* UTM location was derived from PLSS - see [Help](#)

Driller License:	466	Driller Company:	CLARKE OIL WELL SERVICING, INC		
Driller Name:	BAILEY, IKE				
Drill Start Date:	1968-04-14	Drill Finish Date:	1970-04-27		Plug Date:
Log File Date:	1970-05-04	PCW Rcv Date:			Source: Shallow
Pump Type:	Pipe Discharge Size:		Estimated Yield:		
Casing Size:	5.50	Depth Well:	6281		Depth Water: 600

## Water Bearing Stratifications:

Top	Bottom	Description
3861	5036	Other/Unknown

## Casing Perforations:

Top	Bottom
4207	4548


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

# Point of Diversion Summary

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

quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
	CP 01555 POD1	SW	NW	SE	27	23S	37E	674227.9	3572201.6	

\* UTM location was derived from PLSS - see [Help](#)

Driller License:

Driller Company:

Driller Name:

Drill Start Date:

Drill Finish Date:

Plug Date:

Log File Date:

PCW Rcv Date:

Source:

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size:

Depth Well:


Depth Water:

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

# Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE  
quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
CP 00375 POD1		SE	SE	21	23S	37E	673133.0	3573448.0 *		

\* UTM location was derived from PLSS - see Help

Driller License:	122	Driller Company:	UNKNOWN
Driller Name:			
Drill Start Date:	Drill Finish Date:		Plug Date:
Log File Date:	PCW Rcv Date:		Source: Shallow
Pump Type:	Pipe Discharge Size:		Estimated Yield:
Casing Size:	6.75	Depth Well:	160
		Depth Water:	

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



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## **Appendix C: Laboratory Reports and Chain-of-Custody Documentation**



Environment Testing

1

2

3

4

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6

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12

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Cindy Crain  
Crain Environmental  
2925 E. 17th St.  
Odessa, Texas 79761

Generated 1/23/2025 3:45:43 PM

## JOB DESCRIPTION

Lamunyon 23  
Lea Co, NM

## JOB NUMBER

880-53406-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

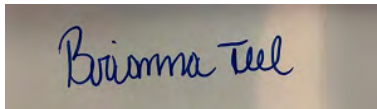
# Eurofins Midland

## 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



Generated  
1/23/2025 3:45:43 PM

Authorized for release by  
Brianna Teel, Project Manager  
[Brianna.Teel@et.eurofinsus.com](mailto:Brianna.Teel@et.eurofinsus.com)  
Designee for  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

Client: Crain Environmental  
Project/Site: Lamunyon 23

Laboratory Job ID: 880-53406-1  
SDG: Lea Co, NM

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Definitions/Glossary

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, 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
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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: Crain Environmental  
Project: Lamunyon 23

Job ID: 880-53406-1

Job ID: 880-53406-1

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**Job Narrative**  
**880-53406-1**

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 1/20/2025 2:07 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 2.6°C.

**Receipt Exceptions**

The following samples were received and analyzed from an unpreserved bulk soil jar: S-1 (1') (880-53406-1), S-1 (4.1') (880-53406-2), S-2 (1') (880-53406-3), S-2 (4.1') (880-53406-4), S-3 (1') (880-53406-5), S-3 (4.1') (880-53406-6), S-4 (1') (880-53406-7), S-4 (4.1') (880-53406-8), S-5 (1') (880-53406-9), S-5 (4.1') (880-53406-10), S-6 (1') (880-53406-11), S-6 (4.1') (880-53406-12), S-7 (1') (880-53406-13), S-7 (4.1') (880-53406-14), S-8 (1') (880-53406-15), S-8 (4.1') (880-53406-16), S-9 (1') (880-53406-17), S-9 (4.1') (880-53406-18), S-10 (1') (880-53406-19), S-10 (4.1') (880-53406-20), S-11 (1') (880-53406-21), S-11 (4.1') (880-53406-22), S-12 (1') (880-53406-23), S-12 (4.1') (880-53406-24), S-13 (1') (880-53406-25), S-13 (4.1') (880-53406-26), S-14 (1') (880-53406-27), S-14 (4.1') (880-53406-28), S-15 (1') (880-53406-29) and S-15 (4.1') (880-53406-30).

**GC VOA**

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-100710 and analytical batch 880-100623 was outside the upper control limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: S-15 (1') (880-53406-29), S-15 (4.1') (880-53406-30) and (880-53413-A-1-G). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

**Diesel Range Organics**

Method 8015MOD\_NM: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: S-1 (4.1') (880-53406-2), S-2 (1') (880-53406-3), S-2 (4.1') (880-53406-4), S-3 (1') (880-53406-5), S-3 (4.1') (880-53406-6), S-4 (1') (880-53406-7), S-5 (1') (880-53406-9), S-6 (1') (880-53406-11), S-6 (4.1') (880-53406-12), S-7 (1') (880-53406-13), S-7 (4.1') (880-53406-14), S-8 (4.1') (880-53406-16), S-9 (4.1') (880-53406-18) and S-10 (4.1') (880-53406-20). Percent recoveries are based on the amount spiked.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: S-1 (1') (880-53406-1). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: S-10 (1') (880-53406-19), (880-53406-A-1-B MS) and (880-53406-A-1-C MSD). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-100701 and analytical batch 880-100739 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.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: S-12 (4.1') (880-53406-24), S-15 (4.1') (880-53406-30), (880-53406-A-21-B MS) and (880-53406-A-21-C MSD). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: S-13 (4.1') (880-53406-26).

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**Case Narrative**

Client: Crain Environmental  
Project: Lamunyon 23

Job ID: 880-53406-1

**Job ID: 880-53406-1 (Continued)****Eurofins Midland**

Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-100702 and analytical batch 880-100857 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.

Method 8015MOD\_NM: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: S-11 (4.1') (880-53406-22), S-12 (1') (880-53406-23), S-13 (1') (880-53406-25), S-14 (1') (880-53406-27), S-14 (4.1') (880-53406-28) and S-15 (1') (880-53406-29). Percent recoveries are based on the amount spiked.

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 - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-100804 and analytical batch 880-100872 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.

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-1 (1')

Lab Sample ID: 880-53406-1

Date Collected: 01/17/25 13:15

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

## 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		01/20/25 14:54	01/20/25 17:01	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/20/25 14:54	01/20/25 17:01	1
Ethylbenzene	0.0103		0.00198		mg/Kg		01/20/25 14:54	01/20/25 17:01	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/20/25 14:54	01/20/25 17:01	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/20/25 14:54	01/20/25 17:01	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/20/25 14:54	01/20/25 17:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	01/20/25 14:54	01/20/25 17:01	1
1,4-Difluorobenzene (Surr)	92		70 - 130	01/20/25 14:54	01/20/25 17:01	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0103		0.00397		mg/Kg			01/20/25 17:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/21/25 19:52	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	<49.8	U F1	49.8		mg/Kg		01/20/25 15:12	01/21/25 19:52	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/21/25 19:52	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/21/25 19:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	69	S1-	70 - 130	01/20/25 15:12	01/21/25 19:52	1
o-Terphenyl	70		70 - 130	01/20/25 15:12	01/21/25 19:52	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	526		10.0		mg/Kg			01/21/25 17:45	1

Client Sample ID: S-1 (4.1')

Lab Sample ID: 880-53406-2

Date Collected: 01/17/25 13:30

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:54	01/20/25 17:21	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:54	01/20/25 17:21	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:54	01/20/25 17:21	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		01/20/25 14:54	01/20/25 17:21	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:54	01/20/25 17:21	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		01/20/25 14:54	01/20/25 17:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	01/20/25 14:54	01/20/25 17:21	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-1 (4.1')

Lab Sample ID: 880-53406-2

Date Collected: 01/17/25 13:30

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	94		70 - 130	01/20/25 14:54	01/20/25 17:21	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			01/20/25 17:21	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			01/21/25 20:36	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		01/20/25 15:12	01/21/25 20:36	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/20/25 15:12	01/21/25 20:36	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/20/25 15:12	01/21/25 20:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	68	S1-	70 - 130	01/20/25 15:12	01/21/25 20:36	1
o-Terphenyl	67	S1-	70 - 130	01/20/25 15:12	01/21/25 20:36	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2230		50.1		mg/Kg			01/21/25 18:08	5

Client Sample ID: S-2 (1')

Lab Sample ID: 880-53406-3

Date Collected: 01/17/25 13:35

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

## 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		01/20/25 14:54	01/20/25 17:42	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/20/25 14:54	01/20/25 17:42	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/20/25 14:54	01/20/25 17:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/20/25 14:54	01/20/25 17:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/20/25 14:54	01/20/25 17:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/20/25 14:54	01/20/25 17:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	01/20/25 14:54	01/20/25 17:42	1
1,4-Difluorobenzene (Surr)	96		70 - 130	01/20/25 14:54	01/20/25 17:42	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			01/20/25 17:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/21/25 20:52	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-2 (1')

Lab Sample ID: 880-53406-3

Date Collected: 01/17/25 13:35

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 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	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/21/25 20:52	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/21/25 20:52	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/21/25 20:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	61	S1-	70 - 130	01/20/25 15:12	01/21/25 20:52	1
o-Terphenyl	60	S1-	70 - 130	01/20/25 15:12	01/21/25 20:52	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	311		10.1		mg/Kg			01/21/25 18:15	1

Client Sample ID: S-2 (4.1')

Lab Sample ID: 880-53406-4

Date Collected: 01/17/25 13:50

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:54	01/20/25 18:03	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:54	01/20/25 18:03	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:54	01/20/25 18:03	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		01/20/25 14:54	01/20/25 18:03	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:54	01/20/25 18:03	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		01/20/25 14:54	01/20/25 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	01/20/25 14:54	01/20/25 18:03	1
1,4-Difluorobenzene (Surr)	99		70 - 130	01/20/25 14:54	01/20/25 18:03	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			01/20/25 18:03	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			01/21/25 21:06	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		01/20/25 15:12	01/21/25 21:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/20/25 15:12	01/21/25 21:06	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/20/25 15:12	01/21/25 21:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	66	S1-	70 - 130	01/20/25 15:12	01/21/25 21:06	1
o-Terphenyl	65	S1-	70 - 130	01/20/25 15:12	01/21/25 21:06	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

## Client Sample ID: S-2 (4.1')

Date Collected: 01/17/25 13:50

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## Lab Sample ID: 880-53406-4

Matrix: Solid

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	310		9.96		mg/Kg			01/21/25 18:23	1

## Client Sample ID: S-3 (1')

Date Collected: 01/17/25 13:55

Date Received: 01/20/25 14:07

Sample Depth: 1'

## Lab Sample ID: 880-53406-5

Matrix: Solid

## 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		01/20/25 14:54	01/20/25 18:23	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/20/25 14:54	01/20/25 18:23	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/20/25 14:54	01/20/25 18:23	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		01/20/25 14:54	01/20/25 18:23	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/20/25 14:54	01/20/25 18:23	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/20/25 14:54	01/20/25 18:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130				01/20/25 14:54	01/20/25 18:23	1
1,4-Difluorobenzene (Surr)	99		70 - 130				01/20/25 14:54	01/20/25 18:23	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			01/20/25 18:23	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			01/21/25 21:21	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		01/20/25 15:12	01/21/25 21:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/20/25 15:12	01/21/25 21:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/20/25 15:12	01/21/25 21:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	68	S1-	70 - 130				01/20/25 15:12	01/21/25 21:21	1
o-Terphenyl	66	S1-	70 - 130				01/20/25 15:12	01/21/25 21:21	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1600		50.3		mg/Kg			01/21/25 18:30	5

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-3 (4.1')

Lab Sample ID: 880-53406-6

Date Collected: 01/17/25 14:10

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## 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		01/20/25 14:54	01/20/25 18:43	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/20/25 14:54	01/20/25 18:43	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/20/25 14:54	01/20/25 18:43	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/20/25 14:54	01/20/25 18:43	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/20/25 14:54	01/20/25 18:43	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/20/25 14:54	01/20/25 18:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	01/20/25 14:54	01/20/25 18:43	1
1,4-Difluorobenzene (Surr)	98		70 - 130	01/20/25 14:54	01/20/25 18:43	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			01/20/25 18:43	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			01/21/25 21:35	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		01/20/25 15:12	01/21/25 21:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/20/25 15:12	01/21/25 21:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/20/25 15:12	01/21/25 21:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	69	S1-	70 - 130	01/20/25 15:12	01/21/25 21:35	1
o-Terphenyl	68	S1-	70 - 130	01/20/25 15:12	01/21/25 21:35	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	58.0		9.96		mg/Kg			01/21/25 18:37	1

Client Sample ID: S-4 (1')

Lab Sample ID: 880-53406-7

Date Collected: 01/17/25 14:15

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:54	01/20/25 19:04	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:54	01/20/25 19:04	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:54	01/20/25 19:04	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		01/20/25 14:54	01/20/25 19:04	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:54	01/20/25 19:04	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		01/20/25 14:54	01/20/25 19:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	01/20/25 14:54	01/20/25 19:04	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-4 (1')

Lab Sample ID: 880-53406-7

Date Collected: 01/17/25 14:15

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	94		70 - 130	01/20/25 14:54	01/20/25 19:04	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			01/20/25 19:04	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			01/21/25 21:50	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		01/20/25 15:12	01/21/25 21:50	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/20/25 15:12	01/21/25 21:50	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/20/25 15:12	01/21/25 21:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	64	S1-	70 - 130	01/20/25 15:12	01/21/25 21:50	1
o-Terphenyl	63	S1-	70 - 130	01/20/25 15:12	01/21/25 21:50	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1290	F1	50.4		mg/Kg			01/22/25 17:01	5

Client Sample ID: S-4 (4.1')

Lab Sample ID: 880-53406-8

Date Collected: 01/17/25 14:30

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## 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		01/20/25 14:54	01/20/25 19:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/20/25 14:54	01/20/25 19:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/20/25 14:54	01/20/25 19:24	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/20/25 14:54	01/20/25 19:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/20/25 14:54	01/20/25 19:24	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/20/25 14:54	01/20/25 19:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	01/20/25 14:54	01/20/25 19:24	1
1,4-Difluorobenzene (Surr)	99		70 - 130	01/20/25 14:54	01/20/25 19:24	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			01/20/25 19:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/21/25 22:04	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

## Client Sample ID: S-4 (4.1')

Date Collected: 01/17/25 14:30

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## Lab Sample ID: 880-53406-8

Matrix: Solid

## 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	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/21/25 22:04	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/21/25 22:04	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/21/25 22:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 130				01/20/25 15:12	01/21/25 22:04	1
o-Terphenyl	70		70 - 130				01/20/25 15:12	01/21/25 22:04	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1140		50.4		mg/Kg			01/22/25 17:19	5

## Client Sample ID: S-5 (1')

Date Collected: 01/17/25 14:35

Date Received: 01/20/25 14:07

Sample Depth: 1'

## Lab Sample ID: 880-53406-9

Matrix: Solid

## 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		01/20/25 14:54	01/20/25 19:45	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/20/25 14:54	01/20/25 19:45	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/20/25 14:54	01/20/25 19:45	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/20/25 14:54	01/20/25 19:45	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/20/25 14:54	01/20/25 19:45	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/20/25 14:54	01/20/25 19:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130				01/20/25 14:54	01/20/25 19:45	1
1,4-Difluorobenzene (Surr)	99		70 - 130				01/20/25 14:54	01/20/25 19:45	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			01/20/25 19:45	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			01/21/25 22:20	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		01/20/25 15:12	01/21/25 22:20	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/20/25 15:12	01/21/25 22:20	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/20/25 15:12	01/21/25 22:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	65	S1-	70 - 130				01/20/25 15:12	01/21/25 22:20	1
o-Terphenyl	63	S1-	70 - 130				01/20/25 15:12	01/21/25 22:20	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-5 (1')

Lab Sample ID: 880-53406-9

Date Collected: 01/17/25 14:35

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	51.1		10.1		mg/Kg			01/22/25 17:24	1

Client Sample ID: S-5 (4.1')

Lab Sample ID: 880-53406-10

Date Collected: 01/17/25 14:50

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## 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		01/20/25 14:49	01/20/25 17:06	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/20/25 14:49	01/20/25 17:06	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/20/25 14:49	01/20/25 17:06	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/20/25 14:49	01/20/25 17:06	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/20/25 14:49	01/20/25 17:06	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/20/25 14:49	01/20/25 17:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130				01/20/25 14:49	01/20/25 17:06	1
1,4-Difluorobenzene (Surr)	103		70 - 130				01/20/25 14:49	01/20/25 17:06	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			01/20/25 17:06	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			01/21/25 22:34	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		01/20/25 15:12	01/21/25 22:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/20/25 15:12	01/21/25 22:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/20/25 15:12	01/21/25 22:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	72		70 - 130				01/20/25 15:12	01/21/25 22:34	1
o-Terphenyl	72		70 - 130				01/20/25 15:12	01/21/25 22:34	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2550		99.8		mg/Kg			01/22/25 17:30	10

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-6 (1')

Lab Sample ID: 880-53406-11

Date Collected: 01/17/25 14:55

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

## 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		01/20/25 14:49	01/20/25 17:26	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/20/25 14:49	01/20/25 17:26	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/20/25 14:49	01/20/25 17:26	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		01/20/25 14:49	01/20/25 17:26	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/20/25 14:49	01/20/25 17:26	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/20/25 14:49	01/20/25 17:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	01/20/25 14:49	01/20/25 17:26	1
1,4-Difluorobenzene (Surr)	101		70 - 130	01/20/25 14:49	01/20/25 17:26	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			01/20/25 17:26	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			01/21/25 23:03	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		01/20/25 15:12	01/21/25 23:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/20/25 15:12	01/21/25 23:03	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/20/25 15:12	01/21/25 23:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	69	S1-	70 - 130	01/20/25 15:12	01/21/25 23:03	1
o-Terphenyl	69	S1-	70 - 130	01/20/25 15:12	01/21/25 23:03	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7500		99.2		mg/Kg			01/22/25 17:36	10

Client Sample ID: S-6 (4.1')

Lab Sample ID: 880-53406-12

Date Collected: 01/17/25 15:10

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## 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		01/20/25 14:49	01/20/25 17:47	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/20/25 14:49	01/20/25 17:47	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/20/25 14:49	01/20/25 17:47	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/20/25 14:49	01/20/25 17:47	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/20/25 14:49	01/20/25 17:47	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/20/25 14:49	01/20/25 17:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	01/20/25 14:49	01/20/25 17:47	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-6 (4.1')

Lab Sample ID: 880-53406-12

Date Collected: 01/17/25 15:10

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	102		70 - 130	01/20/25 14:49	01/20/25 17:47	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			01/20/25 17:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/21/25 23:19	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	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/21/25 23:19	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/21/25 23:19	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/21/25 23:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	62	S1-	70 - 130	01/20/25 15:12	01/21/25 23:19	1
o-Terphenyl	62	S1-	70 - 130	01/20/25 15:12	01/21/25 23:19	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28.7		9.92		mg/Kg			01/22/25 17:54	1

Client Sample ID: S-7 (1')

Lab Sample ID: 880-53406-13

Date Collected: 01/17/25 15:15

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

## 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		01/20/25 14:49	01/20/25 18:07	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/20/25 14:49	01/20/25 18:07	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/20/25 14:49	01/20/25 18:07	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/20/25 14:49	01/20/25 18:07	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/20/25 14:49	01/20/25 18:07	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/20/25 14:49	01/20/25 18:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	01/20/25 14:49	01/20/25 18:07	1
1,4-Difluorobenzene (Surr)	101		70 - 130	01/20/25 14:49	01/20/25 18:07	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			01/20/25 18:07	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			01/21/25 23:33	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-7 (1')

Lab Sample ID: 880-53406-13

Date Collected: 01/17/25 15:15

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 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		01/20/25 15:12	01/21/25 23:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/20/25 15:12	01/21/25 23:33	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/20/25 15:12	01/21/25 23:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	66	S1-	70 - 130	01/20/25 15:12	01/21/25 23:33	1
o-Terphenyl	64	S1-	70 - 130	01/20/25 15:12	01/21/25 23:33	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	186		10.1		mg/Kg			01/22/25 18:00	1

Client Sample ID: S-7 (4.1')

Lab Sample ID: 880-53406-14

Date Collected: 01/17/25 15:30

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## 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		01/20/25 14:49	01/20/25 18:28	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/20/25 14:49	01/20/25 18:28	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/20/25 14:49	01/20/25 18:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/20/25 14:49	01/20/25 18:28	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/20/25 14:49	01/20/25 18:28	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/20/25 14:49	01/20/25 18:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	01/20/25 14:49	01/20/25 18:28	1
1,4-Difluorobenzene (Surr)	101		70 - 130	01/20/25 14:49	01/20/25 18:28	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			01/20/25 18:28	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			01/21/25 23:48	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		01/20/25 15:12	01/21/25 23:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/20/25 15:12	01/21/25 23:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/20/25 15:12	01/21/25 23:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	67	S1-	70 - 130	01/20/25 15:12	01/21/25 23:48	1
o-Terphenyl	66	S1-	70 - 130	01/20/25 15:12	01/21/25 23:48	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-7 (4.1')

Lab Sample ID: 880-53406-14

Date Collected: 01/17/25 15:30

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	179		9.96		mg/Kg			01/22/25 18:06	1

Client Sample ID: S-8 (1')

Lab Sample ID: 880-53406-15

Date Collected: 01/17/25 15:35

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

## 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		01/20/25 14:49	01/20/25 18:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/20/25 14:49	01/20/25 18:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/20/25 14:49	01/20/25 18:48	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/20/25 14:49	01/20/25 18:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/20/25 14:49	01/20/25 18:48	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/20/25 14:49	01/20/25 18:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130				01/20/25 14:49	01/20/25 18:48	1
1,4-Difluorobenzene (Surr)	101		70 - 130				01/20/25 14:49	01/20/25 18:48	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			01/20/25 18:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/22/25 00:03	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	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/22/25 00:03	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/22/25 00:03	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/22/25 00:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130				01/20/25 15:12	01/22/25 00:03	1
o-Terphenyl	78		70 - 130				01/20/25 15:12	01/22/25 00:03	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1020		9.94		mg/Kg			01/22/25 18:12	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-8 (4.1')

Lab Sample ID: 880-53406-16

Date Collected: 01/17/25 15:50

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## 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		01/20/25 14:49	01/20/25 19:09	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/20/25 14:49	01/20/25 19:09	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/20/25 14:49	01/20/25 19:09	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/20/25 14:49	01/20/25 19:09	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/20/25 14:49	01/20/25 19:09	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/20/25 14:49	01/20/25 19:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	01/20/25 14:49	01/20/25 19:09	1
1,4-Difluorobenzene (Surr)	101		70 - 130	01/20/25 14:49	01/20/25 19:09	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			01/20/25 19:09	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			01/22/25 00:18	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		01/20/25 15:12	01/22/25 00:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/20/25 15:12	01/22/25 00:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/20/25 15:12	01/22/25 00:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	65	S1-	70 - 130	01/20/25 15:12	01/22/25 00:18	1
o-Terphenyl	63	S1-	70 - 130	01/20/25 15:12	01/22/25 00:18	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.0		10.0		mg/Kg			01/22/25 18:18	1

Client Sample ID: S-9 (1')

Lab Sample ID: 880-53406-17

Date Collected: 01/17/25 15:55

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:49	01/20/25 19:29	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:49	01/20/25 19:29	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:49	01/20/25 19:29	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		01/20/25 14:49	01/20/25 19:29	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:49	01/20/25 19:29	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		01/20/25 14:49	01/20/25 19:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	01/20/25 14:49	01/20/25 19:29	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-9 (1')

Lab Sample ID: 880-53406-17

Date Collected: 01/17/25 15:55

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	102		70 - 130	01/20/25 14:49	01/20/25 19:29	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			01/20/25 19:29	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			01/22/25 00:32	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		01/20/25 15:12	01/22/25 00:32	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/20/25 15:12	01/22/25 00:32	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/20/25 15:12	01/22/25 00:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	73		70 - 130	01/20/25 15:12	01/22/25 00:32	1
o-Terphenyl	72		70 - 130	01/20/25 15:12	01/22/25 00:32	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3020	F1	50.2		mg/Kg			01/22/25 18:24	5

Client Sample ID: S-9 (4.1')

Lab Sample ID: 880-53406-18

Date Collected: 01/17/25 16:10

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## 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		01/20/25 14:49	01/20/25 19:50	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/20/25 14:49	01/20/25 19:50	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/20/25 14:49	01/20/25 19:50	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/20/25 14:49	01/20/25 19:50	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/20/25 14:49	01/20/25 19:50	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/20/25 14:49	01/20/25 19:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	01/20/25 14:49	01/20/25 19:50	1
1,4-Difluorobenzene (Surr)	101		70 - 130	01/20/25 14:49	01/20/25 19:50	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			01/20/25 19:50	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			01/22/25 00:46	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

## Client Sample ID: S-9 (4.1')

Date Collected: 01/17/25 16:10

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## Lab Sample ID: 880-53406-18

Matrix: Solid

## 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		01/20/25 15:12	01/22/25 00:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/20/25 15:12	01/22/25 00:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/20/25 15:12	01/22/25 00:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	69	S1-	70 - 130				01/20/25 15:12	01/22/25 00:46	1
o-Terphenyl	68	S1-	70 - 130				01/20/25 15:12	01/22/25 00:46	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5410		100		mg/Kg			01/22/25 18:41	10

## Client Sample ID: S-10 (1')

Date Collected: 01/17/25 16:15

Date Received: 01/20/25 14:07

Sample Depth: 1'

## Lab Sample ID: 880-53406-19

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:50	01/20/25 18:40	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:50	01/20/25 18:40	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:50	01/20/25 18:40	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		01/20/25 14:50	01/20/25 18:40	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:50	01/20/25 18:40	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/20/25 14:50	01/20/25 18:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130				01/20/25 14:50	01/20/25 18:40	1
1,4-Difluorobenzene (Surr)	100		70 - 130				01/20/25 14:50	01/20/25 18:40	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			01/20/25 18:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/22/25 01:02	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	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/22/25 01:02	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/22/25 01:02	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/22/25 01:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 130				01/20/25 15:12	01/22/25 01:02	1
o-Terphenyl	69	S1-	70 - 130				01/20/25 15:12	01/22/25 01:02	1

Eurofins Midland

## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-10 (1')

Lab Sample ID: 880-53406-19

Date Collected: 01/17/25 16:15

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3120		50.5		mg/Kg			01/22/25 18:47	5

Client Sample ID: S-10 (4.1')

Lab Sample ID: 880-53406-20

Date Collected: 01/17/25 16:30

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:50	01/20/25 19:01	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:50	01/20/25 19:01	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:50	01/20/25 19:01	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		01/20/25 14:50	01/20/25 19:01	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/20/25 14:50	01/20/25 19:01	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		01/20/25 14:50	01/20/25 19:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130				01/20/25 14:50	01/20/25 19:01	1
1,4-Difluorobenzene (Surr)	86		70 - 130				01/20/25 14:50	01/20/25 19:01	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			01/20/25 19:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/22/25 01:15	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	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/22/25 01:15	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/22/25 01:15	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/20/25 15:12	01/22/25 01:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	68	S1-	70 - 130				01/20/25 15:12	01/22/25 01:15	1
o-Terphenyl	67	S1-	70 - 130				01/20/25 15:12	01/22/25 01:15	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1240		10.1		mg/Kg			01/22/25 19:05	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-11 (1')

Lab Sample ID: 880-53406-21

Date Collected: 01/17/25 16:35

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

## 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		01/20/25 14:50	01/20/25 19:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/20/25 14:50	01/20/25 19:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/20/25 14:50	01/20/25 19:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/20/25 14:50	01/20/25 19:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/20/25 14:50	01/20/25 19:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/20/25 14:50	01/20/25 19:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	01/20/25 14:50	01/20/25 19:21	1
1,4-Difluorobenzene (Surr)	99		70 - 130	01/20/25 14:50	01/20/25 19:21	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			01/20/25 19:21	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			01/22/25 18:16	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	<49.7	U F1	49.7		mg/Kg		01/20/25 15:15	01/22/25 18:16	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/20/25 15:15	01/22/25 18:16	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/20/25 15:15	01/22/25 18:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	73		70 - 130	01/20/25 15:15	01/22/25 18:16	1
o-Terphenyl	71		70 - 130	01/20/25 15:15	01/22/25 18:16	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	304		9.92		mg/Kg			01/22/25 19:11	1

Client Sample ID: S-11 (4.1')

Lab Sample ID: 880-53406-22

Date Collected: 01/17/25 16:50

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## 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		01/20/25 14:50	01/20/25 19:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/20/25 14:50	01/20/25 19:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/20/25 14:50	01/20/25 19:41	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/20/25 14:50	01/20/25 19:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/20/25 14:50	01/20/25 19:41	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/20/25 14:50	01/20/25 19:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	01/20/25 14:50	01/20/25 19:41	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-11 (4.1')

Lab Sample ID: 880-53406-22

Date Collected: 01/17/25 16:50

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	99		70 - 130	01/20/25 14:50	01/20/25 19:41	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			01/20/25 19:41	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			01/22/25 19:00	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		01/20/25 15:15	01/22/25 19:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/20/25 15:15	01/22/25 19:00	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/20/25 15:15	01/22/25 19:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	67	S1-	70 - 130	01/20/25 15:15	01/22/25 19:00	1
o-Terphenyl	68	S1-	70 - 130	01/20/25 15:15	01/22/25 19:00	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2770		49.9		mg/Kg			01/22/25 19:17	5

Client Sample ID: S-12 (1')

Lab Sample ID: 880-53406-23

Date Collected: 01/17/25 15:55

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

## 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		01/20/25 14:50	01/20/25 20:02	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/20/25 14:50	01/20/25 20:02	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/20/25 14:50	01/20/25 20:02	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/20/25 14:50	01/20/25 20:02	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/20/25 14:50	01/20/25 20:02	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/20/25 14:50	01/20/25 20:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	01/20/25 14:50	01/20/25 20:02	1
1,4-Difluorobenzene (Surr)	98		70 - 130	01/20/25 14:50	01/20/25 20:02	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			01/20/25 20:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/22/25 19:16	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-12 (1')

Lab Sample ID: 880-53406-23

Date Collected: 01/17/25 15:55

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 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	<49.8	U	49.8		mg/Kg		01/20/25 15:15	01/22/25 19:16	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/20/25 15:15	01/22/25 19:16	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/20/25 15:15	01/22/25 19:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	68	S1-	70 - 130				01/20/25 15:15	01/22/25 19:16	1
o-Terphenyl	66	S1-	70 - 130				01/20/25 15:15	01/22/25 19:16	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4040		99.8		mg/Kg			01/22/25 19:22	10

Client Sample ID: S-12 (4.1')

Lab Sample ID: 880-53406-24

Date Collected: 01/17/25 17:10

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## 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		01/21/25 08:46	01/21/25 18:24	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/21/25 08:46	01/21/25 18:24	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/21/25 08:46	01/21/25 18:24	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/21/25 08:46	01/21/25 18:24	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/21/25 08:46	01/21/25 18:24	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/21/25 08:46	01/21/25 18:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130				01/21/25 08:46	01/21/25 18:24	1
1,4-Difluorobenzene (Surr)	90		70 - 130				01/21/25 08:46	01/21/25 18:24	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			01/21/25 18:24	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			01/22/25 19:30	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	<49.9	U	49.9		mg/Kg		01/20/25 15:15	01/22/25 19:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/20/25 15:15	01/22/25 19:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/20/25 15:15	01/22/25 19:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 130				01/20/25 15:15	01/22/25 19:30	1
o-Terphenyl	69	S1-	70 - 130				01/20/25 15:15	01/22/25 19:30	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-12 (4.1')

Lab Sample ID: 880-53406-24

Date Collected: 01/17/25 17:10

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5780		100		mg/Kg			01/22/25 19:28	10

Client Sample ID: S-13 (1')

Lab Sample ID: 880-53406-25

Date Collected: 01/17/25 17:15

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

## 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		01/20/25 16:16	01/21/25 00:42	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/20/25 16:16	01/21/25 00:42	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/20/25 16:16	01/21/25 00:42	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/20/25 16:16	01/21/25 00:42	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/20/25 16:16	01/21/25 00:42	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/20/25 16:16	01/21/25 00:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130				01/20/25 16:16	01/21/25 00:42	1
1,4-Difluorobenzene (Surr)	107		70 - 130				01/20/25 16:16	01/21/25 00:42	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			01/21/25 00:42	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			01/22/25 19:46	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		01/20/25 15:15	01/22/25 19:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/20/25 15:15	01/22/25 19:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/20/25 15:15	01/22/25 19:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	68	S1-	70 - 130				01/20/25 15:15	01/22/25 19:46	1
o-Terphenyl	66	S1-	70 - 130				01/20/25 15:15	01/22/25 19:46	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	287		9.94		mg/Kg			01/22/25 19:34	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-13 (4.1')

Lab Sample ID: 880-53406-26

Date Collected: 01/17/25 17:25

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## 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		01/20/25 16:16	01/21/25 01:03	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/20/25 16:16	01/21/25 01:03	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/20/25 16:16	01/21/25 01:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/20/25 16:16	01/21/25 01:03	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/20/25 16:16	01/21/25 01:03	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/20/25 16:16	01/21/25 01:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	01/20/25 16:16	01/21/25 01:03	1
1,4-Difluorobenzene (Surr)	108		70 - 130	01/20/25 16:16	01/21/25 01:03	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			01/21/25 01:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/22/25 20:00	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		01/20/25 15:15	01/22/25 20:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/20/25 15:15	01/22/25 20:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/20/25 15:15	01/22/25 20:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	69	S1-	70 - 130	01/20/25 15:15	01/22/25 20:00	1
o-Terphenyl	70		70 - 130	01/20/25 15:15	01/22/25 20:00	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1560		49.8		mg/Kg			01/22/25 19:40	5

Client Sample ID: S-14 (1')

Lab Sample ID: 880-53406-27

Date Collected: 01/17/25 17:30

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

## 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		01/20/25 16:16	01/21/25 01:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/20/25 16:16	01/21/25 01:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/20/25 16:16	01/21/25 01:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/20/25 16:16	01/21/25 01:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/20/25 16:16	01/21/25 01:23	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/20/25 16:16	01/21/25 01:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	01/20/25 16:16	01/21/25 01:23	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-14 (1')

Lab Sample ID: 880-53406-27

Date Collected: 01/17/25 17:30

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	103		70 - 130	01/20/25 16:16	01/21/25 01:23	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			01/21/25 01:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/22/25 20:14	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	<49.8	U	49.8		mg/Kg		01/20/25 15:15	01/22/25 20:14	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/20/25 15:15	01/22/25 20:14	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/20/25 15:15	01/22/25 20:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	69	S1-	70 - 130	01/20/25 15:15	01/22/25 20:14	1
o-Terphenyl	69	S1-	70 - 130	01/20/25 15:15	01/22/25 20:14	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	71.6		9.96		mg/Kg			01/22/25 22:07	1

Client Sample ID: S-14 (4.1')

Lab Sample ID: 880-53406-28

Date Collected: 01/17/25 17:40

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## 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		01/20/25 16:16	01/21/25 01:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/20/25 16:16	01/21/25 01:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/20/25 16:16	01/21/25 01:44	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/20/25 16:16	01/21/25 01:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/20/25 16:16	01/21/25 01:44	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/20/25 16:16	01/21/25 01:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130	01/20/25 16:16	01/21/25 01:44	1
1,4-Difluorobenzene (Surr)	103		70 - 130	01/20/25 16:16	01/21/25 01:44	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			01/21/25 01:44	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			01/22/25 20:29	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-14 (4.1')

Lab Sample ID: 880-53406-28

Date Collected: 01/17/25 17:40

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## 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		01/20/25 15:15	01/22/25 20:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/20/25 15:15	01/22/25 20:29	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/20/25 15:15	01/22/25 20:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	68	S1-	70 - 130				01/20/25 15:15	01/22/25 20:29	1
o-Terphenyl	67	S1-	70 - 130				01/20/25 15:15	01/22/25 20:29	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.1		9.92		mg/Kg			01/22/25 22:24	1

Client Sample ID: S-15 (1')

Lab Sample ID: 880-53406-29

Date Collected: 01/17/25 17:45

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

## 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		01/20/25 16:16	01/21/25 02:04	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/20/25 16:16	01/21/25 02:04	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/20/25 16:16	01/21/25 02:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/20/25 16:16	01/21/25 02:04	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/20/25 16:16	01/21/25 02:04	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/20/25 16:16	01/21/25 02:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	134	S1+	70 - 130				01/20/25 16:16	01/21/25 02:04	1
1,4-Difluorobenzene (Surr)	109		70 - 130				01/20/25 16:16	01/21/25 02:04	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			01/21/25 02:04	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			01/22/25 20:43	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	<49.9	U	49.9		mg/Kg		01/20/25 15:15	01/22/25 20:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/20/25 15:15	01/22/25 20:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/20/25 15:15	01/22/25 20:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	67	S1-	70 - 130				01/20/25 15:15	01/22/25 20:43	1
o-Terphenyl	65	S1-	70 - 130				01/20/25 15:15	01/22/25 20:43	1

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## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-15 (1')

Lab Sample ID: 880-53406-29

Date Collected: 01/17/25 17:45

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 1'

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	513		9.96		mg/Kg			01/22/25 22:30	1

Client Sample ID: S-15 (4.1')

Lab Sample ID: 880-53406-30

Date Collected: 01/17/25 17:55

Matrix: Solid

Date Received: 01/20/25 14:07

Sample Depth: 4.1'

## 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		01/20/25 16:16	01/21/25 02:24	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/20/25 16:16	01/21/25 02:24	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/20/25 16:16	01/21/25 02:24	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/20/25 16:16	01/21/25 02:24	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/20/25 16:16	01/21/25 02:24	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/20/25 16:16	01/21/25 02:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	145	S1+	70 - 130				01/20/25 16:16	01/21/25 02:24	1
1,4-Difluorobenzene (Surr)	108		70 - 130				01/20/25 16:16	01/21/25 02:24	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			01/21/25 02:24	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			01/22/25 20:59	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		01/20/25 15:15	01/22/25 20:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/20/25 15:15	01/22/25 20:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/20/25 15:15	01/22/25 20:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 130				01/20/25 15:15	01/22/25 20:59	1
o-Terphenyl	69	S1-	70 - 130				01/20/25 15:15	01/22/25 20:59	1

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2200		50.4		mg/Kg			01/22/25 22:35	5

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# Surrogate Summary

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, 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)
880-53406-1	S-1 (1')	93	92
880-53406-2	S-1 (4.1')	109	94
880-53406-3	S-2 (1')	99	96
880-53406-4	S-2 (4.1')	93	99
880-53406-5	S-3 (1')	96	99
880-53406-6	S-3 (4.1')	91	98
880-53406-7	S-4 (1')	99	94
880-53406-8	S-4 (4.1')	106	99
880-53406-9	S-5 (1')	92	99
880-53406-10	S-5 (4.1')	111	103
880-53406-11	S-6 (1')	108	101
880-53406-12	S-6 (4.1')	107	102
880-53406-13	S-7 (1')	107	101
880-53406-14	S-7 (4.1')	106	101
880-53406-15	S-8 (1')	109	101
880-53406-16	S-8 (4.1')	108	101
880-53406-17	S-9 (1')	108	102
880-53406-18	S-9 (4.1')	107	101
880-53406-19	S-10 (1')	108	100
880-53406-20	S-10 (4.1')	115	86
880-53406-21	S-11 (1')	105	99
880-53406-22	S-11 (4.1')	105	99
880-53406-23	S-12 (1')	107	98
880-53406-24	S-12 (4.1')	113	90
880-53406-25	S-13 (1')	119	107
880-53406-26	S-13 (4.1')	124	108
880-53406-27	S-14 (1')	122	103
880-53406-28	S-14 (4.1')	129	103
880-53406-29	S-15 (1')	134 S1+	109
880-53406-30	S-15 (4.1')	145 S1+	108
LCS 880-100656/1-A	Lab Control Sample	104	115
LCS 880-100657/1-A	Lab Control Sample	94	100
LCS 880-100672/1-A	Lab Control Sample	97	99
LCS 880-100710/1-A	Lab Control Sample	118	100
LCS 880-100735/1-A	Lab Control Sample	105	88
LCSD 880-100656/2-A	Lab Control Sample Dup	103	118
LCSD 880-100657/2-A	Lab Control Sample Dup	93	102
LCSD 880-100672/2-A	Lab Control Sample Dup	99	100
LCSD 880-100710/2-A	Lab Control Sample Dup	123	96
LCSD 880-100735/2-A	Lab Control Sample Dup	104	91
MB 880-100656/5-A	Method Blank	104	100
MB 880-100657/5-A	Method Blank	81	93
MB 880-100672/5-A	Method Blank	100	95
MB 880-100710/5-A	Method Blank	191 S1+	128
MB 880-100735/5-A	Method Blank	96	87

## Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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# Surrogate Summary

Client: Crain Environmental

Job ID: 880-53406-1

Project/Site: Lamunyon 23

SDG: Lea Co, NM

**Method: 8015B NM - Diesel Range Organics (DRO) (GC)**
**Matrix: Solid**
**Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-53406-1	S-1 (1')	69 S1-	70
880-53406-1 MS	S-1 (1')	75	68 S1-
880-53406-1 MSD	S-1 (1')	73	67 S1-
880-53406-2	S-1 (4.1')	68 S1-	67 S1-
880-53406-3	S-2 (1')	61 S1-	60 S1-
880-53406-4	S-2 (4.1')	66 S1-	65 S1-
880-53406-5	S-3 (1')	68 S1-	66 S1-
880-53406-6	S-3 (4.1')	69 S1-	68 S1-
880-53406-7	S-4 (1')	64 S1-	63 S1-
880-53406-8	S-4 (4.1')	70	70
880-53406-9	S-5 (1')	65 S1-	63 S1-
880-53406-10	S-5 (4.1')	72	72
880-53406-11	S-6 (1')	69 S1-	69 S1-
880-53406-12	S-6 (4.1')	62 S1-	62 S1-
880-53406-13	S-7 (1')	66 S1-	64 S1-
880-53406-14	S-7 (4.1')	67 S1-	66 S1-
880-53406-15	S-8 (1')	78	78
880-53406-16	S-8 (4.1')	65 S1-	63 S1-
880-53406-17	S-9 (1')	73	72
880-53406-18	S-9 (4.1')	69 S1-	68 S1-
880-53406-19	S-10 (1')	70	69 S1-
880-53406-20	S-10 (4.1')	68 S1-	67 S1-
880-53406-21	S-11 (1')	73	71
880-53406-21 MS	S-11 (1')	75	69 S1-
880-53406-21 MSD	S-11 (1')	74	68 S1-
880-53406-22	S-11 (4.1')	67 S1-	68 S1-
880-53406-23	S-12 (1')	68 S1-	66 S1-
880-53406-24	S-12 (4.1')	70	69 S1-
880-53406-25	S-13 (1')	68 S1-	66 S1-
880-53406-26	S-13 (4.1')	69 S1-	70
880-53406-27	S-14 (1')	69 S1-	69 S1-
880-53406-28	S-14 (4.1')	68 S1-	67 S1-
880-53406-29	S-15 (1')	67 S1-	65 S1-
880-53406-30	S-15 (4.1')	70	69 S1-
LCS 880-100701/2-A	Lab Control Sample	95	90
LCS 880-100702/2-A	Lab Control Sample	105	99
LCSD 880-100701/3-A	Lab Control Sample Dup	111	104
LCSD 880-100702/3-A	Lab Control Sample Dup	120	115
MB 880-100701/1-A	Method Blank	115	115
MB 880-100702/1-A	Method Blank	110	112

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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## QC Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

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

Lab Sample ID: MB 880-100656/5-A

Matrix: Solid

Analysis Batch: 100621

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 100656

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/20/25 09:49	01/20/25 11:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/20/25 09:49	01/20/25 11:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/20/25 09:49	01/20/25 11:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/20/25 09:49	01/20/25 11:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/20/25 09:49	01/20/25 11:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/20/25 09:49	01/20/25 11:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	01/20/25 09:49	01/20/25 11:46	1
1,4-Difluorobenzene (Surr)	100		70 - 130	01/20/25 09:49	01/20/25 11:46	1

Lab Sample ID: LCS 880-100656/1-A

Matrix: Solid

Analysis Batch: 100621

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 100656

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1107		mg/Kg		111	70 - 130
Toluene	0.100	0.09845		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.1080		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	0.200	0.2260		mg/Kg		113	70 - 130
o-Xylene	0.100	0.1104		mg/Kg		110	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	115		70 - 130

Lab Sample ID: LCSD 880-100656/2-A

Matrix: Solid

Analysis Batch: 100621

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 100656

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1105		mg/Kg		111	70 - 130	0	35
Toluene	0.100	0.09745		mg/Kg		97	70 - 130	1	35
Ethylbenzene	0.100	0.1061		mg/Kg		106	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2228		mg/Kg		111	70 - 130	1	35
o-Xylene	0.100	0.1081		mg/Kg		108	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	118		70 - 130

Lab Sample ID: MB 880-100657/5-A

Matrix: Solid

Analysis Batch: 100620

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 100657

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/20/25 09:54	01/20/25 11:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/20/25 09:54	01/20/25 11:41	1

Eurofins Midland

## QC Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

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

Lab Sample ID: MB 880-100657/5-A

Matrix: Solid

Analysis Batch: 100620

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 100657

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/20/25 09:54	01/20/25 11:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/20/25 09:54	01/20/25 11:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/20/25 09:54	01/20/25 11:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/20/25 09:54	01/20/25 11:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		70 - 130	01/20/25 09:54	01/20/25 11:41	1
1,4-Difluorobenzene (Surr)	93		70 - 130	01/20/25 09:54	01/20/25 11:41	1

Lab Sample ID: LCS 880-100657/1-A

Matrix: Solid

Analysis Batch: 100620

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 100657

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1052		mg/Kg		105	70 - 130
Toluene	0.100	0.1109		mg/Kg		111	70 - 130
Ethylbenzene	0.100	0.1140		mg/Kg		114	70 - 130
m-Xylene & p-Xylene	0.200	0.2020		mg/Kg		101	70 - 130
o-Xylene	0.100	0.1131		mg/Kg		113	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-100657/2-A

Matrix: Solid

Analysis Batch: 100620

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 100657

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1057		mg/Kg		106	70 - 130	0	35
Toluene	0.100	0.1099		mg/Kg		110	70 - 130	1	35
Ethylbenzene	0.100	0.1102		mg/Kg		110	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1957		mg/Kg		98	70 - 130	3	35
o-Xylene	0.100	0.1097		mg/Kg		110	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: MB 880-100672/5-A

Matrix: Solid

Analysis Batch: 100618

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 100672

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/20/25 10:50	01/20/25 12:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/20/25 10:50	01/20/25 12:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/20/25 10:50	01/20/25 12:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/20/25 10:50	01/20/25 12:10	1

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## QC Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

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

Lab Sample ID: MB 880-100672/5-A

Matrix: Solid

Analysis Batch: 100618

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 100672

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/20/25 10:50	01/20/25 12:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/20/25 10:50	01/20/25 12:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	01/20/25 10:50	01/20/25 12:10	1
1,4-Difluorobenzene (Surr)	95		70 - 130	01/20/25 10:50	01/20/25 12:10	1

Lab Sample ID: LCS 880-100672/1-A

Matrix: Solid

Analysis Batch: 100618

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 100672

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08621		mg/Kg		86	70 - 130
Toluene	0.100	0.08779		mg/Kg		88	70 - 130
Ethylbenzene	0.100	0.09008		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	0.200	0.1700		mg/Kg		85	70 - 130
o-Xylene	0.100	0.08654		mg/Kg		87	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-100672/2-A

Matrix: Solid

Analysis Batch: 100618

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 100672

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.08439		mg/Kg		84	70 - 130	2	35
Toluene	0.100	0.08547		mg/Kg		85	70 - 130	3	35
Ethylbenzene	0.100	0.08819		mg/Kg		88	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1675		mg/Kg		84	70 - 130	1	35
o-Xylene	0.100	0.08544		mg/Kg		85	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: MB 880-100710/5-A

Matrix: Solid

Analysis Batch: 100623

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 100710

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/20/25 16:16	01/20/25 17:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/20/25 16:16	01/20/25 17:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/20/25 16:16	01/20/25 17:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/20/25 16:16	01/20/25 17:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/20/25 16:16	01/20/25 17:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/20/25 16:16	01/20/25 17:58	1

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## QC Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	191	S1+	70 - 130	01/20/25 16:16	01/20/25 17:58	1
1,4-Difluorobenzene (Surr)	128		70 - 130	01/20/25 16:16	01/20/25 17:58	1

Lab Sample ID: LCS 880-100710/1-A

Matrix: Solid

Analysis Batch: 100623

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 100710

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1052		mg/Kg		105	70 - 130
Toluene	0.100	0.1049		mg/Kg		105	70 - 130
Ethylbenzene	0.100	0.1061		mg/Kg		106	70 - 130
m-Xylene & p-Xylene	0.200	0.2409		mg/Kg		120	70 - 130
o-Xylene	0.100	0.1173		mg/Kg		117	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-100710/2-A

Matrix: Solid

Analysis Batch: 100623

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 100710

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09890		mg/Kg		99	70 - 130	6	35
Toluene	0.100	0.09577		mg/Kg		96	70 - 130	9	35
Ethylbenzene	0.100	0.1022		mg/Kg		102	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2349		mg/Kg		117	70 - 130	3	35
o-Xylene	0.100	0.1154		mg/Kg		115	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	123		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: MB 880-100735/5-A

Matrix: Solid

Analysis Batch: 100729

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 100735

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/21/25 08:46	01/21/25 11:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/21/25 08:46	01/21/25 11:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/21/25 08:46	01/21/25 11:24	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/21/25 08:46	01/21/25 11:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/21/25 08:46	01/21/25 11:24	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/21/25 08:46	01/21/25 11:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	01/21/25 08:46	01/21/25 11:24	1
1,4-Difluorobenzene (Surr)	87		70 - 130	01/21/25 08:46	01/21/25 11:24	1

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## QC Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

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

Lab Sample ID: LCS 880-100735/1-A

Matrix: Solid

Analysis Batch: 100729

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 100735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09286		mg/Kg		93	70 - 130
Toluene	0.100	0.08265		mg/Kg		83	70 - 130
Ethylbenzene	0.100	0.08852		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	0.200	0.1813		mg/Kg		91	70 - 130
o-Xylene	0.100	0.09087		mg/Kg		91	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

Lab Sample ID: LCSD 880-100735/2-A

Matrix: Solid

Analysis Batch: 100729

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 100735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1003		mg/Kg		100	70 - 130	8	35
Toluene	0.100	0.08718		mg/Kg		87	70 - 130	5	35
Ethylbenzene	0.100	0.09173		mg/Kg		92	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1875		mg/Kg		94	70 - 130	3	35
o-Xylene	0.100	0.09462		mg/Kg		95	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

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

Lab Sample ID: MB 880-100701/1-A

Matrix: Solid

Analysis Batch: 100739

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 100701

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		01/20/25 15:11	01/21/25 19:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/20/25 15:11	01/21/25 19:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/20/25 15:11	01/21/25 19:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130	01/20/25 15:11	01/21/25 19:09	1
o-Terphenyl	115		70 - 130	01/20/25 15:11	01/21/25 19:09	1

Lab Sample ID: LCS 880-100701/2-A

Matrix: Solid

Analysis Batch: 100739

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 100701

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	833.7		mg/Kg		83	70 - 130

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## QC Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

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

Lab Sample ID: LCS 880-100701/2-A

Matrix: Solid

Analysis Batch: 100739

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 100701

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	1000	888.3		mg/Kg		89	70 - 130

	LCS %Recovery	LCS Qualifier	Limits
Surrogate			
1-Chlorooctane	95		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: LCSD 880-100701/3-A

Matrix: Solid

Analysis Batch: 100739

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 100701

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	997.1		mg/Kg		100	70 - 130	18	20
Diesel Range Organics (Over C10-C28)	1000	1055		mg/Kg		105	70 - 130	17	20

	LCSD %Recovery	LCSD Qualifier	Limits
Surrogate			
1-Chlorooctane	111		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: 880-53406-1 MS

Matrix: Solid

Analysis Batch: 100739

Client Sample ID: S-1 (1')

Prep Type: Total/NA

Prep Batch: 100701

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U F1	997	666.1	F1	mg/Kg		67	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U	997	727.3		mg/Kg		73	70 - 130

	MS %Recovery	MS Qualifier	Limits
Surrogate			
1-Chlorooctane	75		70 - 130
o-Terphenyl	68	S1-	70 - 130

Lab Sample ID: 880-53406-1 MSD

Matrix: Solid

Analysis Batch: 100739

Client Sample ID: S-1 (1')

Prep Type: Total/NA

Prep Batch: 100701

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U F1	997	651.0	F1	mg/Kg		65	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.8	U	997	722.2		mg/Kg		72	70 - 130	1	20

	MSD %Recovery	MSD Qualifier	Limits
Surrogate			
1-Chlorooctane	73		70 - 130
o-Terphenyl	67	S1-	70 - 130

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## QC Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

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

Lab Sample ID: MB 880-100702/1-A

Matrix: Solid

Analysis Batch: 100857

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 100702

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		01/20/25 15:15	01/22/25 17:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/20/25 15:15	01/22/25 17:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/20/25 15:15	01/22/25 17:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	01/20/25 15:15	01/22/25 17:33	1
o-Terphenyl	112		70 - 130	01/20/25 15:15	01/22/25 17:33	1

Lab Sample ID: LCS 880-100702/2-A

Matrix: Solid

Analysis Batch: 100857

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 100702

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	980.0		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1008		mg/Kg		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: LCSD 880-100702/3-A

Matrix: Solid

Analysis Batch: 100857

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 100702

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1029		mg/Kg		103	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	1140		mg/Kg		114	70 - 130	12	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	120		70 - 130
o-Terphenyl	115		70 - 130

Lab Sample ID: 880-53406-21 MS

Matrix: Solid

Analysis Batch: 100857

Client Sample ID: S-11 (1')

Prep Type: Total/NA

Prep Batch: 100702

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.7	U F1	996	681.6	F1	mg/Kg		68	70 - 130
Diesel Range Organics (Over C10-C28)	<49.7	U	996	734.5		mg/Kg		74	70 - 130

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## QC Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

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

Lab Sample ID: 880-53406-21 MS

Matrix: Solid

Analysis Batch: 100857

Client Sample ID: S-11 (1')

Prep Type: Total/NA

Prep Batch: 100702

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	75		70 - 130
o-Terphenyl	69	S1-	70 - 130

Lab Sample ID: 880-53406-21 MSD

Matrix: Solid

Analysis Batch: 100857

Client Sample ID: S-11 (1')

Prep Type: Total/NA

Prep Batch: 100702

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.7	U F1	996	661.3	F1	mg/Kg		66	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.7	U	996	730.7		mg/Kg		73	70 - 130	1	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	74		70 - 130
o-Terphenyl	68	S1-	70 - 130

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-100746/1-A

Matrix: Solid

Analysis Batch: 100761

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			01/21/25 14:47	1

Lab Sample ID: LCS 880-100746/2-A

Matrix: Solid

Analysis Batch: 100761

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	264.8		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-100746/3-A

Matrix: Solid

Analysis Batch: 100761

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	263.8		mg/Kg		106	90 - 110	0	20

Lab Sample ID: MB 880-100805/1-A

Matrix: Solid

Analysis Batch: 100871

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			01/22/25 21:50	1

Eurofins Midland

## QC Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-100805/2-A

Matrix: Solid

Analysis Batch: 100871

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	258.8		mg/Kg		104	90 - 110

Lab Sample ID: LCSD 880-100805/3-A

Matrix: Solid

Analysis Batch: 100871

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	259.3		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 880-53406-27 MS

Matrix: Solid

Analysis Batch: 100871

Client Sample ID: S-14 (1')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	71.6		249	335.0		mg/Kg		106	90 - 110

Lab Sample ID: 880-53406-27 MSD

Matrix: Solid

Analysis Batch: 100871

Client Sample ID: S-14 (1')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	71.6		249	335.2		mg/Kg		106	90 - 110	0	20

Lab Sample ID: MB 880-100804/1-A

Matrix: Solid

Analysis Batch: 100872

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			01/22/25 16:43	1

Lab Sample ID: LCS 880-100804/2-A

Matrix: Solid

Analysis Batch: 100872

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	255.2		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-100804/3-A

Matrix: Solid

Analysis Batch: 100872

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	255.7		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 880-53406-7 MS

Matrix: Solid

Analysis Batch: 100872

Client Sample ID: S-4 (1')

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1290	F1	1260	3010	F1	mg/Kg		137	90 - 110

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QC Sample Results

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 880-53406-7 MSD												Client Sample ID: S-4 (1')	
Matrix: Solid												Prep Type: Soluble	
Analysis Batch: 100872													
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit		
Chloride	1290	F1	1260	3021	F1	mg/Kg		137	90 - 110	0	20		
Lab Sample ID: 880-53406-17 MS												Client Sample ID: S-9 (1')	
Matrix: Solid												Prep Type: Soluble	
Analysis Batch: 100872													
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits				
Chloride	3020	F1	1260	4819	F1	mg/Kg		144	90 - 110				
Lab Sample ID: 880-53406-17 MSD												Client Sample ID: S-9 (1')	
Matrix: Solid												Prep Type: Soluble	
Analysis Batch: 100872													
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit		
Chloride	3020	F1	1260	4819	F1	mg/Kg		144	90 - 110	0	20		

## QC Association Summary

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

## GC VOA

## Analysis Batch: 100618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-19	S-10 (1')	Total/NA	Solid	8021B	100672
880-53406-20	S-10 (4.1')	Total/NA	Solid	8021B	100672
880-53406-21	S-11 (1')	Total/NA	Solid	8021B	100672
880-53406-22	S-11 (4.1')	Total/NA	Solid	8021B	100672
880-53406-23	S-12 (1')	Total/NA	Solid	8021B	100672
MB 880-100672/5-A	Method Blank	Total/NA	Solid	8021B	100672
LCS 880-100672/1-A	Lab Control Sample	Total/NA	Solid	8021B	100672
LCSD 880-100672/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	100672

## Analysis Batch: 100620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-1	S-1 (1')	Total/NA	Solid	8021B	100657
880-53406-2	S-1 (4.1')	Total/NA	Solid	8021B	100657
880-53406-3	S-2 (1')	Total/NA	Solid	8021B	100657
880-53406-4	S-2 (4.1')	Total/NA	Solid	8021B	100657
880-53406-5	S-3 (1')	Total/NA	Solid	8021B	100657
880-53406-6	S-3 (4.1')	Total/NA	Solid	8021B	100657
880-53406-7	S-4 (1')	Total/NA	Solid	8021B	100657
880-53406-8	S-4 (4.1')	Total/NA	Solid	8021B	100657
880-53406-9	S-5 (1')	Total/NA	Solid	8021B	100657
MB 880-100657/5-A	Method Blank	Total/NA	Solid	8021B	100657
LCS 880-100657/1-A	Lab Control Sample	Total/NA	Solid	8021B	100657
LCSD 880-100657/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	100657

## Analysis Batch: 100621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-10	S-5 (4.1')	Total/NA	Solid	8021B	100656
880-53406-11	S-6 (1')	Total/NA	Solid	8021B	100656
880-53406-12	S-6 (4.1')	Total/NA	Solid	8021B	100656
880-53406-13	S-7 (1')	Total/NA	Solid	8021B	100656
880-53406-14	S-7 (4.1')	Total/NA	Solid	8021B	100656
880-53406-15	S-8 (1')	Total/NA	Solid	8021B	100656
880-53406-16	S-8 (4.1')	Total/NA	Solid	8021B	100656
880-53406-17	S-9 (1')	Total/NA	Solid	8021B	100656
880-53406-18	S-9 (4.1')	Total/NA	Solid	8021B	100656
MB 880-100656/5-A	Method Blank	Total/NA	Solid	8021B	100656
LCS 880-100656/1-A	Lab Control Sample	Total/NA	Solid	8021B	100656
LCSD 880-100656/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	100656

## Analysis Batch: 100623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-25	S-13 (1')	Total/NA	Solid	8021B	100710
880-53406-26	S-13 (4.1')	Total/NA	Solid	8021B	100710
880-53406-27	S-14 (1')	Total/NA	Solid	8021B	100710
880-53406-28	S-14 (4.1')	Total/NA	Solid	8021B	100710
880-53406-29	S-15 (1')	Total/NA	Solid	8021B	100710
880-53406-30	S-15 (4.1')	Total/NA	Solid	8021B	100710
MB 880-100710/5-A	Method Blank	Total/NA	Solid	8021B	100710
LCS 880-100710/1-A	Lab Control Sample	Total/NA	Solid	8021B	100710
LCSD 880-100710/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	100710

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## QC Association Summary

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

## GC VOA

## Prep Batch: 100656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-10	S-5 (4.1')	Total/NA	Solid	5035	
880-53406-11	S-6 (1')	Total/NA	Solid	5035	
880-53406-12	S-6 (4.1')	Total/NA	Solid	5035	
880-53406-13	S-7 (1')	Total/NA	Solid	5035	
880-53406-14	S-7 (4.1')	Total/NA	Solid	5035	
880-53406-15	S-8 (1')	Total/NA	Solid	5035	
880-53406-16	S-8 (4.1')	Total/NA	Solid	5035	
880-53406-17	S-9 (1')	Total/NA	Solid	5035	
880-53406-18	S-9 (4.1')	Total/NA	Solid	5035	
MB 880-100656/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-100656/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-100656/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Prep Batch: 100657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-1	S-1 (1')	Total/NA	Solid	5035	
880-53406-2	S-1 (4.1')	Total/NA	Solid	5035	
880-53406-3	S-2 (1')	Total/NA	Solid	5035	
880-53406-4	S-2 (4.1')	Total/NA	Solid	5035	
880-53406-5	S-3 (1')	Total/NA	Solid	5035	
880-53406-6	S-3 (4.1')	Total/NA	Solid	5035	
880-53406-7	S-4 (1')	Total/NA	Solid	5035	
880-53406-8	S-4 (4.1')	Total/NA	Solid	5035	
880-53406-9	S-5 (1')	Total/NA	Solid	5035	
MB 880-100657/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-100657/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-100657/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Prep Batch: 100672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-19	S-10 (1')	Total/NA	Solid	5035	
880-53406-20	S-10 (4.1')	Total/NA	Solid	5035	
880-53406-21	S-11 (1')	Total/NA	Solid	5035	
880-53406-22	S-11 (4.1')	Total/NA	Solid	5035	
880-53406-23	S-12 (1')	Total/NA	Solid	5035	
MB 880-100672/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-100672/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-100672/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Prep Batch: 100710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-25	S-13 (1')	Total/NA	Solid	5035	
880-53406-26	S-13 (4.1')	Total/NA	Solid	5035	
880-53406-27	S-14 (1')	Total/NA	Solid	5035	
880-53406-28	S-14 (4.1')	Total/NA	Solid	5035	
880-53406-29	S-15 (1')	Total/NA	Solid	5035	
880-53406-30	S-15 (4.1')	Total/NA	Solid	5035	
MB 880-100710/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-100710/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-100710/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

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## QC Association Summary

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

## GC VOA

## Analysis Batch: 100729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-24	S-12 (4.1')	Total/NA	Solid	8021B	100735
MB 880-100735/5-A	Method Blank	Total/NA	Solid	8021B	100735
LCS 880-100735/1-A	Lab Control Sample	Total/NA	Solid	8021B	100735
LCSD 880-100735/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	100735

## Prep Batch: 100735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-24	S-12 (4.1')	Total/NA	Solid	5035	
MB 880-100735/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-100735/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-100735/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Analysis Batch: 100783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-1	S-1 (1')	Total/NA	Solid	Total BTEX	
880-53406-2	S-1 (4.1')	Total/NA	Solid	Total BTEX	
880-53406-3	S-2 (1')	Total/NA	Solid	Total BTEX	
880-53406-4	S-2 (4.1')	Total/NA	Solid	Total BTEX	
880-53406-5	S-3 (1')	Total/NA	Solid	Total BTEX	
880-53406-6	S-3 (4.1')	Total/NA	Solid	Total BTEX	
880-53406-7	S-4 (1')	Total/NA	Solid	Total BTEX	
880-53406-8	S-4 (4.1')	Total/NA	Solid	Total BTEX	
880-53406-9	S-5 (1')	Total/NA	Solid	Total BTEX	
880-53406-10	S-5 (4.1')	Total/NA	Solid	Total BTEX	
880-53406-11	S-6 (1')	Total/NA	Solid	Total BTEX	
880-53406-12	S-6 (4.1')	Total/NA	Solid	Total BTEX	
880-53406-13	S-7 (1')	Total/NA	Solid	Total BTEX	
880-53406-14	S-7 (4.1')	Total/NA	Solid	Total BTEX	
880-53406-15	S-8 (1')	Total/NA	Solid	Total BTEX	
880-53406-16	S-8 (4.1')	Total/NA	Solid	Total BTEX	
880-53406-17	S-9 (1')	Total/NA	Solid	Total BTEX	
880-53406-18	S-9 (4.1')	Total/NA	Solid	Total BTEX	
880-53406-19	S-10 (1')	Total/NA	Solid	Total BTEX	
880-53406-20	S-10 (4.1')	Total/NA	Solid	Total BTEX	
880-53406-21	S-11 (1')	Total/NA	Solid	Total BTEX	
880-53406-22	S-11 (4.1')	Total/NA	Solid	Total BTEX	
880-53406-23	S-12 (1')	Total/NA	Solid	Total BTEX	
880-53406-24	S-12 (4.1')	Total/NA	Solid	Total BTEX	
880-53406-25	S-13 (1')	Total/NA	Solid	Total BTEX	
880-53406-26	S-13 (4.1')	Total/NA	Solid	Total BTEX	
880-53406-27	S-14 (1')	Total/NA	Solid	Total BTEX	
880-53406-28	S-14 (4.1')	Total/NA	Solid	Total BTEX	
880-53406-29	S-15 (1')	Total/NA	Solid	Total BTEX	
880-53406-30	S-15 (4.1')	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 100701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-1	S-1 (1')	Total/NA	Solid	8015NM Prep	
880-53406-2	S-1 (4.1')	Total/NA	Solid	8015NM Prep	

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## QC Association Summary

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

## GC Semi VOA (Continued)

## Prep Batch: 100701 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-3	S-2 (1')	Total/NA	Solid	8015NM Prep	
880-53406-4	S-2 (4.1')	Total/NA	Solid	8015NM Prep	
880-53406-5	S-3 (1')	Total/NA	Solid	8015NM Prep	
880-53406-6	S-3 (4.1')	Total/NA	Solid	8015NM Prep	
880-53406-7	S-4 (1')	Total/NA	Solid	8015NM Prep	
880-53406-8	S-4 (4.1')	Total/NA	Solid	8015NM Prep	
880-53406-9	S-5 (1')	Total/NA	Solid	8015NM Prep	
880-53406-10	S-5 (4.1')	Total/NA	Solid	8015NM Prep	
880-53406-11	S-6 (1')	Total/NA	Solid	8015NM Prep	
880-53406-12	S-6 (4.1')	Total/NA	Solid	8015NM Prep	
880-53406-13	S-7 (1')	Total/NA	Solid	8015NM Prep	
880-53406-14	S-7 (4.1')	Total/NA	Solid	8015NM Prep	
880-53406-15	S-8 (1')	Total/NA	Solid	8015NM Prep	
880-53406-16	S-8 (4.1')	Total/NA	Solid	8015NM Prep	
880-53406-17	S-9 (1')	Total/NA	Solid	8015NM Prep	
880-53406-18	S-9 (4.1')	Total/NA	Solid	8015NM Prep	
880-53406-19	S-10 (1')	Total/NA	Solid	8015NM Prep	
880-53406-20	S-10 (4.1')	Total/NA	Solid	8015NM Prep	
MB 880-100701/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-100701/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-100701/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-53406-1 MS	S-1 (1')	Total/NA	Solid	8015NM Prep	
880-53406-1 MSD	S-1 (1')	Total/NA	Solid	8015NM Prep	

## Prep Batch: 100702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-21	S-11 (1')	Total/NA	Solid	8015NM Prep	
880-53406-22	S-11 (4.1')	Total/NA	Solid	8015NM Prep	
880-53406-23	S-12 (1')	Total/NA	Solid	8015NM Prep	
880-53406-24	S-12 (4.1')	Total/NA	Solid	8015NM Prep	
880-53406-25	S-13 (1')	Total/NA	Solid	8015NM Prep	
880-53406-26	S-13 (4.1')	Total/NA	Solid	8015NM Prep	
880-53406-27	S-14 (1')	Total/NA	Solid	8015NM Prep	
880-53406-28	S-14 (4.1')	Total/NA	Solid	8015NM Prep	
880-53406-29	S-15 (1')	Total/NA	Solid	8015NM Prep	
880-53406-30	S-15 (4.1')	Total/NA	Solid	8015NM Prep	
MB 880-100702/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-100702/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-100702/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-53406-21 MS	S-11 (1')	Total/NA	Solid	8015NM Prep	
880-53406-21 MSD	S-11 (1')	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 100739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-1	S-1 (1')	Total/NA	Solid	8015B NM	100701
880-53406-2	S-1 (4.1')	Total/NA	Solid	8015B NM	100701
880-53406-3	S-2 (1')	Total/NA	Solid	8015B NM	100701
880-53406-4	S-2 (4.1')	Total/NA	Solid	8015B NM	100701
880-53406-5	S-3 (1')	Total/NA	Solid	8015B NM	100701
880-53406-6	S-3 (4.1')	Total/NA	Solid	8015B NM	100701
880-53406-7	S-4 (1')	Total/NA	Solid	8015B NM	100701

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## QC Association Summary

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

## GC Semi VOA (Continued)

## Analysis Batch: 100739 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-8	S-4 (4.1')	Total/NA	Solid	8015B NM	100701
880-53406-9	S-5 (1')	Total/NA	Solid	8015B NM	100701
880-53406-10	S-5 (4.1')	Total/NA	Solid	8015B NM	100701
880-53406-11	S-6 (1')	Total/NA	Solid	8015B NM	100701
880-53406-12	S-6 (4.1')	Total/NA	Solid	8015B NM	100701
880-53406-13	S-7 (1')	Total/NA	Solid	8015B NM	100701
880-53406-14	S-7 (4.1')	Total/NA	Solid	8015B NM	100701
880-53406-15	S-8 (1')	Total/NA	Solid	8015B NM	100701
880-53406-16	S-8 (4.1')	Total/NA	Solid	8015B NM	100701
880-53406-17	S-9 (1')	Total/NA	Solid	8015B NM	100701
880-53406-18	S-9 (4.1')	Total/NA	Solid	8015B NM	100701
880-53406-19	S-10 (1')	Total/NA	Solid	8015B NM	100701
880-53406-20	S-10 (4.1')	Total/NA	Solid	8015B NM	100701
MB 880-100701/1-A	Method Blank	Total/NA	Solid	8015B NM	100701
LCS 880-100701/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	100701
LCSD 880-100701/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	100701
880-53406-1 MS	S-1 (1')	Total/NA	Solid	8015B NM	100701
880-53406-1 MSD	S-1 (1')	Total/NA	Solid	8015B NM	100701

## Analysis Batch: 100857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-21	S-11 (1')	Total/NA	Solid	8015B NM	100702
880-53406-22	S-11 (4.1')	Total/NA	Solid	8015B NM	100702
880-53406-23	S-12 (1')	Total/NA	Solid	8015B NM	100702
880-53406-24	S-12 (4.1')	Total/NA	Solid	8015B NM	100702
880-53406-25	S-13 (1')	Total/NA	Solid	8015B NM	100702
880-53406-26	S-13 (4.1')	Total/NA	Solid	8015B NM	100702
880-53406-27	S-14 (1')	Total/NA	Solid	8015B NM	100702
880-53406-28	S-14 (4.1')	Total/NA	Solid	8015B NM	100702
880-53406-29	S-15 (1')	Total/NA	Solid	8015B NM	100702
880-53406-30	S-15 (4.1')	Total/NA	Solid	8015B NM	100702
MB 880-100702/1-A	Method Blank	Total/NA	Solid	8015B NM	100702
LCS 880-100702/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	100702
LCSD 880-100702/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	100702
880-53406-21 MS	S-11 (1')	Total/NA	Solid	8015B NM	100702
880-53406-21 MSD	S-11 (1')	Total/NA	Solid	8015B NM	100702

## Analysis Batch: 100900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-1	S-1 (1')	Total/NA	Solid	8015 NM	
880-53406-2	S-1 (4.1')	Total/NA	Solid	8015 NM	
880-53406-3	S-2 (1')	Total/NA	Solid	8015 NM	
880-53406-4	S-2 (4.1')	Total/NA	Solid	8015 NM	
880-53406-5	S-3 (1')	Total/NA	Solid	8015 NM	
880-53406-6	S-3 (4.1')	Total/NA	Solid	8015 NM	
880-53406-7	S-4 (1')	Total/NA	Solid	8015 NM	
880-53406-8	S-4 (4.1')	Total/NA	Solid	8015 NM	
880-53406-9	S-5 (1')	Total/NA	Solid	8015 NM	
880-53406-10	S-5 (4.1')	Total/NA	Solid	8015 NM	
880-53406-11	S-6 (1')	Total/NA	Solid	8015 NM	
880-53406-12	S-6 (4.1')	Total/NA	Solid	8015 NM	

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## QC Association Summary

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

## GC Semi VOA (Continued)

## Analysis Batch: 100900 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-13	S-7 (1')	Total/NA	Solid	8015 NM	
880-53406-14	S-7 (4.1')	Total/NA	Solid	8015 NM	
880-53406-15	S-8 (1')	Total/NA	Solid	8015 NM	
880-53406-16	S-8 (4.1')	Total/NA	Solid	8015 NM	
880-53406-17	S-9 (1')	Total/NA	Solid	8015 NM	
880-53406-18	S-9 (4.1')	Total/NA	Solid	8015 NM	
880-53406-19	S-10 (1')	Total/NA	Solid	8015 NM	
880-53406-20	S-10 (4.1')	Total/NA	Solid	8015 NM	
880-53406-21	S-11 (1')	Total/NA	Solid	8015 NM	
880-53406-22	S-11 (4.1')	Total/NA	Solid	8015 NM	
880-53406-23	S-12 (1')	Total/NA	Solid	8015 NM	
880-53406-24	S-12 (4.1')	Total/NA	Solid	8015 NM	
880-53406-25	S-13 (1')	Total/NA	Solid	8015 NM	
880-53406-26	S-13 (4.1')	Total/NA	Solid	8015 NM	
880-53406-27	S-14 (1')	Total/NA	Solid	8015 NM	
880-53406-28	S-14 (4.1')	Total/NA	Solid	8015 NM	
880-53406-29	S-15 (1')	Total/NA	Solid	8015 NM	
880-53406-30	S-15 (4.1')	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 100746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-1	S-1 (1')	Soluble	Solid	DI Leach	
880-53406-2	S-1 (4.1')	Soluble	Solid	DI Leach	
880-53406-3	S-2 (1')	Soluble	Solid	DI Leach	
880-53406-4	S-2 (4.1')	Soluble	Solid	DI Leach	
880-53406-5	S-3 (1')	Soluble	Solid	DI Leach	
880-53406-6	S-3 (4.1')	Soluble	Solid	DI Leach	
MB 880-100746/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-100746/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-100746/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

## Analysis Batch: 100761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-1	S-1 (1')	Soluble	Solid	300.0	100746
880-53406-2	S-1 (4.1')	Soluble	Solid	300.0	100746
880-53406-3	S-2 (1')	Soluble	Solid	300.0	100746
880-53406-4	S-2 (4.1')	Soluble	Solid	300.0	100746
880-53406-5	S-3 (1')	Soluble	Solid	300.0	100746
880-53406-6	S-3 (4.1')	Soluble	Solid	300.0	100746
MB 880-100746/1-A	Method Blank	Soluble	Solid	300.0	100746
LCS 880-100746/2-A	Lab Control Sample	Soluble	Solid	300.0	100746
LCSD 880-100746/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	100746

## Leach Batch: 100804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-7	S-4 (1')	Soluble	Solid	DI Leach	
880-53406-8	S-4 (4.1')	Soluble	Solid	DI Leach	
880-53406-9	S-5 (1')	Soluble	Solid	DI Leach	
880-53406-10	S-5 (4.1')	Soluble	Solid	DI Leach	

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## QC Association Summary

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

## HPLC/IC (Continued)

## Leach Batch: 100804 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-11	S-6 (1')	Soluble	Solid	DI Leach	
880-53406-12	S-6 (4.1')	Soluble	Solid	DI Leach	
880-53406-13	S-7 (1')	Soluble	Solid	DI Leach	
880-53406-14	S-7 (4.1')	Soluble	Solid	DI Leach	
880-53406-15	S-8 (1')	Soluble	Solid	DI Leach	
880-53406-16	S-8 (4.1')	Soluble	Solid	DI Leach	
880-53406-17	S-9 (1')	Soluble	Solid	DI Leach	
880-53406-18	S-9 (4.1')	Soluble	Solid	DI Leach	
880-53406-19	S-10 (1')	Soluble	Solid	DI Leach	
880-53406-20	S-10 (4.1')	Soluble	Solid	DI Leach	
880-53406-21	S-11 (1')	Soluble	Solid	DI Leach	
880-53406-22	S-11 (4.1')	Soluble	Solid	DI Leach	
880-53406-23	S-12 (1')	Soluble	Solid	DI Leach	
880-53406-24	S-12 (4.1')	Soluble	Solid	DI Leach	
880-53406-25	S-13 (1')	Soluble	Solid	DI Leach	
880-53406-26	S-13 (4.1')	Soluble	Solid	DI Leach	
MB 880-100804/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-100804/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-100804/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-53406-7 MS	S-4 (1')	Soluble	Solid	DI Leach	
880-53406-7 MSD	S-4 (1')	Soluble	Solid	DI Leach	
880-53406-17 MS	S-9 (1')	Soluble	Solid	DI Leach	
880-53406-17 MSD	S-9 (1')	Soluble	Solid	DI Leach	

## Leach Batch: 100805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-27	S-14 (1')	Soluble	Solid	DI Leach	
880-53406-28	S-14 (4.1')	Soluble	Solid	DI Leach	
880-53406-29	S-15 (1')	Soluble	Solid	DI Leach	
880-53406-30	S-15 (4.1')	Soluble	Solid	DI Leach	
MB 880-100805/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-100805/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-100805/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-53406-27 MS	S-14 (1')	Soluble	Solid	DI Leach	
880-53406-27 MSD	S-14 (1')	Soluble	Solid	DI Leach	

## Analysis Batch: 100871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-27	S-14 (1')	Soluble	Solid	300.0	100805
880-53406-28	S-14 (4.1')	Soluble	Solid	300.0	100805
880-53406-29	S-15 (1')	Soluble	Solid	300.0	100805
880-53406-30	S-15 (4.1')	Soluble	Solid	300.0	100805
MB 880-100805/1-A	Method Blank	Soluble	Solid	300.0	100805
LCS 880-100805/2-A	Lab Control Sample	Soluble	Solid	300.0	100805
LCSD 880-100805/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	100805
880-53406-27 MS	S-14 (1')	Soluble	Solid	300.0	100805
880-53406-27 MSD	S-14 (1')	Soluble	Solid	300.0	100805

## Analysis Batch: 100872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-7	S-4 (1')	Soluble	Solid	300.0	100804

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## QC Association Summary

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

## HPLC/IC (Continued)

## Analysis Batch: 100872 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53406-8	S-4 (4.1')	Soluble	Solid	300.0	100804
880-53406-9	S-5 (1')	Soluble	Solid	300.0	100804
880-53406-10	S-5 (4.1')	Soluble	Solid	300.0	100804
880-53406-11	S-6 (1')	Soluble	Solid	300.0	100804
880-53406-12	S-6 (4.1')	Soluble	Solid	300.0	100804
880-53406-13	S-7 (1')	Soluble	Solid	300.0	100804
880-53406-14	S-7 (4.1')	Soluble	Solid	300.0	100804
880-53406-15	S-8 (1')	Soluble	Solid	300.0	100804
880-53406-16	S-8 (4.1')	Soluble	Solid	300.0	100804
880-53406-17	S-9 (1')	Soluble	Solid	300.0	100804
880-53406-18	S-9 (4.1')	Soluble	Solid	300.0	100804
880-53406-19	S-10 (1')	Soluble	Solid	300.0	100804
880-53406-20	S-10 (4.1')	Soluble	Solid	300.0	100804
880-53406-21	S-11 (1')	Soluble	Solid	300.0	100804
880-53406-22	S-11 (4.1')	Soluble	Solid	300.0	100804
880-53406-23	S-12 (1')	Soluble	Solid	300.0	100804
880-53406-24	S-12 (4.1')	Soluble	Solid	300.0	100804
880-53406-25	S-13 (1')	Soluble	Solid	300.0	100804
880-53406-26	S-13 (4.1')	Soluble	Solid	300.0	100804
MB 880-100804/1-A	Method Blank	Soluble	Solid	300.0	100804
LCS 880-100804/2-A	Lab Control Sample	Soluble	Solid	300.0	100804
LCSD 880-100804/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	100804
880-53406-7 MS	S-4 (1')	Soluble	Solid	300.0	100804
880-53406-7 MSD	S-4 (1')	Soluble	Solid	300.0	100804
880-53406-17 MS	S-9 (1')	Soluble	Solid	300.0	100804
880-53406-17 MSD	S-9 (1')	Soluble	Solid	300.0	100804

## Lab Chronicle

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

**Client Sample ID: S-1 (1')****Lab Sample ID: 880-53406-1****Date Collected: 01/17/25 13:15****Matrix: Solid****Date Received: 01/20/25 14:07**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	100657	01/20/25 14:54	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100620	01/20/25 17:01	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 17:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/21/25 19:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/21/25 19:52	TKC	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	100746	01/21/25 09:03	SI	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100761	01/21/25 17:45	CH	EET MID

**Client Sample ID: S-1 (4.1')****Lab Sample ID: 880-53406-2****Date Collected: 01/17/25 13:30****Matrix: Solid****Date Received: 01/20/25 14:07**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	100657	01/20/25 14:54	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100620	01/20/25 17:21	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 17:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/21/25 20:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/21/25 20:36	TKC	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	100746	01/21/25 09:03	SI	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	100761	01/21/25 18:08	CH	EET MID

**Client Sample ID: S-2 (1')****Lab Sample ID: 880-53406-3****Date Collected: 01/17/25 13:35****Matrix: Solid****Date Received: 01/20/25 14:07**

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	100657	01/20/25 14:54	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100620	01/20/25 17:42	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 17:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/21/25 20:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/21/25 20:52	TKC	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	100746	01/21/25 09:03	SI	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100761	01/21/25 18:15	CH	EET MID

**Client Sample ID: S-2 (4.1')****Lab Sample ID: 880-53406-4****Date Collected: 01/17/25 13:50****Matrix: Solid****Date Received: 01/20/25 14:07**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	100657	01/20/25 14:54	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100620	01/20/25 18:03	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 18:03	SM	EET MID

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## Lab Chronicle

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-2 (4.1')

Lab Sample ID: 880-53406-4

Date Collected: 01/17/25 13:50

Matrix: Solid

Date Received: 01/20/25 14:07

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			100900	01/21/25 21:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/21/25 21:06	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	100746	01/21/25 09:03	SI	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100761	01/21/25 18:23	CH	EET MID

Client Sample ID: S-3 (1')

Lab Sample ID: 880-53406-5

Date Collected: 01/17/25 13:55

Matrix: Solid

Date Received: 01/20/25 14:07

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	100657	01/20/25 14:54	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100620	01/20/25 18:23	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 18:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/21/25 21:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/21/25 21:21	TKC	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	100746	01/21/25 09:03	SI	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	100761	01/21/25 18:30	CH	EET MID

Client Sample ID: S-3 (4.1')

Lab Sample ID: 880-53406-6

Date Collected: 01/17/25 14:10

Matrix: Solid

Date Received: 01/20/25 14:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	100657	01/20/25 14:54	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100620	01/20/25 18:43	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 18:43	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/21/25 21:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/21/25 21:35	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	100746	01/21/25 09:03	SI	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100761	01/21/25 18:37	CH	EET MID

Client Sample ID: S-4 (1')

Lab Sample ID: 880-53406-7

Date Collected: 01/17/25 14:15

Matrix: Solid

Date Received: 01/20/25 14:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	100657	01/20/25 14:54	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100620	01/20/25 19:04	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 19:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/21/25 21:50	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/21/25 21:50	TKC	EET MID

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## Lab Chronicle

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

**Client Sample ID: S-4 (1')****Date Collected: 01/17/25 14:15****Date Received: 01/20/25 14:07****Lab Sample ID: 880-53406-7****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	100872	01/22/25 17:01	CH	EET MID

**Client Sample ID: S-4 (4.1')****Date Collected: 01/17/25 14:30****Date Received: 01/20/25 14:07****Lab Sample ID: 880-53406-8****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	100657	01/20/25 14:54	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100620	01/20/25 19:24	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 19:24	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/21/25 22:04	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/21/25 22:04	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	100872	01/22/25 17:19	CH	EET MID

**Client Sample ID: S-5 (1')****Date Collected: 01/17/25 14:35****Date Received: 01/20/25 14:07****Lab Sample ID: 880-53406-9****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	100657	01/20/25 14:54	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100620	01/20/25 19:45	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 19:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/21/25 22:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/21/25 22:20	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100872	01/22/25 17:24	CH	EET MID

**Client Sample ID: S-5 (4.1')****Date Collected: 01/17/25 14:50****Date Received: 01/20/25 14:07****Lab Sample ID: 880-53406-10****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	100656	01/20/25 14:49	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100621	01/20/25 17:06	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 17:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/21/25 22:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/21/25 22:34	TKC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	100872	01/22/25 17:30	CH	EET MID

Eurofins Midland

## Lab Chronicle

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-6 (1')

Lab Sample ID: 880-53406-11

Date Collected: 01/17/25 14:55

Matrix: Solid

Date Received: 01/20/25 14:07

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	100656	01/20/25 14:49	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100621	01/20/25 17:26	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 17:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/21/25 23:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/21/25 23:03	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	100872	01/22/25 17:36	CH	EET MID

Client Sample ID: S-6 (4.1')

Lab Sample ID: 880-53406-12

Date Collected: 01/17/25 15:10

Matrix: Solid

Date Received: 01/20/25 14:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	100656	01/20/25 14:49	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100621	01/20/25 17:47	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 17:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/21/25 23:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/21/25 23:19	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100872	01/22/25 17:54	CH	EET MID

Client Sample ID: S-7 (1')

Lab Sample ID: 880-53406-13

Date Collected: 01/17/25 15:15

Matrix: Solid

Date Received: 01/20/25 14:07

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	100656	01/20/25 14:49	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100621	01/20/25 18:07	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 18:07	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/21/25 23:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/21/25 23:33	TKC	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100872	01/22/25 18:00	CH	EET MID

Client Sample ID: S-7 (4.1')

Lab Sample ID: 880-53406-14

Date Collected: 01/17/25 15:30

Matrix: Solid

Date Received: 01/20/25 14:07

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	100656	01/20/25 14:49	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100621	01/20/25 18:28	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 18:28	SM	EET MID

Eurofins Midland



## Lab Chronicle

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

**Client Sample ID: S-7 (4.1')****Lab Sample ID: 880-53406-14****Date Collected: 01/17/25 15:30****Matrix: Solid****Date Received: 01/20/25 14:07**

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			100900	01/21/25 23:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/21/25 23:48	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100872	01/22/25 18:06	CH	EET MID

**Client Sample ID: S-8 (1')****Lab Sample ID: 880-53406-15****Date Collected: 01/17/25 15:35****Matrix: Solid****Date Received: 01/20/25 14:07**

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	100656	01/20/25 14:49	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100621	01/20/25 18:48	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 18:48	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/22/25 00:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/22/25 00:03	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100872	01/22/25 18:12	CH	EET MID

**Client Sample ID: S-8 (4.1')****Lab Sample ID: 880-53406-16****Date Collected: 01/17/25 15:50****Matrix: Solid****Date Received: 01/20/25 14:07**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	100656	01/20/25 14:49	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100621	01/20/25 19:09	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 19:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/22/25 00:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/22/25 00:18	TKC	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100872	01/22/25 18:18	CH	EET MID

**Client Sample ID: S-9 (1')****Lab Sample ID: 880-53406-17****Date Collected: 01/17/25 15:55****Matrix: Solid****Date Received: 01/20/25 14:07**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	100656	01/20/25 14:49	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100621	01/20/25 19:29	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 19:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/22/25 00:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/22/25 00:32	TKC	EET MID

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## Lab Chronicle

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-9 (1')

Lab Sample ID: 880-53406-17

Date Collected: 01/17/25 15:55

Matrix: Solid

Date Received: 01/20/25 14:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	100872	01/22/25 18:24	CH	EET MID

Client Sample ID: S-9 (4.1')

Lab Sample ID: 880-53406-18

Date Collected: 01/17/25 16:10

Matrix: Solid

Date Received: 01/20/25 14:07

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	100656	01/20/25 14:49	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100621	01/20/25 19:50	EL	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 19:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/22/25 00:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/22/25 00:46	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	100872	01/22/25 18:41	CH	EET MID

Client Sample ID: S-10 (1')

Lab Sample ID: 880-53406-19

Date Collected: 01/17/25 16:15

Matrix: Solid

Date Received: 01/20/25 14:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	100672	01/20/25 14:50	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100618	01/20/25 18:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 18:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/22/25 01:02	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/22/25 01:02	TKC	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	100872	01/22/25 18:47	CH	EET MID

Client Sample ID: S-10 (4.1')

Lab Sample ID: 880-53406-20

Date Collected: 01/17/25 16:30

Matrix: Solid

Date Received: 01/20/25 14:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	100672	01/20/25 14:50	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100618	01/20/25 19:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 19:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/22/25 01:15	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	100701	01/20/25 15:12	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100739	01/22/25 01:15	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100872	01/22/25 19:05	CH	EET MID

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## Lab Chronicle

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-11 (1')

Lab Sample ID: 880-53406-21

Date Collected: 01/17/25 16:35

Matrix: Solid

Date Received: 01/20/25 14:07

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	100672	01/20/25 14:50	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100618	01/20/25 19:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 19:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/22/25 18:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	100702	01/20/25 15:15	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100857	01/22/25 18:16	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100872	01/22/25 19:11	CH	EET MID

Client Sample ID: S-11 (4.1')

Lab Sample ID: 880-53406-22

Date Collected: 01/17/25 16:50

Matrix: Solid

Date Received: 01/20/25 14:07

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	100672	01/20/25 14:50	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100618	01/20/25 19:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 19:41	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/22/25 19:00	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	100702	01/20/25 15:15	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100857	01/22/25 19:00	TKC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	100872	01/22/25 19:17	CH	EET MID

Client Sample ID: S-12 (1')

Lab Sample ID: 880-53406-23

Date Collected: 01/17/25 15:55

Matrix: Solid

Date Received: 01/20/25 14:07

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	100672	01/20/25 14:50	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100618	01/20/25 20:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/20/25 20:02	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/22/25 19:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	100702	01/20/25 15:15	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100857	01/22/25 19:16	TKC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	100872	01/22/25 19:22	CH	EET MID

Client Sample ID: S-12 (4.1')

Lab Sample ID: 880-53406-24

Date Collected: 01/17/25 17:10

Matrix: Solid

Date Received: 01/20/25 14:07

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	100735	01/21/25 08:46	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100729	01/21/25 18:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/21/25 18:24	SM	EET MID

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## Lab Chronicle

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Client Sample ID: S-12 (4.1')

Lab Sample ID: 880-53406-24

Date Collected: 01/17/25 17:10

Matrix: Solid

Date Received: 01/20/25 14:07

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			100900	01/22/25 19:30	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	100702	01/20/25 15:15	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100857	01/22/25 19:30	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	100872	01/22/25 19:28	CH	EET MID

Client Sample ID: S-13 (1')

Lab Sample ID: 880-53406-25

Date Collected: 01/17/25 17:15

Matrix: Solid

Date Received: 01/20/25 14:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	100710	01/20/25 16:16	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100623	01/21/25 00:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/21/25 00:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/22/25 19:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	100702	01/20/25 15:15	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100857	01/22/25 19:46	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100872	01/22/25 19:34	CH	EET MID

Client Sample ID: S-13 (4.1')

Lab Sample ID: 880-53406-26

Date Collected: 01/17/25 17:25

Matrix: Solid

Date Received: 01/20/25 14:07

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	100710	01/20/25 16:16	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100623	01/21/25 01:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/21/25 01:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/22/25 20:00	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	100702	01/20/25 15:15	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100857	01/22/25 20:00	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	100804	01/21/25 15:40	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	100872	01/22/25 19:40	CH	EET MID

Client Sample ID: S-14 (1')

Lab Sample ID: 880-53406-27

Date Collected: 01/17/25 17:30

Matrix: Solid

Date Received: 01/20/25 14:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	100710	01/20/25 16:16	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100623	01/21/25 01:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/21/25 01:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/22/25 20:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	100702	01/20/25 15:15	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100857	01/22/25 20:14	TKC	EET MID

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## Lab Chronicle

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

**Client Sample ID: S-14 (1')****Lab Sample ID: 880-53406-27****Date Collected: 01/17/25 17:30****Matrix: Solid****Date Received: 01/20/25 14:07**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	100805	01/21/25 15:42	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100871	01/22/25 22:07	CH	EET MID

**Client Sample ID: S-14 (4.1')****Lab Sample ID: 880-53406-28****Date Collected: 01/17/25 17:40****Matrix: Solid****Date Received: 01/20/25 14:07**

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	100710	01/20/25 16:16	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100623	01/21/25 01:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/21/25 01:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/22/25 20:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	100702	01/20/25 15:15	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100857	01/22/25 20:29	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	100805	01/21/25 15:42	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100871	01/22/25 22:24	CH	EET MID

**Client Sample ID: S-15 (1')****Lab Sample ID: 880-53406-29****Date Collected: 01/17/25 17:45****Matrix: Solid****Date Received: 01/20/25 14:07**

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	100710	01/20/25 16:16	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100623	01/21/25 02:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/21/25 02:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/22/25 20:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	100702	01/20/25 15:15	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100857	01/22/25 20:43	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	100805	01/21/25 15:42	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	100871	01/22/25 22:30	CH	EET MID

**Client Sample ID: S-15 (4.1')****Lab Sample ID: 880-53406-30****Date Collected: 01/17/25 17:55****Matrix: Solid****Date Received: 01/20/25 14:07**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	100710	01/20/25 16:16	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	100623	01/21/25 02:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			100783	01/21/25 02:24	SM	EET MID
Total/NA	Analysis	8015 NM		1			100900	01/22/25 20:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	100702	01/20/25 15:15	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	100857	01/22/25 20:59	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	100805	01/21/25 15:42	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	100871	01/22/25 22:35	CH	EET MID

Eurofins Midland

Lab Chronicle

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

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

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Accreditation/Certification Summary

Client: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, 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	06-30-25
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: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, 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: Crain Environmental  
Project/Site: Lamunyon 23

Job ID: 880-53406-1  
SDG: Lea Co, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-53406-1	S-1 (1')	Solid	01/17/25 13:15	01/20/25 14:07	1'
880-53406-2	S-1 (4.1')	Solid	01/17/25 13:30	01/20/25 14:07	4.1'
880-53406-3	S-2 (1')	Solid	01/17/25 13:35	01/20/25 14:07	1'
880-53406-4	S-2 (4.1')	Solid	01/17/25 13:50	01/20/25 14:07	4.1'
880-53406-5	S-3 (1')	Solid	01/17/25 13:55	01/20/25 14:07	1'
880-53406-6	S-3 (4.1')	Solid	01/17/25 14:10	01/20/25 14:07	4.1'
880-53406-7	S-4 (1')	Solid	01/17/25 14:15	01/20/25 14:07	1'
880-53406-8	S-4 (4.1')	Solid	01/17/25 14:30	01/20/25 14:07	4.1'
880-53406-9	S-5 (1')	Solid	01/17/25 14:35	01/20/25 14:07	1'
880-53406-10	S-5 (4.1')	Solid	01/17/25 14:50	01/20/25 14:07	4.1'
880-53406-11	S-6 (1')	Solid	01/17/25 14:55	01/20/25 14:07	1'
880-53406-12	S-6 (4.1')	Solid	01/17/25 15:10	01/20/25 14:07	4.1'
880-53406-13	S-7 (1')	Solid	01/17/25 15:15	01/20/25 14:07	1'
880-53406-14	S-7 (4.1')	Solid	01/17/25 15:30	01/20/25 14:07	4.1'
880-53406-15	S-8 (1')	Solid	01/17/25 15:35	01/20/25 14:07	1'
880-53406-16	S-8 (4.1')	Solid	01/17/25 15:50	01/20/25 14:07	4.1'
880-53406-17	S-9 (1')	Solid	01/17/25 15:55	01/20/25 14:07	1'
880-53406-18	S-9 (4.1')	Solid	01/17/25 16:10	01/20/25 14:07	4.1'
880-53406-19	S-10 (1')	Solid	01/17/25 16:15	01/20/25 14:07	1'
880-53406-20	S-10 (4.1')	Solid	01/17/25 16:30	01/20/25 14:07	4.1'
880-53406-21	S-11 (1')	Solid	01/17/25 16:35	01/20/25 14:07	1'
880-53406-22	S-11 (4.1')	Solid	01/17/25 16:50	01/20/25 14:07	4.1'
880-53406-23	S-12 (1')	Solid	01/17/25 15:55	01/20/25 14:07	1'
880-53406-24	S-12 (4.1')	Solid	01/17/25 17:10	01/20/25 14:07	4.1'
880-53406-25	S-13 (1')	Solid	01/17/25 17:15	01/20/25 14:07	1'
880-53406-26	S-13 (4.1')	Solid	01/17/25 17:25	01/20/25 14:07	4.1'
880-53406-27	S-14 (1')	Solid	01/17/25 17:30	01/20/25 14:07	1'
880-53406-28	S-14 (4.1')	Solid	01/17/25 17:40	01/20/25 14:07	4.1'
880-53406-29	S-15 (1')	Solid	01/17/25 17:45	01/20/25 14:07	1'
880-53406-30	S-15 (4.1')	Solid	01/17/25 17:55	01/20/25 14:07	4.1'

## Chain of Custody

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

Environment Testing  
Xenco



Work

880-53406 Chain of Custody

Work Order Comments

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project: NM

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADaPT ☐ Other:

Project Manager: Cindy Crain

Company Name: Crain Environmental

Address: 2925 E. 17th St.

City, State ZIP: Odessa, TX 79761

Phone: (575) 441-7244

Bill to: (if different) Billy Moore

Company Name: FAE II

Address: 11757 Katy Fwy, Ste. 725

City, State ZIP: Houston, TX 77079

Email: Cindy.Crain@gmail.com

Project Name: Lamurgen 23

Project Number: Lea Co., NM

Project Location: Cindy Crain

Sampler's Name: PO #:

Turn Around: ☒ Routine ☐ Rush

Due Date: TAT starts the day received by the lab, if received by 4:30pm

Temp Blank: ☒ Yes ☐ No

Thermometer ID: IR-6

Correction Factor: 2.7

Temperature Reading: 2.7

Corrected Temperature: 2.7

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Prec. Code
S-1 (1')	S	1/17/25	1315	1'	C	1	TPH 8015 M	
S-1 (4.1')			1330	4.1'			BTEX	
S-2 (1')			1335	1'			Chlorides	
S-2 (4.1')			1350	4.1'				
S-3 (1')			1355	1'				
S-3 (4.1')			1410	4.1'				
S-4 (1')			1415	1'				
S-4 (4.1')			1430	4.1'				
S-5 (1')			1435	1'				
S-5 (4.1')			1450	4.1'				

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<sub>2</sub> Na Sr Ti 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 Ti 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
<u>Cindy Crain</u>	<u>[Signature]</u>	<u>1/30/25 1410</u>			

Revised Date: 08/25/2020 Rev. 2020.2

## Chain of Custody

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



Environment Testing  
Xenco

Work Order No: \_\_\_\_\_

www.xenco.com Page 2 of 3

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project: NM	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other:	

Project Manager: Cindy Crain	Bill to: (if different) Billy Moore
Company Name: Chain Environmental	Company Name: 11757 Katy Fwy, Ste 725
Address: 2925 E. 17th St.	Address: Houston, TX 77079
City, State ZIP: Odessa, TX 79761	City, State ZIP: FAE II
Phone: (575) 441-7244	Email: Cindy.crain@gmail.com

SAMPLE RECEIPT				ANALYSIS REQUEST													Preservative Codes		
Project Name:	Project Number:	Project Location:	PO #:	Turn Around	Pres. Code														
Temp Blank:	Yes	No	Wet Ice:	Yes	No														
Samples Received Intact:	Yes	No	Thermometer ID:																
Cooler Custody Seals:	Yes	No	Correction Factor:																
Sample Custody Seals:	Yes	No	Temperature Reading:																
Total Containers:				Corrected Temperature:															
S-6 (1')	S	1/17/25	1455	1'	0														
S-6 (4.1')	I	1510	4.1'	1	1														
S-7 (1')	I	1515	1'	1	1														
S-7 (4.1')	I	1530	4.1'	1	1														
S-8 (1')	I	1535	1'	1	1														
S-8 (4.1')	I	1550	4.1'	1	1														
S-9 (1')	I	1555	1'	1	1														
S-9 (4.1')	I	1610	4.1'	1	1														
S-10 (1')	I	1615	1'	1	1														
S-10 (4.1')	I	1630	4.1'	1	1														

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 <sub>2</sub> Na Sr Ti 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 Ti U	Hg: 1631 / 245.1 / 7470 / 7471

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Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Date/Time
Cindy Crain	[Signature]	[Signature]	[Signature]	1/17/25	1/17/25

Revised Date: 08/25/2020 Rev. 2020.2





Environment Testing  
Xenco

## Chain of Custody

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

Work Order No:

www.xenco.com Page 3 of 3

Project Manager:	Cindy Crain	Bill to: (if different)	Billy Moore
Company Name:	Crain Environmental	Company Name:	FAE II
Address:	2925 E. 17th St.	Address:	11757 Katy Fwy, Ste 725
City, State ZIP:	Dallas, TX 75216	City, State ZIP:	Houston, TX 77079
Phone:	(575) 441-7244	Email:	Cindy.crain@gmail.com

Project Name:	Lammyer 23	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush
Project Number:	-	Due Date:	
Project Location:	Lea Co. NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Cindy Crain		
P O #:			

SAMPLE RECEIPT				Parameters				ANALYSIS REQUEST				Preservative Codes			
Samples Received Intact:	Temp Blank:	Yes	No	Yes	No	Wet Ice:	Yes	No	Pres. Code						
Cooler Custody Seals:	Yes	No	N/A	Thermometer ID:		Correction Factor:									
Sample Custody Seals:	Yes	No	N/A	Temperature Reading:		Corrected Temperature:									
Total Containers:															
Sample Identification				Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont						
S-11 (1')				S	1/17/26	1635	1'	C	1						
S-11 (4.1')						1650	4.1'								
S-12 (1')						1655	1'								
S-12 (4.1')						1710	4.1'								
S-13 (1')						1715	1'								
S-13 (4.1')						1725	4.1'								
S-14 (1')						1730	1'								
S-14 (4.1')						1740	4.1'								
S-15 (1')						1745	1'								
S-15 (4.1')						1755	4.1'								

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<sub>2</sub> Na Sr Ti 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 Ti U Hg: 1631 / 245.1 / 7470 / 7471

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Cindy Crain		1/20/05 1410			

Revised Date: 08/25/2020 Rev. 2020.2



Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Cindy Crain  
Crain Environmental  
2925 E. 17th St.  
Odessa, Texas 79761

Generated 1/29/2025 10:03:50 AM

## JOB DESCRIPTION

Lamunyan #23  
Lea CO, NM

## JOB NUMBER

880-53650-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

# Eurofins Midland

## 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



Generated  
1/29/2025 10:03:50 AM

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

Client: Crain Environmental  
Project/Site: Lamunyan #23

Laboratory Job ID: 880-53650-1  
SDG: Lea CO, NM

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Definitions/Glossary

Client: Crain Environmental  
Project/Site: Lamunyan #23

Job ID: 880-53650-1  
SDG: Lea CO, NM

Qualifiers

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: Crain Environmental  
Project: Lamunyan #23

Job ID: 880-53650-1

Job ID: 880-53650-1

Eurofins Midland

## Job Narrative 880-53650-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 1/24/2025 3:35 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 3.1°C.

### HPLC/IC

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

Eurofins Midland

## Client Sample Results

Client: Crain Environmental  
Project/Site: Lamunyan #23

Job ID: 880-53650-1  
SDG: Lea CO, NM

## Client Sample ID: S-3 (2')

Date Collected: 01/17/25 14:00

Date Received: 01/24/25 15:35

Sample Depth: 2'

## Lab Sample ID: 880-53650-1

Matrix: Solid

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	356		10.0		mg/Kg			01/29/25 01:17	1

## Client Sample ID: S-3 (3')

Date Collected: 01/17/25 14:05

Date Received: 01/24/25 15:35

Sample Depth: 3'

## Lab Sample ID: 880-53650-2

Matrix: Solid

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	807		9.98		mg/Kg			01/29/25 01:23	1

## Client Sample ID: S-6 (2')

Date Collected: 01/17/25 15:00

Date Received: 01/24/25 15:35

Sample Depth: 2'

## Lab Sample ID: 880-53650-3

Matrix: Solid

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	96.8		9.92		mg/Kg			01/29/25 01:40	1

## Client Sample ID: S-6 (3')

Date Collected: 01/17/25 15:05

Date Received: 01/24/25 15:35

Sample Depth: 3'

## Lab Sample ID: 880-53650-4

Matrix: Solid

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	104		9.92		mg/Kg			01/29/25 01:46	1

## Client Sample ID: S-8 (2')

Date Collected: 01/17/25 15:40

Date Received: 01/24/25 15:35

Sample Depth: 2'

## Lab Sample ID: 880-53650-5

Matrix: Solid

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.7		9.90		mg/Kg			01/29/25 01:52	1

## Client Sample ID: S-8 (3')

Date Collected: 01/17/25 15:45

Date Received: 01/24/25 15:35

Sample Depth: 3'

## Lab Sample ID: 880-53650-6

Matrix: Solid

## Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.0		9.96		mg/Kg			01/29/25 01:58	1

Eurofins Midland

QC Sample Results

Client: Crain Environmental  
Project/Site: Lamunyan #23

Job ID: 880-53650-1  
SDG: Lea CO, NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-101325/1-A					Client Sample ID: Method Blank				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 101377									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			01/29/25 00:30	1

Lab Sample ID: LCS 880-101325/2-A					Client Sample ID: Lab Control Sample				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 101377									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	250	269.2		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-101325/3-A					Client Sample ID: Lab Control Sample Dup				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 101377									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	269.0		mg/Kg		108	90 - 110	0	20

QC Association Summary

Client: Crain Environmental  
Project/Site: Lamunyan #23

Job ID: 880-53650-1  
SDG: Lea CO, NM

HPLC/IC

Leach Batch: 101325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53650-1	S-3 (2')	Soluble	Solid	DI Leach	
880-53650-2	S-3 (3')	Soluble	Solid	DI Leach	
880-53650-3	S-6 (2')	Soluble	Solid	DI Leach	
880-53650-4	S-6 (3')	Soluble	Solid	DI Leach	
880-53650-5	S-8 (2')	Soluble	Solid	DI Leach	
880-53650-6	S-8 (3')	Soluble	Solid	DI Leach	
MB 880-101325/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-101325/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-101325/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 101377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53650-1	S-3 (2')	Soluble	Solid	300.0	101325
880-53650-2	S-3 (3')	Soluble	Solid	300.0	101325
880-53650-3	S-6 (2')	Soluble	Solid	300.0	101325
880-53650-4	S-6 (3')	Soluble	Solid	300.0	101325
880-53650-5	S-8 (2')	Soluble	Solid	300.0	101325
880-53650-6	S-8 (3')	Soluble	Solid	300.0	101325
MB 880-101325/1-A	Method Blank	Soluble	Solid	300.0	101325
LCS 880-101325/2-A	Lab Control Sample	Soluble	Solid	300.0	101325
LCSD 880-101325/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	101325

## Lab Chronicle

Client: Crain Environmental  
Project/Site: Lamunyan #23

Job ID: 880-53650-1  
SDG: Lea CO, NM

**Client Sample ID: S-3 (2')****Lab Sample ID: 880-53650-1****Date Collected: 01/17/25 14:00****Matrix: Solid****Date Received: 01/24/25 15:35**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	101325	01/27/25 16:49	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	101377	01/29/25 01:17	CH	EET MID

**Client Sample ID: S-3 (3')****Lab Sample ID: 880-53650-2****Date Collected: 01/17/25 14:05****Matrix: Solid****Date Received: 01/24/25 15:35**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	101325	01/27/25 16:49	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	101377	01/29/25 01:23	CH	EET MID

**Client Sample ID: S-6 (2')****Lab Sample ID: 880-53650-3****Date Collected: 01/17/25 15:00****Matrix: Solid****Date Received: 01/24/25 15:35**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	101325	01/27/25 16:49	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	101377	01/29/25 01:40	CH	EET MID

**Client Sample ID: S-6 (3')****Lab Sample ID: 880-53650-4****Date Collected: 01/17/25 15:05****Matrix: Solid****Date Received: 01/24/25 15:35**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	101325	01/27/25 16:49	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	101377	01/29/25 01:46	CH	EET MID

**Client Sample ID: S-8 (2')****Lab Sample ID: 880-53650-5****Date Collected: 01/17/25 15:40****Matrix: Solid****Date Received: 01/24/25 15:35**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	101325	01/27/25 16:49	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	101377	01/29/25 01:52	CH	EET MID

**Client Sample ID: S-8 (3')****Lab Sample ID: 880-53650-6****Date Collected: 01/17/25 15:45****Matrix: Solid****Date Received: 01/24/25 15:35**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	101325	01/27/25 16:49	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	101377	01/29/25 01:58	CH	EET MID

**Laboratory References:**

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

Eurofins Midland

Accreditation/Certification Summary

Client: Crain Environmental  
Project/Site: Lamunyan #23

Job ID: 880-53650-1  
SDG: Lea CO, NM

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-25

- 1
- 2
- 3
- 4
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- 7
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- 9
- 10
- 11
- 12
- 13



Method Summary

Client: Crain Environmental  
Project/Site: Lamunyan #23

Job ID: 880-53650-1  
SDG: Lea CO, NM

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency

Laboratory References:

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

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Sample Summary

Client: Crain Environmental  
Project/Site: Lamunyan #23

Job ID: 880-53650-1  
SDG: Lea CO, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-53650-1	S-3 (2')	Solid	01/17/25 14:00	01/24/25 15:35	2'
880-53650-2	S-3 (3')	Solid	01/17/25 14:05	01/24/25 15:35	3'
880-53650-3	S-6 (2')	Solid	01/17/25 15:00	01/24/25 15:35	2'
880-53650-4	S-6 (3')	Solid	01/17/25 15:05	01/24/25 15:35	3'
880-53650-5	S-8 (2')	Solid	01/17/25 15:40	01/24/25 15:35	2'
880-53650-6	S-8 (3')	Solid	01/17/25 15:45	01/24/25 15:35	3'

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## Chain of Custody

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



Environment Testing  
Xenco



Work Order  
880-53650 Chain of Custody

www.xenco.com Page 1 of 1

Work Order Comments

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project: **NM**

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADaPT ☐ Other:

Project Manager: **Cindy Crain**

Company Name: **Crain Environmental**

Address: **2925 E. 17th St.**

City, State ZIP: **Odessa, TX 79761**

Phone: **(575) 441-7244**

Bill to: (if different) **Billy Moore**

Company Name: **FAE II**

Address: **11757 Katy Fwy, Ste 725**

City, State ZIP: **Houston, TX 77079**

Email: **Cindy.Crain@gmail.com**

Project Name: **Lanuvoy #23**

Project Number: **—**

Project Location: **Lea Co, NM**

Sampler's Name: **Cindy Crain**

P.O. #: **—**

Turn Around: ☒ Routine ☐ Rush

Due Date: **1/17/25**

TAT starts the day received by the lab, if received by 4:30pm

Temp Blank: Yes ☒ No ☐ Wet Ice: Yes ☒ No ☐

Thermometer ID: **1175**

Correction Factor: **3.2**

Temperature Reading: **3.1**

Corrected Temperature: **3.1**

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Pres. Code	ANALYSIS REQUEST	Preservative Codes	Sample Comments
S-3 (2')	S	1/17/25	1400	2'	C	1			None: NO	DI Water: H <sub>2</sub> O
S-3 (3')			1405	3'	I				Cool: Cool	MeOH: Me
S-6 (2')			1500	2'	I				HCL: HC	HNO <sub>3</sub> : HN
S-6 (3')			1505	3'	I				H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>	NaOH: Na
S-8 (2')			1540	2'	I				H <sub>3</sub> PO <sub>4</sub> : HP	
S-8 (3')			1545	3'	I				NaHSO <sub>4</sub> : NABIS	
									Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	
									Zn Acetate+NaOH: Zn	
									NaOH+Ascorbic Acid: SAPC	

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<sub>2</sub> Na Sr Ti 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 Ti 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
<b>Cindy Crain</b>	<b>[Signature]</b>	<b>1/17/25 1533</b>			

Revised Date: 08/25/2020 Rev. 2020.2

## Login Sample Receipt Checklist

Client: Crain Environmental

Job Number: 880-53650-1

SDG Number: Lea CO, NM

Login Number: 53650

List Number: 1

Creator: Vasquez, Julisa

List Source: Eurofins Midland

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



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## Appendix D: Photographic Documentation



APPENDIX D  
PHOTOGRAPHIC DOCUMENTATION - JANUARY 17, 2024  
LAMUNYON #023



View of S-1.



View of S-2.



View of S-3.



View of S-4.



View of S-5.



View of S-6.



View of S-7.



View of S-8.



APPENDIX D  
PHOTOGRAPHIC DOCUMENTATION - JANUARY 17, 2024  
LAMUNYON #023



View of S-9.



View of S-10.



View of S-11.



View of S-12.



View of S-13.



View of S-14.



View of S-15.



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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 442764

QUESTIONS

Operator: FAE II Operating LLC 11757 Katy Freeway, Suite 725 Houston, TX 77079	OGRID: 329326
	Action Number: 442764
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2410851745
Incident Name	NAPP2410851745 C E LAMUNYON #023 @ 30-025-22402
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received
Incident Well	[30-025-22402] C E LAMUNYON #023

Location of Release Source	
Please answer all the questions in this group.	
Site Name	C E LAMUNYON #023
Date Release Discovered	04/16/2024
Surface Owner	Private

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Well   Produced Water   Released: 70 BBL   Recovered: 60 BBL   Lost: 10 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 442764

**QUESTIONS (continued)**

Operator: FAE II Operating LLC 11757 Katy Freeway, Suite 725 Houston, TX 77079	OGRID: 329326
	Action Number: 442764
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
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	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
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: Cindy Crain Email: cindy.crain@gmail.com Date: 03/15/2025
--	---

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QUESTIONS, Page 3

Action 442764

**QUESTIONS (continued)**

Operator: FAE II Operating LLC 11757 Katy Freeway, Suite 725 Houston, TX 77079	OGRID: 329326
	Action Number: 442764
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Site Characterization</b>	
<i>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.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
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)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Greater than 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

<b>Remediation Plan</b>	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
<b>Soil Contamination Sampling:</b> (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	7500
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
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
On what estimated date will the remediation commence	04/14/2025
On what date will (or did) the final sampling or liner inspection occur	05/28/2025
On what date will (or was) the remediation complete(d)	06/20/2025
What is the estimated surface area (in square feet) that will be reclaimed	81480
What is the estimated volume (in cubic yards) that will be reclaimed	3400
What is the estimated surface area (in square feet) that will be remediated	81480
What is the estimated volume (in cubic yards) that will be remediated	3400
<i>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.</i>	
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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**Santa Fe, NM 87505**

QUESTIONS, Page 4

Action 442764

**QUESTIONS (continued)**

Operator: FAE II Operating LLC 11757 Katy Freeway, Suite 725 Houston, TX 77079	OGRID: 329326
	Action Number: 442764
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Remediation Plan (continued)</b>	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
<b>This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:</b>	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	TNM-55-95 [fAB0000000061]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Cindy Crain Email: cindy.crain@gmail.com Date: 03/15/2025
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5

Action 442764

QUESTIONS (continued)

Operator:  FAE II Operating LLC 11757 Katy Freeway, Suite 725 Houston, TX 77079	OGRID:  329326
	Action Number:  442764
	Action Type:  [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

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

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QUESTIONS, Page 6

Action 442764

QUESTIONS (continued)

Operator: FAE II Operating LLC 11757 Katy Freeway, Suite 725 Houston, TX 77079	OGRID: 329326
	Action Number: 442764
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

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

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

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

General Information  
Phone: (505) 629-6116

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

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

CONDITIONS

Action 442764

**CONDITIONS**

Operator: FAE II Operating LLC 11757 Katy Freeway, Suite 725 Houston, TX 77079	OGRID: 329326
	Action Number: 442764
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**CONDITIONS**

Created By	Condition	Condition Date
michael.buchanan	At this time, a variance request for the incident is not approved. The variance request must include a detailed statement explaining the need for a variance demonstrating that the variance will provide equal or better protection of fresh water, public health, and the environment.	5/14/2025
michael.buchanan	If there are no wells within ½ mile of the site and/or the data from that well is more than 25 years old, a borehole can be drilled to 51' or 101'. If water is not detected in the open borehole after a 72-hour period, the OCD will accept this as a viable determination of depth to groundwater. A copy of the driller's log is required.	5/14/2025
michael.buchanan	The remediation work plan is approved. All areas not reasonably needed for production or subsequent drilling operations must be reclaimed to contain a minimum of four feet of non-waste containing earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene.	5/14/2025